**HEALTH SERVICES COVERAGE
REGULATION:
AN EVALUATION OF POLICY OPTIONS
FOR NEW ZEALAND**

by

Jacqueline Margaret Cumming
(M.A. Hons; Dip. Health Economics)

VOLUME I

A thesis
submitted to the Victoria University of Wellington
in fulfilment of the
requirements for the degree of
Doctor of Philosophy
in Public Policy

Victoria University of Wellington
2003

Abstract

An important feature of New Zealand's 1993 health reforms was the promise to define an explicit list of 'core' services – i.e. the health services to which all New Zealanders would have access. This thesis examines public policy issues surrounding an explicit core of services, and by extension, policies which regulate health services coverage. Coverage regulation is defined as the rules about which population groups and services are covered by a health insurance plan.

Part One of the thesis develops frameworks for defining and evaluating alternative models of coverage regulation. First, four key elements of coverage regulation are identified: population coverage; service coverage; whether coverage is implicit or explicitly defined; and insurability for services covered under principal health plan coverage. Second, a formal decision-making schema is developed which establishes benchmarks in the form of lower-level health policy objectives, which alternative models of coverage regulation must meet in order to promote the higher-level policy goals of allocative efficiency, equal access for equal need, choice and expenditure control.

In Part Two of the thesis, the decision-making schema is used to provide a framework for an in-depth discussion of how alternative models of coverage regulation contribute to lower-level health policy objectives and hence to higher-level policy goals. The schema is then used to value how well alternative models of coverage regulation contribute to these objectives and goals. This involves two steps. First, it involves scoring each alternative model of coverage regulation for its contribution to policy objectives and goals, based on the discussion described above. Second, it involves weighting the different objectives and goals in order to value the contribution alternative models of coverage regulation make to each of the four policy goals individually and overall. For this thesis, it is the author's values that are used to weight the policy goals. Given the judgements required in scoring

alternatives and in weighting objectives and goals, sensitivity analysis is used to explore the impact that different scores and weights have on the overall scores.

The analysis identifies the limitations of current New Zealand arrangements for coverage regulation, and demonstrates the policy trade-offs which must be made in deciding which coverage regulation model New Zealand should adopt in the future. The current model performs only adequately in relation to each of the policy goals. A model with similar population coverage, comprehensive service coverage and an explicit, detailed service specification is shown to improve performance in relation to efficiency and equity goals, albeit at a cost of limiting choice and potentially losing short-term expenditure control. In a managed competition system, the same conclusions apply. New Zealand should therefore investigate the types of services where a more explicit and detailed service specification might be developed, in order to better support efficiency and equity goals in New Zealand health care.

Acknowledgements

This research was undertaken during my employment at the Health Services Research Centre. The Centre's Directors, Management Committee and staff provided me with support and encouragement which enabled me to complete this thesis. I am also grateful to the Health Research Council of New Zealand, whose funding provides support for my position at the Centre.

Dr Amanda Wolf and Dr Vicky Mabin provided assistance with the decision-making model, and introduced me to the V.I.S.A. software used to support the analysis. Janet Hughes provided invaluable editing advice on the final drafts of the text.

I am extremely indebted to my supervisor, Professor Claudia Scott, for her guidance over the past few years. She was always willing to read drafts and to spend many hours discussing issues raised in the research. Such a complex piece of research could not have been achieved without her encouragement, support and guidance.

The research is dedicated to two very special people: to my Mother, Marion Sillick, who has always encouraged academic achievement; and to my husband, Grant Hannis, for being beside me throughout and for his constant badgering that I complete the thesis!

Table of Contents

VOLUME I

Abstract	ii
Acknowledgements	iv
Table of Contents	v
List of Tables	viii
List of Figures	ix
List of Abbreviations	xvi
Glossary of Terms	xvii
Glossary Annex	xxiv
INTRODUCTION	1
AN EXPLICIT CORE OF SERVICES	3
NEW ZEALAND'S HEALTH REFORMS IN PRACTICE	5
CORE SERVICES IN NEW ZEALAND 1991–2000	6
INTERNATIONAL INTEREST IN CORE SERVICES	8
AIMS AND SCOPE OF THE RESEARCH	10
OUTLINE OF CONTENTS	12
PART ONE: COVERAGE REGULATION IN HEALTH CARE: FRAMEWORKS FOR ANALYSIS	15
CHAPTER 1: ELEMENTS OF COVERAGE REGULATION	16
1.1 POPULATION COVERAGE	20
1.2 SERVICE COVERAGE	27
1.3 SPECIFICATION OF COVERAGE	33
1.4 INSURABILITY FOR SERVICES COVERED BY PRINCIPAL INSURANCE ARRANGEMENTS	48
1.5 RELATIONSHIP BETWEEN MODEL OF COVERAGE REGULATION AND HEALTH CARE SYSTEMS	50
1.6 SUMMARY AND CONCLUSIONS	52
CHAPTER 2: BENCHMARKS FOR COVERAGE REGULATION	56
2.1 DECISION-MAKING SCHEMA	57
2.2 POLICY GOALS AND OBJECTIVES	62
2.3 WEIGHTING THE GOALS AND OBJECTIVES	113
2.4 SENSITIVITY ANALYSIS	116
2.5 SUMMARY AND CONCLUSIONS	117

PART TWO: EVALUATING MODELS OF COVERAGE REGULATION IN NEW ZEALAND.....	119
CHAPTER 3: EVALUATING NEW ZEALAND'S CURRENT APPROACH TO COVERAGE REGULATION	120
3.1 THE CURRENT MODEL OF COVERAGE REGULATION IN NEW ZEALAND – THE 'NZ MODEL'	122
3.2 SUMMARY AND CONCLUSIONS	158
CHAPTER 4: EVALUATING ALTERNATIVE MODELS OF COVERAGE REGULATION IN NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM.....	165
4.1 AN ALTERNATIVE MODEL OF COVERAGE REGULATION FOR NEW ZEALAND (1) A 'LOCAL MODEL' OFFERING GREATER DISTRICT AUTONOMY	166
4.2 AN ALTERNATIVE MODEL OF COVERAGE REGULATION FOR NEW ZEALAND (2) REDUCED COMPREHENSIVENESS	185
4.3 AN ALTERNATIVE MODEL OF COVERAGE REGULATION FOR NEW ZEALAND (3) AN EXPLICIT, DETAILED MODEL	205
4.4 AN ALTERNATIVE MODEL OF COVERAGE REGULATION FOR NEW ZEALAND (4) NON-INSURABILITY OF COVERED SERVICES	229
4.5 SUMMARY AND CONCLUSIONS	246
CHAPTER 5: EVALUATING ALTERNATIVE MODELS OF COVERAGE REGULATION IN NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION	254
5.1 MANAGED COMPETITION.....	256
5.2 A POTENTIAL DESIGN FOR MANAGED COMPETITION IN NEW ZEALAND	260
5.3 THE 'DIVERSE, IMPLICIT MODEL' OF COVERAGE REGULATION IN NEW ZEALAND	261
5.4 AN ALTERNATIVE MODEL OF COVERAGE REGULATION IN A SYSTEM OF MANAGED COMPETITION: (1) A PRIVATELY DEFINED, BROADLY EXPLICIT MODEL, ALL CARE AVAILABLE	278
5.5 AN ALTERNATIVE MODEL OF COVERAGE REGULATION IN A SYSTEM OF MANAGED COMPETITION: (2) A PRIVATELY DEFINED, EXPLICIT DETAILED MODEL.....	291
5.6 AN ALTERNATIVE MODEL OF COVERAGE REGULATION IN A SYSTEM OF MANAGED COMPETITION: (3) A SINGLE, PUBLICLY DEFINED, EXPLICIT DETAILED MODEL	305
5.7 SUMMARY AND CONCLUSIONS	318
CHAPTER 6: CONCLUSIONS	326
6.1 ELEMENTS OF COVERAGE REGULATION	327
6.2 EVALUATING ALTERNATIVE MODELS OF COVERAGE REGULATION	329
6.3 PROGRESS TOWARDS AN EXPLICIT MODEL OF COVERAGE REGULATION IN NEW ZEALAND	337
6.4 FUTURE RESEARCH	340
REFERENCES.....	344

VOLUME II

List of Figures	iii
APPENDIX 1: COVERAGE REGULATION IN SEVEN HEALTH CARE SYSTEMS	1
A.1 NEW ZEALAND, THE UNITED KINGDOM AND SWEDEN	2
A.2 NETHERLANDS AND GERMANY	15
A.3 CANADA	24
A.4 THE UNITED STATES	34
A.5 RELATIONSHIPS BETWEEN COVERAGE REGULATION AND HEALTH GOALS AND SYSTEMS.....	45
APPENDIX 2: NOTES ON THE SCORING PROCESS.....	51
APPENDIX 3: SENSITIVITY ANALYSES.....	53

List of Tables

VOLUME I

GLOSSARY ANNEX TABLE: SERVICE GROUPINGS AND SERVICES.....	xxv
TABLE 1.1: HEALTH CARE SYSTEM FINANCING AND DELIVERY AND SERVICE COVERAGE REGULATION IN SEVEN COUNTRIES	17
TABLE 1.2: SIMILAR AND DIVERSE POPULATION COVERAGE.....	21
TABLE 2.1: KEY POLICY GOALS AND OBJECTIVES	65
TABLE 3.1: KEY FEATURES OF MODEL OF COVERAGE S(A)-C-I(U)-I, THE 'NZ MODEL'	122
TABLE 4.1: KEY FEATURES OF MODEL OF COVERAGE S/D(A)-C-I(U)-I, THE 'LOCAL MODEL'	168
TABLE 4.2: KEY FEATURES OF MODEL OF COVERAGE S(A)-FC-I(U)-I, THE 'LESS COMPREHENSIVE MODEL'	186
TABLE 4.3: KEY FEATURES OF MODEL OF COVERAGE S-C-E-I, 'THE EXPLICIT, DETAILED MODEL'	206
TABLE 4.4: KEY FEATURES OF MODEL OF COVERAGE S(A)-C-I(U)-NI, 'THE NON- INSURABLE MODEL'	229
TABLE 5.1: KEY FEATURES OF MODEL OF COVERAGE D-C-I(U)-I; THE 'DIVERSE, IMPLICIT MODEL'	262
TABLE 5.2: KEY FEATURES OF MODEL OF COVERAGE D-C-E(A)-I; THE 'PLURAL, GENERAL MODEL'	278
TABLE 5.3: KEY FEATURES OF MODEL OF COVERAGE D-C-E(D)-I; THE 'PLURAL, DETAILED MODEL'	291
TABLE 5.4: KEY FEATURES OF MODEL OF COVERAGE S-C-E(D)-I; THE 'SINGLE, EXPLICIT MODEL'	305

List of Figures

VOLUME I

FIGURE 1.1: COVERAGE REGULATION MODELS	55
FIGURE 3.1: NZ MODEL: OVERALL SCORES FOR SUB-CRITERIA	160
FIGURE 3.2: NZ MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	161
FIGURE 3.3: NZ MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	162
FIGURE 3.4: NZ MODEL: CHOICE: PROFILES FOR SUB-CRITERIA	163
FIGURE 3.5: NZ MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA.	164
FIGURE 4.1: LOCAL MODEL: OVERALL SCORES FOR SUB-CRITERIA.....	180
FIGURE 4.2: LOCAL MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	181
FIGURE 4.3: LOCAL MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	182
FIGURE 4.4: LOCAL MODEL: CHOICE: PROFILES FOR SUB-CRITERIA.....	183
FIGURE 4.5: LOCAL MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	184
FIGURE 4.6: LESS COMPREHENSIVE MODEL: OVERALL SCORES FOR SUB-CRITERIA	200
FIGURE 4.7: LESS COMPREHENSIVE MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	201
FIGURE 4.8: LESS COMPREHENSIVE MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	202
FIGURE 4.9: LESS COMPREHENSIVE MODEL: CHOICE: PROFILES FOR SUB-CRITERIA	203
FIGURE 4.10: LESS COMPREHENSIVE MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	204
FIGURE 4.11: EXPLICIT DETAILED MODEL: OVERALL SCORES FOR SUB-CRITERIA	224
FIGURE 4.12: EXPLICIT DETAILED MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	225

FIGURE 4.13: EXPLICIT DETAILED MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	226
FIGURE 4.14: EXPLICIT DETAILED MODEL: CHOICE: PROFILES FOR SUB-CRITERIA	227
FIGURE 4.15: EXPLICIT DETAILED MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	228
FIGURE 4.16: NON-INSURABLE MODEL: OVERALL SCORES FOR SUB-CRITERIA	241
FIGURE 4.17: NON-INSURABLE MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	242
FIGURE 4.18: NON-INSURABLE MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	243
FIGURE 4.19: NON-INSURABLE MODEL: CHOICE: PROFILES FOR SUB-CRITERIA	244
FIGURE 4.20: NON-INSURABLE MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	245
FIGURE 4.21: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: OVERALL SCORES	248
FIGURE 4.22: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: OVERALL: PROFILES FOR SUB-CRITERIA	249
FIGURE 4.23: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	250
FIGURE 4.24: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	251
FIGURE 4.25: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: CHOICE: PROFILES FOR SUB-CRITERIA	252
FIGURE 4.26: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	253
FIGURE 5.1: DIVERSE IMPLICIT MODEL: OVERALL SCORES FOR SUB-CRITERIA	273
FIGURE 5.2: DIVERSE IMPLICIT MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	274
FIGURE 5.3: DIVERSE IMPLICIT MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	275

FIGURE 5.4: DIVERSE IMPLICIT MODEL: CHOICE: PROFILES FOR SUB-CRITERIA ..	276
FIGURE 5.5: DIVERSE IMPLICIT MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA.....	277
FIGURE 5.6: PLURAL GENERAL MODEL: OVERALL SCORES FOR SUB-CRITERIA.....	286
FIGURE 5.7: PLURAL GENERAL MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA.....	287
FIGURE 5.8: PLURAL GENERAL MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	288
FIGURE 5.9: PLURAL GENERAL MODEL: CHOICE: PROFILES FOR SUB-CRITERIA ...	289
FIGURE 5.10: PLURAL GENERAL MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA.....	290
FIGURE 5.11: PLURAL DETAILED MODEL: OVERALL SCORES FOR SUB-CRITERIA..	300
FIGURE 5.12: PLURAL DETAILED MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA.....	301
FIGURE 5.13: PLURAL DETAILED MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	302
FIGURE 5.14: PLURAL DETAILED MODEL: CHOICE: PROFILES FOR SUB-CRITERIA	303
FIGURE 5.15: PLURAL DETAILED MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA.....	304
FIGURE 5.16: SINGLE EXPLICIT MODEL: OVERALL SCORES FOR SUB-CRITERIA.....	313
FIGURE 5.17: SINGLE EXPLICIT MODEL: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA.....	314
FIGURE 5.18: SINGLE EXPLICIT MODEL: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA	315
FIGURE 5.19: SINGLE EXPLICIT MODEL: CHOICE: PROFILES FOR SUB-CRITERIA...	316
FIGURE 5.20: SINGLE EXPLICIT MODEL: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA	317
FIGURE 5.21: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: OVERALL SCORES.....	320
FIGURE 5.22: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: OVERALL: PROFILES FOR SUB-CRITERIA.....	321

FIGURE 5.23: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: MAXIMISING HEALTH OUTCOMES FOR THE RESOURCES AVAILABLE: PROFILES FOR SUB-CRITERIA	322
FIGURE 5.24: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: EQUAL ACCESS FOR EQUAL NEED: PROFILES FOR SUB-CRITERIA.....	323
FIGURE 5.25: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: CHOICE: PROFILES FOR SUB-CRITERIA.....	324
FIGURE 5.26: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: EXPENDITURE CONTROL: PROFILES FOR SUB-CRITERIA.....	325
FIGURE 6.1: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: OVERALL SCORES.....	334
FIGURE 6.2: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: OVERALL SCORES.....	335

VOLUME II

FIGURE A.3.1.1: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SCORES	56
FIGURE A.3.1.1 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SCORES	57
FIGURE A.3.1.2: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: OVERALL SCORES.....	58
FIGURE A.3.1.3: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS	59
FIGURE A.3.1.3 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS	60
FIGURE A.3.1.4: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS: OVERALL SCORES.....	61
FIGURE A.3.1.5: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS	62
FIGURE A.3.1.5 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS	63

FIGURE A.3.1.6: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS: OVERALL SCORES.....	64
FIGURE A.3.1.7: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT ZERO.....	65
FIGURE A.3.1.8: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED UNTIL RANKINGS CHANGE.....	66
FIGURE A.3.1.9: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	67
FIGURE A.3.1.10: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	68
FIGURE A.3.1.11: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUAL WEIGHTS.....	69
FIGURE A.3.1.12: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	70
FIGURE A.3.1.13: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	71
FIGURE A.3.1.14: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	72
FIGURE A.3.1.15: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	73
FIGURE A.3.1.16: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT 1: OVERALL SCORES.....	74
FIGURE A.3.1.17: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT AT 1: OVERALL SCORES.....	75
FIGURE A.3.1.18: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT AT 1: OVERALL SCORES.....	76

FIGURE A.3.1.19: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT AT 1: OVERALL SCORES.....	77
FIGURE A.3.2.1: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SCORES.....	81
FIGURE A.3.2.1 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SCORES.....	82
FIGURE A.3.2.2: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: OVERALL SCORES.....	83
FIGURE A.3.1.3: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS	84
FIGURE A.3.2.3 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS	85
FIGURE A.3.2.4: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS: OVERALL SCORES.....	86
FIGURE A.3.2.5: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT ZERO	87
FIGURE A.3.2.6: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED UNTIL RANKINGS CHANGE.....	88
FIGURE A.3.2.7: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	89
FIGURE A.3.2.8: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	90
FIGURE A.3.2.9: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUAL WEIGHTS.....	91
FIGURE A.3.2.10: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	92
FIGURE A.3.2.11: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	93

FIGURE A.3.2.12: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE 94

FIGURE A.3.1.13: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE 95

FIGURE A.3.2.14: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT 1: OVERALL SCORES 96

FIGURE A.3.1.15: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT AT 1: OVERALL SCORES 97

FIGURE A.3.2.16: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT AT 1: OVERALL SCORES..... 98

FIGURE A.3.2.17: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT AT 1: OVERALL SCORES 99

List of Abbreviations

ACC:	Accident compensation scheme
AHB:	Area health board
CHE:	Crown health enterprise
CPAC:	Clinical priority assessment criteria
DHB:	District health board
ERISA:	Employee Retirement Income Security Act (United States)
GP:	General practitioner
HCP:	Health care plan (New Zealand, proposed)
HFA:	Health Funding Authority
HHS:	Hospital and health service
HMO:	Health maintenance organisation
HYE:	Healthy year equivalent
IPA:	Independent practitioner association
IVF:	In-vitro fertilisation
NHS:	National Health Service (United Kingdom)
NICE:	National Institute for Clinical Excellence (United Kingdom)
PHC:	Public Health Commission
PHO:	Primary health organisation
QALYs:	Quality-adjusted life years
RHA:	Regional health authority

Glossary of Terms

Allocative efficiency	When the level and mix of health care services delivered maximises the gains from health care for the resources used. Both technical efficiency and cost-effectiveness must be achieved to support allocative efficiency.
Adverse selection	Where individuals seeking insurance are likely to have more health needs than the population on average.
Capitation	A method of allocating resources to intermediaries and providers, which receive a per capita payment for each service user enrolled. Payment is not linked to the number of services delivered to individual users.
Characteristics of care	How a service is delivered, for example, in terms of the waiting times for accessing care; the intensity of coverage, such as how many days stay are likely for a particular service, and the quality of the facilities within which care is available, such as shared or single rooms, the type of food available, whether a television is provided, and so on.
Clinical assessment priority criteria (CPAC)	Scoring tools, used to assess patient health status characteristics for determining access to elective surgery in New Zealand.
Clinical threshold	See threshold .
Complementary insurance	Insurance that complements the service coverage provided by a principal health care system. Usually offers coverage for services not covered by the principal system. Insurance which completes (Anonymous 1982) comprehensive coverage. See also supplementary insurance .
Core services	In New Zealand, a list of those health services to which all New Zealanders would have access, on affordable terms and without an unreasonable wait, through their publicly-financed health care system.

Cost-effectiveness	When resources are concentrated on effective services, provided at least cost, that offer the best payoff in terms of health per dollar spent.
Cost-shifting	This occurs when costs are charged against a budget which a) differs from that intended or b) differs from that traditionally charged. This definition includes explicit policies that shift costs from, for example, government responsibility to private responsibility, as well as the inappropriate charging of costs against particular budgets (e.g. contrary to the spirit of particular legislation or contracts).
Coverage regulation	The rules about which population groups and services are covered by a health insurance plan.
Cream skimming	Where intermediaries or providers actively seek to register a population with lower health needs than average, to reduce expenditures, e.g. by encouraging healthy people to join, and discouraging those with poorer health from maintaining their enrolment or joining.
Efficiency	See allocative efficiency; technical efficiency and cost-effectiveness.
Enrolment	Where individuals register with a particular intermediary or provider, whose role it is to organise or deliver the care of those who are enrolled.
Equity	The definition of equity used in this analysis is that those with equal need have equal access to care. Need is defined to mean capacity to benefit; access includes consideration of availability, accessibility, accommodation, affordability and acceptability (Penchansky and Thomas 1981).
Explicit service specification	The listing or setting down of those services which are to be covered by a particular insurance arrangement.
Financial threshold	See threshold.

Healthcare outcome	A change in the health of an individual or population attributable to a particular health service, e.g. reduction in blood pressure; restoration of mobility following a hip operation; fewer outbreaks of vaccine-preventable diseases such as mumps or measles.
Healthcare output	An episode of treatment, for example an admission to hospital; a visit to a general practitioner; an item of medication.
Healthcare process	A part of a health care output, for example a physiotherapy treatment or a specific kind of surgery, performed as part of an admission.
Healthcare services	A group of health care processes and outputs which are delivered to service users with particular conditions, e.g. health promotion and education, maternity, medical services. See Glossary Annex.
Healthcare service grouping	A group of health care services, e.g., the pregnancy service grouping includes, inter alia, information services, services during birth, care for mother and baby services. See Glossary Annex.
Health Funding Authority (HFA)	The principal funder of health and disability support services in New Zealand between 1998-2000. A crown agency, the HFA received its funding from the Government.
Health maintenance organisations (HMOs)	United States health intermediaries, integrating financing and delivery roles. They generally receive capitation funding from employers and individuals to insure and arrange the delivery of health care to members.
Health outcome	A change in the broader health of an individual or population, e.g. increase in average life expectancy, reduction in vaccine-preventable disease, reduction in cancer rates.

Implicit service specification	Where there is no listing or setting down of those services which are to be covered by a particular insurance arrangement.
Indemnity insurance	Insurance arrangement whereby service users are financially reimbursed for any events for which they are covered. This contrasts with service benefit insurance where those insured are able to directly access a service which is paid for directly by the intermediary.
Intermediary	An agency which administers the allocation of funding between sponsor, provider and service user; or which integrates financing and provision within a single organisation or network of organisations. In New Zealand, examples of intermediaries include district health boards, the Health Funding Authority, the Accident, Rehabilitation and Compensation Insurance Commission, and private insurance companies such as Southern Cross and Tower Health. Health Maintenance Organisations in the United States, which integrate funding and provision roles, are also examples.
Independent practitioner associations (IPAs)	In New Zealand, umbrella organisations representing groups of general practitioners who negotiate budgets and contracts with purchasers on behalf of those GPs.
Integrated care	See managed care .
Managed care	A term used to describe a range of practices and organisations, usually 'any system of health service payment or delivery arrangement where the health plan attempts to control or coordinate use of health services by its enrolled members in order to contain health expenditures, improve quality or both' (Physician Payment Review Commission 1996 cited in Managed Health Care Improvement Task Force 1998).
Medicaid	United States federal programme offering health insurance coverage for low-income families. It is jointly funded by federal and state governments.

Medicare	United States federal programme offering health insurance coverage to people over 65 years of age, those with disabilities and those requiring kidney dialysis services. Also, Canadian and Australian federal health insurance programmes are known by the same name.
Ownership	The role of owning and hence controlling financial and material assets. The role may be undertaken by private for-profit; private non-profit; or government organisations.
Population-based approach	An approach to primary health care where care is planned on a population basis and delivered to groups within the population, although specific components of the service may be provided to individuals.
Primary health care	Local first-contact care, accessed by self-referral. Comprises services, delivered by a range of health practitioners, designed to keep people well and out of hospital, from promotion of health and screening for disease to diagnosis and treatment of medical conditions.
Primary medical care	Assessment, diagnostic and treatment services provided by general practitioners.
Priority setting	The process of identifying the most important services or groups of service users on which to spend resources. See also rationing .
Provider	A professional or institution that delivers services to the service user.
Purchaser	An organisation which allocates funding to providers, and which formally undertakes priority setting exercises to determine priorities and actively contracts with providers and monitors provider performance. A form of intermediary .
Rationing	The process by which resources are allocated to individuals at the point of service delivery. (Klein, Day and Redmayne 1996, p. 7). See also priority setting .

Regulation

A rule which is generally understood or laid down by a government, sponsor, intermediary or provider, which individuals (employees, professionals) and agencies must follow. A regulatory process is the procedure for deciding and enforcing such rules. A regulatory agency is any agency which decides and enforces regulations.

Secondary care

Care which is accessed following referral from a primary care provider. Usually delivered in hospitals.

Service benefit insurance

An insurance arrangement where those insured are able to directly access a service which is paid for by the intermediary. See **indemnity insurance**.

Service user

A person who receives either direct medical care or reimbursement for the cost of consumption of health services. Service users also make financial contributions to finance health care services, and may be involved in purchasing care and/or insurance directly.

Sponsor

An agency that sponsors health insurance and policy arrangements, and collects insurance contributions or pays the contributions to intermediaries, providers or service users. In New Zealand, employers often act as sponsors by collecting premiums and passing these on to particular intermediaries. Central government in New Zealand also acts as a sponsor, collecting contributions and allocating them to intermediaries. Other examples include Medicare and Medicaid, for which the United States government is the sponsor. In the case of those who are individually insured, there is no sponsor.

Style of care

Care provided by a particular type of provider – specialists or generalists, in community or hospital facilities, by medical or alternative providers; techniques which are available, such as coronary artery by-pass grafts or angioplasty for heart conditions, counselling or medication for depression; and the actual medicines which are listed for example on a drug tariff.

Supplementary insurance

Insurance that supplements the services accessed under a principal health care system, providing cover for some or all of the same services available under the principal system. New Zealand and the United Kingdom are the best examples of countries where such insurance is predominant. It offers enhanced access to services, for example shorter waiting times for elective surgery. Insurance which is added to remedy deficiencies (Anonymous 1982). See also **complementary insurance**.

Technical efficiency

When effective services are provided at least resource cost.

Tertiary care

Very specialised care, usually delivered using sophisticated technology in a specialised hospital environment.

Threshold

Service users are offered care if they score sufficient points using **clinical priority assessment criteria**. The point levels at which care is offered given the resources available is the financial threshold. The threshold at which care will provide clinical benefit or which a provider believes care should be offered is the clinical threshold.

Glossary Annex

Health Care Service Groupings, Services, Processes, Outputs and Characteristics of Care

The research makes a distinction between a health care service grouping and a health care service. The former consists of a group of services offered to meet similar health needs or achieve certain health care outcomes. Thus, the pregnancy services grouping consists of information, testing, birthing, post-natal, and screening services; the hospital surgical service grouping includes accident and emergency services, cardiothoracic services, cervical services, organ transplants, etc (Health Funding Authority 2000). These services are in turn related to health care outputs and processes; where an output is an episode of treatment (e.g., one visit to an accident and emergency clinic) and a process is part of an output (e.g., X-rays and putting on plaster casts are processes which make up an episode of treatment). (See Glossary Annex Table.)

A distinction is also made between the concepts of range of services, style of care, and characteristics of care. Style of care covers choices in terms of providers – whether by specialists or generalists, in community or hospital facilities, by medical or alternative providers; the kinds of techniques which are available, such as coronary artery by-pass grafts or angioplasty for heart conditions, counselling or medication for depression; and the actual medicines which are listed for example on a drug tariff. The characteristics of care concern how a service is delivered, for example, in terms of the waiting times for accessing care; the intensity of coverage, such as how many days stay are likely for a particular service, the thresholds at which care is offered; and the quality of the facilities within which care is available, such as shared or single rooms, the type of food available, whether a television is provided, and so on.

Glossary Annex Table

Service Groupings and Services

Service Grouping	Examples of Services Covered
Community Health and Services	<ul style="list-style-type: none"> • health promotion and education • services to prevent illness (eg, screening for communicable diseases, family planning, sexual health) • emergency services • referral services • investigation, assessment, treatment and monitoring of health problems
Pregnancy Services	<ul style="list-style-type: none"> • information • individual care for pregnant women • testing services • services during the birth • care for mother babies and families • care to help prevent illness and screening services for new babies
Dental Health Services	<ul style="list-style-type: none"> • preventive and treatment services • basic dental services • hospital dental services which make up part of someone's overall treatment • hospital dental services unavailable, or unable to be provided safely, elsewhere
Laboratory, X-ray, Pharmaceutical and Support Services	<ul style="list-style-type: none"> • x-rays • laboratory tests • pharmaceutical services • support services, eg hearing, electrocardiology, nursing, dietary advice, home help, occupational therapy etc
Hospital Medical and Surgical Services	<p>Medical services such as</p> <ul style="list-style-type: none"> • accident and emergency services • cardiology services • dermatology services • gastroenterology services • genetics services • palliative care <p>Surgical services such as</p> <ul style="list-style-type: none"> • specialist services in an accident and emergency department • cardiothoracic surgery • cervical treatment • gynaecology • neurosurgery • organ transplants
Mental Health and Drug and Alcohol Services	<ul style="list-style-type: none"> • crisis services • therapeutic services, including assessment and diagnosis; liaison, education and support; services provided by mental health specialists (eg, counselling and medication) • drug and alcohol services, including assessment, treatment and rehabilitation; detoxification; residential and day programmes to help people get well and stay well; methadone services • services for people with a psychiatric disability or chronic damage from drug and alcohol abuse, including assessment and co-ordination services, personal care services, home-based services • services for mentally ill offenders and alleged offenders
Disability Support Services	<ul style="list-style-type: none"> • assessment of individual needs • co-ordination of services • help with daily personal care activities • help with household activities • relief for caregivers
Public Health and Prevention Services	<ul style="list-style-type: none"> • services to monitor physical environment, food safety and quality • services to help children stay well • services to help prevent the spread of communicable diseases • services to protect against non-communicable diseases • tobacco control programmes

Source: Health Funding Authority 2000.

Introduction

In July 1991, New Zealand's National government announced proposals for reform of New Zealand's health care system. The reforms aimed to improve access to services; improve efficiency, flexibility and innovation in the delivery of health care; widen choice and increase the sensitivity of the sector to changing needs; enhance the working environment for health professionals; and recognise the importance of public health in preventing illness and injury and in promoting health (Upton 1991). It was clear that the government also expected decision-making in health care to become less politicised (Upton 1991). Social policy reform proposals further suggested that the government's longer-term intentions were to eventually limit its role in financing health care, by placing responsibility for health care in the hands of individual New Zealanders (Shipley 1991). This step was seen as necessary to further enhance efficiency, flexibility and innovation, and to limit government expenditure on health care.

The main reform proposals announced in July 1991 were to:

- Split the purchasing and provision functions of the then existing 14 area health boards (AHBs). Four regional health authorities (RHAs) were to be established as purchasing agents. Twenty-three publicly-owned Crown health enterprises (CHEs) would be established from AHB services to provide hospital services, competing with private and voluntary organisations for contracts with RHAs.
- Integrate funding for primary and secondary care services, in order to enhance cost-effectiveness and encourage better patient management and access to care¹.

¹ Accident compensation (ACC) funding for health care was also to be integrated into RHA budgets over time. However, this never occurred.

- Establish separate public health purchasing (Public Health Commission or PHC) and provision agencies, in order to protect funding for population-based services.
- Allow individuals to opt out of their RHA and take a government-determined risk-adjusted premium to an alternative purchasing agent (Health care plan or HCP). This would provide a competitive incentive for RHAs to promote efficiency and responsiveness.
- Introduce changes to the financing of health care. The government would target government subsidies to those on low incomes, increase user charges for pharmaceuticals and introduce new laboratory, hospital inpatient and outpatient charges. The government set out options for the longer-term financing of health care, as part of wider proposals for reform aimed at targeting government funding to those on low incomes (Shipley 1991).
- The government also proposed to develop an explicit core of services – ‘the health services to which we believe everyone should have access, on affordable terms and without unreasonable waiting time’ (Upton 1991, p.75). Responsibility for defining the core was given to a new independent advisory body – the National Advisory Committee on Core Health Services.

In splitting purchasing and provision, New Zealand’s reforms resembled the ‘internal market’ reforms proposed in 1989 for the United Kingdom (Secretary of State for Health 1989). Such reforms were aimed at promoting efficiency and responsiveness by focusing government agencies’ attention on either purchasing or provision; by establishing contractual relationships between purchasers and providers; and by having providers compete for contracts to deliver health care services.

New Zealand’s National government went a step further, however, by also proposing a form of purchaser competition, a ‘managed competition’ system. By introducing competition in both purchasing and provision, the government hoped to provide both health care providers and purchasers with financial and competitive

incentives to perform well. At the time, such managed competition systems were also being proposed in the United States (Enthoven 1988; Enthoven and Kronick 1989; Enthoven 1993) and in the Netherlands (van de Ven 1990).

An Explicit Core of Services

Within the managed competition regulatory framework proposed by proponents of the system, a standard, basic package of services – an explicit ‘core’ or explicit specification of services – is needed to ensure the development of efficient, competitive purchasers. Such a standard package promotes efficient purchasing in a number of ways. First, it ensures that competing purchasers (or intermediaries) cannot define packages of services in ways that encourage only healthy people to enrol – a strategy known as risk selection or cream skimming. Secondly, it reduces opportunities for intermediaries to define service coverage in ways that make it difficult for service users to make informed comparisons between competing health plans. Thirdly, an explicit core reassures people that a lower priced plan can be an efficient plan, by assuring them that all plans are offering a comprehensive range of services (Enthoven 1988; Enthoven and Kronick 1989; Enthoven 1993). And finally, an explicit core makes it easier to estimate the appropriate risk-adjusted health care premium that the government would pay or that people would use to purchase their health care coverage (Bergthold 1993).

An explicit core, or explicit specification of service coverage, was expected to perform similar functions within New Zealand’s proposed managed competition health care system. The then Minister of Health (Hon Simon Upton) hoped that an explicit core in New Zealand would:

- Promote accountability, by making clear the services that purchasers have to offer and to which people are entitled. This provides individuals with greater certainty about access to particular services and with information to help them decide whether or not to purchase supplementary insurance cover.

- Promote an efficient allocation of resources by encouraging providers to compete for contracts from purchasers, and by encouraging service users to choose between purchasers. Cost-effectiveness would also be promoted by developing an explicit core, with careful examination of the benefits that services offered relative to their cost, ensuring better value for money from expenditures.
- Improve equity of access, especially with respect to geographical equity.
- Limit government expenditure on health care. An explicit core acknowledges that the government cannot afford to ensure that all possible health care and disability support services are available.
- Reflect community priorities. The reforms sought to take into account the public's views about priorities in health care (Minister of Health 1991; Upton 1991; Upton 1992).

Policy statements implied that explicit core was aimed at developing an explicit *entitlement* to care – if the service were specified explicitly, it would be offered (Upton 1991, pp.77, 80).

New Zealand reform proposals in 1991 identified three main options for an explicit service specification (Minister of Health 1991). These were: a broadly defined 'positive' list of services to be made available; a broadly defined 'negative' list of services that would not be made available; or a ranked list of condition/treatment pairs such as was being developed in Oregon (Oregon Health Services Commission 1991). Some advantages and disadvantages of each approach were briefly discussed in policy documents (Minister of Health 1991; Upton 1991).

New Zealand's Health Reforms In Practice

The government's proposed health reforms were extremely controversial. Some policy changes were abandoned early on, with plans for separate public health provision agencies, changes to the financing of health care, and the introduction of competing HCPs never implemented. This left in place a rather extreme form of internal market (Mays, Cumming, Fraser, Hand and Davies 1999). Since the implementation of the purchaser-provider split in 1993, there have also been other changes:

- The PHC was abolished in mid-1995, its policy functions returning to the Ministry of Health and its purchasing functions to the four RHAs.
- There were repeated calls for more co-operation between the RHAs to reduce transaction costs, with the result that the RHAs were eventually amalgamated into one Health Funding Authority (HFA) in January 1998.
- The profit motive and competitive ethos surrounding CHEs was abandoned (in theory) in mid-1997; and CHEs became Hospital and Health Services (HHSs) at the same time (Cooper 1994; Ashton 1995; Organisation for Economic Co-operation and Development 1996; Cumming and Salmond 1998; Ashton 1999).

Although the planned managed competition model was explicitly abandoned early on, legislation in place at the end of the year 2000 could still have enabled competing HCPs to develop. Furthermore, Independent Practitioner Associations (IPAs) developed rapidly in New Zealand during the 1990s (Malcolm, Wright, Aotearoa Health and Barnett 1999; Mays and Hand 2000), and these organisations might have eventually developed into fully-fledged HCPs, thus bringing about managed competition in New Zealand (Cumming and Salmond 1998). In some senses, managed competition has never really been completely abandoned in New Zealand.

Further changes have been implemented by the Labour-Alliance coalition government elected to power in late 1999. This government has introduced another set of sweeping reforms to health care, by abolishing the HFA, amalgamating its policy responsibilities with the Ministry of Health, and handing purchasing responsibilities over to 21 locally-elected District Health Boards (DHBs). DHBs will combine both purchasing and provision functions for publicly-owned services, but will continue to contract with primary care and community-based providers. Co-operation between DHBs, and between DHBs and other providers, is to be encouraged. At the same time, the government is working towards implementing a primary care strategy, which will see the development of primary health organisations (PHOs). Individual New Zealanders will choose a PHO as their principal provider of primary health services; PHOs will receive capitated funding; and are expected to operate as not-for-profit organisations (King 2001). If PHOs compete for enrollees, managed competition is effectively being introduced into primary health care in New Zealand.

Core Services in New Zealand 1991–2000

The agency established to define the core – the National Advisory Committee on Core Health Services² – decided early in the health reform process to not develop an explicit list of services. It began to focus instead on defining the medical (and sometimes social) circumstances in which services might be effective; developing, in conjunction with providers, practice guidelines to guide medical decision-making. Such guidelines might have formed a detailed, explicit core for some services. But they were never formally considered part of government policy, and

² The Committee has had several changes of name since its establishment in 1992. In 1992, for a short time, its formal name was the 'National Advisory Committee on Core Health Services' and from 1992 to 1996, the 'National Advisory Committee on Core Health and Disability Services', both known colloquially as the Core Services Committee. Since 1996, the Committee has been known formally as the 'National Advisory Committee on Health and Disability', or the National Health Committee.

therefore the explicit core began to look like yet another failure of health reform (Cumming 1994; Cumming 1997).

However the 1990s did see other government agencies working to develop a more explicit approach to defining service coverage. The four RHAs and the HFA listed, in broad terms, in service coverage documents, the services that the government pays for, in an effort to clarify what New Zealanders could expect from their publicly-financed health care system (Health Funding Authority 1998; Health Funding Authority 2000; Shipley undated). Their approach generally lacked sufficient detail to provide certainty, however, let alone to constitute an entitlement to care. This is because services were listed even though there are national gaps in service delivery (particularly mental health, alcohol and drug services, youth health and hospice services), variations in access to care across the country, and long waiting lists and times for some services, especially elective surgery but also for alcohol and drug services (Cumming 1994; Cumming 1997). Thus, service users referring to the RHA/HFA documents might think that particular services were available, when, in some localities, they may not exist at all, or may be available only to those with the most serious condition, or there may be a long wait for care.

The service coverage documents continued to be produced publicly until the year 2000, although whether and how purchasers and providers were held to account for service delivery is unclear, as is whether New Zealanders knew much about the documents. The fate of the public document remains unclear, but a similar list is likely to play an important role in ensuring that DHBs offer a comprehensive range of services, and that the range of services offered is consistent throughout the country, as a way of holding DHBs to account for the resources they use. Again, however, whether and how the list is used for accountability purposes remains unclear.

During the later 1990s, at the same time as the service coverage list was in development, New Zealand governments did eventually begin to promote the development of a form of detailed, explicit specification of coverage. For elective surgery, clinical priority assessment criteria (CPAC) are now being used as tools to

assess eligibility for publicly-financed elective care. These tools are designed to ensure that service users with the greatest need are those who receive treatment first. (Need is defined with respect to severity of illness and capacity to benefit in both medical and social terms.) To qualify for elective care, a service user must score above a specified number of points or financial threshold. Such service users should then not wait longer than six months for treatment. Those who do not qualify (because they score below the threshold level of points) are returned to their general practitioners (GPs) for on-going primary care. Those not booked for surgery in the publicly-financed health care sector can of course choose to pay for care themselves, or obtain care through any private health insurance they may hold that covers their condition. The Labour-Alliance government is retaining the CPAC approach for elective care (King 2000).

International Interest in Core Services

During the 1990s, analysts and governments in a number of other countries also developed an interest in more explicit approaches to deciding upon the services to be made available to their populations. The Netherlands began the 1990s with similar intentions to those New Zealand had – to define an explicit core of services as part of a regulatory regime for a managed competition model of health care financing and delivery (Government Committee on Choices in Health Care 1992). In Oregon, deciding which groups of people and services should be covered by Medicaid became an important policy priority for the State Government, resulting in an extremely ambitious process for defining service coverage explicitly (Oregon Health Services Commission 1991). In Norway, Finland, and Sweden, government committees were established to consider how to make choices in health care (Swedish Parliamentary Priorities Commission 1995; Coast, Donovan and Frankel 1996; Cumming 1996). Scandinavian countries also introduced explicit waiting-

time guarantees to ensure fast access to elective surgery³. In the United Kingdom, a vigorous debate took place over the merits of implicit and explicit priority setting and coverage specification (see for example, Klein 1994; Klein 1997; New 1997; Ham 1998). Newly-formed purchasing authorities considered how to define the package of services they purchase, and which services might not be included (Klein and Redmayne 1992). The United Kingdom government also introduced an explicit waiting time within which individuals were to be given elective surgery: two years originally, later reduced to 18 months (Klein 2001). At the same time, Canadian provinces also found themselves having to manage reductions in expenditure as a result of lower levels of federal funding, and a number eliminated services from coverage in order to remain within budget (World Health Organization Regional Office for Europe 1996). Finally, in the United States, a standard package of benefits was considered as part of the Clinton health reform policy proposals (The White House Domestic Policy Council 1993).

Thus, during the 1990s, a number of governments considered issues relating to entitlements to care. Each country began the debate from a unique starting point, and considered slightly different issues, although the common theme was the management of service coverage. The experiences of some of these countries are a focus of this analysis, providing New Zealand policy makers with alternative options and with insights their advantages and disadvantages.

³ In Denmark, a fund was introduced in 1994 to reduce waiting times to no more than three months and from April 1995 a waiting time guarantee of less than three months was introduced for patients waiting for knee and slipped disc operations (Krasnik and Vallgarda 1997). In Norway a guarantee was introduced whereby if a service user had a serious but not urgent illness, the waiting time must not exceed six months. In Sweden, service users were to be treated within three months after being placed on a waiting list for coronary angiography, coronary artery bypass grafting, angioplasty, cholecystectomy, hip and knee replacement, cataract, gallstone, inguinal hernia, prolapse surgery, incontinence and hearing aid tests (Hakansson and Nordling 1997).

Aims and Scope of the Research

The thesis aims to clarify the policy choices available to New Zealand with respect to coverage regulation, and to develop frameworks that can be used to evaluate whether alternative approaches to those currently in place would be better able to achieve certain policy goals and objectives. At the time an explicit core was first mooted for New Zealand, there was very little attempt at identifying policy options for improving explicitness and providing an entitlement to care, and only limited analysis of the likely effects of alternative options on the realisation of policy goals. There was no assessment of how different options might fit with New Zealand's approaches to financing, allocation, delivery, regulation, ownership and competition in health care. Continued developments in New Zealand with respect to service specification (i.e. through service coverage documents and CPAC) and managed competition (developing it seems in primary care) suggest that issues surrounding coverage regulation require further attention.

The analysis presented extends beyond consideration of an explicit core or list of services to include issues relating to population coverage, or which groups in a population are covered by which services. The rationale for this is that many countries operate quite different coverage regulations for different groups in a population. Any model of coverage regulation has to take this into account if it is to accurately represent the various models used to regulate coverage. Policy makers considering different models of service coverage regulation must clarify the populations which are to be offered coverage; thus, service and population coverage are inter-woven and cannot be considered separately.

The focus of the thesis is on coverage regulation in health care and provides an example of 'analysis for policy' (Ham and Hill 1984; Hogwood and Gunn 1984). The analysis draws on the experience of seven countries – the United Kingdom, Sweden, Canada, the Netherlands, Germany and the United States, as well as New Zealand.

The analysis focuses on decision-making at a systems level and in particular on policy and purchasing decisions. Consideration is given to the impact that various approaches to coverage regulation may have on the decisions that can be taken by intermediaries and providers. Where decision-making is left to intermediaries and providers, the focus is not so much on how such decisions might be made as on the implications of these arrangements for the achievement of policy goals.

The analysis takes a rational approach to policy making – identifying a problem or set of problems that derive from New Zealand's current approach to coverage regulation; identifying alternative ways of dealing with the problem(s), in this case different approaches to coverage regulation; and evaluating the implications that alternative approaches have for key policy goals and objectives. In practice, policy making is always messier than this (Lindblom 1980). Choosing between alternative approaches, and implementing a new approach, is a complex exercise, given the range of goals that societies pursue in health care. The analysis is more concerned, however, with the potential advantages and disadvantages of alternative policy choices surrounding coverage regulation rather than focusing on how to reach agreement over a preferred approach or how to implement change.

Comparative analysis such as this has numerous pitfalls, with countries attaching differing meanings to words or organisational forms (e.g., IPAs in New Zealand are different from those in the United States; private insurance is of a different nature in New Zealand than in the United States), and concerns that the complexity and inter-relatedness of elements of health care systems means that extrapolating experiences from one country to another can be dangerous; in other words, context really does matter (Marmor 1997; DeLeon and Resnick-Terry 1999; Tuohy 1999). While every country can learn lessons from other countries with different health care systems, care is needed to ensure the contexts from which lessons are drawn, and in which lessons are applied, are clearly understood.

All countries have policies that contribute to decisions about which populations are covered by particular health insurance provisions and about the services which are available to service users. Policies surrounding coverage regulation exist regardless

of whether health care is financed through taxation, social insurance arrangements, or private insurance. The analysis considers each to be a form of 'health insurance' which 'covers' a particular individual or population group for a range of services, regardless of how the care is financed. The case where service users pay for care themselves out-of-pocket is not considered in depth. Service users may be covered by more than one health insurance arrangement. In such cases, a distinction is made between principal and additional insurance coverage, the latter providing extra coverage.

The analysis is particularly focused on what New Zealand policy makers call personal health services, meaning services that *individuals* receive. The analysis is less relevant for public health services, such as food and water safety services or mass media campaigns aimed at populations, or disability support services.

There is a significant literature on the ethical implications of particular decisions and decision-making processes pertaining to coverage regulation (Daniels 1985; Callahan 1992; Callahan 1992; Campbell and Gillett 1993; Hastings Center 1996; Harris 1997; Callahan n.d.; Working Party on Ethics and Resource Allocation in Health Care no date). While the importance of an ethical debate is acknowledged, specific ethical issues are beyond the scope of the discussion.

Outline of Contents

The thesis is divided into two parts. Part One develops analytical frameworks for thinking about various models of coverage regulation. In Chapter 1, four key elements of coverage are identified – population coverage; service coverage; specification of coverage; and insurability. These elements are drawn from an analysis of experiences in the seven countries on which this thesis focuses. Chapter 2 describes a decision-making schema which comprises benchmarks in the form of lower-level health policy objectives, which models of coverage regulation must meet in order to promote the higher-level policy goals of allocative efficiency, equal

access for equal need, choice and expenditure control. The benchmarks are a tool for assessing how well alternative models of coverage regulation achieve key policy goals and objectives (as used in Daniels 1996). The benchmarks represent the objectives which the author believes coverage regulations should attempt to meet if the regulations are to promote key policy goals. For the purposes of the analysis, the goals are specified in very particular ways. A formal scoring system is then designed to assist in evaluating alternative models of coverage regulation, and in identifying the trade-offs between goals and objectives. .

Part Two evaluates various models of coverage regulation in New Zealand in relation to the policy goals and objectives described in Chapter 2. Chapter 3 analyses how well New Zealand's current coverage model performs; Chapter 4 defines and evaluates four alternative models, assuming New Zealand's existing system of financing and delivery continues; and Chapter 5 evaluates New Zealand's current model of coverage regulation and three alternative models, within a managed competition system of health care financing and delivery. In each of these three chapters, there is an in-depth discussion of how alternative models of coverage regulation contribute to policy objectives and hence to policy goals. The decision-making schema is then used to value how well alternative models contribute to policy objectives and goals. Each alternative is scored, based on the discussion, for its contribution to policy objectives. Each objective is then weighted equally for its contribution to its relevant goal, to obtain a score showing how well each alternative model of coverage regulation contributes to each policy goal. Each policy goal is then weighted, according to the author's values, to obtain an overall score, giving an indication of the overall value of each alternative model of coverage regulation. Sensitivity analysis is undertaken to assess how the results change with different scores and weights to those used here.

Chapter 6 draws conclusions and makes policy recommendations surrounding coverage regulation for New Zealand, and discusses some priorities for future research.

Abbreviations and a Glossary of Terms are provided at the beginning of the thesis. Appendix 1 provides detailed information on health care systems and coverage regulation frameworks in the seven countries discussed. Appendix 2 provides a note on the scoring for Chapters 3, 4 and 5. Appendix 3 reports on the sensitivity analyses performed with respect to the evaluations of alternative models of coverage regulation.

PART ONE

COVERAGE REGULATION IN HEALTH CARE: FRAMEWORKS FOR ANALYSIS

Elements of Coverage Regulation

The New Zealand government first used the term 'core services' in its July 1991 budget policy statement, *Your Health and the Public Health* (Upton 1991). The idea of an explicit core drew on policy proposals for definitions of service entitlements in the Netherlands, Oregon and the United States. It also drew on the theory of managed competition, which requires a standard package of benefits to promote efficiency and equity goals. At an early state of the research, it became clear that no clear framework existed to clarify alternative approaches to coverage regulation, making it difficult to identify the policy choices that the New Zealand government had for developing an entitlement to care. A first task was therefore to develop a framework from which to define alternative policy choices.

This Chapter identifies four elements of alternative models of coverage regulation in health care: population coverage, service coverage, specification of coverage, and insurability. Two ways of managing each element are combined to derive two alternative models of population coverage regulation and eight alternative models of service coverage regulation. The elements therefore provide a framework for thinking about coverage regulation, and establish the kinds of choices policy makers have when contemplating changes to coverage. The elements and framework were developed from analyses of the experiences of seven Western industrialised countries – the United Kingdom, Sweden, Canada, Germany, the Netherlands and the United States, as well as New Zealand in terms of coverage regulation.

Table 1.1
Health Care System Financing and Delivery and Service Coverage Regulation in Seven Countries

<i>Country</i>	<i>System Features</i>	<i>Population Coverage</i>	<i>Comprehensiveness</i>	<i>Implicit/Explicit</i>	<i>Insurability</i>
New Zealand	<ul style="list-style-type: none"> • Nationally-organised • Tax-based financing • Annual budgetary allocation to health • Mixed public (hospitals) and private (primary, community) delivery; private largely independent of government 	<ul style="list-style-type: none"> • Some national decision making but territorial authorities and providers play key role in allocation decisions (1990s, regional then national purchasing) • Service user prioritisation left to providers in most cases; some regulations for elective care from 1990s 	<ul style="list-style-type: none"> • Very comprehensive; some exclusions (dental, optical, alternative therapies) • Some user charges for GP care, pharmaceuticals; full cost of GP care paid for by those on higher incomes • Long waiting lists and times for care 	<ul style="list-style-type: none"> • Historically implicit; allows regional variations in access due to regional role in determining service levels • Allows uncertain access and long waiting times for some services due to service gaps (mental health, youth health, hospice, disability support and alcohol and drug) and waiting lists • Pharmaceutical tariff as positive list • Recent years, national positive list (service coverage documents); defined as health authorities develop purchasing; list not widely known; mostly broadly defined with pockets of detail (eg, as with clinical assessment priority criteria) • Specification of maximum waiting time for elective care 	<ul style="list-style-type: none"> • Allowed – User charges – Faster access to publicly-financed services – Enhanced facilities
United Kingdom	<ul style="list-style-type: none"> • Nationally-organised system • Tax-based financing • Annual budgetary allocation to health • Mixed public (hospitals) and private (primary, community) delivery; private contracted to government 	<ul style="list-style-type: none"> • Some national decision making with territorial authorities and providers having key role in allocation decisions; (1990s, regional and GP purchasing; 2000s, GP purchasing) • Service user prioritisation left to providers in most cases 	<ul style="list-style-type: none"> • Very comprehensive; some exclusions (cosmetic, medicines on exclusion list) • Some user charges, with long term non-residential care, eye tests, spectacles, dental care increasingly privately financed • Long waiting lists and times 	<ul style="list-style-type: none"> • Historically implicit; allows regional variations in access due to regional role in determining service levels. • Allows uncertain access and long waiting times for some services due to waiting lists • Negative list of medicines not to be prescribed by GPs • Patient's Charter introduced in 1991, setting out maximum waiting times; Charter abandoned but maximum waiting times remain • National Institute for Clinical Excellence (NICE) issues guidance to local decision-makers on effectiveness • Increasing degree of explicitness during the 1990s, as individual Health Authorities developed their purchasing role 	<ul style="list-style-type: none"> • Covers services not available in the NHS and faster access to services which are publicly financed, particularly acute services. • Some restrictions
Sweden	<ul style="list-style-type: none"> • National system, with strong degree of decentralisation to 23 County Councils and 3 Municipalities (elected), which have right to levy proportional income tax on residents 	<ul style="list-style-type: none"> • Decentralisation to 23 county councils (regional) and 3 municipalities (local) 	<ul style="list-style-type: none"> • Very comprehensive; includes benefit payments for those off work sick • User charges: flat rate payments now determined by county councils with upper limits. Cover primary care physician visits, specialists in hospitals, in-patient days stay; adult dental care; co-payments for pharmaceuticals are uniform; some medicines are available free (annual maximum charges) 	<ul style="list-style-type: none"> • No basic or essential health care or drug package is defined; though there are some definitions as to what falls within and outside the domain of health care and some general guidelines regarding priorities • In the 1980s, lack of physicians in primary care and queues for hospital care were about two years for eg hip surgery; also problems with home nursing and out-patient psychiatric care • In the 1990s, some hospitals started not to perform in vitro fertilisation and mammography unless the patient pays • For nonacute diseases or less serious conditions a Guarantee of Care within a reasonable time period was implemented in 1992 for ten selected diseases • National formulary for drugs 	<ul style="list-style-type: none"> • Covers costs which are not covered by the statutory system (eg, additional costs as a result of a child's disease) and costs of medical care at private hospitals

Table 1.1 (continued)
Health Care System Financing and Delivery and Service Coverage Regulation in Seven Countries

<i>Country</i>	<i>System Features</i>	<i>Population Coverage</i>	<i>Comprehensiveness</i>	<i>Implicit/Explicit</i>	<i>Insurability</i>
Netherlands	<ul style="list-style-type: none"> •Compulsory social insurance •Insurance delivered through sickness funds which are mainly geographically specialised •Operate as semi-government organisations 	<ul style="list-style-type: none"> •National social insurance system •Exceptional Medical Expenses Act for catastrophic care; and the Health Insurance Act for non-catastrophic care. The latter are covered only for those whose incomes fall below a threshold. Those above ceiling purchase own private health insurance under the Medical Insurance Access Act •Central government regulations govern the services to be made available 	<ul style="list-style-type: none"> •Very comprehensive; excludes dental care, eyeglasses •User charges: only for a limited range of services •Waiting lists are a problem, particularly for nursing homes, psychiatric care, homes for the mentally retarded and home care 	<ul style="list-style-type: none"> •Explicit list of services under legislation for catastrophic, and non-catastrophic insurance; requires private insurers to offer at least one package offering coverage as defined in legislation •Package of benefits is set by the Sickness Funds Council •Some gaps, eg. psycho-social services •Negative list of medicines not reimbursed 	<ul style="list-style-type: none"> •Complementary, includes dental insurance, spectacles, higher standard of hospital accommodation or alternative medicines
Germany	<ul style="list-style-type: none"> •Compulsory social insurance •Insurance delivered through sickness funds which are mainly geographically specialised •Operate as semi-government organisations 	<ul style="list-style-type: none"> •National social insurance system •Decentralised, 'corporatist' model in which sickness funds and physicians' associations operate as semipublic bodies of public law •Central government regulations which set out the content of the benefit package •Those on higher incomes can choose private insurance 	<ul style="list-style-type: none"> •Very comprehensive, includes spa cures once every three years, dental care; eyeglasses, as well as benefits in cash. Long-term care insurance introduced in 1995. •Co-payments are required for drugs, hospital care. Copayments increased substantially, especially for drugs, in the 1990s •Waiting lists are not common in German hospitals except for procedures not solely dependent on the number of hospital facilities, eg transplants, and for specialised physicians with a high reputation 	<ul style="list-style-type: none"> •Public health services and psychiatric services are said to be weak 	<ul style="list-style-type: none"> •Gap and complementary insurance coverage covers gaps in the coverage of the public system (eg, dentists' services, eyeglasses), and against the costs of single and double rooms in hospitals, care by chief hospital physicians, or the cost of care abroad

Table 1.1 (continued)
Health Care System Financing and Delivery and Service Coverage Regulation in Seven Countries

<i>Country</i>	<i>System Features</i>	<i>Population Coverage</i>	<i>Comprehensiveness</i>	<i>Implicit/Explicit</i>	<i>Insurability</i>
United States of America	<ul style="list-style-type: none"> •Mixed public/private financing •Federal government funds and runs Medicare part A for hospital care; members pay monthly premiums for Part B physician care, for those over 65; State governments co-fund (with federal government) and run Medicaid for those on low incomes 	<ul style="list-style-type: none"> •Medicare – federal legislation setting out service coverage, including for Medigap complementary insurance •Medicaid – federal legislation setting out minimum service coverage, with ability for state plans to provide additional services and to place limits on eg the number of visits •HMOs – federal legislation setting out minimum service coverage •Employer-based private indemnity insurance – individual employer/insurer responsibility to define package of care •Employer-based self-insurance exempt from regulations 	<ul style="list-style-type: none"> •Medicare excludes/user charges for range of services eg some hospital days stays, first three pints of blood, prescription drugs •Medicaid excludes potentially a range of services, depending on state plans, but almost all states offer pharmaceuticals, prosthetic devices, dental and optometry services and eyeglasses, but care often limited by limited provider participation •Virtually all private plans cover hospitals, physician services, laboratory work and pharmaceuticals; but most cap total spending on a patient so people can exceed the limits of their coverage for catastrophic illness or injury; large differences among plans as to whether cover full benefits or require some form of cost sharing; and except in HMOs, vast majority of benefits have limiting conditions (White 1995) 	<ul style="list-style-type: none"> •Medicare, Medicaid, HMOs – broad, positive list 	<ul style="list-style-type: none"> •Medigap coverage for complementary services for Medicare
Canada	<ul style="list-style-type: none"> •Publicly financed •'Interlocking set of ten provincial and two territorial health insurance schemes', 'linked through adherence to national principles set at the federal level' (World Health Organization Regional Office for Europe 1996, p. 2) •In most provinces, there is a provincial health insurance plan accountable to the provincial government: taxation-based, non-profit and for insured services, single payer 	<ul style="list-style-type: none"> •Publicly financed Medicare scheme which is federally regulated and financed jointly by federal and provincial governments •'No two provincial programmes are exactly alike...' (World Health Organization Regional Office for Europe 1996, p. 5). •Increasingly, each province is now devolving responsibilities to regional authorities at the expense of individual institutions and agencies 	<ul style="list-style-type: none"> •Very comprehensive; excludes pharmaceuticals though provincial plans include for some; includes only some dental optical •Cost-sharing is discouraged by the Canada Health Act 	<ul style="list-style-type: none"> •Canada Health Act explicitly covers medically necessary hospital and physician care; but no agreed upon basic package of services since what constitutes medically necessary services has never been defined •Medically necessary hospital and medical services are universally available and for certain specialty services where shortages occur, such as cardiac, cataract or hip replacement surgery, queues are based solely on need •Provinces have flexibility of interpretation given that 'medically necessary' services are not well defined. Some de-listing in 1990s •Excludes pharmaceuticals, though provinces offer some coverage; also community dental care, optical care 	<ul style="list-style-type: none"> •Coverage for complementary coverage (eg, pharmaceuticals), but additional insurance banned for services covered under Canada Health Act

The analysis and discussion draws on material set out in Appendix 1 (summarised in Table 1.1) which identifies how different countries regulate coverage, how they have altered coverage during the 1990s, and how coverage is related to health care system design and development.

1.1 *Population Coverage*

Population coverage is the first element that policy makers must work with when deciding on coverage within a health insurance arrangement. There are two main ways of regulating population coverage. First, a country's entire population can be covered by the same package of services, or by only a few packages of services that do not differ greatly in terms of the range of services covered. This is labelled here 'similar population coverage'. This occurs when all service users with access to roughly the same range of services regardless of their income, health status, age, or other circumstances. The term does not imply that service users receive exactly the same care, but that the range of services offered is broadly the same for all citizens.

In contrast, 'diverse population coverage' occurs when different populations in a country have very different service coverage, i.e. are covered by very different packages of services. Under such an arrangement, different groups of service users have access to different ranges of services; for example, some users may be covered for dental care while others are not; some may be covered for mental health care, while others are not.

The degree of similarity or diversity in population coverage may result from explicit choices made by policy makers, or reflect policy decisions which assign responsibility for determining service coverage to different agencies.

Table 1.2
Similar and diverse population coverage

<i>Agencies and their Roles</i>	Similar Coverage		Diverse Coverage	<i>Type of Diversity</i>	<i>Country Examples</i>
	<i>Equal Coverage</i>	<i>Some Diversity in Coverage</i>	<i>Extreme Diversity in Coverage</i>		
Central government financing and delivery	√				New Zealand? United Kingdom? Sweden?
Central government regulation – 1 package	√				(US HMOs)
Central government regulation – 1+ packages		√		Eg, age, income, employment status, occupation, employer, health or disability status, geographical location. Service user choice.	The Netherlands Germany (US Medicare)
Regional or local government financing and delivery		√		Geographical location.	New Zealand? United Kingdom? Sweden? (US State governments)
Regional or local government regulation – 1 package defined by each		√		Geographical location.	Canada (US Medicaid)
Regional or local government regulation – 1+ packages		√		Eg, age, income, employment status, occupation, employer, health or disability status, geographical location. Service user choice.	
Mix of approaches; Private agencies determine coverage			√	Mix of roles. Different packages offered by sponsors, intermediaries and providers. Service user choice.	United States (US indemnity insurers; companies that self-insure)

Table 1.2 sets out the various ways in which similar and diverse population coverage may be achieved. Similar population coverage is divided into two categories – equal coverage and coverage with some diversity. There are two ways in which policy makers can achieve similar coverage. It may be because central government both finances and delivers health care; or because central government legislation defines the package(s) of care for which service users must be covered.

Some diversity in population coverage may be achieved in one of three ways. First, a central government may choose to define in legislation a wide range of quite different packages of services. Secondly, a degree of diversity can arise where responsibility for deciding on service coverage is allocated to regional or local government agencies, or to privately-owned sponsors, intermediaries, purchasers or providers. Population coverage is then dependent on the packages designed and offered by these agencies. Thirdly, even greater diversity in population coverage eventuates where a mixture of the above approaches is used in any one country, so that different populations may be covered by very different packages of care. For example, there may be some central government definition of packages of care to be offered to particular groups, while regional or local governments or private agencies define coverage for others in the population.

The seven countries studied have various approaches to population coverage. The positions of New Zealand, the United Kingdom and Sweden are not very clear, however. Under each of their principal health insurance systems, it appears that roughly the same set of services is available to all citizens. This is not to say that there are no differences in the range of services available to service users, but that there is a reasonable degree of similarity in each country in relation to the range of services covered. This similarity occurs because central governments play a key role in managing health care financing and delivery. All citizens are covered by financing arrangements organised through central government. Moreover, central governments play a key role in deciding the range of services available.

For example, central governments in New Zealand and the United Kingdom mandated the financing and provision of hospital, GP, maternity and specialist care in the late 1930s and early 1940s, and have been largely responsible for financing decisions relating to these broad categories of care ever since. This includes deciding which new services to fund, and establishing other priorities (Upton 1992; Shipley 1994; NHS Executive 1996; NHS Executive 1997; Shipley undated; Shipley undated). In both countries, apart from medical need, it appears that there are no restrictions on who can access care – service users can often obtain care in any part of each country, regardless of where they live.

In Sweden, population coverage may have the potential to be more diverse than in New Zealand and the United Kingdom. This is because in Sweden there is more regional and local government autonomy with respect to decisions about coverage. Even so, however, there appears to be fairly similar coverage around Sweden, as a result of central government involvement in decisions on health care financing and delivery, including priorities for spending (see for example Swedish Parliamentary Priorities Commission 1995, p. 52). However, in all three countries, regionally and locally-based government agencies have traditionally been involved in planning the delivery of health care, so perhaps these countries are examples of systems with some diversity in coverage, attained through regional or local government financing and delivery. Variations in access to care by region or locality are well documented in New Zealand and the United Kingdom (see e.g., National Advisory Committee on Core Health and Disability Services 1992; Klein, Day and Redmayne 1996, p. 45; Goddard and Smith 2001), but little reported on in Sweden (although see National Economic Research Associates 1993c).

Population coverage in the Netherlands and Germany differs in two key ways from that in New Zealand and the United Kingdom. First, population groups are treated more diversely, with different coverage for groups in different income bands and in different occupations. Secondly, the arrangements for achieving a degree of similar coverage within population groups differ from those in New Zealand and the United Kingdom. Rather than relying on close central government involvement in health care financing and delivery, Netherlands and German central governments define by

regulation the packages of care that cover each population group. There are also regulations that aim to promote similarities in coverage for those in different population groups.

Thus, in the Netherlands, all residents are covered by the same set of services for catastrophic events, under the Exceptional Medical Expenses Act. This covers services such as hospital care and stays longer than 365 days, nursing home care, day care and home care for people with disabilities. In terms of non-catastrophic services, however, the arrangements are different and the Netherlands does not offer the same coverage to all its citizens. (Non-catastrophic services include GP and specialist care, maternity and obstetric care, dental care, pharmaceuticals, hospital stays for up to 365 days, and so on.) Under the Health Insurance Act, all Netherlands citizens with incomes below a specified threshold (NLG 64,600 in 2000; approximately the same in New Zealand dollars prior to introduction of the Euro) must have coverage under the Act. Around 64% of the Netherlands population was covered by the Health Insurance Act in 2000. Those on higher incomes can choose not to have any insurance to cover such expenses, or they can purchase insurance from private funds, under the Medical Insurance Access Act; but they cannot purchase insurance from the statutory sickness funds that provide cover to those below the threshold for coverage by the Health Insurance Act. Around 31% of the Netherlands population obtained coverage from private funds in 2000. Public servants, around five percent of the population, are covered by dedicated health insurance schemes (Ministry of Health Welfare and Sport 2000).

Germany's approach to population coverage is only subtly different from that in the Netherlands. All German citizens are now covered for long-term care (care that is expected to last at least six months). For shorter-term care, those Germans on incomes above a specified amount can choose not to have any health insurance. If they do choose to have insurance, they can obtain it from one of the many statutory funds (which cover all other Germans), or from a substitute or private fund. (This is the most obvious difference between the German and Netherlands systems – those Germans on higher incomes can choose coverage from the statutory funds, a choice which is not available in the Netherlands.) Around 9% of the German population

has private health insurance (European Observatory of Health Care Systems 2000, p. 49). About 88% of Germans have statutory health insurance, 75% being mandatory members and 13% being voluntary members. There are also other categories of coverage, with 2% of the population covered by free government health care (e.g., police officers, soldiers). 0.1% are uninsured (European Observatory of Health Care Systems 2000, p. 39).

The Netherlands and Germany therefore offer a degree of diversity in coverage. In both countries, regulation of service coverage, however, aims to promote a degree of similar population coverage, through explicit lists of services for which service users are covered. In the Netherlands, the Exceptional Medical Expenses Act and the Health Insurance Act define the catastrophic and non-catastrophic services for which all Netherlands citizens have coverage (Ministry of Health Welfare and Sport 2000). In Germany, Social Code Book V, Chapter 3 specifies the contents of the sickness funds' benefit package (European Observatory of Health Care Systems 2000, p. 30). Negotiations between sickness funds and the physicians' and dental associations have determined the detail of the ambulatory benefit package, the federal government taking an increasing role in such policy development (European Observatory of Health Care Systems 2000, p. 34).

Furthermore, in both countries regulations attempt to bring an element of similarity in coverage to groups covered by different arrangements. In the Netherlands, private funds must 'include among their policies one offering cover as defined in the Medical Insurance (Access) Act' (Ministry of Health Welfare and Sport 1998), now presumably enshrined in more recent legislation (Ministry of Health Welfare and Sport 2000). In Germany, regulations decree that those on higher incomes who choose private insurance must have at least the same set of services covered as other citizens, and private insurers must offer a policy with the same benefits as are stipulated for statutory insurance (and at a premium which is not higher than the average maximum contribution to the sickness funds). Although such options are hardly ever chosen (European Observatory of Health Care Systems 2000, p. 50), this approach shows one way in which degrees of similarity in coverage can be

promoted where different populations are covered by different insurance arrangements.

In Canada, there is yet a different approach. Diversity in population coverage occurs because provinces and territories have a large degree of autonomy in determining service coverage. Each province and territory operates its own insurance plan, but must also work within the parameters of the Canada Health Act, which requires that all citizens be covered for a comprehensive range of 'medically necessary' services provided by hospitals, medical practitioners and dentists. This approach provides a framework within which provinces and territories operate health programmes, but also leaves them with a great degree of autonomy as to the range of services that they can make available to their citizens. This is reinforced by the freedom Canadian provinces and territories have to set their own tax and premium rates to finance health care.

The result is some degree of diversity in the range of services available to citizens across Canada. For example, some provinces explicitly exclude reversal of sterilisation procedures, in-vitro fertilisation, and newborn circumcision except in cases of medical necessity. There is also diversity in the groups of Canadians who have access to pharmaceuticals. Pharmaceuticals are not covered by the Canada Health Act – provinces and territories offer their own insurance plans to older people and those on social security, but the population groups covered differ slightly by province and territory (Health Canada 1999).

Like the Netherlands and Germany, Canadian provinces and territories use a regulatory approach to ensure similar population coverage within each province or territory. Each promulgates its own regulations, working within the broad parameters of the Canada Health Act.

The United States' approach to coverage is very different from the countries discussed above. United States citizens are covered by many different packages of services, with large differences in the range of services covered. The United States provides examples of each of the approaches set out in Table 1.2. Federal

legislation defines coverage for Medicare services. Separate federal legislation defines coverage for Health maintenance organisations (HMOs). Individual States define coverage for those people covered by the Medicaid scheme. Indemnity insurers face no regulations in relation to service coverage, so private agencies determine the range of services made available to their service users. Companies that choose to self-insure also face no regulation with respect to benefit packages, and so determine their own coverage. Finally, for those who are not formally covered by insurance, state governments have some influence over the range of services made available, as they provide safety-net services in state-owned hospitals. Coverage in the United States is thus the most diverse of all the countries discussed.

1.2 *Service Coverage*

A second key element of coverage regulation is service coverage – the actual services included in a package of care. Whether similar or diverse population coverage is preferred, policy makers still have to make choices about which services to include in the packages of care that are made available. These choices are the focus of this section.

The main issue facing decision makers is whether service coverage is to be comprehensive. ‘Comprehensive’ means covering a wide range of services. In practice, it means including preventive care and health promotion services, diagnostic services, primary, secondary and tertiary treatment services, pharmaceuticals, and palliative care services. A comprehensive package of care also usually includes maternity services. It may include services for people with on-going needs, such as mental health and disability support needs, although such services may be financed and administered separately, for example through social

welfare systems rather than health care insurance⁴. A comprehensive package may also include benefit payments to replace income for those unable to work as a result of illness.

Each of the seven countries studied has fairly comprehensive service coverage under each package of care made available, or under combinations of different packages. The most extensive coverage is that offered in Germany, the Netherlands, and Sweden, all of which include a wide range of services as well as income replacement benefits in their plans. In Canada and New Zealand, coverage is less comprehensive. The Canadians exclude pharmaceutical coverage from their national benefit plan, although most provinces and territories offer some coverage of pharmaceuticals to older people and to those on social welfare benefits. In New Zealand, it is possible to argue that either primary medical care for many adults is not covered or that the user charge for such care is so high that it constitutes a significant barrier to access. New Zealand and Canada also have traditionally not covered primary and preventive dental care for adults, or optical services, although recently the New Zealand government has extended coverage to emergency dental care for adults on low incomes, and to spectacles for children in low income households (Health Funding Authority 2000). In the United Kingdom, excluded services include cosmetic services, medicines on an exclusion list, plus there are some services where there is only residual state provision, including long term 'non-medical' residential or nursing care, eye tests and eye prescriptions, spectacles, hearing aids, and some self-care medication (New and Le Grand 1996). Dental care is also increasingly privately financed (Ham 1998; European Observatory on Health Care Systems 1999; Klein 2001). For those with health insurance, United States insurance arrangements sometimes offer the least comprehensive packages of care, often excluding preventive care, mental health services and home care (Daniels, Light and Caplan 1996, p. 42), while limits on the value of benefits covered often effectively reduce the range of benefits available (White 1995).

⁴ For example, New Zealand now includes services for people with disabilities in its health care financing and delivery arrangements. Germany shifted responsibility for long-term care from its Ministry of Labour and Social Services to the Ministry of Health in 1998, following the creation of statutory long-term care insurance in 1994 (European Observatory of Health Care Systems 2000).

The coverage of a country's health insurance plan(s) reflects a range of historical, cultural, socio-economic and political elements. For example, some countries have developed social insurance arrangements of which health insurance is only one component, and include cash benefit payments in their packages of care. In certain countries, there is a cultural predilection for certain treatments – Japan and France for example cover many medications (National Economic Research Associates 1993a; National Economic Research Associates 1993b; White 1995); France and Germany include spa treatments in their packages (White 1995).

Countries may also make their decisions about the services covered more or less systematically. In some countries, financial pressures have led to the 'de-listing' of some services, formally or informally. For example, the Netherlands government considered excluding anti-conceptives, homes for the elderly and some kinds of physiotherapy from the legislated package. Homoeopathic medicines and dental care for adults were removed from the package of services, and available physiotherapy has been scaled back, but the government found it difficult to remove services from the package (Mulder 1995; Graig 1999)⁵. In the United Kingdom, some health authorities made explicit decisions to exclude services such as in vitro fertilisation (IVF), tattoo removal and reversal of sterilisation/vasectomy from coverage (Klein, Day and Redmayne 1996). More recently, the United Kingdom government has established an agency, the National Institute for Clinical Excellence (NICE), to provide explicit advice on issues relating to coverage (Klein 2001). In other cases, however, coverage is determined more passively. For example, the National Health Service (NHS) has progressively withdrawn from the delivery of some services, notably long-term care and dentistry (Ham 1998). In New Zealand, on-going funding pressures appear to have led to urgent dental services for adults slowly disappearing from the publicly-financed package, and to reductions in the availability of mental health services (although the latter are now being built up once more).

⁵ For example, since 1 January 1997, adults have been entitled to claim a full set of dentures once again following earlier delisting (Ministry of Health Welfare and Sport 1998, p. 27).

Countries may not cover certain services for a number of reasons. There may be concerns over high elasticities of demand (i.e. the likelihood of people demanding a lot of service if it suddenly becomes covered), or concerns about the total expense that might arise from moral hazard or from a shift of responsibility from private, out-of-pocket sources to insurance coverage. This concern appears in part to underlie policies that mean that in New Zealand family members are usually not funded to provide care in the home for sick, elderly people, whereas German insurance now pays for such services (European Observatory of Health Care Systems 2000, p. 69). It may also be argued that particular services do not improve 'health'. For example, in the Netherlands, the Dunning Committee argued that IVF might be excluded from a package of care if it were of no importance to the community. The Swedish Health Care and Medical Priorities Commission also felt that lack of access to IVF may not preclude a normal life, but argued that the mental health of services users unable to have children may require some IVF treatment to be made available (Health Care and Medical Priorities Commission 1993, p. 106).

In making decisions about the services covered, policy makers have a number of related issues to consider. First, they must consider the type of providers from whom services may be accessed. Many insurance plans have regulations that limit access not only to suitably qualified or registered providers, but also to particular types of providers. For example, primary care offered by medically-trained GPs and specialists is usually covered, while primary care by nurses may be only available in a limited way (e.g. nurses may not be able to prescribe; midwives may not be able to claim fees offered to GPs or obstetricians). Treatment offered by chiropractors, acupuncturists, osteopaths, homeopaths and other so-called 'alternative' providers is often excluded from coverage, and most of the seven countries studied largely exclude care by alternative providers from coverage⁶. Many countries have also defined secondary and tertiary care as 'care provided in hospitals', which may

⁶ The Labour-Alliance coalition government in New Zealand is currently considering the role of alternative therapies in New Zealand health care, with a view to perhaps making such care available to New Zealanders through the publicly-financed health care system. ACC also covers some alternative services in New Zealand.

effectively limit the type of care that can be offered, depending on the definition of 'hospital. Indeed, one of the key reasons that the Dekker Commission in the Netherlands sought reform of the health care system was because of the existence of multiple financing streams and complex regulations, both of which were sometimes oriented towards the 'institution rather than the function' (van de Ven and Schut 1995, p. 97).

Similarly, policy makers must consider whether service users are to have direct access to specialists and hospital services. Many countries utilise a gatekeeping role, which means that service users must be seen by a 'general' practitioner, who will refer them on to more specialised services if necessary. The aim of this policy is to limit immediate (and unnecessary) access to expensive and scarce specialist services.

Governments must also consider issues relating to access to care. Access can be considered in terms of availability, affordability, accessibility, accommodation, and acceptability (Penchansky and Thomas 1981). Services must not only be covered through some form of insurance, but they must also be made available in the right places, and at the right time, they must be affordable and they must be acceptable to service users in a cultural sense. Barriers to access for certain groups in the population may mean that service coverage will not be quite as comprehensive as policy makers desire.

In relation to availability, countries have to make the services available if service users are to access them. All countries appear to have gaps in service coverage at times. Most commonly these appear in relation to community-based services such as mental health and social care, where changes in service delivery methods in the past few decades appear to be taking some time for service availability to adapt to. For example, New Zealand is currently building up its mental health services (Mental Health Commission 1998) disability services and hospice services, as well as youth services and alcohol and drug services. Access to public health and psychiatric services in Germany has been problematic (Organisation for Economic Co-Operation and Development 1992, p. 59) and Germany has only recently

extended coverage to long-term care in response to problems service users had in accessing such care (European Observatory of Health Care Systems 2000, p. 68). The Netherlands has had problems with access to mental health and home and residential care services for elderly people and people with chronic illness (Government Committee on Choices in Health Care 1992, p. 42; Blaauwbroek 1997, p. 224; Maarse 1997, p. 142). Sweden has sought improvements in primary care, home nursing and out-patient psychiatric care (Swedish Parliamentary Priorities Commission 1995, p. 52). The United Kingdom faces problems in dental and ophthalmologic and long term care (Bocken, Butzlaff and Esche 2001).

In terms of affordability, policy makers must decide whether to offer care free at the point of service use, or to seek charges from users when they access care. The higher the level of user charges, the less comprehensive coverage may effectively be. In the countries studied, levels of user charges differ across services and for different groups in the population, and in some countries are regarded as a significant barrier to access (e.g. primary care in New Zealand). With the kinds of insurance cover that involve reimbursement of expenditure, service users sometimes have to make some level of payment before being able to claim on their policies, and this too may act as a barrier to care.

One of the more obvious barriers is having to wait long periods for access to care. Some waiting for care may be regarded as good management in some cases; or it may be something about which little can be done immediately, for example, where service users wish to have their care provided by a highly regarded specialist or where there is a shortage of donor organs (Government Committee on Choices in Health Care 1992, p. 96). Of the countries studied, New Zealand and the United Kingdom, however, have traditionally had relatively long waiting times to access elective care, and these waits have been widely regarded as problematic. Until fairly recently both countries have had substantial numbers of people waiting for over a year and often longer. Waiting for elective care has also been a feature of the Canadian and Netherlands health care system for many years, and Netherlands service users have also had some problems accessing institutional mental health services and nursing homes (Government Committee on Choices in Health Care

1992, p. 98). In Sweden, waiting times also became a problem in the 1990s. But waiting times in these countries never appear to have reached the lengths of those in New Zealand and the United Kingdom.

1.3 *Specification of Coverage*

A third defining element of coverage regulation relates to whether the services covered, and access to them, are specified in any way. This element can be analysed in terms of whether services covered by a health insurance plan are covered implicitly or specified explicitly. Implicit service coverage is defined as occurring when neither decisions about which forms of care are provided nor the bases for those decisions are clearly expressed, and where there is no list stating which services are covered. Explicit service specification involves making clear decisions about the provision of health care, along with the reasons for those decisions (Coast, Donovan and Frankel 1996), and result in an explicit listing of the services covered.

This section focuses on implicit coverage and explicit service specification. It also discusses three sets of issues related to this element of coverage. The first set is concerned with whether coverage is defined positively or negatively (i.e. setting out what is available or what is not available); whether it is defined in terms of services, provider type, the principles on which care is to be offered; conditions/needs or health outcomes; and in general terms or in detail. The second set of issues relates to feasibility of having an explicit service specification. The third set is whether access and quality of care are also defined explicitly.

1.3.1 Implicit Coverage

A first approach to defining or specifying coverage is not to do so at all, and hence to have implicit service coverage. New Zealand, the United Kingdom and Sweden all have experience with largely implicit coverage. Historically, this has meant that nowhere could service users get a list of the services they could expect to obtain from their principal health care sector. Service users might have had a broad understanding of the range of services available – for example most New Zealand and British adults know that they have to pay for their own dental and optical care, and most Swedes know that they must pay user charges for primary care, pharmaceutical and hospital services and adult dental care. But overall service users have had nothing more than a rough idea about the range of services they might access if they become ill (or, as citizens whose resources are being spent on health care, exactly what care is being offered and to who). Rather than having access to an explicit set of services, service users are able to access a comprehensive range of services, and they have access to a ‘system’ of care (White 1995).

1.3.2 Explicit Service Specification

There are a number of ways in which countries can define coverage explicitly. First, there may be general positive lists of services to which service users have access. Publicly-financed care in Canadian provinces and territories, the Netherlands, Germany, privately-funded health insurers in the United Kingdom and New Zealand and some sponsors and intermediaries in the United States, take this approach. Thus, for example, the Netherlands’ Health Insurance Act defines some of its coverage in categories such as obstetric care, dental care, pharmaceutical care, maternity care (Ministry of Health Welfare and Sport 2000); United States Medicaid coverage is also defined in terms of categories such as medical and surgical dental services, family planning services and supplies, laboratory and x-ray services (Health Care Financing Authority n.d.b). Private health insurers in New

Zealand also use similar categories to describe coverage (see for example Southern Cross Healthcare 1997). A number of the countries studied, including New Zealand, have positive lists of pharmaceuticals that are covered through publicly-financed insurance.

A second approach is where fee schedules operate as a type of specification of coverage. These are usually long lists of items of service, and are aimed at providers who code the care they have provided and submit claims for payment using such codes. Germany uses such an approach in primary care, where there are around 2,500 services specified for which primary care providers can claim fees for service (Organisation for Economic Co-Operation and Development 1992). Australia also regularly publishes a Medicare Benefit Schedule which plays a similar role in Australian primary care (Commonwealth Department of Health and Aged Care 1999). In secondary care, the diagnostic related group or health related group approaches, used in New Zealand, the United States, and the United Kingdom, also could be argued to constitute a type of explicit specification. However, as the main purpose of these schedules is to manage payments to providers, rather than to provide service users with an idea of the services covered, they are not considered further.

A third approach is to define a 'negative' list of services which are not covered. Canadian provinces and territories take such an approach (alongside positive lists). Negative lists set out the pharmaceuticals in Germany and the United Kingdom that are not covered by principal health insurance schemes (New and Le Grand 1996; Bocken, Butzlaff and Esche 2001).

A fourth approach is to specify access to particular groups of providers or care delivered in particular institutions rather than specifying a range of services which are available. This is very common, and is used in Canada, where for example, the New Brunswick medical care plan states that 'insured services are defined as all medically required services rendered by a medical practitioner' (Health Canada 1999, p. 24); the Netherlands, where for example, the Exceptional Medical Expenses Act uses the following terms 'nursing-home care and care in a home for

the physically disabled', 'psychiatric care in a psychiatric hospital', while the Health Insurance Act includes 'admission to and stay in a hospital' and 'care provided by an audiological centre' (Ministry of Health Welfare and Sport 1998); and in the United States where federal Medicaid legislation states that Medicaid covers 'inpatient hospital services', 'outpatient hospital services' and 'physician services' (Health Care Financing Authority n.d.b).

A fifth approach is to specify what conditions or health needs are covered. For example, the Netherlands (under the Exceptional Medical Expenses Act) covers 'care of the deaf and partially hearing' and 'care of the mentally handicapped'; and under the Health Insurance Act, covers 'services for patients with chronic recurring respiratory problems' (Ministry of Health Welfare and Sport 1998). In Ontario, 'dental treatments for patients with cleft lip/palate registered at a designated clinic' are funded (Health Canada 1999); while United States Medicaid services include 'TB-related services for TB infected persons'.

A sixth approach is to specify coverage in terms of principles. Services can be delivered on the basis of whether their particular condition warrants treatment, based on key principles used by sponsors, intermediaries and providers. For example, federal legislation in Canada and the United States makes reference to services that are 'medically necessary'. Many United States intermediaries exclude 'experimental treatments', although without defining the term, leaving it to the courts to decide if care is legitimately excluded by being truly experimental (Belk 1991). Principle-based approaches were also developed in a number of countries (Norway, Denmark, the Netherlands, Sweden, New Zealand, health authorities in the United Kingdom) in the 1990s during consideration of priorities for spending on health (see Appendix 1).

A seventh approach is to define coverage in terms of health or health care outcomes (Cumming and Scott 1998). No examples of this approach were found, but it is conceivable that coverage could be defined in such ways, for example 'services to ensure no outbreaks of vaccine preventable disease' (i.e., covering immunisations),

or 'services to increase mobility in service users with restricted mobility arising from osteoarthritis' (i.e. covering hip operations).

Where there is explicit specification of coverage in terms of services (points one and three above), services are specified quite broadly; for example, as maternity services, mental health services, surgical services, and so on. Such specification provides some indication of the service groupings covered. However, these broad definitions often do not provide detail on the exact service or process an individual service user might receive; nor do they limit in any way the type of care that intermediaries and providers are able to deliver. For example, when it is stated that maternity services are covered, it remains unclear if ante-natal, labour and post-natal care are all offered; if midwifery care is available; or if home-based care is provided during labour. This approach also fails to specify how much care is available (e.g. how many ante-natal classes are provided, how long a hospital stay might be, how long post-natal care is available for). If explicit specification of coverage is desired to provide clarity about the care available and to place limits on the care offered, as seemed to be the promise an explicit core made for New Zealanders, these broad approaches are insufficient, as decisions about the services and processes actually made available are left largely in the hands of intermediaries and providers. In effect such "broadly explicit" approaches can be considered quite close to an implicit approach.

Approaches that specify the care available in terms of providers (as noted in point four above) also leave decisions on the delivery of services and processes to the discretion of intermediaries and providers. In effect, the actual services available are also implicit. There is however an important difference between approaches that define coverage in terms of providers and those that define a list of services. In the former instance, resources may be tied into professional groups or institutions that do not necessarily provide the most cost-effective ways of delivering particular services. Defining services rather than providers would seem to offer greater opportunity for flexibility and cost-effective service delivery.

Defining coverage in terms of principles has also come in for some criticism:

- They often do not explicitly consider a range of principles, and sometimes fail to include important principles such as effectiveness and efficiency.
- They often do not weight the principles chosen by relative importance. Such weighting makes the decision-making process more transparent, and the trade-offs between principles explicit.
- The principles are often not sufficiently specific. Broad principles such as 'quality of life', 'equity', or 'unmet needs' are not particularly precise in their meaning.
- Principles that are vague or are subject to a range of interpretations can be difficult to implement or monitor, and can be gamed.
- Principles often appear to cover an enormous range of service categories, which limits their usefulness.

(Cumming 1996; Klein and Redmayne 1992; National Advisory Committee on Core Health and Disability Services 1992; House of Commons Health Committee 1994-95; Swedish Parliamentary Priorities Commission 1995; Klein, Day and Redmayne 1996; Cumming 1998; Holm 1998).

There are also significant problems which arise in attempting to use health outcomes for specifying coverage. A key problem is that intermediaries and providers may not always be able to influence factors which contribute to improved health outcomes. Such outcomes will be affected by economic and social developments outside the health sector and this makes the task of identifying how health service providers can individually contribute (Cumming and Scott 1998). In addition, such approaches do not clearly specify exactly what types of services will be delivered, making it very difficult to constrain service delivery and expenditure,

especially if services fail to deliver expected outcomes, with service users demanding that the outcome be achieved regardless of cost.

Broad service specifications or principle-based approaches are increasingly complemented with other policies to help ensure effective, efficient, quality health care is delivered to service users. Internationally, but particularly in the United States, there is a growing use of technology assessment processes, practice guideline development, standards, and quality improvement and utilisation review programmes, whereby decisions about the provision of care are considered in depth by sponsors, intermediaries and providers (or their agents). These developments reflect a combination of concerns: rising expenditures on health care, evidence of huge variations in practice, a focus on quality of care, and a lack of evidence on the effectiveness of health care services in achieving health objectives. How effective a treatment is often depends on the particular condition a service user has; so, to promote effective service delivery, it is important to be clear about the medical circumstances under which service users get care.

Particularly during the 1990s, publicly-financed systems began to take more interest in more intensively managing care using these various types of approaches and in developing more detailed specification of service coverage, either through explicit lists or through managed care arrangements noted above. In the state of Oregon in the United States, a fairly detailed list was developed, based on condition/treatment pairs, and practice guidelines are also being developed to support the pairs list (Oregon Health Services Commission 1991; Oregon Health Plan Administrator 1996; Ham 1998). In New Zealand, practice guidelines were developed during the 1990s to support provider decision-making; and an explicit and detailed clinical assessment priority criteria (CPAC) approach is being used to determine access to elective care (Cumming 1994; Cumming 1997; Hadorn and Holmes 1997a; Hadorn and Holmes 1997b; Hefford and Holmes 1999). HMOs and private indemnity insurers in the United States are increasingly employing utilisation review procedures. Practice guidelines are also being used in a number of countries to provide information to providers to promote effective, appropriate and efficient care. In the United Kingdom, service frameworks are under development to try to

encourage better quality care which is delivered more equitably (see, e.g. Secretary of State for Health 1999). These standards are to be the basis for monitoring providers in the United Kingdom, in conjunction with performance indicators and audit by the Commission for Health Improvement. Some performance assessment measures include audit of practice against clinical guidelines (see e.g. Secretary of State for Health 1999, p. 39). More detailed service specifications, therefore, became of greater interest over the past decade or so.

1.3.2.1 Feasibility of Explicit Coverage Specification

Although broadly explicit specification of coverage appears to have been readily accepted in the United States, Canada, the Netherlands and Germany, and in part in New Zealand, its desirability has been hotly debated in the United Kingdom. Klein, for example, acknowledges that in the NHS, decisions are largely taken by clinicians, that the scope and limits of the NHS have never been defined, and that packages of health care offered around the country therefore vary (Klein 1997). He notes that this allows government Ministers to 'duck responsibility for the consequences of their decisions when setting the...budget' (Klein 1997), and that there is no way to establish whether the budget is sufficient to meet commitments – and with no clarity over the commitments, 'debate about whether or not the NHS is "underfunded" becomes a meaningless dialogue of the deaf and accountability is fudged' (Klein 1997). Klein also acknowledges the equity concerns raised by those desiring an explicit specification, with 'postcode rationing' easily undertaken where there is implicit service coverage.

Klein argues, however, that the case against an explicit core is stronger than the case for an explicit one. This is for four main reasons:

- There is no consensus about principles or criteria to use in designing such a package.

- Any decisions to restrict the NHS menu are difficult to implement given patient heterogeneity.
- By concentrating on rationing by denial we risk ignoring other (probably more important) dimensions of rationing.
- Defining an NHS package would probably not achieve the declared objectives of promoting equity and accountability, and the all-out pursuit of these objectives would in any case lead to a damaging degree of centralised rigidity (Klein 1997).

Klein's first argument is that there is no consensus about principles or principles to use in designing an explicit specification of coverage. He points to a number of countries' attempts in the 1990s to define an appropriate set of criteria, and argues that the results have been disappointing – there being a 'cacophony' of principles, 'embodying competing and sometimes conflicting views', which when applied to particular cases become quite contentious. In Oregon for example, the criterion of cost-effectiveness had to be abandoned as a result of inadequate data and counter-intuitive results; and the final package 'seemed to reflect judgements about 'reasonableness' taken in the light of community values, i.e., the attempt to apply clear cut transparent criteria was abandoned' (Klein 1997). In the Netherlands, tensions between economic principles, which aim to maximise the amount of health gain obtained from resource allocation, and the 'rule of rescue', which states that populations have a strong desire to save lives no matter the cost, resulted in an acceptance that conditions that threaten survival or capacity to function must be included in any package. The Swedes rejected outright the efficiency principle, and endorsed the rule of rescue, giving priority to life-threatening conditions. They also aimed for social solidarity – that is, that the commitments of a health care system should be shaped by a sense of collective responsibility for the wellbeing of its members, especially the most vulnerable, such as chronically and terminally ill individuals. Klein also points to New Zealand which declined the task of defining a list of services as an example of failure in developing an explicit service specification. Thus, 'principles that incorporate a semiautomatic formula for implementing them (such as maximising health benefits) tend to be highly

contentious, whereas uncontentious principles owe their acceptability to the fact there is ambiguity about their implementation' (Klein 1997). He does however accept that there is one point on which there is widespread agreement – ineffective health care should be excluded. Even this, he argues, turns out to be a rather blunt criterion, as most interventions are effective for someone.

Klein's second point is that any decisions to exclude particular services are difficult to implement given patient heterogeneity. He notes that about a quarter of the 100 health authorities in England explicitly set out in their 1996/97 plans the services that will not be included in their contracts, and that these were dominated by various forms of cosmetic surgery – tattoo removal, buttock lifts, breast augmentation, procedures for pinning back ears – but also included reversal of sterilisation and vasectomy, in-vitro fertilisation, and dilatation and curettage for women under 40, the last being a service which evidence suggests is not clinically effective. These services represent restrictions only to a small range of NHS activity, with the implicit criterion being that the authorities will not deal with conditions that are self-inflicted or not considered to be medical, i.e. which do not impair the ability to function. Yet each of these conditions may indeed impair some people's ability to function, and Klein agrees with the medical profession that such blanket exclusions ignore the fact of patient heterogeneity. He also notes that health authorities have tended to retreat from such exclusions to a more flexible position – that such procedures are *normally* not bought, but may be purchased where a clinical need can be demonstrated.

Klein's third point is that explicit lists of services deal with trivial considerations, and that the real business of resource allocation decisions should be about how much of each service to provide and how to decide who should be treated and how. He quotes in relation to Oregon's list, where appendectomies were ranked relatively highly:

...it takes not great talent to realise that appendectomy is worth funding, at least for a clear cut diagnosis of appendicitis. The real issue is not whether to perform the appendectomy; it is whether to fund countless marginal interventions that are potentially part of the procedure—marginal blood tests and repeat tests; precautionary

preventive antibiotic therapy before therapy; the number of nurses in the operating room; and the backup support on call or in hospital. Even more decisions about marginal elements will arise during the recovery phase; exactly how many days of hospital stay are permitted, how often the physician should make rounds, how often make rounds, how many follow up tests there should be, and so on. (quoted in Klein 1997, p. 90; original Veatch 1992)

Finally, Klein accepts that the ways in which resources are rationed in the United Kingdom may involve arbitrariness and the use of unacceptable criteria such as age, and may reflect the idiosyncrasies of individual clinicians, but that any unfairness arising from these decisions is unlikely to be resolved by defining a package of services. Rather, a strict interpretation of the equity principle would see not only the same range of services delivered but individual patients having the same opportunity of getting treatment for any given need. The argument would move away from specifying the range of services to be provided, toward specifying also the quantity of services to be provided. He notes that without this, there would still be inconsistencies and arbitrariness, for example where in-vitro fertilisation would be rationed by the selection of patients with different health authorities using different qualifying criteria. Specifying particular levels of services

...would put the NHS in a straitjacket, inhibiting adaptation and innovation. The concept of "need" is, itself, highly elusive and flexibility in its interpretation is essential. However much we may chafe at the way in which local discretion is often exercised, it still seems preferable to imposing a national template on the design and delivery of health care. (Klein 1997, pp. 92-93)

Suppose some services are removed from the core on the grounds they are argued to be ineffective. The impact on service users may be particularly acute in the presence of life-threatening conditions, where

...patients may be willing to risk enduring treatment even though evidence of effectiveness may be lacking and the chances of success are extremely slim. They may feel...that there is nothing to lose by gambling. As Blustein and Marmor...argue, "It is implausible to expect that heart-disease victims would quietly forgo

potentially lifesaving treatment in the name of scientific purity".
(Klein, Day and Redmayne 1996, pp. 105-106)

Finally, he argues that if this point is accepted, an NHS menu is not needed:

...rather than worrying about drawing up an NHS menu, we should concentrate on what is going on in the kitchen: we should accept the inevitability and indeed desirability of leaving rationing decisions to clinicians and concentrate on ways of making the profession collectively more accountable for the way in which they carry out this onerous task.. (Klein 1997, p. 93)

Further arguments for continued implicitness in decision-making are made by Hunter who argues that the public is more likely to accept rationing decisions from doctors, and Mechanic who argues that any greater information available to service users may destabilise the system, with those unable to obtain care likely to challenge allocation rules, and able to 'evoke public sympathy' (Mechanic 1995). Similarly, Coast argues that democratic participation may lead to an unacceptable approach to rationing. She also argues we should not wholeheartedly embrace explicit rationing without first finding out more about the potential harm that could result (Coast, Donovan and Frankel 1996). Hunter too points out that by increasing the visibility of the decision process, the potential for conflict among decision makers is likely to increase, resulting ultimately in a conservative approach in which current patterns of provision would be preserved (Hunter 1993).

Others have challenged these views. New for example argues that there may be no need for a long list of specified services which is continually updated. A list specified at a general level may be sufficient e.g., treatment for cancer; AIDS, infertility etc. A list of exclusions may also be sufficient. New also argues that clinicians may also want guidance on the range of their responsibilities and have no wish indulge in gamesmanship with policy directions (New 1997). Such a broad listing, however, would only seem to deal with defining the range of services covered, or those not covered, setting out responsibility for the *health* system. Yet as experience suggests, it can be extremely difficult to remove whole services from

coverage. A better approach may be to exclude explicitly services done for particular reasons, e.g., for cosmetic reasons.

In summary, the literature reaches no conclusion on whether service coverage should be specified explicitly or implicitly. All agree that some kind of rationing has to take place, but that it is an extremely complex task. Even those who believe that implicit specification is the more feasible option, sometimes support a degree of explicitness – for example Mechanic who supports ‘well developed guidelines...focused on high cost areas [which] can be invaluable aids in the responsible exercise of discretion’ (Mechanic 1995). Klein also notes above the need to hold providers to account for their decisions, but without being clear as to how to do this. In addition, there is agreement that ineffective services should not be offered, and that clinicians do need to consider how to manage resources better when diagnosing or treating service users. This does suggest the need for further consideration of how to better manage health care service decision making, but in ways which do not strangle the sector with detailed regulations.

1.3.2.2 Specifying Access and Quality of Care

Chapter 1.2 noted that access to care plays an important part in promoting comprehensiveness. Access includes considerations of availability, accessibility, accommodation, affordability and acceptability (Penchansky and Thomas 1981). Just as alternative approaches to coverage regulation differ in whether service coverage is implicit or is explicitly defined (i.e., availability of care), they may also differ in whether they implicitly or explicitly define other aspects of access to care (i.e. accessibility, accommodation, affordability and acceptability). Similar issues arise with respect to quality of care. A specification of coverage that explicitly specifies quality of care might include a range of standards, related to ensuring, for example, appropriateness, effectiveness, efficiency, timeliness, safety, and caring.

It is an extremely complex task to consider different models of coverage regulation along all the possible dimensions that access and quality entail. To narrow the discussion, the remainder of the thesis focuses on waiting time as an example of how alternative models of coverage regulation might incorporate aspects of access and quality of care. Waiting time has been chosen as it is particularly relevant in New Zealand, and as it has been the subject of policy attention in recent years, with minimum waiting times being required to be met by intermediaries and providers in a number of countries. The discussion of waiting times could be recast in terms of other aspects of access or quality of care, but this is beyond the scope the analysis.

How might alternative models of coverage regulation manage waiting times? First, it is worth noting that in many European countries, access to services for those who need care is such that they can get care more or less on demand (Glaser 1991). Service users may need to wait for an operation to be booked, to get time off work, or to arrange household matters, but generally they do not need to wait long before they get services. In a health care system with some certainty that most services will be provided promptly, arguably it is not necessary to specify a maximum waiting time within which service users must be treated, or to specify how long they should have to wait to obtain care. Accordingly, one approach to coverage regulation is for access to be implicit, but for care to be available on demand.

In other countries – especially New Zealand and the United Kingdom – long waiting times for what is called elective surgery (i.e. non-urgent or non-acute surgery, where a service user's life is not immediately threatened) have been very common in the publicly-financed health care system. Furthermore, it is quite plausible that some service users on a waiting list will never get care: they may die while waiting for care (not necessarily of the condition for which they are awaiting treatment), or they may move and not be traceable. On the other hand, their condition may deteriorate and they may obtain care as an urgent case, or they may choose to pay for private care themselves. Other service users may simply be repeatedly bumped down the list and never get care at all. This demonstrates a second approach to waiting times, which is for access to be implicit, while service users have to wait an unspecified time to access care.

In the 1980s and 1990s, waiting times and lists have caused increasing concern in a number of countries which traditionally have had fewer problems in this area. Governments have been particularly concerned with controlling costs over this period, and this is likely to be a part of the reason for increasing waiting lists and times in countries such as Sweden and the Netherlands. A number of governments have therefore recently attempted to reduce the risks that service users face in waiting for care. One way this has been done is by specifying, in legislation or regulations, a maximum waiting time. For example, as part of a Patient's Charter introduced in 1991, the United Kingdom government sought a maximum waiting-time guarantee of two years, later reduced to 18 months for inpatient treatment, and to 12 months for coronary artery bypass grafts and angioplasty (NHS Executive 1996; NHS Executive 1997). Current plans are for elective operations to be made available within 6 months by 2005, and 3 months by 2008. Maximum waiting times for accident and emergency care and outpatient care are also to be slashed to four hours and three months respectively (Secretary of State for Health 2000). In Sweden, a care guarantee was introduced in 1991. This gave priority to ten selected diagnoses, and stipulated that service users must be offered treatment within three months (World Health Organisation 1996). In New Zealand, the government is currently aiming for a system that offers a booked appointment for elective surgery within six months of assessment. All these are examples of a third approach to waiting time, which is to specify the maximum time that people might have to wait for treatment.

In summary, then, the following approaches to specifying access are considered in the thesis:

- an implicit approach, under which i) services are available as and when required ('on demand'), or ii) there is a wait for care and services are not necessarily available at all
- an explicit approach, under which a waiting time for care is specified

1.4 *Insurability for Services Covered by Principal Insurance Arrangements*

The fourth element of coverage regulation concerns the availability of additional insurance – meaning coverage which is additional to that provided by a service user's principal insurance source. Many Western health care systems finance health care in a number of ways, but most operate so that one principal method provides the largest proportion of finance. In many OECD countries, most care is usually financed through taxation or social insurance. Many of these health care systems also have additional sources of financing to fund i) care not covered by the principal system at all (complementary insurance), ii) user charges (gap insurance), and iii) faster access to care and better facilities than covered by the principal system (supplementary insurance). An important aspect of coverage regulation is the nature of this additional insurance.

Complementary insurance is available in each of the seven countries analysed. What it covers depends on the services that are covered under the principal health care sector. For example, adult dental and optical care are generally not available through the publicly-financed health care sector in New Zealand; private insurance is available to provide cover for such care. In Canada, many people obtain coverage for prescription drugs through private insurance. Medigap insurance in the United States provides additional cover for services not covered by Medicare; about 70 per cent of elderly people covered by Medicare in the United States have such insurance (White 1995, p. 37). In the Netherlands, many people purchase coverage which interlocks with their statutory coverage but which provides complementary additional insurance (Ministry of Health Welfare and Sport 2000). In Sweden, complementary insurance also covers the services not covered by the main scheme (World Health Organisation 1996).

Gap insurance similarly exists in those countries with extensive user charges – New Zealand, Sweden and Germany. Australia has until very recently banned such insurance for primary care charges, in an effort to keep fees charged by providers down (NZ Institute of Economic Research (Inc.) 2001).

Supplementary insurance takes slightly different forms in each of the seven countries considered. Private rooms in public hospitals are covered by private insurance in the United Kingdom and Germany, as is care by a chief physician in Germany. But only in those countries where long waiting times for care have developed – i.e. New Zealand, the United Kingdom and, in recent years, Sweden – has supplementary insurance developed that provides faster access to care available through the principal insurance sector. Such insurance does not seem to be common in Germany and the Netherlands, where access to care covered by the principal health care system is clearly not viewed as such a problem, or where private health insurance simply has not taken on this role.

Canada takes a different approach with respect to supplementary insurance – additional insurance may only cover services that are *not* publicly financed, i.e. that are not defined as insured health services under the Canada Health Act or the provincial plans. The Canada Health Act requires insured health services to include ‘all medically necessary hospital services and medically required physician services, as well as medically or dentally required surgical-dental services requiring a hospital for their proper performance’ (Ministry of Health Canada Santé 1998), and these services are those for which additional insurance coverage is banned.

In all the above cases, the nature of additional insurance is heavily dependent on coverage decisions taken in the main system of care, government regulations, and whether or not there is a market for certain types of additional insurance. The implications of such policy choices are not trivial.

1.5 *Relationship Between Model of Coverage Regulation and Health Care Systems*

As a result of historical and cultural factors, coverage has developed quite differently in seven, industrialised countries. Despite this, a number of broad conclusions can be reached about the relationships between coverage and health care systems.

First, in terms of population coverage, New Zealand, the United Kingdom, Sweden, Germany, the Netherlands and Canada all have shown a commitment to equity or solidarity as key principles for organising health care, through nationally-organised models of the financing and delivery of health care. Each country therefore ensures almost complete population coverage. Population coverage in each country has a national flavour, however, with more variation in the Netherlands and Germany, where those on higher incomes have greater choice over coverage. Across the six countries there are also varying degrees of regional and local autonomy. In contrast, the United States has no national approach, allowing very different coverage arrangements for its citizens, and leaving decision making about coverage in the hands of a wide range of agencies. This suggests that the United States has less interest in promoting equity than other countries (Daniels, Light and Caplan 1996), although political factors also play a role, with the United States federal government facing considerable challenges in restructuring health care financing and delivery arrangements (Daniels, Light and Caplan 1996).

Second, comprehensiveness of coverage can be similarly linked with equity goals. New Zealand, the United Kingdom, Sweden, Germany and the Netherlands cover a comprehensive range of services. Canada largely excludes pharmaceuticals from coverage, with variations in access to pharmaceuticals in Canada more than in other five countries. In the United States, the lack of a national approach leaves decisions about comprehensiveness in the hands of a myriad of agencies. Thus, service coverage in the United States varies considerably more than in the other six countries.

Third, among the countries studied, explicit specification of services is more likely to be associated with social insurance provided through non-government organisations, constitutionally separate federal and state political systems, and private financing arrangements. Explicitness in service specification initially appeared to be linked with an 'insurance' approach to health care, where an entitlement to care is offered in return for clearly identified premiums. Yet it was seen that an explicit specification does not always prevent service gaps, variations in care and waiting times, particularly in social insurance models which aim to manage overall health expenditure rather than to allow entitlements to care to drive total expenditure completely. An explicit specification might also develop to promote accountability, especially in health care systems concerned with ensuring similarities in population coverage and comprehensive service coverage, and where non-government organisations play a significant role in the financing and delivering of health care. Implicit coverage is linked with tax-financed systems, to keep expenditures within a tightly constrained budget cap, where the budget determines utilisation and price, rather than utilisation and price determining the budget/expenditure. Similarly, an implicit approach appears appropriate in countries where central government plays a key role in financing and delivering health care through ownership of intermediaries and providers, with ownership rather than an explicit specification perhaps providing a means of ensuring accountability.

During the 1990s, pressures on expenditure and concerns about access to care lead policy makers in a number of countries to look more closely at coverage and to consider more explicit ways of prioritising and specifying services and access to them. The Netherlands' experiences shows the controversial nature of the value judgements required in deciding on the services covered, and suggests how difficult it can be to remove services explicitly from coverage. In Oregon, a more explicit service specification developed where there is significant diversity in coverage. This diversity occurs not only across the United States as a whole, but also within individual states where there are a mix of models of coverage. Oregon's proposals for explicit coverage therefore raise concerns about equity, as the explicit approach applied initially only to a particular population group, those on low incomes. In

spite of this controversy, policy makers in Oregon showed that a concerted effort at consultation and policy development, along with strong leadership, can result in the design of reasonably explicit coverage, albeit one which in practice did not limit or reduce access to care. The Oregon experience showed too that even a condition/treatment paired ranked list is insufficient to meet some policy goals. Oregon is now in the process of developing practice guidelines beneath the condition/treatment pairs in order to ensure the greatest benefit is gained from treatment and expenditure.

In countries which traditionally relied on implicit specifications of coverage, the 1990s saw some governments' attention particularly focused on ensuring timely access to elective surgery. Thus New Zealand, the United Kingdom and Sweden each introduced maximum waiting times for elective surgery. The United Kingdom's initial 18 month limit was clearly significantly longer than Sweden's and New Zealand's intended three and six month waits. That all three countries focused in particular on waiting times and lists for elective surgery is not surprising, given that elective surgery waiting lists are long-standing, politically sensitive issues in these countries.

Finally, during the 1990s, New Zealand, Oregon and some Canadian provinces began developing examples of quite detailed explicit specifications for medical and surgical services. To date, New Zealand and Canada are focusing on clinical assessment systems for elective surgery, while Oregon policy makers are developing practice guidelines across a range of service groupings.

1.6 Summary and Conclusions

This Chapter has identified and discussed in depth the key elements of approaches to regulating health care coverage. Drawing on the experiences of seven countries, these have been identified as population coverage; service coverage; specification of coverage; and insurability. The main ways in which policy makers deal with each

element have been discussed. For population coverage, there can be similar or diverse coverage; for service coverage, more or less comprehensive coverage; for specifying coverage, there can be implicit service specification, with services on demand or with a wait for care with services not necessarily available at all, or an explicit service specification, which can be broadly defined or defined in great detail. Finally, in relation to insurability, additional insurance may or may not be allowed⁷.

It became clear that New Zealand's understanding of an entitlement to care as an explicit specification or list of services did not adequately address all the pertinent elements relating to coverage. In particular, the New Zealand policy discussion on an entitlement to care did not recognise that a key matter for consideration is not only which services to cover, but which populations to cover. This also raised the question of whether a single country's entire population is to have access to the same range of services, or whether differences in coverage are desirable. The analysis has therefore extended the idea of coverage regulation beyond a simple, explicit service specification as first envisaged in New Zealand, to consideration of a broad set of elements relating to population and service coverage.

Attention was drawn to the degree of population coverage under a particular approach to coverage being closely related to two other elements. Policy makers who wish to ensure similar coverage must also offer a fairly comprehensive range of services under the packages of care that are made available to service users; and they must also ensure that the take-up of additional insurance is fairly even. If a package of care covering a country's entire population is limited to a narrow range of services, and service users are responsible for their own care beyond the package, then coverage is unlikely to be similar across population groups. In the same way, if additional insurance is unevenly spread through the population, and the resulting

⁷ A more complex approach would consider population coverage along three dimensions (equal, similar and diverse coverage); and coverage specification along three dimensions (implicit with certain access, implicit with uncertain access, explicit with certain access). This would result in a large number of alternative models of coverage. A simplified analysis as that undertaken here enables the main principles around coverage to be explored without the need to consider such a large number of alternatives in the analysis.

difference in coverage is significant, then coverage is diverse rather than similar. Henceforward, when discussing similar population coverage, it is assumed that policy makers will offer fairly comprehensive coverage and fairly equal take-up of additional insurance in order to promote similar population coverage.

An entitlement to care can be provided through an implicit service specification, where access to care is largely on demand; or by an explicit service specification, which may need to be set out in quite some detail to provide an entitlement to care. A broadly explicit service specification – one of the options discussed in New Zealand – can still be associated with service gaps, variations in access to care and waiting lists. Relationships between approaches to coverage regulation and other features of health care systems were also discussed. It was noted that similar population coverage and comprehensive coverage are linked with equity goals, while explicit approaches to service specification appear more likely in social insurance systems, where constitutionally separate state agencies and private agencies play a key role in health service delivery, or where insurance is privately-financed and delivered. The planned move from an implicit service specification in New Zealand was consistent with the planned introduction of private health care plans into the health system. An explicit specification did not appear to be consistent with tax-based financing, however, although the finding that broadly explicit specifications offer no more an entitlement to care than implicit specifications tempered this theory.

Combining the two main ways of managing each of the four elements of coverage discussed results in two models of population regulation and eight models of service coverage. These are shown in Figure 1.1, which summarises the main models of coverage regulation. In later Chapters, alternative ways of dealing with some of these elements are analysed, in terms of their contribution to the achievement of health policy goals and objectives.

FIGURE 1.1 COVERAGE REGULATION MODELS

Benchmarks for Coverage Regulation

Chapter 1 established a framework for thinking about the regulation of coverage. This Chapter develops a formal decision-making schema which is used in later Chapters to evaluate and assess the implications of alternative models of coverage regulation for key health policy goals and objectives. The decision-making schema is based on the principles of multi-criteria decision analysis (Belton 1990; Goodwin and Wright 1998), because choosing between alternative models of coverage regulation involves multiple objectives which will often conflict.

The schema consists of two parts. First, an organising framework is developed to link together health policy goals and objectives and different approaches to coverage regulation. The framework develops benchmarks in the form of lower-level health policy objectives, which models of coverage regulation must meet in order to promote the higher-level policy goals of allocative efficiency, equal access for equal need, choice and expenditure control. Secondly, a scoring system is used to value the impact that alternative models have on the achievement of policy goals and objectives. The general features of the schema are described in Chapter 2.1. Chapter 2.2 discusses in depth the key health policy goals and objectives against which models of coverage regulation are analysed. Chapter 2.3 describes the derivation of the weights which are attached to each policy goal and objective in order to value different models to regulation. Chapter 2.4 describes the techniques used to subject the results to sensitivity analysis.

2.1 *Decision-making Schema*

The formal decision-making schema used combines and develops approaches used by Clemen (1996), Daniels (1996), Belton (1990) and Mabin (1999). The first study cited describes decision-making schemas for use across a wide range of policy decisions. The second is an example of how benchmarks for assessing alternative policy options can be developed and of how a formal scoring system can be applied to health care policy decision-making. The third and fourth studies develop a computer-based programme for decision-making called Visual Interactive Sensitivity Analysis (V.I.S.A.), used to summarise results and to establish how sensitive they are to different scores and weights.

Decision-making schema contribute to the analysis of models of coverage regulation in the thesis in a number of ways. They help to break a policy problem down into small parts, allowing policy makers to focus on each part separately, in order to better understand the issues at hand and to reduce the amount of information they must consider at any one point in the decision-making process. Such schema also force policy makers to be explicit about the goals and objectives they are trying to achieve. The process also makes it easier for policy makers to justify their decisions, through being able to point to a systematic analysis (Belton 1990; Goodwin and Wright 1998). Decision-making schema also identify a preferred course of action by explicitly scoring and valuing alternatives.

The schema consists of two parts. First, key health policy goals and objectives are classified as fundamental goals or means objectives (Clemen 1996). The distinction between fundamental goals and means objectives enables analysts to differentiate between the higher-level fundamental goals which societies really wish to achieve, and the lower-level means objectives which help achieve higher-level goals. Without this distinction, the real policy goals may be missed, important options for meeting goals may never be considered, and policy alternatives cannot be evaluated properly for their contribution to policy goals (Weimer and Vining 1992, p. 217).

Four health policy goals are identified as the fundamental goals for the analysis. These are:

- maximising health for the resources available (an allocative efficiency goal)
- achieving equal access for equal need (an equity goal)
- ensuring choice, and
- promoting expenditure control.

Each of these goals is argued to be ‘fundamentally’ important – that is, each is an overall goal which societies are attempting to achieve in health policy. Each is important ‘just because it is important. [Each] is one of the fundamental reasons why I care about this decision’ (Clemen 1996, p. 46). These are normative goals – ‘a reflection of human values’ (Weimer and Vining 1992, p. 218). The terms ‘policy goal’ and ‘goal’ are used throughout the thesis to identify these fundamental goals.

A range of means objectives contribute to each of the policy goals, answering the question of ‘how could you achieve this’ in relation to each goal (Clemen 1996, p. 47). Success in achieving a particular goal is multi-dimensional (Daniels, Light and Caplan 1996, p. 35), in that a number of objectives contribute to each goal. The term ‘objective’ is used throughout the thesis to identify means objectives.

The objectives which alternative models of coverage regulation are assessed against are set out as benchmarks, as in Daniels, Light and Caplan (1996). That is, the objectives act as standards which alternative models of coverage regulation must meet if they are to promote key policy goals. This approach has been used for a number of reasons. First, it reduces the analytical task, by focusing on objectives and goals which are specified in very particular ways, rather than a very wide range of objectives and goals. For example, the analysis focuses on maximising health for the resources available as the allocative efficiency goal, rather than having to analyse alternative models of coverage regulation for their support of other types of allocative efficiency (such as maximising utility). Secondly, it forces a one-off discussion of how elements of regulation coverage can contribute to particular

objectives, reducing repetitiveness in the analysis. Thirdly, the approach also forces explicitness in relation to values, which can then be openly debated.

The second part of the schema allows each model of coverage regulation to be valued according to its contribution to policy objectives and hence to policy goals. This involves a two-step process. First, using a scale from 0 to 100, individual models are scored to indicate how well they contribute to meeting a particular objective, based on the discussion of how well alternative models of coverage regulation contribute to policy objectives. Objectives are then weighted according to their importance in contributing to a particular goal (see below, Chapter 2.3). The goals are then weighted to reflect their relative importance overall, to produce an 'overall score', which summarises how well a particular model meets a composite goal made up of the four policy goals⁸.

This formal approach has been chosen for a number of reasons. First, it clearly and systematically identifies the implications that different models of coverage regulation have for key policy objectives and hence goals – a higher score implying that model makes a greater contribution to realising a particular goal or objective. The approach also clearly identifies the best model overall, which will have the highest total score. Secondly, the approach identifies the trade-offs that alternative models of coverage regulation imply in relation to goals and objectives – higher scores in relation to one objective are set against lower scores in relation to other objectives. Thirdly, the approach values these trade-offs explicitly – so that higher scores in relation to objectives of less importance do not contribute greatly to higher values overall.

⁸ A number of theoretical axioms underlie the decision-making model used here. They are: decidability (which of several options are preferred); transitivity (if A is preferred to B, and B is preferred to C, then A must be preferred to C); summation (if A is preferred to B, and B is preferred to C, then strength of preference of A over C must be greater than that for A over B); solvability (no gaps in the values an attribute can obtain); and that there are finite upper and lower bounds for value (i.e. no infinity scores). Given that the approach used here is additive, another key axiom is that there is mutual preference independence between the goals and objectives, i.e. that no goal or objective is dependent on any other goal or objective (Goodwin and Wright 1998).

Some analysts express concerns about such a formal approach – that ‘[s]imple decision rules tend to divert attention from trade-offs and the values implied in making them’ (Weimer and Vining 1992, p. 236). However, the approach used includes a detailed discussion on the benchmarks and how elements of models of coverage regulation can ideally support the achievement of key policy goals and objectives. This is combined with scores which allow a clear assessment of the impacts of alternative models of coverage regulation. A great deal of care has been taken to ensure that the analysis clarifies rather than obscures the values underlying the benchmarks. The approach therefore enables explicitness about both the philosophical values underlying the analysis and the value (measured in the scores) given to each goal and objective. It is clear then how overall conclusions about the performance of alternative models of regulation coverage are reached. This contrasts with an implicit approach in which scores and values may be hidden from view.

In particular, the approach taken recognises that decision-making in relation to coverage regulation becomes clearer to all when value judgements are made explicit. The framework, scores and weights may not be agreed on by all, but they at least provide a clear starting point for debate (Daniels, Light and Caplan 1996, p. 35).

In scoring the alternative models, a cardinal (or interval) scale of zero to 100 is used. Zero is the lowest score; 100 is the highest. The scale is a global scale, defined by reference to the worst and best conceivable options⁹ (Belton 1990). A property of cardinal scales is that the difference between a score of 10 and 20 is the same as the difference between 30 and 40, and so on. A cardinal scale is essential, given that the points allocated will be multiplied through by weights to form a final total score (or value) for each goal. Ordinal scales, which simply rank options in order, cannot be used in this way (Henderson 1984; Davidson and Tolich 1999).

⁹ This contrasts with a local scale which is defined with reference only to the alternatives under consideration, such that an alternative which scores zero (100) towards a particular objective is the alternative which does worst (best) with respect to that alternative (Belton 1990).

The scores for particular objectives and goals are weighted according to their relative importance, using a swing weights procedure (Belton 1990; Clemen 1996; Goodwin and Wright 1998). This is described in more detail below (Chapter 2.3). Although in many decision analyses weights will be derived from group discussion processes (see e.g. Mabin, Menzies, King and Joyce 1997), in this analysis, the weights are based on the author's own values.

A computer software programme is used in the thesis to obtain the weighted total scores for each objective and then goal, and to present the results visually. The programme, Visual Interactive Sensitivity Analysis (V.I.S.A.), takes the scores allocated to each alternative, weights the objectives, then sums the weighted objectives to generate a score out of 100 which identifies how well an alternative model of coverage regulation promotes a particular goal. It then repeats the process, weighting the goals and summing the weighted scores to generate an overall score (Belton 1990)¹⁰. One of the advantages of the programme is its graphic outputs, which provide clear diagrams of the scores, weights and trade-offs between objectives and goals.

¹⁰ I.e. $V_i = \sum_j (w_j * v_{ij})$, where V is the overall valuation of option i ; w_j is the weight assigned to goal j ; v_i is the score of option i on goal j . Scores for each goal are found in the same way in relation to each objective.

2.2 Policy Goals and Objectives

The four policy goals chosen for analysis are allocative efficiency, equity, choice and expenditure control. These are goals for the health care system that are commonly put forward by analysts and policy-makers:¹¹

There is general agreement that the major aims of policy in Western societies include *efficiency* in the use of resources; their distribution in accordance with *equity* or *justice*; and the preservation of *individual freedom*. (Barr 1993, p. 4, emphasis in original)

Nicholas Barr qualifies the statement made above by continuing –

These aims, however, can be defined in different ways, and may be accorded different weights. (Barr 1993, p. 4)

A range of definitions for each of the four policy goals is discussed below. Particular definitions are then chosen for this analysis, in order to reduce the complexity of the thesis. Support from both New Zealand and international policy literatures is given for the particular definitions chosen. It is recognised that if alternative definitions of each goal were chosen, the analysis would lead to different policy recommendations from those made.

Policy analyses in health care generally focus on both ‘functional’ and ‘financial’ goals. Functional goals relate to actual patterns of care – the goods and services that are produced, their quantities, their production processes and their distribution. Financial goals relate to the distribution of financial claims over goods and services across society (Evans 1984, p. 326).

¹¹ For example, reviews by Le Grand (1998), Barr (1998), Robinson (1998) use similar goals. For United Kingdom policy statements see for example Department of Health 1996. For New Zealand policy statements see for example Upton 1991; Shipley 1994; King 2000; Shipley undated; Shipley undated.

Particular emphasis is given to those goals whose realisation is likely to be affected by the adoption of different models of coverage regulation; the focus is largely on how such models contribute to functional, rather than financial, goals. Financial goals are largely excluded from the analysis because health care financing arrangements are likely to have far more impact on the achievement of financial goals than coverage regulation. In addition, an analysis focusing on financial goals would require a detailed description and analysis of how alternative health care systems are financed, i.e. a description of the complex combinations of tax, social insurance, private out-of-pocket and private insurance arrangements which countries use to finance health care. This is beyond the scope of this research.

Two aspects of financial goals are, however, directly affected by models of coverage regulation – administrative costs and expenditure control. Both are included in this analysis.

The policy goal of community voice in decision-making is not considered in depth because the contribution of different models of coverage regulation to promoting community voice depends largely on the processes and methods of consultation that are used to determine coverage (see for example Coast, Donovan and Frankel 1996). Alternative processes that may be used to arrive at an approach to coverage regulation are not considered but are an important topic for future research.

The key policy goals and objectives used in the analysis, their definitions, and the weights accorded to them, are set out below in Table 2.1 and discussed in depth in the sections which follow.

2.2.1 *Allocative Efficiency: Maximising Health Outcomes for the Resources Available*

The first key goal to which models of coverage regulation can contribute is allocative efficiency. This requires that resources are used in the best ways possible. Yet the meaning of the term is 'far from being an unambiguous notion' (Culyer 1989, p.35; see also Reinhardt 1997, pp. 17–26). An allocatively efficient use of resources in health care is one that pushes 'the volume of health care rendered patients only to the point at which the incremental benefits reaped from the last unit of health care rendered just covers the incremental cost of producing that unit' (Reinhardt 1997, p. 17). There are, however, two main ways in which 'benefit' may be defined – maximising individual utilities or maximising health – and the choice has significant implications for analyses of coverage regulation.

The distinction between utility and health maximands is often made when contrasting welfarist and extra-welfarist models to health care analyses (Culyer 1989). Welfarists argue that the key allocative efficiency goal of health systems is to maximise utility. Welfarism 'holds that standards of living, the efficiency of social arrangements and the justice of distributions and redistributions are all to be evaluated in terms of individuals' utilities', 'irrespective of the non-utility aspects of each state' (Culyer 1989, p. 50, p. 35). (See also Sen 1979.) Furthermore, individual utilities are considered to be a function only of the goods and services consumed.

Table 2.1
Key Policy Goals and Objectives

Policy Goals and Objectives (Weights, out of 100%)	Meaning
Efficiency: Maximising health outcomes (36%)	Allows consideration of the mix of services which maximises health status for the resources used
Allows national decision making	Allows society to consider whether national or regional service delivery will assist in maximising health outcomes
Allows local decision making	Allows local information, differences in local needs and hence local opportunity costs to be part of decision making
Provides coverage to those most likely to benefit	Ensures those people who are covered are those most likely to benefit from care
Offers comprehensive coverage	Incorporates comprehensive range of services, styles and characteristics of care
Promotes accountability for cost-effectiveness	Enables sponsors, intermediaries and providers to be held to account for cost-effective decision-making
Incurs low costs in administering the specification of services	Keeps administrative costs low, especially costs associated with information gathering, consultation, execution/promotion and monitoring of the specification of services
Promotes efficient supplementation	Provides information to enable fully-informed decisions on the purchasing of supplementary insurance
Provides mechanisms to manage cream skimming	Discourages intermediaries and providers from selecting the healthiest service users to cover or treat in order to reduce costs and maximise profits
Equity: Equal access for equal need (30%)	The same access is achieved for all citizens with the same capacity to benefit from health care
Offers universal coverage	Aims to ensure that all citizens have access to care
Offers comprehensive coverage	Aims to ensure that a wide range of services and styles and characteristics of care are covered, so that some groups of service users do not miss out on care
Offers uniform coverage	Aims to ensure that all citizens have access to similar packages of care
Promotes accountability for equal access	Aims to hold participants to account for the delivery of services in ways which promote the goal of equal access for equal need
Provides mechanisms to manage cream skimming	Provides mechanisms for managing cream skimming so that particular groups continue to get good access to packages and care
Choice (17%)	
Offers choice over package of care	Allows service users to choose the package of care which suits their needs and financial resources best
Offers choice over style and characteristics of care	Allows intermediaries, providers and service users to choose among a range of providers and a range of alternative techniques
Expenditure control (17%)	
Makes it possible to ration care	Provides the ability to ration care in the short term
Promotes accountability for style and characteristics of care	Provides the ability for sponsors and intermediaries to control style and characteristics of care (including thresholds) in the medium to long term

In contrast, the extra-welfarist view allows for other aspects of social states to be included as important goals in their own right (e.g., Sen 1985). An extra-welfarist approach suggests that the 'evaluation of welfare should focus on the characteristics of people' (Hurley 1998, p. 378). These characteristics can be evaluated either in preference to or in addition to utilities (Culyer 1998).

In health economics, 'the extra-welfarist approach has taken 'health' as the proximate maximand' (Culyer 1989, p. 51).¹² Indeed,

...the health sector has been particularly receptive to extra-welfarist ideas, in part because of features of health care markets that render questionable certain elements of the welfare economics framework and because the role of health care in the health production function provides greater scope for third-party judgements of welfare than is the case for many goods. (Hurley 1998, p. 375)

For this research, the focus is on 'health' as the maximand, with maximisation of health outcomes for the resources available taken as the key efficiency goal (hereafter shortened to maximising health outcomes). This follows the approach taken by many other health policy analysts (see for example Culyer 1997; Barr 1998), and reflects policy statements made in a number of countries (Upton 1991; Shipley 1994; Department of Health 1996; King 2000; New Zealand Government 2000; Shipley undated; Shipley undated).

As Culyer notes, this focus on health rather than utility allows economics 'a more useful and policy-relevant role, by virtue of the fact that [it] would be addressing issues of concern to policy- and decision-makers' (Culyer 1998, p. 367). It also accepts that in evaluating health care systems (and in this case, models of coverage

¹² Culyer also notes that maximising health outcomes contributes to a higher level goal of enabling 'people to lead flourishing lives' (Culyer 1997, p. 96). Many non-health objectives would contribute to meeting this high level goal. The contribution of maximising health outcomes to 'flourishing' is acknowledged here, but is set aside for the purposes of keeping the analysis focused on health care policy rather than wider economic and social policies.

regulation), policy-makers generally appear to view health as an important goal, as distinct from satisfying the preferences of service users:

Whether or not health status *per se* is inserted in the utility function for analytic purposes is not, however, simply an academic point. It matters a great deal for the normative evaluation of particular health services, and of the institutions and systems that produce and deliver them. Are they to be judged by their ability to contribute to health, or by their response to the preferences – as expressed, for example, in willingness to pay – of “consumers”? (Evans 1998, pp.481- 482)

Choosing ‘health’ as the maximand also allows a simpler exposition, for two main reasons. First, it allows a focus on an important policy goal – one which is very likely a key aspect of utility in the context of health services, regardless of whether a welfarist or extra-welfarist approach is taken. Secondly, it means there is less need to consider the impact of coverage regulation on other components of utility functions.

This ‘extra-welfarist’ view of allocative efficiency (as contrasted with a utility-based approach) has a number of practical implications. Culyer notes, for example, that:

Whereas the notion of ‘need’ has received a bad press from many welfarist economists, extra-welfarists have been able to use the term with some precision and confidence...health services are needed (viz. are a necessary condition for achieving a particular outcome) only if the outcome is desired and there is no alternative (or more cost-effective) way of realizing it. (Culyer 1989, pp. 50-51)

The difference between welfarists and extra-welfarists with respect to need becomes clear when the differences between wants and needs are considered. A service user who wants a particular intervention cannot be held to need it unless there is a benefit in terms of health offered by the intervention, and no more cost-effective intervention exists (Evans 1984; Culyer 1989).

Extra-welfarists also argue that:

...optimal resource use is determined by equality of marginal health output per unit of resource in various activities and across various client groups...The extra-welfarist approach therefore attaches great importance to the identification of potential for benefit. (Culyer 1989, p. 55)

In economic terms, this implies maximising the health benefits from health care services, taking into consideration the (marginal) opportunity costs of producing (marginal) health benefits. This approach requires a definition of health and means of measuring both health and the marginal health gains from services. These are clearly exceptionally difficult tasks. In recent years, however, the development of quality-adjusted life-years (QALYs), Healthy Year Equivalents (HYEs) and other measures, has moved us closer to measuring health, at least in theoretical terms. Arguments continue over the comprehensiveness of such measures, their technical properties, their moral and equity implications, and the feasibility of using them to assist in deciding whether or not more health can be obtained from the available resources (Loomes and McKenzie 1989; Gerard 1992; Gafni, Birch and Mehrez 1993; Gerard and Mooney 1993; Mooney 1994; Ashton, Cumming and Devlin 1999). However, for the purposes of the analysis presented, it is assumed that the marginal contribution to health from alternative resource allocations can at the very least be described and, in some cases, measured.

By making a distinction between the goal of maximising health and that of distributing health resources fairly, the analysis departs from some of Culyer's discussions on extra-welfarism, however. Allocatively efficient resource allocations can be associated with a number of alternative distributive ethics (Barr 1998). In extra-welfarist health analyses, one ethic is to maximise health outcomes, where a unit of health outcome is valued the same regardless of who gets it. For example, many QALY measures in supply-side efficiency studies value QALYs gained by every individual in the same way – a QALY is a QALY regardless of who gets it.

But alternative distributive ethics are possible. There is considerable research effort being put into identifying public values regarding health gains, and into establishing whether the general public believes that a QALY should be valued the same no matter who gets it, or whether health gains to some groups of people in the population might be weighted more highly than gains to other groups. The distributional consequences of weighting QALYs equally for all those who get them are likely to be very different from those where QALYs are weighted differently according to health status, age or stage in the life cycle ((Williams 1988). Moreover, the use of weighted QALYs as a measure of health may imply that policies that promote equity – ‘efforts to equalise the geographical distribution of resources, to channel more of them to the sick and more of them to the poor’ (Culyer 1989, p. 55) – might increasingly be seen ‘not as distributional policies to be justified by equity arguments but efficient policies justified by health maximization’ (Culyer 1989, p. 55), because both equity and efficiency goals would be measured in terms of weighted QALYs.

The analysis separates out allocative efficiency and equity. This simplifies analysis, reflects the current lack of ways to weight QALYs (Bleichrodt 1998, p. 332), and allows explicit consideration of trade-offs between allocative efficiency goals (maximisation of health outcomes) and equity goals (the distribution of health outcomes or services)¹³.

¹³ As Culyer notes, it is possible that an efficiency goal stated as maximising health using equally weighted QALYs may also promote an equity goal of allocating resources to those in poorer health, if those most in need stand to gain the most from health care. There will still be trade-offs, however, between allocative efficiency and equity goals if those in better health stand to gain more than those in poorer health; and if alternative geographic or other distributions differ with respect to the amount of health gain they produce overall. Similarly, As Evans notes, no trade-off between equity and efficiency exists ‘*when efficiency is used in its Paretian sense*. Nothing is given up --“traded-off”-- by a move from a Pareto-efficient point in utility possibility space to a non-efficient point, if the latter ranks more highly on the relevant social welfare function. There is an unambiguous welfare gain; that’s all. A trade-off may exist when “efficiency” is used in its more everyday, non-technical sense...trading-off total QALYs against their distribution...’. (Evans 1998, p. 466), emphasis in original.

Allocative efficiency as defined as maximising the health outcomes for the resources spent, focuses on getting the right *mix* of services for the resources available. This means, for example, delivering the right amounts of child health, maternity, mental health and medical and surgical services, according to the values society places on the health benefits offered by such services relative to their costs.

Lower-level types of efficiency – cost-effectiveness and technical efficiency – are also required in order to meet the allocative efficiency goal. These kinds of efficiency are objectives that must be met if the policy goal of allocative efficiency is to be promoted.

If the goal of maximising health outcomes for the resources available is to be attained, then a number of policy objectives which contribute to allocative efficiency must be met. With respect to coverage regulation, these objectives are: allowing national decision making; enabling local decision making; providing coverage to those most likely to benefit; offering comprehensive coverage; promoting accountability for cost effectiveness; incurring low costs in administering the specification of services; promoting efficient supplementation and providing mechanisms to manage cream skinning. The following sections discuss the relationship between each of these objectives and the goal of maximising health. Each section also discusses the relevance of the objective to evaluating alternative models of coverage regulation.

2.2.1.1 Allows National Decision Making

Policy-makers aiming to maximise health outcomes must consider the range of services that should be made available, as well as the volume of individual services, relative to their cost, that will best achieve this goal. For some services, it may be important to consider such issues at a national level. In particular, there may be significant economies of scale in production that suggest some services should be delivered at a regional or national level. Such economies of scale might occur where greater volumes of service lead to lower costs or better health outcomes than lower

volumes of service (Ministry of Health 1995; Nuffield Institute for Health and NHS Centre for Reviews and Dissemination 1996). There may also be situations where shortages of specialist skills or facilities, or a desire to evaluate emerging techniques and technologies before they become widely used, mean that a regional or national approach is more feasible, even if only in the short to medium term while training or evaluation takes place (Cumming and Cangialose 2000).

The point is that by scrutinising the range and volume of services to be delivered at a national level, the potential for gains from national or regional service delivery can at least be explicitly considered before deciding where to locate particular services. This is important even if it is found that diseconomies of scale overwhelm any economies of scale, so that it is more allocatively efficient to develop local, rather than national or regional, services¹⁴. Thus, an approach to coverage regulation that allows some decision making at a national level can contribute more towards the goal of maximising health outcomes than one that does not.

Even if national decision making processes are in place, there is no guarantee that the goal of allocative efficiency will actually be attained. Economic issues may not be considered at all in the decision making process. Also decision makers may consider that other policy goals, such as equal access for equal need, should be more highly valued than the goal of maximising health when it comes to deciding where to locate particular services¹⁵. Hence, if a model of coverage scores well in relation to this objective, it has only the *potential* to improve allocative efficiency. Empirical evidence is required to determine whether the decisions so taken do indeed consider or promote allocative efficiency (Hurley, Birch and Eyles 1995).

¹⁴ Diseconomies might result from the costs patients incur having to travel to obtain care, where in the case of serious emergencies a few minutes difference may make a big difference to health outcomes (Phelps 1997, pp. 274-275). Diseconomies might also be identified by considering the impact that transfers have on hospital costs as well as quality of care (eg, repeated tests, continuity of care) (Getzen 1997, p. 192).

¹⁵ Note that where diseconomies of scale overwhelm any economies from a regional or national approach, this reflects issues around allocative efficiency. Trade-offs between allocative efficiency and equity occur where the economies of scale overwhelm diseconomies, suggesting from an efficiency perspective that services should be regionally or nationally based.

Having and using a national decision-making process is therefore an important objective if allocative efficiency is considered to be an important policy goal. Models of coverage regulation are assessed for their contribution to this objective because some include a role for national decision making, while others do not. This was discussed in Chapter 1, where it was noted that the roles that different participants play in determining service coverage is an important contributor to one element of coverage regulation, i.e. population coverage.

2.2.1.2 *Allows Local Decision Making*

A coverage regulation framework that allows *local* decision making also contributes towards the goal of maximising health. Local decision making may promote allocative efficiency at a local level for three reasons. The first is that if values, preferences and needs differ from one community to another, then the opportunity cost associated with the delivery of a particular service will differ from one community to another. As a result, the most allocatively efficient mix and volume of services will differ in each community; and the thresholds at which professionals treat service users will also differ. For example, one community may have a high proportion of sick children in its population and value gains in child health more than another community. The community might choose to fund a high volume of child health services, reducing the volume of other services offered as a consequence. This is an efficient solution from a local perspective, even if it means that two different communities may have differences with respect to the range and volume of health services offered, and the thresholds at which treatment occurs. Secondly, local decision making is also efficient because the existence of 'tacit' knowledge about local issues may lead to a better fit between health care needs and service delivery than more centralised decision making could do. The third reason is that, in a dynamic context, local decision making may increase the availability of information and hence lead to greater learning over time (Hurley, Birch and Eyles 1995).

Like a national approach, a decentralised approach has only the *potential* to promote allocative efficiency in terms of maximising health outcomes. There may be potential benefits arising from economies of scale, the availability of specialist skills, and evaluation of new technologies, which are not considered if resource allocation decisions are only taken locally. Gains from local decision making will also depend on whether local communities differ very much from each other in terms of health needs, preferences or values and costs – the greater the similarities between communities, the fewer will be the gains from decentralisation, particularly if administration costs also rise with such decentralisation. And finally, there is no guarantee that local values or ‘tacit’ knowledge are indeed considered when local decisions are made. Hence, ‘the potential efficiency gains of decentralization...is [sic] ultimately an empirical matter that will vary from setting to setting’ (Hurley, Birch and Eyles 1995, p. 10).

Models of coverage regulation are assessed for their contribution to realising this objective because some include a greater role for local decision making than others. Alternative coverage regulation models therefore also differ in the extent to which they can contribute to the allocative efficiency policy goal.

2.2.1.3 *Provides Coverage to Those Most Likely to Benefit*

An approach to coverage regulation that promotes allocative efficiency will aim to ensure that those service users with the most to gain (per dollar spent) are indeed covered by health insurance, and, further, are those who actually do receive care. The first of these requirements is considered under the objective of providing coverage to those most likely to benefit from care; the second is considered below, under the objective of promoting accountability for cost-effectiveness.

Coverage by health insurance of those most likely to benefit is an important way of ensuring that those service users with the most to gain from health care at least have the opportunity to access care. If, for example, some groups of people with much to

gain from health care are excluded from coverage, and do not access care, then health care resources could be reallocated to improve overall allocative efficiency.

In practice, most countries ensure coverage of those most likely to benefit, and they do so through universal health insurance programmes. As discussed in Chapter 1, universality is promoted through a range of regulatory policies, especially policies that ensure health cover is available to all citizens and that reduce the extent to which willingness and ability to pay affect coverage. Other regulatory policies include requirements for intermediaries to take all those who apply for coverage, premium regulations, limits on pre-existing condition exclusions, and so on (Cumming 2000). As a result, health insurance programmes offer coverage to those who, in a market insurance model, might not choose to purchase, or might not be able to afford, coverage. Moreover, they are the very people who are likely to have high health care needs and who benefit greatly from coverage and access to care.

This objective is defined as requiring that those with the most to gain are those who are offered coverage as a priority. In a strict sense, the efficiency objective requires that *only* those with the most to benefit are those who are covered by health insurance. It is possible to imagine, however, that universal coverage, as opposed to targeted coverage, might promote allocative efficiency provided that resources are allocated to maximise the benefits of health care. Thus, many small health gains across a wide range of service users can be viewed as just as valuable as a small number of large gains across a few service users (if a unit of health gain is assessed as being of equal value no matter who receives it). This may partially explain why in practice many countries offer universal coverage rather than targeted health insurance. The focus however is on coverage of at least those with the greatest ability to benefit.

Of the seven countries studied, only the United States ensures less than universal coverage. Those on very low incomes are covered by Medicaid policies, while the elderly and people with disabilities are covered by Medicare policies. But many low-to-middle income people in the United States have no formal insurance coverage. They are, however, covered for some care through being able to access

state-owned and other charitable services, albeit care that will not be of the same quality as that offered to those with formal insurance.

2.2.1.4 Offers Comprehensive Coverage of a Range of Services and Styles of Care

Comprehensive coverage of a range of services and styles and characteristics of care also works to promote the goal of maximising health. In relation to the range of services offered, if a group of services is excluded from coverage, the health outcomes those services are capable of delivering are excluded from decisions about which mix of services actually delivered will maximise health outcomes. For example, as noted in Chapter 1, mental health services are often excluded from coverage in the United States; the Canadian publicly-financed health care system does not cover pharmaceuticals; and in New Zealand, groups of services such as dental care and optical services are largely excluded from coverage in the principal insurance system. In each case, these services' contribution to health may well be valued highly, but the health outcomes they produce cannot be included in decisions about the best mix of services to make available to service users through their principal insurance coverage.

In relation to styles of care, if particular styles are excluded from coverage, for reasons which are unrelated to cost-effectiveness, then it becomes more difficult for a health care system to promote allocative efficiency. It may be more cost-effective for example to encourage service users to receive care in the home rather than in hospital, or to employ nursing staff rather than doctors to offer primary care services. Davis et al cite the example of patients with endocarditis (an infection of the heart valve), where traditionally patients had four to six weeks of in-hospital intravenous antibiotics. New equipment enabled service users to return home earlier and complete the course of treatment at home. This is likely to be cost-effective where service users are able to administer the therapy themselves. Yet at the time United States Medicare policy did not cover the costs associated with outpatient follow-up visits, reducing the incentives on service users and providers to offer such

care (Davis, Anderson, Rowland and Steinberg 1990, p. 205). In New Zealand, the style of care available is also somewhat limited by the allocation of fee-for-service payments for primary care largely to GPs only. This is widely regarded as resulting in inefficiencies (Coster and Gribben 1999; Crengle 1999; Cumming 1999; National Advisory Committee on Health and Disability 2000), and moves are currently underway to move more GP practices towards capitation, partly to encourage alternative, and more cost-effective, styles of care (King 2000). However, in making coverage decisions which aim to promote allocative efficiency, care does need to be taken that the styles of care being offered are indeed cost-effective (Godber, Robinson and Steiner 1997; Godber, Steiner and Robinson 1997)¹⁶.

Coverage regulation models differ in the range and styles of services they cover. Hence, the alternatives differ in the contribution they will make towards the goal of allocative efficiency. Those arrangements that offer a more comprehensive range of services and styles of care have greater opportunities to promote cost-effectiveness.

Of course, policy makers may consider that a particular range of services or styles of care do not represent a cost-effective use of resources under any circumstances. The contribution to allocative efficiency of non-comprehensive coverage regulation must therefore be considered by asking whether there is evidence that cost-effectiveness is a key reason that particular services have been excluded from coverage. In many cases, however, this evidence will be difficult to come by – often because coverage decisions have been made long ago, and the reasons for them can no longer be recalled. But there are some recent examples where policy makers have tried to remove specific services from coverage, on grounds related to cost-effectiveness. For example, in the 1990s, a number of United Kingdom Health Authorities proposed not to offer in-vitro fertilisation, largely because such procedures can have low rates of effectiveness (Klein and Redmayne 1992; House

¹⁶ This is not helped where the evidence on such cost-effectiveness is limited and is often of poor quality. The evidence which does exist does not always show that home-based services or nursing services are indeed more cost-effective than their hospital and GP alternatives (Godber, Robinson and Steiner 1997; Godber, Steiner and Robinson 1997).

of Commons Health Committee 1994-95). A government-appointed committee in the Netherlands proposed a framework for assessing priorities, based in part on cost-effectiveness (Government Committee on Choices in Health Care 1992), which Netherlands' governments then employed to try to remove services from coverage (Mulder 1995). Similarly, the Oregon decision-making process included consideration of effectiveness in developing the list of services covered under the Medicaid programme (Oregon Health Services Commission 1991). In other cases, governments have attempted to extend coverage to particular services or styles of care, where cost-effectiveness is a reason given for such decisions. Nurse prescribing in New Zealand is a good example (Ministerial Taskforce on Nursing 1998; Ministry of Health 2001, 11 October).

The issue of comprehensive coverage and its contribution to allocative efficiency is particularly relevant when considering coverage decisions within a particular set of policy arrangements. For example, New Zealand has both publicly- and privately-financed health care arrangements. Often, intermediaries and providers will make decisions about the style of care to offer a service user on the basis of the range of services available in the publicly-financed health care sector. In order to promote cost-effectiveness, the publicly-financed health care sector would therefore seem to need to offer a comprehensive range of services. Otherwise the coverage offered by that sector is not necessarily working to promote allocative efficiency.

It would seem possible, however, for coverage across both the publicly- and privately-financed sectors to jointly promote comprehensiveness where there is complementary private insurance. Whether or not this promotes overall cost-effectiveness will depend on arrangements in the complementary insurance sector. The better the access to such insurance, the greater ability there may be for intermediaries and providers to offer care without having to consider how it is financed. On the other hand, such distinctions in financing arrangements also raise the potential for cost shifting, which in some instances may promote overall cost-

effectiveness, but in others may not (Cumming 2000)¹⁷. Furthermore, even where the total range of services available across the publicly- and privately-financed sectors is comprehensive, this does not necessarily promote cost-effectiveness if intermediaries and providers make coverage and service delivery decisions by choosing only between those options available in one sector.

2.2.1.5 *Promotes Accountability for Cost-effectiveness*

For a coverage regulation framework to promote allocative efficiency, it must also promote two lower-level forms of efficiency – cost-effectiveness and technical efficiency. Cost-effectiveness is achieved where a given amount of output or outcome is produced at minimum cost; and technical (or production) efficiency is achieved where a given amount of output is produced using the minimum amount of input (Culyer 1991). Assessment of cost-effectiveness should take into account effectiveness (i.e., effect on health outcomes), technical efficiency (i.e., production using minimum amount of input), and cost.

A good coverage regulation arrangement will enable decision makers to consider the relative cost-effectiveness of services, and to identify any services or ways of delivering services that do not contribute to desired health outcomes. By removing cost-ineffective services from coverage, or changing the way they are delivered, resources can be freed up and made available for services that offer greater health benefits.

¹⁷ As examples, reduced cost-effectiveness may result where service users are admitted to hospital, where care is covered, rather than writing an expensive prescription, which is not covered. Or service users may be admitted to hospital for a minor operation, because the GP is not funded to undertake such an operation. Improved cost-effectiveness may occur if accident and emergency departments in public hospitals shift costs by refusing to see some people who might more efficiently be seen by their GPs, where GP care is not covered by insurance but accident and emergency services are.

Any approach to coverage regulation that aims to promote allocative efficiency should therefore *formally* provide the opportunity for services and delivery methods to be evaluated with respect to cost-effectiveness. In addition, it is also important that intermediaries and providers be held to *account* for the delivery of cost-effective services. This involves not only identifying which services are cost-effective, but auditing intermediary and provider practice to ensure that cost-effective services are delivered. This is a demanding objective. For example, it is more demanding than an objective where information on cost-effectiveness is required to be made available or where intermediaries and providers are asked to consider cost-effectiveness in making health care service delivery decisions. The strength of this objective reflects a judgement on the author's part that without a formal process for considering cost-effectiveness, and without a process that holds intermediaries and providers to account for cost-effectiveness, it is unlikely that intermediaries and providers will ensure that cost-effectiveness is indeed achieved. This is likely for a number of reasons.

One reason relates to the effectiveness of health care services. Much health care has not been shown to be effective in maintaining or improving health. It is argued that large numbers of procedures have never been proven to be effective (Institute of Medicine 1985; Smith 1991). In the mid-1980s, the United States Congressional Office of Technology Assessment estimated that only around 10-20 percent of practices were supported by randomised controlled trials, the gold standard of medical research methods with respect to efficacy (U.S. Congress Office of Technology Assessment 1978). Trials have 'overturned some common beliefs', such that 'there has been a gradual but persistent movement to require documentation beyond the testimony of experts and the existence of a consensus, and to require empirical evidence of benefit before recommending that a treatment be used' (Eddy 1993, p. 521). Many of the services currently offered through health care systems may therefore be ineffective in improving health – and hence be a waste of resources. (See for example guidelines developed by the New Zealand Guidelines Group which make recommendations on when treatment is and is not appropriate; <http://www.nzgg.org.nz>.)

Another reason is that researchers have consistently found very wide variations in patterns of medical practice, both within and between countries (Wennberg and Gittelsohn 1973; Roos and Roos 1981; McPherson, Wennberg, Hovind and Clifford 1982; Wennberg and Gittelsohn 1982; Roos 1983; Wennberg 1984; Chassin, Brook, Park, Keeseey, Fink, Kosecoff, Kahn, Merrick and Solomon 1986; Paul-Shaheen, Clark and Williams 1987; Roos, Montgomery and Roos 1987; Ham 1988; Volinn, Turczyn and Loeser 1994). Such variations are generally found to be unrelated to health needs as proxied by socio-demographic factors or measures of morbidity. Overall, many variations in health care utilisation remain unexplained¹⁸. These variations are worrying because many analysts have argued that much of the observed variation may be closely related to individual or group physician uncertainty about diagnosis and appropriate treatment. Where physicians are uncertain, and where a wide range of physician practices are considered to be within the bounds of appropriate care, then there is little consensus and a wide range of practice styles can develop (Folland, Goodman and Stano 1997). In order to eliminate inappropriate variations, it is often argued that we need to improve our knowledge about outcomes (Wennberg, Bunker and Barnes 1980).

Variations may also be evidence of unnecessary or inappropriate care (Folland, Goodman and Stano 1997, p. 220). One United States study in the early 1980s found substantial rates of inappropriate use¹⁹ (Chassin, Kosecoff and Winslow 1987), and when the researchers examined rates of inappropriate use in previously

¹⁸ Some researchers have demonstrated that due to random variation the observed variation across small areas can be high even when the underlying rates across the areas are the same (Diehr, Cain, Connell and Volinn 1990), while others have found that the variations are reduced if more than one year of data is analysed (Schwartz, Ash, Anderson, Iezzoni, Payne and Restuccia 1994). A review of the multiple regression studies shows that moderate to substantial amounts of the inter-area variations are typically explained ((Folland and Stano 1989; Folland and Stano 1990) Several studies have found that socio-economic variables are important in explaining variations in aggregate measures of utilisation for small area hospital service markets (ie weighted average of many procedures); see (McLaughlin, Normolle, Wolfe, McMahon and Griffith 1989; Clark 1990) But at the small area level for individual procedures, the research has generally been less successful at explaining the variations. Phelps and Parente (1992) and Phelps and Mooney (1990) found that standard demand and supply variables account for between 40 and 75 percent of the variation in a study of 134 separate diagnostic categories. Escarce (1993) found that 43 percent of the variation in cataract surgery rates for the Medicare population is explained by economic and socio-demographic variables. This still leaves a potential 57 percent that may be due to other factors.

¹⁹ 17 percent of all angiographies and GI endoscopies; 32 percent of endarterectomies, according to experts' judgements (Chassin, Kosecoff and Winslow 1987).

identified areas of high, average and low use of such procedures, they found no systematic differences among them. As a result, it was concluded that we cannot safely infer relative rates of unnecessary use, across regions, from relative rates of use (Evans 1990).

This extensive evidence of the absence of any firm connection between what is done and what can be shown to be 'needed' undermines the argument that the latter is tightly linked to the former –

It is becoming evident that...highly significant variations in treatment methods seem to be the rule rather than the exception in medical care. The scientific basis of many prevailing medical interventions is to a large extent inadequately developed, and many common treatments have been launched without ever having been subjected to thorough scientific evaluation....What may – seen from one perspective – appear to be a unified brotherhood turns out to be diversified into a wide variety of subgroups with highly different practice styles for reasons that, while remaining somewhat obscure, appear not to be explicative in medically scientific terms. (Andersen and Mooney 1990, pp. 2-3)

As a result,

...to control costs, without arbitrarily reducing access to care or lowering the quality of care, we will have to know a lot more about the safety, appropriateness, and effectiveness of drugs, tests, and procedures and the way care is provided by our medical care institutions and professional personnel....We can no longer afford to provide health care without knowing more about its successes and failures. The Era of Assessment and Accountability is dawning at last. (Relman 1988, p. 1221)

A number of attempts have been made to encourage providers to offer only those services that are effective. Internationally, current mechanisms include systematic reviews of evidence (e.g., through the Cochrane Collaboration); dissemination of

reviews and guidelines²⁰ (e.g., through the NHS Centre for Reviews and Dissemination in the United Kingdom); and various forms of financial incentives, especially capped budgets or capitation payments, which, it is hoped, will encourage intermediaries and providers to consider effectiveness and cost-effectiveness when designing benefit packages or making decisions about how to treat a particular service user. In New Zealand, a number of clinical guidelines have been produced to encourage effectiveness and cost-effectiveness (e.g., those produced by the Core Services Committee/National Health Committee, continuing through the New Zealand Guidelines Group, as <http://www.nzgg.org.nz>), while increasingly GPs are being encouraged to move from fee-for-service payments to capitation (King 2000).

There is almost no evidence that can shed light on whether particular financial incentives such as capitation on their own are sufficient to lead to cost-effective care. Moreover, there is always the potential for payment mechanisms such as capitation to promote under-servicing or poor quality care. Some studies have evaluated the impact of financial incentives on the quantity and type of services delivered (Chaix-Couturier, Durand-Zaleski, Jolly and Durieux 2000; Gosden, Forland, Kristiansen, Sutton, Leese, Giuffrida, Sergison and Pedersen 2001). But few studies have considered the impact on quality of care and health outcomes; and even then, the limited evidence on what type of care is cost-effective makes it difficult to judge whether service delivery is indeed promoting cost-effective care. Research into managed care in the United States comes closest to suggesting that capitation (in this case in relation to HMOs) does not usually lead to worse care than in fee-for-service arrangements. Such research also suggests that in some cases

²⁰There are difficulties, however, in developing guidelines in order to provide information to providers of health care services. These include difficulties in – measuring health outcomes; getting agreement about precisely what the objectives are; setting up good studies, which are time-consuming, costly and sometimes unethical; and in ensuring that the results of studies are produced in a timely way (Culyer 1983). Questions remain over how much and what type of evidence is needed to provide sufficient evidence, and whether the burden of proof should favour not doing things which have not been proven as effective or continuing to do things until they are proven to be ineffective (Eddy 1993).

the care offered is better (Miller and Luft 1994; Miller and Luft 1997; Robinson and Steiner 1998).

Practice guidelines are increasingly suggested as a way to encourage cost-effective practice. A 1994 review found that guidelines can change clinical practice and affect outcomes for service users; but that the methods of development, implementation and monitoring of guidelines have implications for the likelihood of providers adhering to them. In particular, the review identified 11 desirable attributes of clinical guidelines and noted that 'implementation strategies which are nearer the end user and more integrated into the process of health care delivery are most likely to be successful' (Nuffield Institute for Health, Centre for Health Economics, NHS Centre for Reviews and Dissemination and Research Unit 1994, p. 3). Others have concluded that compliance with guidelines cannot be assumed²¹.

Caper (1988, p. 1535) suggests in relation to United States physicians that 'as fast as regulations and review protocols are written physicians learn to circumvent them, resenting the intrusion into their clinical autonomy'; while Berg notes that 'even if medical personnel are aware of their existence and "use" them, protocols are often circumvented, tinkered with, and interpreted in many different ways' (Berg 1997, p. 1082).

Studies examining factors such as familiarity with, confidence in and attitudes towards practice guidelines confirm that guidelines are a contentious issue (Grol 1990; Grilli and Lomas 1994; Tunis, Hayward, Wilson, Rubin, Bass, Johnston and

²¹ Grilli and Lomas (1994), reviewing the findings of 23 English language studies, report a mean compliance rate of 54.5% with clinical guidelines. In a recent study of hospital acquired infections across 19 hospitals in the United Kingdom, Glynn et al (1997) report that recommended methods were more likely to be followed if they were in a hospital's formal policy (54%) than if they were not (35%). Mayor and Eaton (1992) found that although most anaesthetists in Britain and Ireland were aware of and had read the equipment checking guidelines produced by their professional body, few actually followed them. Forty-one percent of anaesthetists performed inadequate checks in spite of believing that the checks would improve safety. Lomas et al (1989) in a study of the practice of obstetricians in Canada concluded that guidelines appear to predispose physicians to consider changing their behaviour but do not have a rapid effect on actual behaviour.

Steinberg 1994). In one study, there was general concern that flexibility in practice should be preserved; that providers need to be able to tailor care to the needs of the individual, including to service user choice; and that rigid guidelines may stop lateral thinking, resulting in the stifling of progress. The authors of this study also note that there are pressures to introduce guidelines, but these are in general being resisted as there is a perception that they will restrict clinical practice, and that in many clinical areas there is not good proof that a variety of different treatments are not equally applicable (Lawton and Parker 1999). Thus, Berg, for example, notes four potential problems with protocols – the tendencies for them to perceive and describe medical action as an individual, formally rational process; to contribute to the widespread illusion of the single answer; to contribute to the loss of importance of information and interventions which are difficult to explicate or quantify; and to lead to increasing bureaucratisation and regulation of health care practices (Berg 1997).

On the other hand, on the strength of evidence of variations in practice and of inappropriate care, it has been argued that ‘a key to improving quality...is for health care commissioners to stop purchasing activity and to begin purchasing evidence-based protocols. Purchasing procedures or even packages of care guarantees nothing about the expected content and scientific basis of those services, whereas when a protocol is purchased we know that, if it is followed, the most effective set of actions will be taken’ (Sheldon and Borowitz 1993). A recent White paper for Health in the United Kingdom has also advocated the use of guidelines as a means for improving quality of care and cost-effectiveness (Kleijnen and Bonsel 1998; Secretary of State for Health 2000).

Difficulties in measuring outcomes also suggest that accountability for service delivery is more appropriate than accountability for outcomes (Cumming and Scott 1998). Thus, the focus of this thesis on specifying services was noted in Chapter 1 (see Chapter 1.3.2). Here it has been noted that the development of guidelines or protocols offers some scope for holding participants to account for the delivery of care. In the extreme, the regulation of coverage can include the development and specification of guidelines or protocols that provide a detailed service specification,

with the aim of holding participants to account for the delivery of only those services which are assessed as being effective or cost-effective. This may go as far as specifying coverage in terms of inputs, for example in relation to the individual characteristics of service users that are known to be related to health outcomes. This is the approach being developed in New Zealand for assessing need and benefit in elective surgery.

To be successful, guidelines must be developed in ways that encourage their use, and there will always be limits on how many guidelines can be produced. But, the more a particular coverage regulation arrangement is able to hold funders, intermediaries and providers to account for cost-effectiveness through detailed service specification, the more likely it is that resource allocations will indeed promote the maximisation of health outcomes for the resources available. Thus, an important objective for coverage regulation frameworks that aim to promote allocative efficiency is that they promote participants' accountability for cost-effectiveness. Although not all analysts and professionals will agree with this stance, it is the author's view that holding participants to account for cost-effectiveness is an important step in promoting an efficient allocation of resources. It may be difficult to achieve in practice and it may be costly to achieve for all services, but our attention should be being drawn to ways in which we can not only encourage more cost-effective practice but also hold intermediaries and providers to account for cost-effective practice. Without such aims, resources will continue to be wasted.

As a final point, the goal of promoting allocative efficiency not only requires the delivery of cost-effective services, but also that intermediaries and providers be held to account for delivery of services first to those service users with the most to gain from health care (see the discussion above on coverage of those most likely to benefit).

2.2.1.6 *Incurs Low Costs in Administering the Specification of Services*

Achieving administrative efficiency is a further objective that contributes to the goal of maximising health outcomes for the resources available. Administrative efficiency occurs at a point where the gains from a marginal increase in administration are assessed as being valued exactly equal to their costs. In this analysis, the administrative costs of each approach to coverage regulation are assessed, with those incurring low administrative costs scoring more highly than those approaches with higher costs. Low administrative costs are being argued to contribute positively to allocative efficiency, because, for any fixed level of expenditure, coverage regulation arrangements with lower administrative costs allow more resources to be spent on services. This may be viewed as an inappropriate objective (Evans 1990, p. 115) in that it does not focus on the marginal costs and benefits associated with administrative expenditure. However, models are also scored in relation to other objectives to which administrative expenditure might contribute (in particular, accountability objectives). Therefore, the administrative efficiency of the overall model is assessed by considering the trade-offs between administrative costs and the other objectives to which more spending on administration might contribute.

Assessing administrative efficiency in health care involves measuring a broad range of activities. Coverage regulation arrangements particularly affect the administrative costs associated with making decisions on and specifying service coverage. These are costs involved in gathering, interpreting, consulting on and disseminating information, and in monitoring service delivery. These costs are the focus of this thesis. Other administrative costs – for example, those associated with internal management, and transactions between organisations – are not particularly affected by different kinds of coverage regulation, and so are not covered here.

2.2.1.7 *Promotes Efficient Supplementation*

In many countries, service users make financial contributions for health care insurance in various ways – through taxation and social insurance, through out-of-pocket payments, or through private insurance. There is often a difference between the care offered in principal system and that offered via out-of-pocket payments or via a system that allows service users to purchase supplementary insurance. Some kind of ‘wall’ (Reinhardt 1997) therefore often exists between principal, out-of-pocket and supplementary systems.

Some coverage regulation models may better meet allocative efficiency goals by permitting greater clarity about the nature of the ‘wall’ between principal and supplementary coverage. The more coverage regulation contributes to information about the ‘wall’, the more efficient supplementation or movement between financing arrangements is likely to be. This is because service users will be able to clearly identify the circumstances under which they obtain care in any one system. Thus, the purchasing of supplementary care or insurance and the movement between systems can be considered in relation to the relevant costs and benefits. The better the information, the less under- and over-insurance (or purchasing of health care through out-of-pocket payments) occurs. Under-insurance may arise because service users over-estimate the care or coverage that is available under a principal system, and do not choose to obtain additional care or insurance in the belief they will be covered by the principal system when in fact they are not. Over-insurance may arise because of the opposite effect – service users under-estimate the care or coverage available in a principal system, and purchase additional care or coverage when they need not.

Efficient supplementation therefore contributes to the goal of maximising the health of the community by ensuring that no more or less resource is put into the supplementary sector than is desired relative to the benefits from doing so. In relation to coverage regulation, the key issue is whether the particular model in the principal system provides users with sufficient information for the purchasing of gap, supplementary and complementary insurance.

2.2.1.8 *Provides Mechanisms to Manage Cream Skimming*

A coverage regulation framework that provides mechanisms to manage cream skimming will also promote allocative efficiency. Cream skimming occurs when intermediaries or providers – either deliberately or by chance – enrol a mix of members favourable to the insurer's interests, i.e. those with a lower risk of making a claim or needing care than the average person. (Strictly speaking, for the average person within any broad risk pool, e.g., within any particular age-gender pool.) It is a particular problem where there are capitated or fixed²² payments, or inadequately risk-adjusted premiums, paid to intermediaries and providers, where there is competition between intermediaries and providers to enrol or provide care to service users, and where there is an opportunity for intermediaries and providers to make profits/surpluses by selecting service users, because premiums or payments for an individual's care do not necessarily equate with *ex ante* or *ex post* financial risk.

Cream skimming has been found to offer the potential for large profits in both the United States and the United Kingdom (Newhouse, Manning, Keeler and Sloss 1989; van Vliet and van de Ven 1992; Matsaganis and Glennerster 1994; van de Ven, van Vliet, van Barneveld and Lamers 1994). In the United States, for example, insurance statistics consistently show that around 35 percent of people purchasing health insurance will not file a claim in the following five years, while around five percent account for more than 50 per cent of health expenditures in the same period

²² In much of the literature, it is assumed that cream skimming is a particular problem with capitation payment systems which are combined with formal enrolment arrangements and competition between providers or intermediaries. However, it is the view of this author that cream skimming – the result of which is that more low risk people enrol with or obtain care from a particular intermediary or provider – can also result where there are fixed fee-for-service payments. This includes diagnostic related group payments and general medical subsidy payments, where providers receive a fixed fee which is invariant to some degree to severity or intensity of care required. Fixed fee payments may encourage intermediaries and providers to define service coverage in ways to discourage particular service users from signing up or using services, and may encourage under-servicing. (For examples of such behaviours in respect of United States Medicaid see Davis, Anderson, Rowland and Steinberg 1990, p. 222.) With capitation, however, the incentives may be greater to cream skim in that intermediaries and providers no longer have the opportunity to encourage a higher number of visits in order to offset higher costs associated with particular service users.

(Alpha Center 1997). Similarly, in the United Kingdom Glennerster et al found in their study of one GP fundholder that the entire fund was expended on 27 per cent of the patients, with the most expensive five patients taking 68 per cent of the expenditure (Glennerster, Matsaganis, Owens and Hancock 1994).

It is, however, very difficult to prove that cream skimming is occurring. There is anecdotal and research evidence that cream skimming occurs frequently in the United States (Newhouse, Manning, Keeler and Sloss 1989; van Vliet and van de Ven 1992; Matsaganis and Glennerster 1994; van de Ven, van Vliet, van Barneveld and Lamers 1994), but little more than anecdotal evidence of its occurrence in the United Kingdom, even with a move towards general practice fundholding (Glennerster, Matsaganis, Owens and Hancock 1994; Audit Commission 1996; Le Grand, Mays, Mulligan, Goodwin, Dixon and Glennerster 1997)²³. The United Kingdom experience, particularly with GP fundholding, is in part explained by researchers as a result of: generous budgets, GPs not being at personal financial risk, stop-loss provisions (Le Grand, Mays, Mulligan, Goodwin, Dixon and Glennerster 1997), and the use of historical budgets rather than pure capitation rates to set budgets (Audit Commission 1996). A further explanation could be related to professional codes of ethics, yet it has been argued that although medical ethics may offer a 'powerful defence against cream skimming....reliance on medical ethics alone would be ill-advised' (Glennerster, Matsaganis, Owens and Hancock 1994, p. 162).

Cream skimming can result in diminished incentives for technical efficiency and cost-effectiveness, and hence allocative efficiency. This occurs for three reasons. First, if intermediaries and providers are able to segment the market, they thereby reduce the likelihood of service users switching intermediaries and providers

²³ Recent research has found evidence of an increase in the proportion of patients removed from GP fundholders' registers in Northern Ireland at general practitioners' requests. Comparisons were made with removals prior to fundholding and with non-fundholders. This may be a means of cream skimming; equally it may be related to the additional workload and pressures of fundholding (O'Reilly, Steele, Merriman, Gilliland and Brown 1998).

because of differences in price. Secondly, cream skimming is likely to be more profitable than promoting efficiency and cost-effectiveness, and may allow intermediaries and providers who successfully engage in cream skimming to earn above-normal profits, while others face considerable losses. In other words, 'health plans offer their products knowing that the health or sickness of the people they sell to will have a greater impact on their annual per capita costs than any changes they can make to improve the efficiency of health care delivery' (Alpha Center 1997). Thirdly, good intermediaries and providers may go out of business if they are unable to provide good quality care because they have a poor mix of members (Cumming 2000).

It is argued that a standard package of benefits is one policy mechanism necessary to reduce opportunities for cream skimming, particularly in a competitive environment (see, e.g., Enthoven and Kronick 1989; Enthoven 1993; Enthoven and Singer 1995). Such a package has been a key policy recommendation in proposals for managed competition in the United States, the Netherlands and New Zealand (Enthoven and Kronick 1989; van de Ven 1990; Upton 1991; The White House Domestic Policy Council 1993; White 1995). If coverage regulation arrangements are to promote allocative efficiency, it is important to consider whether they specify a package or packages of care and whether they work well to manage cream skimming. This thesis therefore establishes how various models affect the ability of intermediaries and providers to cream-skim. It goes further than previous published analyses, which have tended to focus only on the general issues associated with specification. In particular, the thesis considers how much detail is necessary to incorporate into a service specification to remove opportunities for cream skimming, and discusses in depth the trade-offs with other policy goals that such explicitness might entail.

2.2.2

Equity: Equal Access for Equal Need

Economists and health policy-makers are interested in allocating resources not only efficiently but also equitably. Wagstaff et al and van Doorslaer et al report on the equity goals that a number of European countries espouse (Wagstaff, van Doorslaer and Rutten 1993; van Doorslaer, Wagstaff, van der Burg, Christiansen, Citoni, Biase, Gerdtham, Gerfin, Gross, Hakinnen, John, Johnson, Klavus, Lachaud, Lauritsen, Leu, Nolan, Pereira, Propper, Puffer, Rochaix, Schellhorn, Sundberg and Winkelhake 1999; Wagstaff, van Doorslaer, van der Burg, Calonge, Christiansen, Citoni, Gerdtham, Gerfin, Gross, Hakinnen, Johnson, John, Klavus, Lachaud, Lauritsen, Leu, Nolan, Peran, Pereira, Propper, Puffer, Rochaix, Rodriguez, Schellhorn, Sundberg and Winkelhake 1999). New Zealand governments in the past decade have also had explicit equity as well as efficiency goals in health care (Upton 1991; Upton 1992; Shipley 1994; Ministry of Health 1996; The Treasury 1996; King 2000; King 2000; New Zealand Government 2000; Shipley undated; Shipley undated). Equity is therefore one of the key policy goals considered in this analysis.

Equity is distinguished in the economics literature from altruism, the latter being based on preferences and so considered as a part of the efficiency goal (Culyer 1980; Mooney 1986; Culyer 1989; van Doorslaer, Wagstaff and Rutten 1993; Rice 1998, p. 145). Equity, rather, is about social justice in relation to the distribution of resources²⁴, i.e. derived from 'a set of principles concerning what a person ought to have *as of right*' (Wagstaff, van Doorslaer and Rutten 1993, p8), emphasis in original), where 'the whole point of making a judgement about justice is so to frame it that it is (and can be seen to be) a judgement made independently of the interests of the individual making it' (Culyer 1980, p. 60).

Equity may be analysed in a number of ways. First, it can be considered in terms of both financial and functional goals (Evans 1984; Wagstaff, van Doorslaer and Rutten 1993). As noted earlier, the financial goals are not considered in this analysis

(see Chapter 2.2 above). In terms of functional goals, equity can be defined as equal access to care, equal utilisation of health care or equal outcomes. There has recently been a considered debate as to which concept of equity is the more appropriate policy goal in health care (Mooney, Hall, Donaldson and Gerard 1991; Mooney, Hall, Donaldson and Gerard 1991; Culyer, van Doorslaer and Wagstaff 1992; Culyer, van Doorslaer and Wagstaff 1992; Culyer 1993; Mooney 1994; Culyer 1995; Culyer no date). A similar debate has taken place in New Zealand over the past few years (see Ashton, Cumming and Devlin 1999; Ashton, Cumming and Devlin 2000).

The equity goal is defined as equal access for equal need, where need is taken to mean capacity to benefit. The reasons for this choice are threefold. First, this is the equity goal that has most consistently been promoted in New Zealand policy documents. More recent health care policy statements also include a goal of equal outcomes for Māori (Shipley 1994; Shipley undated; Shipley undated), while the Labour-Alliance government elected in late 1999 also espouses the goal of reducing disparities in health (King 2000; King 2000; New Zealand Government 2000). However, the equal access goal appears to be the most consistently advocated equity goal in New Zealand. Secondly, this interpretation of equity avoids the need to consider policy recommendations associated with having the goal of equal health outcomes, such as spending large amounts to achieve the goal (Mooney 1994), or tightly targeting resources to those with the poorest health status, a policy which would no doubt be regarded as unfair. Finally, equal access for equal need appears to be the most relevant goal to coverage regulation frameworks, which usually aim to provide coverage for services – a policy goal of equalising health outcomes would not appear to be consistent with those models that specify a range of services to which most citizens should have access. Aspects of the equal outcomes goal are represented in the thesis, however, through the allocative efficiency goal of maximising health, rather than through the equity goal.

²⁴ Theories of social justice also consider procedural issues. These are not considered here.

Equity takes two main forms. Horizontal equity requires equal treatment of equals, i.e., that service users with similar needs obtain similar access. Vertical equity (unequal treatment of unequals) requires that service users with different levels of needs obtain differing levels of access. With vertical equity, it is however unclear how 'different' access needs to be to satisfy such a goal (Cullis and West 1979; Wagstaff, van Doorslaer and Rutten 1993). Much of the analysis here focuses on horizontal equity rather than vertical equity, which is considered to be beyond the scope of this thesis, requiring additional research in the future.

The equity goal as framed here incorporates within it the concept of access. Access is usually considered in relation to availability, cost (price of care, and the cost of accessing care, including for example travel costs, time off work or childcare costs), distance, waiting time and cultural acceptability (see also Penchansky and Thomas 1981). The focus of this thesis is on two aspects of access – service coverage, which is just one component of availability, and waiting time. This is not to say that the other components of access are not important. Rather the focus on two aspects of access allows a simpler exposition and analysis. Further research requires more detailed consideration of the ways in which coverage regulation impacts on other aspects of access.

The concept of equity used here also includes consideration of 'equal need'. As noted by Gillon, the 'allocation of medical resources on the basis of non-medical merits is widely regarded as repugnant', whereas the principle of distribution according to need has widespread support amongst physicians and others working in health care (Gillon 1986, p. 97). Need is here defined as the 'ability to benefit'. This is a common approach in the economics and health policy literatures (Williams 1978; Evans 1984; Culyer and Wagstaff 1991; Culyer, van Doorslaer and Wagstaff 1992; Culyer, van Doorslaer and Wagstaff 1992; Culyer and Wagstaff 1992; Mooney 1994; Barr 1998). It has also been promoted by policy makers in New Zealand as the key definition of need (Shipley 1994; Health Funding Authority 1998; Health Funding Authority 1998; Shipley undated; Shipley undated). It is preferable to considering 'need' as ill-health, which fails to consider whether any

service actually exists to alleviate such a need, and which does not entertain the possibility that those who are not ill do not have health care needs (Culyer 1989).

As noted above (Chapter 2.2.1.3), the allocative efficiency goal of maximising health is promoted by the objective of making sure that those with the greatest needs are covered by insurance. The equity goal as defined here also relates to the allocative efficiency goal as both require resources to be allocated partly on the basis of capacity to benefit. However, allocative efficiency and equity goals as defined here may conflict, if, for example, the resources used to improve equity could be used instead to generate significantly greater gains in health outcomes. Moreover, the access objectives that contribute to the allocative efficiency goal are closer to a targeted approach to health care than the equity goal, as the resources might only be spent on those with the highest needs in the allocative efficiency case, but be more widely spread over service users in order to meet the equity goal.

A number of objectives need to be met by alternative models of coverage regulation in order to contribute to the goal of equal access for equal need (hereafter shortened to equal access). These are: universal, comprehensive and uniform coverage, accountability for equal access, and resistance to cream skinning. Each is discussed in depth in the sections that follow.

2.2.2.1 Offers Universal Coverage

If coverage regulation is to promote equal access, then universal coverage is essential. The aim here is to ensure that all those population groups with the same needs have health insurance coverage – i.e., that if any one group with high needs is covered by health insurance, then all groups with high needs should all be covered by health insurance, and that if health insurance is offered to any service users with moderate or relatively low needs, then all such service users should also be covered.

This means that the systematic exclusion of some *population* groups from insurance coverage will not promote equal access for equal need, because some service users with needs which may be similar to those who do have cover may miss out on care. Thus, exclusions based on income, employment status, residency status, and so on are inappropriate mechanisms for promoting equal access for equal need. As Daniels et al note:

any fair health care system must make a reasonable array of needed and effective health care services available to everyone regardless of their health conditions, risks, or ability to pay. Generally, this means that public insurance or some combination of public and private insurance must include everyone. (Daniels, Light and Caplan 1996, p. 37)

2.2.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Equal access also requires that there be fairly comprehensive coverage of a broad range and style and characteristics of services. Although there are always likely to be some limits to the care available in any health care system (e.g., where a service is ineffective, cost-ineffective, or not yet being proven to be effective or cost-effective), generally, a comprehensive range of services needs to be made available to all in order to promote equal access. In particular, insurance that excludes whole groups of health needs (or services) from cover does not promote equal access for equal need if it results in particular groups of people missing out on cost-effective care.

For example, coverage in United States private health care systems prior to 1978 largely excluded maternity care (Getzen 1997, p. 99) and even now often excludes mental health care and home care. Even where these services are covered, intermediaries often place arbitrary dollar limits on insurance coverage, so that coverage for particular conditions is lost more quickly than for other conditions (Daniels, Light and Caplan 1996, p.42). In Canada, non-hospital pharmaceuticals are not covered by the Canada Health Act, and although some provinces offer

pharmaceuticals coverage to particular groups of Canadians (e.g., those on low incomes, the elderly), most Canadians have to rely on private insurance to cover these services. In all these cases, the result of excluding some conditions or services is that some population groups with particular needs may be unable to have some of their health needs met, while others with needs which are considered to be equal to those covered are eligible and do indeed get care. Comprehensive coverage will therefore promote equal access.

Similarly, comprehensiveness with respect to styles and characteristics of care will also promote equal access for equal need. For example, musculo-skeletal services and mental health services may be covered by all packages, but acupuncture and chiropractic care, or counselling for depression, may be covered in only some packages. There may also be systematic differences across packages of care in the characteristics of the care covered (e.g. in waiting times for care and thresholds for treatment), or intensity of coverage, (e.g. in recommended days' stay in hospital or the availability of continued care in the home). Some groups in the population may therefore find their needs with respect to style and characteristics of care are not included in the packages offered, while other service users (with equal needs) are able to obtain the care that best suits their needs. Other differences could occur with respect to the quality of facilities, with some policies covering single rooms, televisions and so on; although inequities in these latter features of care may not be as concerning as inequities in the actual health care delivered to service users.

The narrower the range of services covered by principal insurance arrangements, and the more service users obtain coverage through private out-of-pocket payments or private health insurance, the less likely it is that the policy goal of equal access will be achieved, as some service users will be unable or unwilling to pay for care (see the discussion above in Chapter 2.2.1.4). Many countries therefore promote equal access by offering comprehensive coverage through national health insurance arrangements, which eliminate the role of willingness and ability to pay from determining who gets access to care. It is possible that some coverage regulation frameworks will provide comprehensive coverage, not through a comprehensive national insurance programme, but through a series of interlocking insurance

programmes, e.g., national insurance programmes, state or provincial plans, alongside private insurance and that regulations may improve access to private health insurance, and hence improve comprehensiveness overall. These latter issues are considered in the section which follows on uniform coverage.

Accepting that equal access is a legitimate goal and that comprehensive coverage contributes to meeting the goal of equal access:

runs counter to the view that our moral obligations only involve our providing a "basic" or "bare bones" policy to the poorest members of society; others may then purchase more comprehensive plans as their "taste" for medical services requires. (Daniels, Light and Caplan 1996, p.43)

Those in favour of more 'basic' coverage also argue that comprehensive coverage forces people to purchase far greater coverage than they desire or need²⁵ (Pauly, Danzon, Feldstein and Hoff 1992). This incorporates an alternative definition of 'fairness', i.e. coverage according to willingness and ability to pay. As noted above, there is a need for a debate about the appropriate equity goal in any country; but the equity goal chosen here is that of equal access for equal need.

2.2.2.3 *Offers Uniform Coverage*

If universal and comprehensive coverage are required to promote equal access for equal need, by ensuring that equal needs can be met, then this suggests that exactly the same packages of care should be made available to all service users, i.e. that uniform coverage is required to promote equal access. After all, the greater the

²⁵ Enabling a great deal of choice over the package of care available runs several risks. First, people may buy less insurance than they need in practice because they underestimate how much care they need or cannot accurately predict what care they will need. Second, allowing the market to be segmented by risk 'leads to a steeply tiered market in which the sick must pay far more for the broader and deeper policies they need' (Daniels, Light and Caplan 1996, p. 43). Third, this choice in the end may lead to unequal financial contributions if those not paying for comprehensive care are able to obtain such care through charity care or safety net services to which they have not contributed financially. These are issues which would need to be further considered in assessing how well alternative models of coverage regulation contribute to equity in terms of the financing of health care.

number of packages of care available, and the more significant the differences between them, the less likely it may be that there will be equal access for equal need, especially where some service users find that their needs cannot be met fully by the package of care they are covered by. The differences between packages may not always be viewed as important from a policy perspective (for example, in relation to coverage of facilities such as single rooms, individual televisions, high quality food and wine), in which case the differences across packages of care are not critical. But if differences in the packages of care available begin to lead to significant problems in meeting the needs of some groups in the population, health care systems will have difficulties in meeting the goal of equal access.

Although uniform coverage will go a long way towards promoting equal access, there is the potential for differences between the packages of care available to actually *promote* equal access. Subtle differences in packages may serve to reduce or remove any barriers which might hamper particular groups in accessing care. For example, some population groups such as those on low incomes or those with chronic illness may receive or take up packages with higher levels of subsidies or lower user charges for some care, thus removing a potential barrier to access, or preferring to pay an up-front cost in order to minimise payments when care is needed. Hence, differences in the packages of care available need to be considered not only for how they might undermine equal access but also for the positive contribution they might make to promoting it.

Requirements for uniform coverage will apply not only in relation to principal insurance coverage. As already noted in relation to comprehensiveness, the availability and take-up of additional insurance may be a source of inequity in access to care. Many health care systems allow service users to supplement the coverage available under a principal health insurance model. As noted in Chapter 1, New Zealand, the United Kingdom and Sweden allow such insurance in a supplementary sense; while other countries have complementary insurance to cover services not available under a principal system (e.g., pharmaceuticals in Canada) and gap insurance to pay for user charges (e.g., New Zealand). Hence, the availability and take-up of additional insurance will depend in part on the coverage

offered by the principal scheme. But the availability and take-up of additional insurance may undermine the goal of equal access for equal need if certain groups in the population are more likely to take up such insurance, as such groups will have enhanced access to care. In many countries, certain groups are more likely to have additional insurance than others, because of ability to pay, age or health and disability status. In Canada, for example, comprehensive coverage can be obtained through three programmes – covering first those services defined at the federal level in the Canada Health Act; second, services excluded from the Canada Health Act but covered by provincial plans; and third, through private health insurance covering services not offered through the Canada Health Act. Non-hospital pharmaceuticals, dental care and corrective eyewear are not available to Canadians through the Canada Health Act. Some Canadians obtain coverage through provincial plans. For many Canadians, the exclusion of these services from the Canada Health Act means a reliance on private insurance. Consequently access to pharmaceuticals in Canada is unevenly distributed (see Appendix 1). Similarly, private insurance coverage in New Zealand is also unevenly distributed, creating inequities in access to care²⁶.

Institutional features and government regulation of such insurance may make a difference to the equity implications of the availability of additional insurance. Community rating, for example, may lead to fairer ownership of health insurance by age and income, by making private health insurance more affordable for certain groups (those more likely to require health care, who may also be more likely to be older or to have lower incomes), and perhaps less desirable for others (those less likely to require health care, who may be younger and have higher incomes). Policies that give priority to those waiting for elective care who do not have private health insurance may improve equal access overall if those with insurance choose to use it to obtain the care they need. Regulations that prevent insurers from excluding particular groups from coverage may also improve equity of access – for example, human rights legislation in New Zealand means that insurers can no longer refuse to

²⁶ In 1992/93, 67 per cent of those on high incomes had private insurance compared with 16 per cent of those on the lowest incomes (Triggs, Johnston, O'Connor and Wong 1995).

allow those over 65 to become new members – although regulations may also be required to prevent insurers seeking high premiums to discourage particular groups from joining up (see Cumming 2000 for examples of such regulations relating to HMOs in the United States). Overall, countries that have more equal additional insurance coverage will be in a better position to promote equal access to care than those that do not.

2.2.2.4 *Promotes Accountability for Equal Access*

To achieve equal access, a coverage regulation framework must not only have universal, comprehensive and uniform coverage, but it must also hold sponsors, intermediaries and providers to account for the provision of services in ways that do indeed promote equal access for equal need. This thesis focuses on fiscal/regulatory accountability (Cumming and Scott 1998), used in the sense of ensuring that the services to which service users are entitled are indeed made available, that waiting times are fair, and that there is limited over- and under-servicing. Such accountability was a key reason for developing an explicit 'core' of health services in New Zealand (Upton 1991).

If there are major differences in service availability and waiting times by geographical or population group, then equal access for equal need is being undermined. There is also a need to promote the right level of servicing, not only for reasons of cost-effectiveness as discussed in Chapter 2.2.1.5 above, but to promote equal access for equal need. Not only are efficiency goals being undermined where there is over- and under-servicing, but it is also unfair that some service users might get more or less care than others. This may be a particular problem where certain groups in society are those who are likely to get more or less care. There is clear evidence of unexplained variations in utilisation in a number of the countries studied here, including in New Zealand (see Chapter 2.2.1.5 above), many of which may reflect differences in service availability. These variations do not appear to be related to likely differences in need, which suggests unequal utilisation of care by those with equal need. In countries like New Zealand,

Australia, Canada and the United Kingdom, service users may also have to wait for care; and the waits for care are often unrelated to health needs (Fraser 1991; McDonald et al 1998). Inequities might also arise in relation to the thresholds at which service users are offered care.

In examining alternative models of coverage regulation, there is clearly plenty of scope for access to care to become and remain unequal more frequently with some models than with others. With an implicit service specification, for example, where access to care is not on demand, it will be difficult for service users to hold sponsors, intermediaries and providers to account for the care they receive. This is partly due to a lack of knowledge about the services they might be entitled to receive, and the standards of care that should be offered. But in addition, services may not be available. Services may be available but not offered. As Aaron and Schwartz and Klein have argued, there are numerous ways in which service providers may put service users off receiving care (Aaron and Schwartz 1984; Klein, Day and Redmayne 1996). (See also below, Chapter 2.2.4.1.)

As noted above in relation to promoting the objective of cost-effectiveness, one way that has been suggested of holding providers to greater account for the care they offer is to use guidelines (Borowitz and Sheldon 1993; Sheldon and Borowitz 1993). It has also been suggested that clinical guidelines be used to define basic benefits packages, in order to achieve greater clarity about the services covered, to ensure only those services which are needed (i.e. which are beneficial) are covered, and to better promote equal access (Hadorn n.d.; Hadorn n.d.). Such guidelines offer opportunities to hold sponsors, intermediaries and providers to account – in relation to equal access for equal need as well as other objectives.

The more detailed service specifications in some models of coverage may indeed involve the use of guidelines, against which sponsors, intermediaries and providers can be held to account. So different models of coverage regulation will have different implications for holding sponsors, intermediaries and providers to account for equality of access.

2.2.2.5 *Provides Mechanisms to Manage Cream Skimming*

In competitive markets where financial allocations to intermediaries and providers are not adequately adjusted for actuarial risk, cream skimming is considered a key potential problem. It was noted above (Chapter 2.2.1.8) that successful cream skimming may reduce incentives for cost-effectiveness. It may also lead to inequities in access to care. For example, it may reduce some consumers' choice of health providers, sponsors and intermediaries or service coverage (e.g., where some service users are deliberately excluded from coverage by some sponsors, intermediaries or providers, or where some service users are offered only particular packages). It may also lead to poor care for some groups (e.g., where poor quality care or reduced coverage are used as means of cream skimming, or if health providers, sponsors and intermediaries with an unfavourable mix of risks are forced to reduce services or quality in order to remain within budget) (Newhouse, Manning, Keeler and Sloss 1989; van Vliet and van de Ven 1992; Glennerster, Matsaganis, Owens and Hancock 1994; Matsaganis and Glennerster 1994; van de Ven, van Vliet, van Barneveld and Lamers 1994; Audit Commission 1996; Le Grand, Mays, Mulligan, Goodwin, Dixon and Glennerster 1997; Cumming 2000).

Service specification – in the form of a standard package (or standard packages) of benefits – was earlier noted to be an important tool for reducing opportunities for cream skimming (Chapter 2.2.1.8). Service specification prevents intermediaries or providers from specifying or offering services in ways that encourage particular groups to enrol or disenrol, or that discourage particular groups from enrolling. Hence, wherever there is competition between intermediaries or providers and where benefit design can influence risk selection, service specification is an important tool for reducing at least one avenue for cream skimming²⁷, and hence for promoting equal access. As alternative models of coverage regulation have different approaches to service specification, some will better provide mechanisms to manage cream skimming than others.

²⁷ Other reasons for service specification are set out in Cumming 2000.

2.2.3 Choice

A third key goal of health care systems is to promote choice. In health care, the notion of choice has a number of interpretations. Those considered are:

- choice in the range of services that service users choose or are able to access or insure for (labelled here 'package of care'), and
- choice in the style of care and the characteristics of services to which service users have access.

Each is considered as a separate objective, as different models of coverage regulation have different implications regarding each objective.

Before discussing each objective in more detail, it is worth noting that this policy goal helps in a small way to assess how well different models of coverage regulation meet welfarist efficiency goals. This is because welfarism tends to place individual values, preferences and willingness to pay at the centre of its analyses. As a result, its adherents are likely to argue that the ability to choose how to spend one's resources is a key means by which utility and welfare can be maximised, and thus how (allocative) efficiency in a welfarist sense can be achieved:

one cannot have an outcome superior to that generated in unregulated competitive private markets...in such a neo-Panglossian world it is a particular process of resource allocation which is postulated as an objective. (Evans 1983, p. 84, emphasis in original)

That is, where

preference for the particular allocative processes of competitive markets over political systems is then justified by the assertion that such markets are more likely to reveal and adapt to consumers' preferences. (Evans 1983, footnote 22, p. 98)

(See also Rice 1998, p. 63, p.160.)

The choice goal also can be thought of as an equity goal with a different definition from that used. Rather than a goal of equal access, some see equity promoted when resources are allocated largely according to willingness and ability to pay, i.e. the allocation is 'fair' where people are able to spend their own resources as they see fit. This notion of equity is embodied in part within the choice objectives and goal set out above. However, equity in this sense is promoted only in part by achievement of the choice goal discussed here. This is because in some health care systems, especially those with mandatory financing such as taxes or social insurance, there is often at least a minimum amount which service users must 'spend' on health care (i.e. the amount allocated to health care from taxes), which does not promote choice about how to spend one's own resources.

2.2.3.1 Offers Choice Between Packages of Care

A first objective for promoting choice is to allow service users to choose between a number of packages of care. A package of care consists of a range of services that are covered by a particular insurance arrangement. The Glossary Annex Table shows the range of services covered in New Zealand, as defined by the Health Funding Authority in 2000 (Health Funding Authority 2000). As noted in Chapter 1, other countries cover a wider range of services, such as optical services, and also sometimes include cash benefits for time off work due to illness.

Different packages of care will include some of the services in the Glossary Annex and exclude others. Thus for example, some private insurance packages in New Zealand cover only surgical or hospital services while others cover medical services as well (Consumers' Institute of New Zealand 1997). Packages in the United States differ in the extent to which they cover health promotion and education services delivered to individuals, dental health care, optical care, and mental health and drug and alcohol services, even within a single health system (see Chapter 1 and Appendix 1). In addition, packages may differ in the rate of co-payment or user charge incurred, and in the maximum costs which might be covered, either for individual or groups of interventions.

An important policy objective is to offer individual service users and their families a choice with respect to the package of services they are covered for. This enables them to secure coverage for only the range of services they wish to be covered for. Having this choice not only allows the package of care to be tailored to individual needs, but (where service users pay for their own coverage) also allows a choice over the extent of expenditure on health care coverage. Individuals can then freely spend their financial resources to best meet their needs (for example, on education, housing or travel as opposed to health care).

2.2.3.2 *Offers Choice Over Style and Characteristics of Care*

A distinction is made between the range of services covered, the style of care covered and the characteristics of services offered. Style of care covers choices between providers – between specialists or generalists, between community or hospital facilities, between medical or alternative providers – and between alternative techniques, such as coronary artery by-pass grafts or angioplasty for heart conditions, counselling or medication for depression; and between alternative medicines that are listed, for example on a drug tariff, to treat the same condition. Choice about characteristics of care concern how a service is delivered, for example, in terms of the waiting times for accessing care; the intensity of coverage, such as how many days' stay are likely for a particular service; the thresholds at which care is offered; and the quality of the facilities in which care is available, such as shared or single rooms, the type of food available, whether a television is provided, and so on. Of particular interest for the purpose of this thesis are the thresholds at which care is offered.

Offering a choice over the style and characteristics of care allows service users to arrange insurance that best meets their needs in the same way as a choice over packages of care does. As was discussed in Chapter 1, the distinction between the package of care and style/characteristics of delivery is important when considering alternative models of coverage regulation. In particular, the more detailed, explicit

specifications of coverage offer less choice over style/characteristics of care than do implicit models.

2.2.4 Expenditure Control

In many developed countries, there are policies in place that are aimed at limiting both public and private expenditure on health care (Abel-Smith 1992; Abel-Smith 1992; Abel-Smith and Mossialos 1994; Dunning 1994; for the United States see Davis, Anderson, Rowland and Steinberg 1990; Glaser 1993; Gold, Chu, Felt, Harrington and Lake 1993). New Zealand governments also aim to limit expenditure on health care²⁸, although the focus here has been on capping government expenditure, with few government policies aimed at managing private expenditure on health care.

Governments in developed countries became particularly focused on limiting expenditure in health care during the late 1970s and early 1980s, when concerns about the rate at which health care spending was growing were exacerbated by a slow-down in economic growth (van de Ven 1995; Evans 1997). Interest in limiting

²⁸ In New Zealand, governments have funded the largest proportion of health care spending since the late 1930s. Expenditure control has always been an important part of New Zealand's health policies. For example, governments have been slow to increase the general medical subsidy in line with rising doctor fees, and both capital and operating budgets allocated to hospital (and, later, area health) boards have been limited for many years (Hay 1989). In addition to policies restricting the numbers of doctors able to practice, numerous attempts have been made to cap primary care expenditure (Hay 1989). These met with little widespread success until the 1993 reforms eventually saw professionals agreeing to move towards capitation and budget payment mechanisms (Crampton and Brown 1998; Cumming and Salmond 1998; Ashton 1999; Crampton 1999; Cumming 1999; Malcolm, Wright, Aotearoa Health and Barnett 1999). Other means of limiting expenditures could include the removal of some items of service from coverage within the publicly-financed system, either as a deliberate, nationally-implemented policy decision (e.g., as in the Netherlands during the 1990s) or as a result of sustained pressure on budgets (e.g., much cataract surgery in Auckland in the early 1990s was financed privately, probably as a result of long waiting lists (National Advisory Committee on Core Health and Disability Services 1992), while free dental care for adults became increasingly rare during the same time period. Mental health services have similarly been reduced in scope, partly probably as a result of expenditure limits (see Mental Health Commission 1998 for a blueprint aimed at building such services up once more.)

expenditures is also partly explained by the heavy involvement of governments in health care, so that the health sector has to compete against other government services for funding in many countries (Rice 1998, p. 135). However, limiting expenditure is not the only form of expenditure control of interest to policy-makers – being able to increase expenditure in a controlled way and to target it to particular groups are also important goals in health care (Evans 1997).

Limiting expenditure on health care is not considered a key goal in some health economics literature. Rather, the goal is to obtain the ‘right’ level of expenditure (see for example Culyer 1989). In welfarist terms, this ‘right’ level is determined by ‘the value that informed consumers, with both a quality and a cost stake in their decision, attach to new technology and to the use of health services’ (Pauly, Danzon, Feldstein and Hoff 1992, p. 3). In extra-welfarist terms, this ‘right’ level is where the extra health benefit obtained by extra spending on health care is viewed to be worth the extra costs of such spending (Culyer 1991).

In practice, however, expenditure control and expenditure limits are key concerns for governments in many developed countries. There are several mechanisms through which expenditure controls work on the supply side:

- By limiting the overall funds made available to the sector, leaving the sector to determine which services can be made available within the resources available. This approach is discussed by Evans, who notes ‘...in all developed countries Wildavsky’s²⁹...law of medical money (“costs will increase to the level of available funds...that level must be limited to keep costs down”) has been understood and acted upon through the development of countervailing public authority’ (Evans 1997, p. 433).
- By restricting the range, volume or quality of services provided, including hospital use and technology (Evans 1990, pp. 113–118).

²⁹ See Wildavsky (1977).

- By restricting the price that is paid for services, given that 'relative incomes in the health care sector are at least in the short run largely influenced by political and policy choices' (Marmor 1983 cited in Evans 1990, p. 107).

Expenditures can also be limited by controlling overhead costs including the bureaucracy associated with health care policy, planning and purchasing, (Evans 1990, pp. 113–118), and through demand-side tools such as user charges.

The focus of the analysis is on whether different models of coverage regulation facilitate expenditure control by making it possible to restrain overall expenditures, and to limit the volume of service delivered, including the use of technology. Overhead costs are considered under the objective of administrative efficiency. As alternative coverage regulation models do not impact directly on the prices paid for care or on user charges, these latter mechanisms for expenditure control are not considered here in any depth.

Announcing the health reforms in 1991, New Zealand's National Government noted that expenditure control was a key rationale for specifying an explicit core of services (Upton 1991). The government did not appear to recognise that an implicit service specification intuitively fits better into a health care system which *ex ante* limits overall expenditure, so that the quantity and quality of care offered must fit within the limits available. Implicit coverage gives more opportunity for care to be rationed when expenditures are tight. An explicit core might therefore be a two-edged sword when it came to expenditure control. On the one hand, it gave an opportunity to carefully define when service users might get access to care – for example by specifying the thresholds at which care should be offered – but failed to recognise that an explicit service specification might also bring with it an entitlement to care, such that all those who qualify for care should be receiving it, with expenditure determined *ex post* as a result of the level of 'need' in the community.

There are two main ways in which different models of coverage regulation might affect a country's ability to control expenditure – through its ability to ration care; and by imposing accountability for thresholds, characteristics of care and the use of technology. Each is considered separately below.

2.2.4.1 *Makes It Possible to Ration Care*

'Strategies for coping with demands under the constraints of budget limits, by limiting the resources going to any one individual, can take many forms' (Klein, Day and Redmayne 1996, p. 11). They include rationing by:

- Denial: some service users who might benefit from care are turned away. Service users may be told that they are not suitable or that their needs are not urgent enough. 'In effect, the threshold of eligibility for a particular service is raised or lowered in order to match supply and demand' or the 'functions of a particular programme or service are redefined to exclude specific types of clients or forms of intervention' (Klein, Day and Redmayne 1996, p. 11).
- Selection: providers select service users who are most likely to benefit, who are seen as deserving cases or who are least likely to cause problems.
- Deflection: service users, rather than being denied care altogether, are 'steered towards another programme or service' (Klein, Day and Redmayne 1996, p. 11).
- Deterrence: access is made difficult, for example by providers being unhelpful or dismissive, information leaflets being unavailable, forms being made incomprehensible, or service users having to wait in long queues in unpleasant surroundings.
- Delay: appointments are made weeks or months ahead or service users are placed on waiting lists.

- Dilution: the scale and 'depth' of services is reduced – for example everyone gets fewer tests or visits, or visits become shorter for all. Quality of care may also be reduced.
- Termination: treatment is stopped, for example by discharging service users from care (Klein, Day and Redmayne 1996, pp. 11–12).

As Klein notes, these methods need not 'necessarily be conscious or deliberate rationing devices: they may simply represent the way in which those concerned with service or programme delivery make life more tolerable for themselves when they are under budgetary pressures' (Klein, Day and Redmayne 1996, p. 12). As Aaron and Schwartz noted in their study in the United Kingdom:

...by various means, physicians and other health care providers try to make the denial of care seem routine or optimal. Confronted by a person older than the prevailing unofficial age cutoff for dialysis, the British GP tells the victim of chronic renal failure or his family that nothing can be done except to make the patient as comfortable as possible in the time remaining. The British nephrologist tells the family of a patient who is difficult to handle that dialysis would be painful and burdensome and that the patient would be more comfortable without it...(Aaron and Schwartz 1984, p. 101)

The Aaron and Schwartz study has been criticised for taking the United States' intervention rates as a 'benchmark of adequacy' (Klein, Day and Redmayne 1996, p. 90). In spite of this, Klein agrees that 'British doctors internalize resource constraints, and adapt their style of clinical practice accordingly' (Klein, Day and Redmayne 1996, p. 90). On the one hand, this might be seen as a bad thing, limiting the services delivered to users; but on the other hand, the ability to ration care in such ways helps the United Kingdom system to remain within budget. The implicit coverage regulation framework used in the United Kingdom assists in this process, by not being explicit about the care that must be offered to service users in

particular circumstances³⁰. A more explicit specification of coverage might make it more difficult to ration in such ways, and so make it more difficult to remain within expenditure limits.

2.2.4.2 *Promotes Accountability for Style and Characteristics of Care*

Chapter 2.2.1.5 above discussed a number of issues relating to variations in the utilisation of services within and between countries, variations in practice and appropriateness of care. Some of these studies aim to identify how limits on expenditure, and especially slower rates of up-take of technology, might impact on utilisation and quality of care³¹. All this evidence shows that different decisions can be made about the use of technologies, the thresholds at which service users receive care, and the intensity of service offered. Thus, uncertainty or clinical autonomy not only affects the achievement of efficiency and equity goals, as noted in previous

³⁰ Klein (1996, p. 44) notes the development of priority guidelines for health authorities partly in response to scandals in long stay hospitals during the 1960s and 1970s. He states, 'they were an acknowledgment...that decades of low priority for spending on services for the elderly, the mentally ill and handicapped had produced an unacceptable degree of rationing'.

³¹ Although there is significant debate about the evidence, many analysts contend that countries which control expenditures appear to intervene at different points (labelled here 'thresholds'), have much lower procedural intensity (Barer and Evans 1983, Detsky, Stacey and Bombardier 1983, cited in Evans 1990), and slower rates of diffusion of technology as well as fewer individual items of high technology. Aaron and Schwartz in their study in the early 1980s found that utilisation rates of a number of procedures and diagnostic tools were higher in the United States than in the United Kingdom (Aaron and Schwartz 1984). More recent studies have similarly found differences not only within countries (as noted above in Section 2.2.1.5), but also between countries. Anderson (1993) compared the use of coronary artery bypass grafts among several United States and Canadian regions. The combined age-adjusted rate for three Canadian provinces was 62 per 100,000 population, far below the rates of 113 for California and 88 for New York. Katz (1996) examined the use of diagnostic tests for comparable patients admitted to United States and Canadian hospitals with similar availability of technology. United States medical patients received 22 percent more tests – there was little difference among surgical patients – and the differences were greatest amount the most expensive tests. Rouleau (1993) examined patients admitted to 19 Canadian and 93 United States hospitals. 51% of Canadian patients had acute myocardial infarction compared with 35% of United States patients. This suggests that somewhat more serious cases were being treated in the Canadian hospitals. Coronary arteriography and other procedures were performed at much higher rates in the United States. These differences had no effect on mortality or rate of reinfarction but there was a slightly higher rate of activity-limiting angina in Canada. From this evidence the authors conclude that there may be a higher threshold in Canada for hospital admission and for performing expensive diagnostic and therapeutic procedures. On the other hand, Mark et al (1994) found that patients in both countries had the same functional status after 30 days but United States patients showed more improvement after a year.

sections in this Chapter, but also affects expenditure control. First, as noted above, it allows care to be rationed – something which enhances a country's ability to restrain expenditures. But this flexibility may also threaten expenditure control by allowing thresholds to reduce so that those who are less sick obtain care, new technologies to be introduced freely, and the intensity of care to increase:–

...the ever-expanding reach of medical technology is constantly redefining needs by increasing the numbers and types of potentially effective interventions – and their costs. (Evans 1987, p. 31)

For example, Evans, in a study published in 1985, found evidence of rapid increases in the intensity of servicing (the number and cost of interventions) for elderly people in Canada, where 'the age-use profiles are shifting upwards and twisting' (Evans 1985). The flip-side of the evidence that Aaron and Schwartz found in their comparison of United States and United Kingdom rates of intervention is that United States rates of intervention are too high:

...it could rather more plausibly be argued that the US levels of activity represent the pathology of a system where the incentives are to maximize activity rather than effectiveness. (Klein, Day and Redmayne 1996, p. 90)

Similarly, Aaron and Schwartz noted that United States doctors may be more inclined to offer care where small gains come at great cost (Aaron and Schwartz 1984, p. 113). Callahan (1990) also notes in the United States a tendency to try to prolong the life of the very old, even if only for a few months.

Regulatory frameworks differ in their capacity to prevent significant changes in the thresholds at which care is offered – changes which may be viewed as undesirable by policy-makers because they put pressure on expenditure and lead to different priorities from those which were intended. Implicit coverage not only allows thresholds to rise and levels of intensity to fall (restricting access through rationing), but also allows thresholds to fall and levels of intensity to rise. On the other hand, a more explicit specification of coverage may lead to tighter expenditure control by

firmly establishing thresholds and levels of intensity of service, which can be changed only through a process of explicit and planned decision making. The trade-off here, however, may be a loss of expenditure control over short periods of time, where an explicit specification acts as an entitlement to care, with expenditure determined by the number of people reaching the thresholds. Thus, the two expenditure control objectives – the ability to ration care, and the ability to hold participants to account for thresholds and intensity of care – will be difficult to obtain simultaneously.

2.3 *Weighting the Objectives and Goals*

Policy-makers have different views about the health policy goals they wish to promote. In a complete analysis, alternative models of coverage regulation would be assessed using different definitions of goals and objectives, with a range of weights attached to them. This would allow different groups of policy-makers to decide which particular coverage regulation framework best met their particular policy goals. For this thesis, the analysis is concerned with policy objectives and goals related to coverage regulation, and the policy objectives and goals are defined in a particular way, in order to focus the research. The analysis presented here also establishes a set of weightings in order to generate an overall score reflecting how well each alternative model of coverage regulation performs across the four policy goals. In this case the weightings reflect the author's views about the relative importance of each of the four policy goals. Sensitivity analysis is undertaken to test the degree to which the results are sensitive to the assigned scores and weights. Future research should derive weights from group discussion processes, or from interviews or surveys, of different groups in the population (eg, government decision-makers or members of the general population).

The policy goals chosen are those used in health policy analyses in many countries and which appear frequently in health care policy statements. To obtain a set of weights to use in the analysis, a process called 'swing weighting' has been used.

This involves positing a hypothetical coverage regulation model that scores zero with respect to all the goals which are important to the analyst, and then considering that if just one objective or goal could achieve its best performance, which one would it be? If a second objective or goal could then achieve its best performance, which would it be? The next objective or goal is then considered to be weighted at some proportion of 100 (e.g., 80% as important, obtaining 80 points). All objectives or goals are given proportions in the same way; the total points are then added together and normalised to 100 to give the weights used in the analysis (Goodwin and Wright 1998).

Working through this process, the goals have been weighted as follows: efficiency (36%); equity (30%); choice (17%); expenditure control (17%), implying that if one unit of efficiency is required to be given up, an alternative must produce 1.2 more units of equity to be viewed as equivalent overall. Similarly, 2.11 extra units of choice and expenditure control would be required for each unit of efficiency given up in moving between alternatives. Within each goal, each policy objective is weighted equally, however.

The weights used here reflect the author's values that efficiency is more important to achieve than equity, while equity in turn is more important to achieve than choice or expenditure control. As few health policy analyses use such a formal approach, it is difficult to know whether the weights chosen here for each goal and objective are representative (although see World Health Organization (2000); which equally weights efficiency and equity goals in relation to health outcomes, with responsiveness goals weighted at a lower level). In particular, the efficiency goal dominates this analysis, albeit an efficiency goal that is defined with reference to health care need. Equity goals come second in this analysis. Equity is clearly an important goal in health policy, as indicated by the number of governments that have policies and regulations to ensure that all citizens have good access to a wide range of health services (see for example Wagstaff, van Doorslaer and Rutten 1993 in relation to government policies on equity). The weights used here may, however, be less reflective of societies where choice is valued highly, for example the United

States. (See Daniels, Light and Caplan 1996 for a discussion on equity in the United States.)

The policy objectives, contributing to policy goals, are not weighted for their contribution to their relevant policy goals. Rather, each policy objective contributes equally to its relevant policy goal as the other policy objectives that contribute to that goal. The reason for this is that weighting the objectives adds a degree of complexity to the analysis, for little gain as the impact on the overall scores from changing the weightings of the objectives is minimal, particularly the objectives contributing to the efficiency and equity goals.

In the framework developed here, what look to be similar policy objectives contribute to more than one policy goal. As coverage regulation arrangements are scored according to how well they are argued to contribute to policy objectives, quite similar objectives potentially have more points accorded to them as a group than other objectives; in other words some double counting could occur (Belton 1990). Similar objectives are:

- accountability: accountability for cost effectiveness contributes to the efficiency goal; accountability for equal access contributes to the equity goal; and accountability for style and characteristics of care contributes to the expenditure control goal
- providing mechanisms for managing cream skimming: contributes to both efficiency and equity goals, and
- offering comprehensive coverage: contributes to both efficiency and equity goals.

Although it is possible to specify separate goals for each of these objectives, the approach taken has each objective contributing to each of the key goals as appropriate. This acknowledges that some policy objectives can contribute to multiple goals, enhancing the contribution of such objectives overall. It also reflects

subtle differences in the ways in which the objectives are framed, differences which would be lost if these objectives were formulated in terms of separate goals. Moreover, this approach makes little difference in the context of the scoring and weighting system used here: if each of the above objectives were set as separate goals, similar overall scores for each model of coverage regulation coverage would be generated by choosing a different set of weights³².

2.4 Sensitivity Analysis

Sensitivity analysis is an important part of decision modelling. It helps to establish how robust the overall results are, and also to tease out how well various alternatives perform. For example, sensitivity analyses identify the strengths and weaknesses of alternatives; whether there are any alternatives that dominate all goals and objectives; and the trade-offs between goals and objectives that result from choosing between alternatives (Belton 1990; Goodwin and Wright 1998). The sensitivity analysis is particularly important here, given that the scores and weights used in the analyses are based on the author's views of how alternative models of coverage regulation meet policy objectives and goals and on the author's values of the relative merits of the goals chosen for analysis.

A computer-based programme, V.I.S.A., was used to analyse the overall results. It creates a graphic display of the decision-making model and its component parts. It clearly shows i) the overall value for each particular coverage regulation model, given the scores allocated and the weights chosen; ii) a total value for each goal given the scores and weights allocated for each objective; iii) a profile for all alternatives showing which alternatives are valued more highly by policy goal and objective; and iv) a profile showing the effects on the overall value and on individual goals' values of changing the weights for each policy goal and objective.

³² The weighting process used here generates the following proportions of the overall score for each of the objectives which occur more than once: accountability, 19% of points available; managing cream skimming, 10.5%; comprehensive coverage, 10.5 %; cream skimming, 10.5%.

The programme allows changes in scores and weights to be made, with the effect on the overall values clearly changing graphically as such changes are made (Belton 1990; Mabin, Menzies, King and Joyce 1997; Mabin and Beattie 1999).

2.5 *Summary and Conclusions*

The schema developed enables the evaluation of the impact of various models of coverage regulation for their support of key health policy goals. The Chapter provides a superior framework for analysing models of coverage regulation than devised in New Zealand in 1991.

Designing the framework also served to clarify certain issues as policy choices surrounding coverage regulation. First, it was recognised that both national and local decision making objectives can contribute to the efficiency goal. Policy makers must recognise that both can contribute to efficiency objectives and they will have to make trade-offs between the two objectives, and perhaps identify more clearly the types of services which are better decided upon locally and those where a central approach leads to greater levels of efficiency. The discussion also noted that empirical research is required to determine where the balance of decision making lies in practice and to identify the basis on which resource allocation decisions are made, before reaching definitive conclusions about the actual support of national and local decision making for the efficiency goal.

Second, the benchmark/decision making model specified a number of objectives that contribute to allocative efficiency, equity and expenditure control goals through accountability for the style and characteristics of care delivered to service users. Although many other analysts will not agree with the use of such strong objectives, it does provide a starting point for debate and discussion with respect to alternative models of coverage. With community resources being used to deliver health care, and with rising concern over the levels and rates of increase of health expenditures,

all stakeholders have a duty to ensure the best use of the resources. This suggests that participants must be more strongly held to account for achieving such goals.

Third, the importance of having a clear boundary between principal and additional insurance sectors in ensuring efficient supplementation and hence an efficient allocation of resources overall was discussed.

Fourth, differences were observed in the types of choices which individual service users and providers have when it comes to putting together packages of care. The distinction between packages of care and styles and characteristics of care is important in relation to models of coverage regulation, and is becoming more important as care becomes managed more intensively.

Finally, governments must be made aware of the potential for trade-offs between their ability to ration care and the ability to hold sponsors, intermediaries and providers to account for style and characteristics of care. The former allows better expenditure control within a particular period of time. The latter may also result in expenditure control, but only over a longer period of time, and even this is dependent on the government's ability to refuse explicitly to fund some styles and characteristics of care. Within the expenditure control goal, policy makers must therefore decide whether the ability to ration care is more important or easier to manage than the ability to hold agencies to account for style and characteristics of care.

The four policy goals have been weighted here to reflect their relative importance, according to the author's views on the relative importance of the goals. The schema is used in Chapters 4, 5 and 6 to value the impacts of alternative models of coverage regulation on these key policy goals and objectives. An analysis using different definitions of efficiency and equity and using different weights will lead to different results. Further research on the effects of a wider range of definitions of efficiency and equity on results is required, as is further research on the relative weights that decision-makers and members of the general population in New Zealand give to the policy goals used in this analysis.

PART TWO

EVALUATING MODELS OF COVERAGE REGULATION IN NEW ZEALAND

Evaluating New Zealand's Current Approach to Coverage Regulation

The next three chapters use the benchmarks and decision-making schema developed in Chapter 2 to assess the support for key health policy goals and objectives offered by a number of different models of coverage regulation. This Chapter, Chapter 3, analyses New Zealand's main current model of coverage regulation – the similar population coverage, comprehensive, implicit, insurable coverage model which dominated for many services in New Zealand for many years, and which largely remained in place at the end of 2001. This is called the 'NZ model of coverage'. In Chapter 4, a number of alternative models of coverage regulation are explored in comparison to the NZ model, operating within New Zealand's existing system of health care financing and delivery. In Chapter 5, a range of alternative models of coverage are evaluated within a system of managed competition.

In Chapters 3 and 4, each alternative model of coverage regulation is analysed in two parts. First, each is considered for its generic contribution to policy goals and objectives, suggesting how it might operate within any health care system. Second, each model is analysed in terms of how it actually operates in New Zealand, given the existing features of New Zealand's health care financing and delivery system³³. The implications of how coverage interacts with key health care system features are considered in the discussion; however, only the implications of *coverage regulations* for objectives and goals are scored. This provides a clear picture of the likely impacts of alternative models of coverage for health policy goals and

³³ Thus, financing is predominantly through public sources, dominated by taxation. Public providers dominate secondary care service delivery; private providers dominate primary care and community service delivery. Resources are allocated to local level providers via block and capped price-volume contracts for hospital care and via fee-for-service, capitation and block payments for primary and other care. Service users can choose to obtain care from a range of primary care providers, but have limited choice of secondary care provider.

objectives, as distinct from the impacts of other features of the New Zealand health care system. The analysis in both chapters assumes that *all* services, within New Zealand's principal, publicly-financed health sector, are regulated using only *one* model of coverage. Wherever possible, scores are based on empirical evidence; however where this is lacking, scores are allocated on the basis of theory, or judgement. The analysis in Chapter 5 is somewhat more speculative, theorising how alternative models of coverage regulation support policy goals and objectives within a system of financing and delivery which does not actually exist in New Zealand.

Although there is a degree of subjectivity in the analyses and thus in the scoring, the discussion in these next three Chapters are essential to the debates about alternative models of coverage. The analytical framework is set out in detail for discussion and debate; and great care has been taken to set out clearly the various arguments supporting the analysis of how well alternative models of coverage contribute to key policy objectives and hence goals. The scores are allocated in order to make it easier to compare the alternative approaches, and although a degree of judgement is required, the explicit nature of the scoring process makes it easier to debate the actual scores. Sensitivity analysis is then an important part of the analytical process, in order to identify how alternative scores and weights might affect the conclusions drawn from the analyses.

In scoring alternatives, the following categories are used: the score is 0, very bad; 10, bad; 20, very poor; 30, poor; 40, fairly poor; 50, fair; 60, fairly good; 70, good; 80, very good; 90, excellent; 100, exceptional.

3.1 **The Current Model of Coverage Regulation in New Zealand – the ‘NZ Model’**

Key features of this model of coverage are set out in Table 3.1.

Table 3.1

Key features of model of coverage S(A)-C-I(U)-I³⁴, the ‘NZ model’

Similar population coverage. Roughly the same range of services is available to all citizens. Central government oversight and policy-making with regards to services, such that central government decides whether to have particular services made available. Resources are then allocated to central, regional or local intermediaries or providers, who have some ability to add or remove services to the range promoted by central government, and a high degree of autonomy in making decisions about the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times. This autonomy leads to some geographic variations in the range of services available, and variations in access to care.

Very comprehensive coverage of services.

Implicit coverage³⁵, with some explicit decision-making at central government level about the range of services available. Some uncertainty about access to care, due not only to variations in access but also to widespread gaps in service availability and long waiting times and lists for some services.

Insurability of health care services covered in the principal system, i.e., supplementary insurance is allowed. Complementary and gap insurance coverage are also enabled. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

³⁴ Refer to Figure 1.2 in Chapter 1.6, which sets out the different models of coverage regulation.

³⁵ Note that implicit coverage means there is no accountability for service delivery at all; and that for example monitoring of outputs as occurs in New Zealand does not take place within an implicit model. Where such monitoring does take place, this is a shift towards a more explicit approach.

3.1.1 Maximising Health Outcomes

3.1.1.1 *Allows National Decision Making*

In the NZ model, central government has a role in assessing whether particular services might be more efficiently provided at a regional or national, as opposed to a local, level. This assessment could involve considering whether national or regional service delivery is warranted because of economies of scale with respect to outputs and outcomes, shortages of expertise, or the need for emerging techniques and technologies to be evaluated before they become widely available. By enabling some national decision making, the NZ model makes a positive contribution to the goal of allocative efficiency. Moreover, as the NZ model features similar population coverage and comprehensiveness, national decision making affects all citizens and is possible across a wide range of services.

On the other hand, the NZ model also provides for a good degree of local intermediary and provider autonomy in resource allocation decision making, particularly in relation to the volume, location, style and characteristics of care offered. This autonomy reduces the extent to which central government can oversee resource allocation decisions and hence also reduces the extent to which services which are more efficiently provided at a national or regional level are indeed delivered nationally or regionally.

With no coverage regulation in the additional insurance market, central government has no control over the range of services offered by additional insurers, again reducing the ability of the model to offer a high degree of national decision making ability.

In assessing how well a particular country's model of coverage scores in relation to this objective, we must go further than simply identifying whether the model of coverage allows national decision-making. First, there needs to be an examination of the range of services over which such national decision making applies, to

identify if there are significant services over which national decision making does not apply, but whose characteristics suggest that national or regional delivery might be more efficient. Second, the policies and practices of a country need to be examined closely to determine whether issues relating to economies of scale, specialisation, and emerging technologies are considered when decisions about the availability and distribution of services are being made.

New Zealand is a good example of how the objective of enabling some national decision making is met in the NZ model of coverage. It was New Zealand's central government which originally established that specific services (e.g. maternity) and providers (e.g. GPs, midwives, pharmacists, laboratories) were to be eligible for fee-for-service payments in primary care. In addition, since taking over the full financing of publicly-owned hospitals in 1957, central government has become increasingly involved in some decision making about the range (and even the volume and quality) of hospital services made available in New Zealand. In recent years, for example, a number of new, high profile services have been added to service coverage in New Zealand's publicly-financed health care sector, and they have been explicitly funded by central government. Examples include breast cancer screening services, enhanced mental health services, and a national liver transplant service (Ministry of Health 1995; Hugh Adam Cancer Epidemiology Unit 1996; Szeto and Devlin 1996; Mental Health Commission 1998)³⁶. In the case of tertiary services, a central-government organised national review was undertaken in 1995 to consider the distribution of such services around New Zealand. The analysis considered in depth how economies of scale might contribute to lower costs and

³⁶ Prior to breast cancer screening services becoming available nationwide, central government-managed regional pilots were run in order to assess cost-effectiveness and to promote a quality service. Both breast and cervical cancer services continue to have national components to them, to enhance utilisation, to promote cost-effectiveness and uniformity, and to maintain quality control. From 2001 on, it appears that these services will be managed through a national screening unit, as opposed to through regional or local service providers. In the case of mental health, a national Mental Health Commission has been established to assess service requirements and to oversee the implementation of a national mental health strategy; while regional mental health services are currently being established to support local decision-making with respect to mental health care. In the liver transplant service, national policy makers decided that only one service provider would be funded to offer care, in order to ensure quality service provision.

improved health outcomes, and hence how many sites such services might be best delivered from (Ministry of Health 1995). In other cases, such as forensic mental health services, it has been recognised that specialised skills are required to provide care, and national or regional services have been established in recognition of this specialisation.

These examples provide evidence of national decision making in New Zealand. They also show that the New Zealand government does sometimes consider efficiency issues when making decisions about whether to fund services and where to locate them.

The NZ model cannot, however, score perfectly in relation to ensuring national decision making, because it also allows a range of decisions to be made at a local level. In the NZ model, health care intermediaries and providers in New Zealand have a high degree of autonomy about how to treat service users, deciding for themselves for example the diagnostic tests, advice, medicines, number of visits, referrals, days' stay in hospital and surgical and medical care which their service users are recommended^{37,38}. Over the past decade there appear to have been few limits placed on the acquisition of new, expensive equipment such as magnetic resonance imaging scanners or lithotripsy machines. Up until very recently, providers have been able to borrow or directly fund such items, the cost no doubt being recovered from depreciation or the prices charged in contracts with purchasing authorities³⁹. Further, new techniques are able to be trialed without

³⁷ In practice in New Zealand there are some constraints on GPs as a result of more explicit pharmaceutical and laboratory test tariffs. However, it is assumed here that all services are implicitly defined rather than explicitly defined.

³⁸ During the 1990s, RHAs and the HFA negotiated contracts which at times set ranges of utilisation rates for services and service groupings. The extent to which these were based on historical factors, local needs, and on providers' own resource allocation decisions is unclear. Also, the degree to which purchasing authorities held providers to account for working to contracted volumes is also unclear. These practices are considered examples of a more explicit service specification, considered in further detail in Chapter 4.

³⁹ The new DHBs, unlike CHEs and HHSs, will not be able to borrow from the private sector. A Central Financing Agency is being established to approve loans (Cumming 2000). This may include approving loans for expensive equipment.

central government involvement in decision making. Private sector intermediaries and providers similarly face no regulatory constraints on the introduction of new technologies and techniques. This lack of central or national co-ordination means that some opportunities for services or equipment to be regionally or nationally located may be lost, potentially leading to inefficiencies in resource allocations.

On balance, the NZ model is fairly poor at promoting national decision making. In New Zealand, this reflects the fact that central governments have some capacity to make national decisions about coverage and service distribution, that this capacity covers a very comprehensive range of services, and that they do exercise this capacity, but that intermediary and provider autonomy dominate decision-making. The NZ model therefore obtains a fairly poor score in relation to this objective – 40 out of 100.

3.1.1.2 Allows Local Decision Making

There is a considerable degree of local decision making in the NZ model of coverage, arising from the large degree of intermediary and provider autonomy offered by the model and its implicit coverage. Intermediaries and providers play a role in determining the range of services they will deliver, and have even more discretion over the volume and distribution of services, and the style and characteristics of care made available. This model of coverage works within territorially-based delivery arrangements to allow local communities to make many of their own decisions about service coverage.

The availability of additional insurance in a little-regulated market promotes service user autonomy with respect to some resource allocation decisions, as well as intermediary and provider autonomy with respect to the additional insurance policies which are offered. This also contributes to a high degree of local decision making in the NZ model of coverage.

If differences in the range, style and characteristics of care covered are directly related to differences in the needs and preferences of local communities, then the NZ model would make a very good contribution to allocative efficiency. Any differences in care may, however, simply reflect historical patterns of service delivery, and provider predilections for particular services. Hence, the NZ model of coverage has only the *potential* to promote allocative efficiency. To assess the contribution of decision making to allocative efficiency requires empirical evidence about the extent to which local needs and preferences are taken into account when allocating resources.

In New Zealand, there appears to traditionally be a high degree of intermediary and provider autonomy in decision making about the allocation of resources, although central government decisions seem to dominate in terms of the range of services available. There is, however, very little research which shows what types of decisions central government makes, and how much autonomy is therefore left for intermediaries and providers. Hospital boards and area health boards for example, appear to have had a good deal of autonomy in deciding how much service to deliver, and about the style and characteristics of care. In general practice, autonomy was arguably somewhat constrained by the existence of the pharmaceutical and laboratory test tariffs, but beyond this, GPs have always been free to treat service users as they see best.

A degree of autonomy in decision making is reflected in data which show differences in service utilisation rates in different parts of New Zealand (National Advisory Committee on Core Health and Disability Services 1992; Performance Monitoring Unit 1995; Contract Monitoring Group 1996; Ministry of Health 1997; Performance Management Unit 1998). (See below, Chapter 3.1.2.4, for further detail.) But it is not easy to discern whether these variations are driven by differences in local needs and preferences, or by other factors.

In recent years, both regional and central purchasing authorities have been aiming to equalise rates of utilisation around the country (Performance Monitoring Unit 1995; Contract Monitoring Group 1996; Ministry of Health 1997; Performance

Management Unit 1998). This reflects a desire to improve equity, potentially at some cost to efficiency if variations in utilisation of services are reduced in ways which means local needs are no longer met quite as well as previously. Overall, however, the role of local communities and providers in decision making *vis à vis* more central agencies remains unclear, as does the impact of attempts to equalise rates of utilisation.

As a result of the lack of evidence on the role of local needs and preferences in resource allocation decision making, the NZ model must be scored according to its potential to permit local decision making. As it appears that many decisions are left in the hands of local intermediaries and providers, the NZ model has at least the potential to score well on this objective. This is tempered by there being at least some central government involvement in decision making in New Zealand, as discussed in the preceding section. Overall, the NZ model scores fairly well in relation to local decision making, obtaining a score of 60 out of 100.

3.1.1.3 *Provides Coverage to Those Most Likely to Benefit*

The NZ model in New Zealand covers all residents, so that those most likely to benefit are covered by health care insurance arrangements. In New Zealand, this coverage is available through universal coverage provided by central government financing arrangements. Non-New Zealand residents, however, may have to pay for care themselves or purchase their own insurance to pay for care (Health Funding Authority 1998), although they are unlikely however to be refused treatment (especially urgent treatment) simply because they are not residents. Thus, the NZ model obtains an excellent score in relation to this objective, 90 out of 100. This is less than a perfect score; ten points having been taken off a potential score of 100 because non-New Zealand residents are not covered for some care.

3.1.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

In the NZ model, a comprehensive range of services is offered, and the model therefore scores very well in promoting this objective and hence allocative efficiency. That is, by covering a range of services and styles and types of health care delivery, intermediaries and providers can consider the relative cost-effectiveness of alternative ways of delivering services, and choose to offer the more cost-effective approaches to care. For example, a hospital may encourage service users to use home dialysis services more frequently than hospital-based services, on the grounds of cost-effectiveness⁴⁰. An individual GP may employ practice nurses to give immunisations or prescriptions, believing this to be cost-effective⁴¹. Prescription medicines can be prescribed early in the case of infections, so that a service user will not require hospitalisation if an untreated infection becomes worse. If such choices are excluded because particular services are not covered, cost-effective options for care are eliminated, potentially at great cost in terms of allocative efficiency.

In New Zealand, the range of services covered by the publicly-financed health care sector is very comprehensive – including primary care preventive, diagnostic and treatment services, laboratory and pharmaceutical services, a wide range of medical and surgical secondary services, tertiary care, and some palliative care. There are, however, three features of New Zealand coverage which undermine cost-effectiveness. First is that the allocation of primary care finances largely to GPs, through a fee-for-service arrangement tagged to GP visits, limits the allocation of resources to other perhaps more cost-effective providers, such as nurses and counsellors (Coster and Gribben 1999; Crampton 1999; Crengle 1999; Cumming 1999). Second, many adults in New Zealand must pay relatively expensive fees for

accessing GP care, and this provides incentives for some service users to access probably less cost-effective secondary care services rather than care available in the community (Cumming 1999). Third, some services are not covered in New Zealand's publicly-financed health care sector – alternative therapies, counselling for mental health reasons are examples – and these exclusions, as well as variations and gaps in service availability coupled with long waits for care, may limit the ability to choose the most cost-effective service for an individual service user⁴².

It was noted earlier (Chapter 2.2.1.4) that to score well on this objective, a country must not only have a comprehensive model, but it must also demonstrate that cost-effectiveness is considered when decisions about service coverage are made. Recent policy discussions and proposals do suggest that New Zealand policy makers are aware of the need to promote cost-effectiveness through coverage decisions. Recommended changes to the financing of primary care acknowledge cost-effectiveness as an issue (National Advisory Committee on Health and Disability 2000; King 2001). Priority-setting proposals developed by the Core Services Committee/National Health Committee and the HFA, and needs assessment processes promoted by the Ministry of Health include cost-effectiveness as a key criterion in resource allocation decision making (National Advisory Committee on Core Health and Disability Services 1992; National Advisory Committee on Core Health and Disability Support Services 1993; National Advisory Committee on Core Health and Disability Support Services 1994; National Advisory Committee on Core Health and Disability Support Services 1995; National Advisory Committee on Health and Disability 1996; National Advisory Committee on Health and Disability 1997; National Advisory Committee on Core Health and

⁴⁰ For evidence of the relative cost-effectiveness of home dialysis over hospital dialysis in New Zealand see Croxson and Ashton 1990. See also Godber, Robinson and Steiner 1997; Godber, Steiner and Robinson 1997 for wider issues relating to hospital versus community services and their relative cost-effectiveness.

⁴¹ See for example Ministerial Taskforce on Nursing 1998; Ministry of Health 2001, 11 October; also Richardson and Maynard 1995.

⁴² The National Health Committee recommended in 1996 that counselling for mental health reasons be publicly-financed; however, no action has been taken on this front (National Advisory Committee on Health and Disability 1996).

Disability Services 1997; Health Funding Authority 1998; Health Funding Authority 1998; Coster 2000). Some high-profile services have been identified as inappropriate for New Zealand, in part because of concerns over the cost-effectiveness of care e.g., prostate screening (National Advisory Committee on Health and Disability 1996) and breast cancer for women under 50 (Royal New Zealand College of General Practitioners 1999). Pharmac's reference pricing initiatives are also based on a broad assessment of cost-effectiveness (Maling, Andersen, Norris, Cumming, Roberts, Arroll and Kerr 2000). Hence, there is some evidence of cost-effectiveness being considered when decisions on service coverage are being made in New Zealand. These examples show only that cost-effectiveness is being considered at a central government level. Evidence about how individual intermediaries and providers make resource allocation decisions is rather harder to come by.

The availability of complementary insurance in New Zealand could improve comprehensiveness overall, by allowing service users access to cost-effective services not covered by the principal, publicly-financed health care sector. Additional insurance is available in New Zealand to pay for the services which are not covered under the principal arrangements. This coverage is paid for by individuals, and coverage is determined by willingness and ability to pay. As a result, it is unlikely that the availability of complementary insurance will fully improve comprehensiveness, first because service delivery choices made by intermediaries and providers are likely to be constrained by the range of services which are publicly-financed, if only to save the service user or the additional insurer expense; and, second, because additional insurance in New Zealand is not evenly spread throughout the population (Ministry of Health 1999; NZ Institute of Economic Research (Inc.) 2001). (There is a more detailed discussion on the distribution of additional insurance in New Zealand below, Chapter 3.1.2.3.)

On balance, the NZ model scores very well in promoting comprehensiveness in New Zealand – 80 out of 100. This is less than a perfect score, as New Zealand could offer a wider range of services than is currently available, and could improve cost-effectiveness as a result

3.1.1.5 *Promotes Accountability for Cost-effectiveness*

A model of coverage which promotes accountability for cost-effectiveness would aim to ensure that only cost-effective services were provided, i.e. that:

- the style and characteristics of care offered provide the greatest benefit for the cost incurred. For example, a model of coverage might aim to ensure that nursing staff deliver immunisation services; that health professionals recommend bed rest rather than prescription medication such as antibiotics for influenza or a bad cold and use the most cost-effective medicine for any particular condition; that the right amount of tests are ordered; and that the service users who receive care are those for whom care is effective
- the resources so expended and the prices paid for those resources are the least possible required for a given quality of care, and
- intermediaries and providers are able to be held to account for delivering only cost-effective services.

None of this is particularly likely in the NZ model of coverage, because intermediaries and providers have a good deal of autonomy in making resource allocation decisions, and because the model includes implicit coverage. Both features leave decision making about the actual services delivered up to intermediaries and providers, with no mechanism for central government to hold intermediaries and providers to account for cost-effective service delivery. Hence, in generic terms, the NZ model is likely to score poorly with respect to this objective.

The nature of this model of coverage enables a range of payment systems to promote inefficiencies, i.e. the coverage model combines with other existing features of health care sector organisation to undermine cost-effectiveness goals. Fee-for-service funding targeted to certain providers coupled with fragmented

funding arrangements and the NZ model of coverage may be a particularly bad combination when considering how to encourage cost-effectiveness. For example, some New Zealand policies do not assist in promoting cost-effectiveness. As discussed above, the nature of primary care funding in part undermines cost-effectiveness, as care must be delivered by particular providers in order for a government subsidy to be paid. The primary care, GP-focused fee-for-service subsidies are a prime example of how a model of coverage which focuses on particular *providers* rather than services (e.g. GPs rather than primary care) might undermine cost-effectiveness. Similarly, the direct allocation of resources to hospitals in the past may also have encouraged an inappropriate focus on hospital care, as opposed to potentially more cost-effective community care. The separation of purchasing and provision and moves towards capitation in primary care may have enabled some of these barriers to cost-effectiveness to be removed in recent years, however.

Another example is that individual providers may not always have financial incentives which encourage them to consider cost-effectiveness in their decisions about service delivery. For example, general practice services are paid for out of a different budget to referred services such as pharmaceuticals and hospital care, such that primary care providers have had few financial incentives *not* to refer patients on in the system, even though it might not be the most cost-effective way of treating a particular person or illness. Further, the ability of primary care providers to charge user fees on top of government subsidies provides few financial incentives to restrain rises in the price of GP care, while limited shopping around for GPs (Barnett and Kearns 1996) may also provide few financial incentives to keep prices of care low.

Capitated or capped budgets, on the other hand, provide financial incentives to remain within budget. These *may* promote cost-effectiveness better than the fee-for-service arrangements, but they may also promote under-servicing, and with New Zealand's fragmented service delivery arrangements, inappropriate referrals, both of which may be cost-ineffective.

The NZ model does, however, allow central government to promote cost-effectiveness, through its central decision-making powers. In practice, New Zealand governments have put in place programmes which promote cost-effectiveness, through for example targeting of resources to only those groups who will benefit most from care (as in breast cancer screening programmes which are provided to certain age groups only). Thus some accountability for cost-effectiveness is possible with this NZ model, but only around the more explicitly determined services.

In Chapter 1 it was noted that there have been some recent attempts in New Zealand to promote the voluntary use of practice guidelines in the delivery of health care. Guidelines have the potential to provide information to providers to encourage cost-effective practice, if they are based on research evidence of cost-effectiveness. Importantly, the guidelines originally developed by the Core Services Committee incorporated within them empirical evidence and clinician opinion on effectiveness, as well as some elements of cost-effectiveness. A model of coverage in which such guidelines are used to help diagnose and treat service users might promote cost-effectiveness quite well. The more guidelines are developed, implemented and monitored the closer the model of coverage becomes more explicit, however. In practice, New Zealand policy makers have paid little attention to implementation of these guidelines and there does not appear to be any New Zealand evidence about the extent to which providers use evidence-based guidelines in their day-to-day decision-making. For a model of coverage to promote accountability for cost-effectiveness, guidelines not only need to be developed and implemented, but intermediaries and providers would need to be held to account for the use of such guidelines. Although audits of care are increasingly common in New Zealand (particularly with respect to processes which promote safety and technical proficiency), there does not appear to be any evidence that suggests that providers are being held to account for providing care according to guidelines and for delivering cost-effective care.

There are some features of New Zealand's existing health care system which promote cost-effectiveness more than other health care systems. For example, expenditure on much publicly-funded secondary and community care is capped

overall, which could encourage intermediaries and providers to promote cost-effectiveness. There is also an increasing number of primary care providers paid on a capitation basis, and this too may encourage cost-effectiveness. IPAs may increasingly consider and hold their members to account for delivering cost-effective care (and hence move closer to an explicit, detailed model of coverage). However, the main financial incentives offered within the publicly-financed sector are to contain costs rather than to promote cost-effectiveness, and the extent to which these features of New Zealand's health care system actually promote cost-effectiveness is unknown.

The overall conclusion reached is that the NZ model of coverage scores poorly in relation to the objective of promoting accountability for cost-effectiveness; scoring 20 out of 100. This positive score recognises that central government can make some decisions which limit the services offered in order to ensure cost-effectiveness, but that this decision making is limited to only a small range of services as intermediaries and providers have a significant degree of autonomy in deciding which services to fund.

3.1.1.6 Incurs Low Costs in Administering the Specification of Services

In the NZ model of coverage, decision-making about resource allocation is diffuse, being the responsibility of many intermediaries and providers. Although the autonomous, implicit nature of the model implies that there is no formal, explicit resource allocation decision-making, some process has to be used to decide which services to deliver and which service users to provide care for. This might involve making resource allocation decisions based on day-to-day demands, historical spending or utilisation patterns, media reports or service user comments and complaints, informal evaluations of effectiveness of care, or informal needs assessment or evaluation processes. Such processes may incur administration costs, such as time and other resources spent obtaining the relevant information, analysing it, consulting and acting upon it. This contrasts with a more formal approach, which

would involve greater costs, associated with collecting data on health needs, values and preferences, effectiveness and efficiency; making decisions about the services to be made available, the style of care which is perceived as most cost-effective, and the individual characteristics of service users for whom care is cost-effective; consulting on coverage; making providers and service users aware of coverage; and monitoring adherence to such decisions.

In the NZ model, any administration costs involved in resource allocation decision making are incurred by a large number of intermediaries and providers. Although the costs of informal processes may be quite small at an individual intermediary or provider level, they may add up to reasonable sums across all intermediaries and providers.

In New Zealand, the NZ model acts to limit the costs associated with a formal process of defining and monitoring coverage, with central government costs kept low while intermediaries and providers individually do not incur significant costs in making resource allocation decisions⁴³.

Slightly offsetting these positive contributions to this objective in New Zealand is the fact that administration costs are incurred in both the central government sector and in the privately-financed additional insurance sector. In the latter, individual health insurers put together their own broadly explicit service specifications, in order to restrict claims and manage expenditure. Each of these insurers separately incurs administration costs associated with coverage decision making and service specification.

⁴³ In the near future, however, moves towards PCOs and DHBs may see individual intermediaries and providers engaging more widely in formal resource allocation decision making processes, resulting in higher administration costs, as the coverage model shifts towards requirements which begin to make coverage more explicit. See Chapter 4 for more discussion on the performance of this model in incurring low costs.

Overall, this model of coverage scores neither poorly nor well in terms of promoting low administration costs; it obtains a score of 50 out of 100. This reflects the fact that some decision making is required across a large number of intermediaries and providers, and that broadly explicit specifications requiring some administration expenditure occur in the additional insurance sector.

3.1.1.7 *Promotes Efficient Supplementation*

As discussed in Chapter 2, the nature of the interface between co-existing arrangements for financing health care has implications for achieving the goal of maximising health. In particular, the more explicit the boundaries between sectors, the more individual service users can make efficient decisions about whether to purchase additional insurance.

In the NZ model, service users may have some knowledge about the broad range of services covered by their health insurance, especially where central government has explicitly decided to cover a particular service, but for most services, various elements of the model – a good deal of intermediary and provider autonomy, implicit coverage and gaps in coverage and waiting times, work together so that service users are very uncertain about the circumstances under which they might need additional care or coverage⁴⁴. Service users will therefore purchase additional insurance without being entirely clear that they will actually need to make use of it should they become ill, and will find their insurance purchase may be worthless if services are indeed offered to them through their principal insurance coverage.

In the New Zealand case, service users can pay for additional care through out-of-pocket payments or privately-purchased complementary, gap and supplementary health insurance. However, implicit coverage within the publicly-financed sector in

⁴⁴ Implicit coverage where services are available on demand would score much more highly in promoting efficient supplementation as it provides information about the need for supplementary insurance in that no such insurance is required. See Chapter 4 for an analysis of such a model of coverage.

New Zealand does not promote efficient supplementation. This is a particular problem with respect to the additional insurance market, where *ex ante* service users may (may not) purchase insurance they might not purchase (might purchase) if they were clearer about the coverage they would receive in the publicly-financed sector⁴⁵.

In New Zealand, the boundary separating different arrangements for the financing of health care is unclear in a number of ways. The range of services covered has traditionally not been specified in any way; there are variations and gaps in coverage; and the waiting time for care has also traditionally been very unclear. Moreover, perceptions about the boundary may change – the longer waiting times or lists seem to become, or the fewer increases there are in public expenditures, the more service users might suspect that their publicly-financed coverage is reducing, and the more they may be inclined to pay for additional coverage.

Overall, an unclear boundary increases the likelihood of both over- and under-insurance in markets such as New Zealand's. The NZ model therefore scores poorly in relation to promoting efficient supplementation⁴⁶ – 30 out of 100.

3.1.1.8 *Provides Mechanisms to Manage Cream Skimming*

As a general rule, the NZ model of coverage does little to manage cream skimming. The autonomy offered to intermediaries and providers and the implicit nature of the model together mean, first, that packages of care can be put together in ways which result in cream skimming and, second, that particular service users can be put off,

⁴⁵ Ensuring 'efficient' additional payments out-of-pocket may not be so much of a problem because service users purchase this care at the time they want or need it; where their knowledge about coverage under the publicly-financed health care sector may be clearer than when deciding whether to purchase health care insurance.

⁴⁶ A wider assessment – beyond just the model of coverage and considering how well the arrangements in the private sector itself contribute to the goal of maximising health – would take into account the type of institutional arrangements which exist in the privately-financed sector. This is beyond the scope of this analysis.

through under-servicing, from joining up or remaining with particular providers or intermediaries. The first of these issues is considered in this section; the second is considered under accountability for equal access (see below, Chapter 3.1.2.4). Cream skimming might also occur in the additional insurance market.

As noted earlier (Chapter 3.2.1.5), cream skimming is more likely in a competitive market, especially where there are capitated or fixed payments, or premiums which are not accurately risk-rated, to intermediaries and providers. Hence, the nature of the health care system interacts with the model of coverage to create incentives and the ability to cream skim. In the existing New Zealand publicly-financed health care sector, incentives for cream skimming may be tempered in primary care by the use of fee-for-service payment mechanisms⁴⁷, and in secondary care by the general lack of competition between government-owned hospitals. There may be some financial incentives and opportunities for cream skimming, however, for example, if individual or groups of providers believe that government subsidies for long or difficult consultations are too low, they may discourage some service users from registering or obtaining care.

There does not appear to be any research evidence of cream skimming in New Zealand. There is evidence of low numbers of GP visits for some on-going conditions, such as mental health, and of low number of GP visits by Māori (McAvoy, Davis, Raymont and Gribben 1994; Davis, Lay-Yee, Sinclair and Gribben 1997; Crengle 1999; Cumming 1999), but whether this results from cream skimming, from user charges, or cultural and other barriers to access is not clear.

Although additional, private insurance is not paid for on a capitated basis in New Zealand, there are financial incentives for cream skimming, and the unregulated market could allow cream skimming to occur. Private insurers can choose to select out service users who are more likely to cost them a great deal more than the average service user, by excluding some groups from immediate coverage for some

⁴⁷ Further moves to shift primary care providers onto capitated contracts (King 2000) might alter the nature of the incentives here in future, increasing the likelihood of cream skimming in New Zealand.

conditions, by not promoting health insurance to some groups, or by charging some groups premiums which are higher than for other groups. Private insurers can also exclude some services from coverage altogether in order to ensure particular population groups do not join up. For example, private insurers in New Zealand do not extensively cover AIDS treatments or psychiatric care and premiums for older people are rising rapidly as community rating is abandoned in New Zealand (Consumers' Institute 1999). These particular examples could suggest an element of cream skimming is present in the market.

Scoring the NZ model of coverage for its ability to manage cream skimming is difficult. On the one hand, as the model covers the entire population and is comprehensive, the NZ model makes a good contribution to reducing at least some opportunities for cream skimming. But the autonomy available to intermediaries and providers about the range and volume of services made available, the implicit nature of the model and the existence of an unregulated private additional insurance sector, all provide opportunities for cream skimming, which may be particularly problematic when coupled with financial arrangements from which intermediaries and providers can profit if they successfully cream skim⁴⁸.

The approach taken is to score the model of coverage, and not the health care system, for its support of key objectives and goals. Thus, the lack of opportunities for cream skimming in the delivery arrangements is not relevant to scoring this model of coverage. Hence, this model of coverage scores fairly poorly with respect to managing cream skimming, obtaining only 20 out of 100. The twenty points gained reflect the positive contribution made by the universal population coverage and comprehensive coverage offered by the model.

⁴⁸ If there is further progress towards capitation in the competitive primary care market, the potential for cream skimming could become greater.

3.1.2 Equal Access for Equal Need

3.1.2.1 *Offers Universal Coverage*

The NZ model scores very well in offering universal coverage. In the New Zealand case, this is attained through the central government taking a lead role in the financing of health care, where service users contribute to health financing through a centrally-organised and regulated tax system, to which all New Zealanders contribute in some way. All residents are therefore covered by the health care system automatically, and although some hospitals may aim to charge non-residents (Health Funding Authority 1998), no person would be denied emergency or acute care as a result of being unable to prove residency or to pay for care, while GPs too have an ethical obligation to provide care to those who need it, regardless of ability to pay (NZPA 2001). Further, no service user is excluded from coverage, for pre-existing conditions for example, in the publicly-financed health care sector.

As a result, the NZ model obtains a score of 90 out of 100 with respect to offering universal coverage. This is less than a perfect score, because non-residents are not covered.

3.1.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The range of services offered under the NZ model is very comprehensive. As a result, no particular population groups are excluded because some particular service grouping is automatically excluded, and generally service users with similar needs can access a similar range of services regardless of their health status. Care is available in principle to all. This facilitates (but does not guarantee) equal access to care.

In New Zealand, however, service coverage is not quite as comprehensive as in other countries. First, the range of services available is not quite fully comprehensive as it could be, and all citizens are affected by this lack of comprehensiveness. Thus, for example:

- for GP services, full user charges which must be paid by many adult New Zealanders, which effectively excludes GP care from coverage under the publicly-financed sector. For other New Zealanders, who are eligible for government subsidies for GP care, the level of user charge paid for GP services is regarded as high, thereby limiting access to GP care
- dental and ophthalmology services are generally not covered for adults through the publicly-financed health care sector⁴⁹
- New Zealand also does not offer the same range of income replacement benefits that is offered in other countries to those who are ill⁵⁰.

Thus, New Zealanders more likely to need these services find that their needs are not well met by the publicly-financed health care system. If these types of needs are regarded as less important than other health needs, then the inequities arising from their exclusion may not be regarded as serious. If needs viewed as of equal importance are covered, then the inequities may be viewed more seriously⁵¹.

⁴⁹ Some service users on low incomes may receive free emergency dental care from publicly-owned hospitals, and children of low income families may also be eligible for a subsidy on spectacles (Health Funding Authority 1998).

⁵⁰ Such benefits are available in New Zealand to those covered under ACC.

⁵¹ Examples of inequities might include New Zealand's ACC system paying income-related benefits for time off work due to accidents, while those off work due to illness receive no such compensation; hearing aids being paid for by the publicly-financed health care sector, while glasses are not; ear syringing being paid for for those on low incomes, while dental care is not.

A second point is that there are also some significant gaps in coverage in New Zealand, and these gaps mean that service users with particular needs miss out on obtaining publicly-financed care seemingly more frequently than service users with other needs. Those needing mental health services (including alcohol and drug services), disability support services and hospice services, and young people, are the most visible groups affected by gaps in coverage. Those waiting for elective surgery also sometimes miss out on care as a result of the relatively long waiting times which occur in New Zealand. In addition, a shortage of Māori, Pacific and other ethnic service providers is often argued to lead to gaps in service provision and to reduce access to care for some groups. These gaps together mean that some groups of service users may find it harder than others to access care they need, creating inequities in access to care. These inequities are in part facilitated by the model of coverage, which allows such gaps in particular services to continue.

On the other hand, New Zealand does cover services that are sometimes not included within principal health funding arrangements in other countries. For example, pharmaceuticals are covered in New Zealand but are not in Canada; the first three pints of blood must be paid for by service users covered by United States Medicare; and preventive care, mental health services and home care services are often not offered within insurance packages by United States intermediaries (Daniels, Light and Caplan 1996). Again, these gaps create some inequities if they mean that certain groups cannot obtain care as easily as those with other needs.

Overall, the NZ model of coverage in New Zealand scores very well in promoting comprehensiveness – 80 out of 100. This score reflects the broad coverage of services but acknowledges that there are a few gaps in coverage, which lead to poor access to care for some population groups.

3.1.2.3 *Offers Uniform Coverage*

The NZ model allows a moderate degree of difference in the range of services made available to individual service users. These differences are enabled by there being a good degree of intermediary and provider autonomy in deciding on the range of services offered and implicit coverage in the principal health care sector. Access to care can therefore differ depending on where a service user lives or which provider a service user visits. Differences in coverage occur secondly through the model of coverage regulation enabling those who are willing and able to pay to purchase additional insurance to supplement and complement the care offered under the principal health care sector. The larger the contribution made by the additional insurance sector, and the more uneven is the take-up of additional insurance, the more the goal of equal access for equal need is undermined in that those with particular needs may not get the same access as others. This is particularly problematic where those unable to obtain additional insurance are those with higher health needs.

In New Zealand's publicly-financed health care sector, more or less the same range of services is available to all. However, there is potential for variations in the volume and distribution of services, the style of care available, the processes that make up services, user charges, waiting times, and in who gets access to care. Some of the differences in utilisation by geographical district were discussed above (Chapter 3.1.2.4). Other inequities can arise where incomplete comprehensiveness in the publicly-financed sector leads to some service users able to purchase such care through out-of-pocket payments or additional insurance, while other New Zealanders cannot. For example, user charges for some primary care services are quite high, and are viewed by many as a significant barrier to care. A range of therapies are not subsidised in the New Zealand publicly-financed health care sector, and must be purchased privately (acupuncture, chiropractic and other alternative therapies are examples, as is counselling for mental illness). Thus, some service users may get better access to care because they are more able to afford care or additional insurance coverage. These out-of-pocket payments may lead not only

to a higher financial burden for low income and unhealthier families (Hopkins and Cumming 2001), but to inequities in access to care.

There is evidence that access to care differs for different New Zealanders. The clearest evidence relates to differences in utilisation of care by:

- geographic location (see below, Chapter 3.1.2.4)
- community services card holdings for primary care, where those with community services cards are, if they had any consultations with GPs, more likely to have more GP visits than those without cards and to have more prescription items (Ministry of Health and New Zealand Health Information Service 1995)
- coverage by private health insurance, which is unevenly spread through the New Zealand population, and hence does not promote similar coverage throughout the population (Ministry of Health 1999; NZ Institute of Economic Research (Inc.) 2001), resulting in different levels of utilisation of services by insurance status (Ministry of Health 1999).

In reporting this evidence, however, it is important to recognise that little of the evidence links inequities to differences in coverage directly, and hence inequities may arise for a number of different reasons.

In order to score the NZ model of coverage on this sub-objective, it is necessary to have information about whether supplementary insurance is viewed as essential and whether it is reasonably evenly spread throughout the population. The more essential insurance is, and the less evenly spread it is, the more serious any inequities in insurance holding and utilisation are likely to be considered.

In New Zealand, additional insurance is regarded by some as not particularly essential (Consumers' Institute of New Zealand 1993; Consumers' Institute of New Zealand 1995; Consumers' Institute 1999). (See Consumers' Institute of New Zealand 1997 for a different view.) With comprehensive coverage, there is no

particular need to have insurance in New Zealand. New Zealand's record in relation to waiting times for elective care does however seem to suggest that New Zealanders' access to some care in the principal sector is not as good as in other countries, and that timely access to elective care requires additional insurance. The much faster access to care which is offered by insurance may indeed be viewed as entrenching serious inequities in access to care in the model of coverage.

The distribution of private health insurance in New Zealand is similar to that in other countries in which it plays a similar role (Maynard 1986; Industry Commission 1997; Hall, De Abreu Lourenco and Viney 1999). Private health insurance is more likely to cover those who are aged between 25-64; european/pakeha; couples with and without dependents; those who do not hold a community services card; those on higher incomes; those whose health status is excellent or very good; and those without disabilities (Ministry of Health 1999). Moreover, private health insurance tends to be more expensive for those aged over 65 as a result of recent moves away from community rating of premiums (Consumers' Institute 1999).

This does not show that access to care is better for those able to purchase health insurance – at face value, those groups more likely to have health insurance are also those who are less likely to need care (middle-age groups; those in good health and without disabilities), and those whose GP care is not subsidised by government (adults under 65, those not holding a community services card). However, the lower proportion of non-pakeha (non-european) groups with insurance is likely to lead to differences in access to primary care between ethnic groups; while access to elective surgery is also likely to be unevenly spread as a result of uneven holdings of health insurance. The research evidence on the inequities in access to care arising from private health insurance is, however, scarce. Few differences have been found between those with and without insurance in terms of GP, nurse and pharmacy use, although those with health insurance are more likely to visit a dentist or specialist. Although there is some evidence that service users without insurance are less likely to access private hospitals, no differences have been found overall in relation to the

likelihood of hospital admission overall (Ministry of Health and New Zealand Health Information Service 1995). However, this material does not adjust for differences in need, and other research shows there are differences in waiting times for those with and without additional insurance (Consumers' Institute of New Zealand 1993).

Overall, the NZ model scores 60 out of 100 for this objective. This recognises that uniform coverage is promoted in New Zealand through the NZ model offering universal and fairly similar coverage, but that intermediary and provider autonomy and the availability and distribution of additional insurance create variations (and inequities) in access to care.

3.1.2.4 *Promotes Accountability for Equal Access*

The NZ model of coverage does not score well in promoting accountability for equal access for equal need. As noted in Chapter 3, services must be available; they must be delivered in a timely way; and ways of ensuring there is no over- and under-servicing must be found. Each promotes equal access – and a model of coverage regulation can have a strong impact on ensuring that each occurs. However, the model of coverage regulation under discussion leaves resource allocation decision-making largely in the hands of local intermediaries and providers – and if they are not held accountable for delivering equal access, there is no guarantee that it will occur.

In the NZ model, there are many ways in which providers might deliver different amounts and quality of care to service users who have roughly the same needs. Service users may not get access to particular services if some services are not offered at all (for example, IVF and tattoo removal services are often considered by health authorities to be candidates for removal of funding altogether (House of Commons Health Committee 1994-95; Klein, Day and Redmayne 1996; Klein 1998)), or care which is available to some may be denied to others, with service users selected as less deserving, turned away from care, or deterred from seeking

care. Services can be diluted or stopped altogether (Klein, Day and Redmayne 1996). In addition, in the NZ model, some service users can be made to wait long periods of time for care.

In spite of the NZ model generally failing to offer ways in which to hold intermediaries and providers to account for equal access, the involvement of central government in some decision making can in some degree hold participants to account for equal access. This is particularly the case where central government decisions to establish services nationally are accompanied by central government monitoring over service delivery, including in relation to access by different groups in the population.

In New Zealand, the ability for central government to make broad coverage decisions makes a small positive contribution to this objective, there having been established recently some national programmes which aim to provide equal access to care, and some monitoring of utilisation rates by regions and population groups (e.g., for cervical and breast cancer screening programmes). But the NZ model, being implicit, generally has not stipulated that particular services should be available, and generally has not aimed to hold intermediaries and providers to account for equalising access. Although the NZ model has roughly similar service coverage across regions, who gets what care is largely left in the hands of individual intermediaries and providers – making it difficult to ensure that individuals with similar needs are indeed getting similar care. In addition, there are variations in access to care, service gaps and long waiting times for care. There is therefore no guarantee that the same services are made available in all localities, and that service users with the same ability to benefit will get care within the same time frame, if indeed at all. (Note, however, that some moves have been made in recent years to monitor utilisation more carefully; shifting the model more towards an explicit service specification.)

The NZ model's inability to hold intermediaries and providers to account for equal access to equal need is supported by a significant amount of evidence which suggests that there is not equal access for equal need in New Zealand, although much of the evidence does not specifically use data sources which directly relate to this issue. Rather, the evidence is on rates of utilisation.

First, there is evidence that shows particular high need/morbidity groups have low utilisation of a range of services. For example, Māori have lower rates of utilisation of primary care than would seem appropriate given their relatively poor health status (Malcolm 1996; Davis, Lay-Yee, Sinclair and Gribben 1997; Gribben 1999). Māori also appear to have higher rates of secondary care utilisation which may well be connected to their lower use of primary care (Pomare, Keefe-Ormsby, Ormsby, Pearce, Reid, Robson and Watene-Haydon 1995). Dovey et al found that families with four or more people dependent on government benefits had lower primary care costs than families with adults in paid employment, along with higher secondary care costs, and hence higher overall costs (Dovey, Tilyard, Phillips and Whitney 1992). There is also evidence that there are relatively low rates of primary mental health care visits in New Zealand (McAvoy, Davis, Raymont and Gribben 1994).

Second, there is evidence of differences in utilisation by geographic region. Perhaps the strongest examples have been recognised as a result of the waiting times initiatives in recent years – cases of service users living in one part of the country having to be much sicker (and hence have many more CPAC points) in order to get care quickly than occurs in other parts of the country (Anonymous 2002). Other cases have been documented in reports by the Core Services Committee/National Health Committee and the Ministry of Health, but where adjustment for need is more crudely done, taking into account only age and gender differences in regions. These documents show large differences in rates of discharge from publicly-financed hospitals per head of population for services such as cataract surgery, heart bypass operations, gall-bladder removal and knee and hip replacements, with higher public rates associated in some cases with lower private rates of surgery, and vice versa (National Advisory Committee on Core Health and Disability Services 1992). Similar variations in discharge rates have continued over the 1990s, although it has

been the policy of purchasing authorities over these years to reduce such variations in access (Performance Monitoring Unit 1995; Ministry of Health 1997; Performance Management Unit 1998).

The extent to which these inequities are a result of an implicit model is not easily separated out from other factors which may also lead to unequal access for equal need. These other factors may include the existence of user charges for GP care especially (Cumming 1999) and the lack of culturally appropriate primary care givers (Pomare, Keefe-Ormsby, Ormsby, Pearce, Reid, Robson and Watene-Haydon 1995; Durie 1998). In relation to secondary care, little research has been undertaken in New Zealand to determine the reasons for the differences in utilisation which have been found.

Overall, the NZ model in New Zealand generally fails to hold sponsors, intermediaries and providers to account for delivering equal access for equal need, although there are a few national programmes for which accountability for equal access might develop. As a result, this model of coverage scores 20 out of 100 in relation to this objective.

3.1.2.5 Provides Mechanisms to Manage Cream Skimming

In general, the NZ model scores poorly in providing mechanisms to manage cream skimming. By offering similar population and comprehensive coverage, the NZ model reduces some avenues for cream skimming. But by being implicit, it allows individual intermediaries and providers to define packages of care in ways which encourage some service users to join a particular intermediary or provider, and discourage others from joining.

Much of the discussion about cream skimming and the NZ model is set out in Chapter 3.1.1.8 above. Moreover, variations in utilisation of care which occur in New Zealand have already been noted. The extent to which these variations occur

as a result of cream skimming is unknown, but it seems likely that variations in utilisation of GP services may well be related to GP decisions to locate in the better off districts and to a form of cream skimming where the delivery of particular services (e.g., long and complex visits) by GPs is affected by having fixed fees for services, which may be regarded as too low for the care required.

As noted in Chapter 3.1.1.8, with respect to the efficiency goal, scoring this model of coverage for its ability to manage cream skimming is difficult. On the one hand, as the model covers the entire population and is comprehensive, it makes a good contribution to reducing at least some opportunities for cream skimming, but, on the other hand the autonomy available to intermediaries and providers about the range and volume of services made available, the implicit nature of the model and the unregulated private additional insurance sector all provide opportunities for cream skimming. Overall, the NZ model is judged to score fairly poorly with respect to managing cream skimming, obtaining only 20 out of 100, because the potential for cream skimming with this model is very high.

3.1.3. Choice

3.1.3.1 *Offers Choice Over Package of Care*

The NZ model scores very poorly in relation to choice over package of care. This occurs because the overall package of care is largely the same all over the country – any services which are excluded are quite likely to be excluded for everyone; and services which are included are included for more or less everyone. There are some variations in the range of services available, and in access and there are also some service gaps which lead to some differences in coverage, but these differences are not significant. Hence, service users have little choice over the package of services available to them; and any choice they might have requires them to move districts. The package of care offered is also very comprehensive, so that those service users wishing to purchase only limited coverage are not able to do so.

Service users do have some degree of choice over the package of care, in that they can extend their coverage beyond that offered in the principal system, by purchasing additional services through out-of-pocket payments or through additional insurance. Additional insurance in the NZ model is not regulated in relation to service coverage, allowing private intermediaries to design packages of care as they wish, and offering service users choice between these packages of care. Even with such insurance, however, service users' choices of coverage will be limited to those services which insurers are prepared to cover. This is likely to exclude a range of services, such as services for HIV/AIDS, long-term mental illness, hospice care and cosmetic surgery.

In New Zealand, the package of services made available is partially determined by central government, as well as by individual intermediaries and providers. For example, it was noted earlier that central government in New Zealand has been involved in determining whether particular services are available in New Zealand at all (e.g., cervical and breast cancer services), but beyond a few high profile examples, intermediaries and providers maintain a key role in deciding the range of services offered. This allows service users some choice of coverage – in the sense that service users may be able to move to districts or regions that offer a package of services more to their liking. There does not appear to be any research evidence of this happening in New Zealand, though it is posited to occur elsewhere.

Hence, the NZ model in New Zealand scores a 30 out of 100 in relation to the objective of choice over package of care. This reflects the fact that overall the range of services available is similar around New Zealand, but that intermediaries and providers have some opportunities to offer different ranges of services if they choose to do so, and that service users can choose to have wider coverage than other New Zealanders by paying for care privately out-of-pocket and by purchasing additional insurance.

3.1.3.2 *Offers Choice Over Style and Characteristics of Care*

There is a better score for the NZ model in relation to choice over the style and characteristics of care. Service specification is largely implicit, with intermediaries and providers able to make their own decisions about the style and characteristics of care made available. Where intermediaries and providers offer different styles and characteristics of care, service users will have a choice of coverage over these features of care. Against this, however, is the potential for variations in access, service gaps and long waiting times for some care, which may reduce choices for some service users in some parts of the country.

In New Zealand, in the publicly-financed health care sector, there are some limits on choice over the style and characteristics of care. This arises firstly as a result of decisions made about the range of providers from whom care can be accessed using government subsidies to pay for care. In particular, it is often only GPs from whom service users can obtain subsidised primary care – limiting the choices of those who may wish to see nursing staff for example; while chiropractors, acupuncturists and osteopaths also cannot obtain such subsidies for the primary care they offer to those who are sick. Some of these restrictions began to be dismantled during the 1990s, as purchasing authorities in New Zealand were given greater flexibility to contract with a range of providers to deliver primary care services (e.g., marae-based services, suitcase or mobile clinics), as they moved away from coverage based on type of provider to coverage based on services. As a result, there appears to be greater choice of primary care provider (and hence of style of care) in some parts of the country than there used to be.

Second, service user choice may still be restricted to those styles or characteristics of care that intermediaries or providers choose to make available within the publicly-financed system. In contrast to a model where service users get to choose how to spend their resources, the publicly-financed sector in New Zealand allocates funding to particular intermediaries and providers, who then choose the style and characteristics of services to make available. This may lead to some restrictions on care. For example, there may be reasonable access to in-hospital kidney dialysis

services in one centre while only home dialysis is available in another centre. In larger centres, women may be discharged within one or two days following the birth of their children, while in smaller centres there may be more freedom to stay in hospital for three or four days. The most obvious of these restrictions on choice in New Zealand under public financing coverage are in relation to elective care. New Zealanders must generally wait for such care, they often do not get a choice of specialist, and the facilities offered are those offered to all New Zealanders in public hospitals, i.e. average quality food with shared rooms with televisions available only in common rooms.

The choices available to New Zealanders in terms of style and characteristics of care are, however, enhanced by the availability of supplementary insurance, which allows coverage of a wider range of providers, faster access to care, and better quality facilities. These choices are of course only available to those for whom coverage is offered and to those who are able to pay for additional insurance.

Overall, this model of coverage scores 60 out of 100 in New Zealand in promoting choice over style and characteristics of care. This is less than a perfect score, reflecting the limited choices which arise from restrictions on provider access to subsidies in New Zealand, and from variations, gaps in services and long waiting times.

3.1.4. Expenditure Control

3.1.4.1 *Makes It Possible to Ration Care*

The NZ model scores extremely well in enabling care to be rationed, and hence at promoting expenditure control, at least in the principal sector. This is because the model offers no defined list of services to which service users have access, so that if expenditure is rising faster than desired, the range of and styles or characteristics of care can easily be reduced, and treatment thresholds can be changed upwards so that

it becomes harder to qualify for care. This model of coverage also allows service gaps and long waiting times – offering more ways to keep expenditure in check. In the additional insurance sector, however, the broadly explicit model, with care available on demand, allows more limited rationing of care, reducing the overall expenditure control offered by the NZ model.

In New Zealand, the NZ model in the publicly-financed health care sector has enabled governments, intermediaries and providers to ration care to control expenditures. With no clearly articulated entitlement to care, sponsors, intermediaries and providers have a myriad of ways of putting service users off. This has allowed flexibility in the allocation of resources, and overall expenditure control, but at a cost to service users unable to obtain care.

Waiting lists have traditionally been the most visible way in which care has been rationed in New Zealand. The numbers of people on these lists have, until only fairly recently, increased quite dramatically over the years (Cumming and Salmond 1998). Although waiting times are a better indicator of access than waiting lists – after all, it is not a problem if the lists are long but service users are seen and treated quickly – New Zealand has traditionally relied on waiting lists to limit access to elective surgery. This leads to problems in access to services for many service users. For example, by 1990, two-thirds of cataract operations were being paid for privately in Auckland, compared with one-third in the rest of the country (National Advisory Committee on Core Health and Disability Services 1992). The ability for public sector hospitals to maintain expenditure control, by limiting access to cataract surgery, was facilitated by the absence of an explicit service specification.

In New Zealand's privately-financed additional insurance sector, there is somewhat less ability to ration care, at least in terms of denying or delaying access to care. The services available to service users are listed explicitly (albeit broadly) in insurance documents, and the sector has a tradition of offering care more or less on demand. Thus service users are much more likely to be able to obtain care if they are deemed by providers to need such care, and if they are covered for such care.

Even within the privately-financed additional insurance sector, however, sponsors, intermediaries and providers can ration care, for example by altering the thresholds at which care is offered. This could be used to ration care to some service users. However, the independence of specialist providers from intermediaries and the use of fee-for-service payments for much private care, suggests that such behaviour is probably unlikely in New Zealand at the present time. More likely to cause concern is the ability to reduce thresholds, so that more service users can be recommended treatment, an issue which is discussed in more detail below. If, however, private health insurers in New Zealand begin to 'manage' care more closely, the lack of detail with respect to thresholds in the lists of services covered may allow increased options for private insurers to ration the care provided to their members.

This model of coverage therefore scores 80 out of 100 in relation to the ability to ration care in order to control expenditures. This score reflects the implications of the NZ model in use in the publicly-financed sector in New Zealand, but with ability to ration care overall reduced as a result of the broadly explicit service specification and 'care-on-demand' ethos which exists in the additional insurance market.

3.1.4.2 Promotes Accountability for Style and Characteristics of Care

In the NZ model of coverage, the ability of central government to make some decisions, allows at least a small degree of accountability for style and characteristics of care. But generally, choices over the style and characteristics of care offered to service users are largely left in the hands of individual intermediaries and providers. In Chapter 3.1.4.1 above, this flexibility was shown to allow sponsors, intermediaries and providers the flexibility to ration care. In addition, this flexibility allows sponsors, intermediaries and providers to introduce new styles of care (e.g., increasing use of specialised and more expensive staff, new techniques and technologies, new medicines) and enhanced characteristics of care (e.g., more days in hospital, lower treatment thresholds which increase access, better quality facilities). With such flexibility, there are no mechanisms for preventing

undesirable (i.e. ineffective, inefficient, inequitable) innovation. This may lead to difficulties in controlling expenditures.

Such inefficient changes in styles and characteristics are more likely within fee-for-service payment arrangements, where volume of care is also unregulated. Expenditure control under such circumstances will be very difficult, as the United States experience with ever-increasing expenditures suggests. But even where there are budget caps, there will be problems arising from the flexibility offered by the NZ model. New styles and characteristics of care which lead to increases in expenditures for some services may lead to reductions in access to other care. Furthermore, the more visible forms of rationing of other care which may result from changes in styles and characteristics, may lead the sponsor to increase overall spending, making it harder for the sponsor to control expenditure over the longer term.

In New Zealand, the NZ model does indeed allow there to be changes in the style and characteristics of care offered and hence for both desirable and undesirable innovation. Although there is a formal process for deciding whether new medications should receive government funding, there is no such process in relation to the development of new technologies and techniques for other services. New Zealand appears to be falling behind other countries in not having formal technology assessment procedures. Although it has been argued that a better focus is on developing effectiveness guidelines, and identifying the circumstances when particular technologies and techniques are cost-effective, guideline development in New Zealand has been slow, implementation has been poor and the impact of guidelines remains largely unevaluated. Thus, undesirable changes in style and characteristics can occur in New Zealand given the NZ model of coverage.

Similar issues arise in the privately-financed additional insurance sector in New Zealand. Although this sector operates with an explicit service coverage specification, these specifications are quite broadly defined – leaving decisions over the style and characteristics of care in the hands of individual providers.

Hence, the NZ model in New Zealand will make it difficult for sponsors to restrain expenditure growth, as the thresholds for treatment remain uncontrolled. Hence, this model of coverage scores 20 out of 100 in relation to the objective of accountability for style and characteristics of care. This positive score recognises that there are some national arrangements possible for controlling new treatments and technologies, as shown by the national development of breast and cervical cancer screening programmes.

3.2 *Summary and Conclusions*

Overall, New Zealand's current model of coverage does not meet key health policy goals and objectives terribly well. The results of the scoring on key policy goals and objectives for the NZ model are shown in Figures 3.1 to 3.5. (Note that 3.1 is an unweighted profile.) The overall scores for each goal are: efficiency, 49 (fairly poor to fair); equity, 54 (fair); choice, 45 (fairly poor); and expenditure control, 50 (fair). The overall score is 50, which is fair.

The NZ model promotes allocative efficiency by allowing a degree of local decision making through the autonomy offered to intermediaries and providers and the implicit service specification; providing coverage to those most likely to benefit and offering a comprehensive range of services and styles of care. Further empirical evidence is required, however, in relation to the balance of decision making between national and local agencies, and the role that economic factors and local health needs play in determining the services offered. These advantages are offset by elements which work against maximising health, principally not allowing a significant role for national decision making, not promoting accountability for cost-effectiveness, nor promoting efficient supplementation or mechanisms to manage cream skimming. Cream skimming is unlikely to be a significant issue within the existing NZ health care system however; thus the poor performance on the objective of managing cream skimming can be argued to be of little importance.

The goal of equal access for equal need is supported by the model offering universal coverage, comprehensive coverage of a range of services and styles of care, and a good degree of uniform coverage. This support is offset by poor performance in relation to promoting accountability for equal access and providing mechanisms to manage cream skimming. As noted above, the poor performance on the objective of managing cream skimming can be argued to be of little importance.

The NZ model offers poor choice over the package of care offered, but good choice over style and characteristics of care. Its implicit nature allows it to perform well in supporting the objective of making it possible to ration care, but this same element leads to a poor performance in promoting accountability for the style and characteristics of care delivered to service users.

Figure 3.1: NZ model: Overall profiles for sub-criteria

Figure 3.2: NZ model: Maximising health outcomes for the resources available:
Profiles for sub-criteria

Figure 3.3: NZ model: Equal access for equal need: Profiles for sub-criteria

Figure 3.4: NZ model: Choice: Profiles for sub-criteria

Figure 3.5: NZ model: Expenditure control: Profiles for sub-criteria

Evaluating Alternative Models of Coverage Regulation in New Zealand Within the Existing Health Care System

In Chapter 3, New Zealand's current model of coverage regulation, the NZ model, was evaluated for its support of key policy goals and objectives. In this Chapter, the focus shifts to an evaluation of alternative models of coverage regulation. Four alternatives are chosen for analysis. A first alternative is where regional or local intermediaries and providers have greater autonomy than with the NZ model to determine service coverage and access to care. This is chosen to represent the potential autonomy that DHBs in New Zealand might have in relation to service coverage and access decision-making in future years. A second alternative is to remove some services from coverage in New Zealand's principal health care sector, i.e. to reduce comprehensiveness. A third alternative is to move towards greater centralisation and explicitness in service coverage and access decision-making. This alternative could develop in New Zealand if the CPAC approach were extended to a wide range of services. A fourth alternative is to ban supplementary insurance for services that are covered in the principal insurance sector, as occurs in the Canadian health care system.

Analyses of alternative models of coverage require some assumptions about the way each alternative would work in practice, and the development of theories about the likely effects of each alternative on key policy goals and objectives. This theory development in part draws on existing health policy and health economics theoretical and empirical literatures, but some is more speculative.

The focus of the analysis is on the differences between the performance of each alternative model of coverage regulation and the NZ model discussed in Chapter 3, in supporting key policy goals and objectives. Where there is not much difference between the models, this is noted and readers are referred to the discussion on the NZ model for further detail. A note on scoring conventions is set out in Appendix 2.

4.1 *An Alternative Model of Coverage Regulation for New Zealand (1) A 'Local Model' Offering Greater District Autonomy*

A key difference between different models of coverage is the respective roles of central, regional and local government and private agencies in defining service coverage and distribution. In some countries, there is a key role for central government responsibility in managing health care services (e.g. as occurs in the United Kingdom, New Zealand, and Sweden), while in other countries there is more regional and local government autonomy (e.g., possibly in New Zealand and the United Kingdom, and in Sweden and Canada). Some countries place responsibility for managing services in private intermediary and provider hands (e.g. Germany, the Netherlands, the United States). The allocation of resource allocation roles to different agencies can also lead to different degrees of variation in the services available. The same or similar coverage can arise as a result of much central policy making (the United Kingdom, New Zealand, Sweden) or as laid down in law (Germany, the Netherlands, United States federal or state regulations), while there can be some differences in service coverage and availability by province or state (as in Canada) or intermediary (Germany, the Netherlands), or service availability can vary widely because individual intermediaries and providers have responsibility for deciding for themselves what services they will cover and offer to service users (as with United States private health insurance).

Since the early 1900s, responsibility for decision making in New Zealand's health care system has shifted between central, regional and local governments. In the last 20 years alone New Zealand has placed responsibility for decision making about secondary care services in the hands of 29 hospital boards, then 14 AHBs, followed by four RHAs and one HFA (as separate purchasing authorities), along with 23 CHEs (later, HHSs) (as separate providers). Further reforms took place in 2001. Twenty-one DHBs have taken over responsibility for the health needs of their populations from mid-2001. A key role for these boards is to decide on the mix, level, and quality of health and disability services (Minister of Health 2000). These reforms represent a shift back towards integration of purchasing and provision for secondary care services, and to greater local involvement in decision making – DHBs will have a majority of elected members to oversee prioritisation and the running of hospital services. For the first time in New Zealand, local boards will be responsible not only for secondary care spending but also for primary and community services, and (eventually) for disability support and public health services.

At the time of writing, the exact arrangements surrounding DHBs remain unclear. Central government has stated that DHBs are to operate 'within the parameters of the New Zealand Health Strategy, New Zealand Disability Strategy and nationwide requirements that will form part of Funding Agreements', such as minimum service coverage and quality standards (such as the Health and Disability Code of Rights and existing minimum quality standards) (Minister of Health 2000). The actual degree of devolution of decision making to DHBs remains uncertain. Central government may allow a great deal of autonomy in determining priorities, especially in the longer term. Alternatively, DHBs may be held more tightly to account for the delivery of services, and government policy may continue (as during the 1990s) to seek rather more equity of access than has previously occurred under local governance. Certainly it appears that the central government is committed to the waiting times project, and to ensuring equity of access to elective surgery (King 2000; King 2002) – hence there is at least one key set of services where DHB autonomy may be limited.

In this Section, the analysis focuses on a 'local' model of coverage with a greater degree of local autonomy than the NZ model analysed above. It is assumed that intermediaries (DHBs in New Zealand's case) have complete freedom to determine the range of services available to their populations. It is also assumed that DHBs choose to make some, but not many, joint decisions about the funding and distribution of health services. This reflects actual practice in New Zealand, where DHBs are establishing some shared service arrangements between them.

Table 4.1

Key features of model of coverage S/D(A)-C-I(U)-I, the 'local model'

Similar population coverage, but with an increasing degree of diversity. No central government oversight and policy making with regards to resource allocation. Local autonomy with respect to decisions about service coverage and distribution, i.e. with respect to the mix, level and distribution of services made available, the style and characteristics of care. This leads to a good degree of variation in access to care across territorial authorities.

Generally, very comprehensive coverage of services.

Implicit model. Resources are allocated to intermediaries (DHBs in New Zealand) using a population-based funding formula. Intermediaries decide how to allocate those resources in terms of the mix, volume and quality of care to be made available, and decide how to deliver those services – whether through their own services or independent providers. Intermediaries have complete flexibility to make such decisions. Thus not only are there likely to be variations in access to care, gaps in service availability, and uncertain and long waits for some services, but with the potential for increasing variations if intermediaries diverge in terms of the decisions they make about service mix and distribution.

Insurability of health care services covered in the principal system (i.e., supplementary insurance is allowed). Complementary and gap insurance coverage is also enabled. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

Because it is also assumed that resources will initially continue to be allocated largely as they have been in the past, the local model is assumed not to result in such a degree of diversity in the range of services and access to them as seen for example in the United States. Over time, a local model should however result in more variation than occurs at present in New Zealand.

4.1.1 Maximising Health Outcomes

4.1.1.1 *Allows National Decision Making*

The local model does not include a role for central government decision making about the services available and their distribution. There is therefore no opportunity for a country to consider whether economies of scale with respect to outputs and outcomes, services with a shortage of expertise, and emerging techniques and technologies, might imply that regional or national service provision is more allocatively efficient than local provision.

In generic terms, therefore, the local model does not score well in promoting national decision making – it scores a 10 out of 100 (compared with 40 out of 100 for the NZ model). It scores higher than it might otherwise do, given that as all DHBs are part of a government-financed system, there is at least some potential for them to work together; and that it is assumed that a small amount of joint decision making does take place.

In New Zealand's case, further evidence will be required to determine whether the establishment of DHBs leads to a good deal of local decision making as is assumed here. If no such evidence emerges, with central government taking a lead role in relation to resource allocation decisions, New Zealand's model of coverage would remain closer to the NZ model already discussed above. Further evidence will also be required to establish whether DHBs do indeed work together in the interests of

promoting an efficient allocation of resources, or whether they prefer to make decisions independently of each other.

4.1.1.2 Allows Local Decision Making

The local model allows a great deal of local autonomy in decision making about service coverage and distribution. As noted earlier, however, this model of coverage allows only the potential for gains from local decision making – further empirical evidence would be needed to determine if local needs, values and preferences are indeed taken into account when resource allocation decisions are made.

In the present New Zealand environment, empirical research is required to identify whether or not local needs, values and preferences are considered when DHBs make resource allocation decisions. But given its potential to encourage local decision making, the local model scores 90 out of 100 on its contribution towards the objective of enabling local decision making (compared with 60 out of 100 for the NZ model). This is less than a perfect score because there is at least some potential for national decision-making where all DHBs are part of a national system, and because it is assumed that DHBs will jointly make resource allocation decisions with respect to a small set of services.

4.1.1.3 Provides Coverage to Those Most Likely to Benefit

There is no difference between the local model and the NZ model in terms of offering coverage to those most likely to benefit. Hence, the local model scores the same as the NZ model – 90 out of 100.

4.1.1.4 Offers Comprehensive Coverage of a Range of Services and Styles of Care

As with the NZ model, the local model scores well on offering comprehensive coverage. Individual intermediaries may choose to improve or reduce comprehensiveness within their districts, by adding or removing services from coverage, but there is no a priori reason for expecting comprehensiveness to improve or worsen under a local model.

In the New Zealand case, an assessment of the impact of DHBs on comprehensiveness has to await further research. As a result, it is assumed that the local model scores the same as in the NZ model with respect to comprehensiveness – 80 out of 100.

4.1.1.5 Promotes Accountability for Cost-Effectiveness

The local model provides a good deal of autonomy to intermediaries and providers in making resource allocation decisions. This attribute, coupled with the implicit nature of the model, means that the local model does not score well in holding either intermediaries or providers to account for cost-effectiveness.

Autonomy for DHBs and providers coupled with an implicit service specification, makes it difficult for the government to hold intermediaries, and for intermediaries to hold providers, to account for ensuring only cost-effective services are delivered to service users. A small amount of joint decision making with respect to some services may offer a small amount of accountability, however, where explicit and joint decision-making involves some detailed directions to be provided about some services and who gets access to it. Overall, the local model obtains a lower score than the NZ model in relation to promoting accountability for cost-effectiveness – 10 out of 100 (compared with 20 out of 100 for the NZ model).

4.1.1.6 Incurs Low Costs in Administering the Specification of Services

As decision making about resource allocation is diffuse, and as there are few or no formal costs in defining a specified list of services that are to be made available to service users, the local model has administration costs that are similar to the NZ model. However, the local approach is assumed to involve fewer decisions taken by central government, with a number of local intermediaries or providers taking over this role. This will lead to a local model having higher administration costs than the NZ model.

In New Zealand, the move to DHBs should in theory be accompanied by a move towards more local decision making. An increased number of intermediaries are therefore involved in decision making about resource allocations. This may lead to higher administration costs than with the NZ model. There is potential, too, for an even higher level of administration costs with the local model if DHBs undertake more formal resource allocation decision-making processes than occurs within the NZ model. This appears quite likely as DHBs will be expected to undertake formal needs assessment processes and to consult widely with their communities about how they intend to allocate resources (Minister of Health 2000). Hence, the local model scores 40 out of 100 in terms of involving low costs in administering the specification of services. This is a lower score than the NZ model, which scores 50 out of 100 on this objective, recognising the likelihood of increased formal decision making at a local level, and the loss of some central government decision making.

4.1.1.7 Promotes Efficient Supplementation

The local model of coverage works in the same way as the NZ model in relation to efficient supplementation. That is, it provides little information to service users about the circumstances under which they might need additional care or coverage. Indeed, the local model is worse than the NZ model at providing for efficient

supplementation because the former involves less central government decision making that may provide service users with at least some information on the services that are available in the principal health care sector; and it involves more variation across intermediaries, making it more difficult to tailor additional insurance to service users' needs or wants. Hence, the local model scores 20 out of 100 in relation to promoting efficient supplementation, (compared with the NZ model which scores 30 out of 100).

4.1.1.8 Provides Mechanisms to Manage Cream Skimming

As with the NZ model, the local model does little to manage cream skimming. There may, however, be greater potential with a local model for cream skimming to occur. By making specific choices about the range of services to make available, local intermediaries may be able to subtly encourage service users with particular conditions to move elsewhere – biasing the population mix towards one that is perhaps in better health.

In a local model as is developing in New Zealand, a population-based funding formula will be used to fund DHBs, and this will be adjusted for differences across DHBs in population health status. This may reduce the likelihood of cream skimming occurring in practice. Further research is required to determine whether the formula adequately compensates for the higher costs likely to be associated with poorer population health status, and as to whether DHBs actively engage in cream skimming.

As the local model is worse than the NZ model in preventing service mix decisions being used to alter the balance of the population covered, it scores 10 out of 100 (compared with 20 out of 100 for the NZ model) in relation to managing cream skimming.

4.1.2 Equal Access for Equal Need

4.1.2.1 *Offers Universal Coverage*

The local model is no different from the current NZ model in offering universal coverage. Hence, the local model scores 90 out of 100 in promoting universal coverage.

4.1.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Like the NZ model, the local model offers comprehensive coverage. Individual intermediaries may choose to alter comprehensiveness, but this is only likely to occur at the margins of coverage, and there is no a priori reason to believe that intermediaries will all either improve or reduce coverage.

In the New Zealand case, a final conclusion on how the local model works in practice awaits research evidence on the behaviour of DHBs with respect to comprehensiveness. It is assumed that the local model scores the same as the NZ model in offering comprehensive coverage of a range of services and styles of care – 80 out of 100.

4.1.2.3 *Offers Uniform Coverage*

A key difference between a local model and the NZ model is that with the former there is a move away from having roughly the same range of services available around the country, towards somewhat more variation by district or locality. This occurs as a result of the combination of decision making autonomy and an implicit service specification. Variations can occur in the range of services covered (e.g., district authorities may remove some services from, or plug gaps in, coverage), in

relation to the style and characteristics of care allowed (e.g., some district authorities may pay subsidies for primary care services rather than just GP care, or allow a longer stay in hospital for some conditions), and in relation to user charges. There may also be other decisions that central government was involved in with the NZ model, that are now devolved to local intermediaries (e.g., whether to make prostate cancer screening services available). The local model therefore has the potential to offer less uniform coverage than the NZ model. Hence, the local model does not promote equal access for equal need across the country as well as the NZ model. It therefore scores 30 out of 100 in relation to providing uniform coverage, compared to 60 out of 100 for the NZ model.

4.1.2.4 Promotes Accountability for Equal Access

In comparison with the NZ model, the local model offers slightly less ability to promote accountability for equal access. This occurs because the local model offers no national decision making, while the NZ model can promote a degree of accountability for equal access through allowing some national decision making. There is however a small amount of joint decision making between intermediaries in relation to some services, that may allow a degree of ability to hold participants to account for equal access. Hence, the local model scores a 10 out of 100 in relation to promoting accountability for equal access.

4.1.2.5 Provides Mechanisms to Manage Cream Skimming

As noted above (Chapter 4.1.1.8), the local model does not improve the extent to which cream skimming can be managed, when compared with the NZ model. Indeed, there is some additional potential for cream skimming by local authorities (including DHBs in New Zealand), if intermediaries subtly alter coverage to encourage healthy (unhealthy) service users to move to (from) a particular district. Hence, this model of coverage scores a 10 out of 100 in terms of providing

mechanisms to manage cream skimming. This contrasts with the score of 20 gained by the NZ model.

4.1.3 Choice

4.1.3.1 *Offers Choice Over Package of Care*

The local model scores slightly more than the NZ model in relation to choice over package of care. The move away from a degree of centralised decision making towards greater ability for local agencies to determine the range of services they wish to make available to service users enables service users slightly more choice. However, service user choice increases only to the extent that service users can choose to move between districts or localities offering different packages of care. Choice is still restricted in the sense that it is individual intermediaries and providers, and not service users, that will decide on the range of services to be made available.

In the New Zealand case, individual DHBs working with the local model will have the ability to decide for themselves the range of services they wish to make available within the publicly-financed health care sector. Service users unhappy with the range of services available in their districts do have slightly greater choice than with the NZ model, in that they may move to a district with a range of services that better suits their needs. Hence, this model of coverage scores 40 out of 100 in promoting choice over package of care as compared with the NZ model which scores 30 out of 100 with respect to choice over package of care.

4.1.3.2 *Offers Choice Over Style and Characteristics of Care*

With a local model, where decision making is quite decentralised, local intermediaries and providers can determine for themselves the style and characteristics of care to be made available. Thus, service user choice over the style and characteristics of care is similar to that offered by the NZ model. A key difference between the local and NZ models, however, is that the local model involves less national decision making about the style and characteristics of care of some services, such that service users have slightly improved choices over style and characteristics of care with the local model as compared with the NZ model of coverage.

In the New Zealand case, DHBs will take over this decision making about the style and characteristics of care to a slightly greater degree than with the NZ model, where central government relinquishes this role. This offers service users a greater degree of choice, in that they may choose to live in particular districts or localities with service styles and characteristics that better meet their needs. Hence this model of coverage scores 70 out of 100 in relation to choice over style and characteristics of care. This compares with the score of 60 earned by the NZ model for this objective. A full score is not possible, because it is DHBs and providers that decide on the styles and characteristics of services available within the publicly-financed health care sector, rather than service users themselves.

4.1.4 Expenditure Control

4.1.4.1 *Makes it Possible to Ration Care*

As with the NZ model, the local model offers sponsors, intermediaries and providers excellent ability to ration care. Hence, the local model obtains the same score as the NZ model in offering the ability to ration care – 80 out of 100.

4.1.4.2 *Promotes Accountability for Style and Characteristics of Care*

As with the NZ model, the local model offers sponsors, intermediaries and providers poor accountability over the style and characteristics of care offered to service users. Indeed the local model is slightly worse than the NZ model with respect to this objective, because of the loss of national decision making. On the other hand, intermediaries are assumed to jointly make some resource allocation decisions, which may offer some ability for intermediaries to promote accountability for style and characteristics of care, especially where clear and detailed rules are established about the style and characteristics of care which providers can offer. Hence, the local model obtains a score of 10 out of 100 in promoting accountability for style and characteristics of care (compared with 20 out of 100 scores by the NZ model).

4.1.5 Overall Score

The results of the scoring on key policy goals and objectives for the local model are shown in Figures 4.1 To 4.5 (Note that 4.1 is an unweighted profile.) The overall scores for each goal are: efficiency, 44 (fairly poor); equity, 44 (fairly poor); choice, 55 (fair); and expenditure control, 45 (fairly poor). The overall score is 46, that is fairly poor. The model is particularly good at promoting the objectives of: local

decision-making, coverage of those most likely to benefit, and comprehensive coverage to promote efficiency; universal and comprehensive coverage to promote equity; choice over style and characteristics of care; and ability to ration care. It is particularly poor at promoting national decision-making, accountability for cost-effectiveness, involving low administration costs, promoting efficient supplementation, and managing cream skinning to ensure efficiency; ensuring uniform coverage; promoting accountability for equal access and managing cream skinning to promote equity of access; promoting choice over package of care; and accountability for style and characteristics of care.

Figure 4.1: Local model: Overall profiles for sub-criteria

Figure 4.2: Local model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 4.3: Local model: Equal access for equal need: Profiles for sub-criteria

Figure 4.4: Local model: Choice: Profiles for sub-criteria

Figure 4.5: Local model: Expenditure control: Profiles for sub-criteria

4.2 *An Alternative Model of Coverage Regulation for New Zealand (2) Reduced Comprehensiveness*

A further option for changing the model of coverage in New Zealand is to reduce the degree to which coverage is comprehensive, by removing services from coverage. There are a number of reasons why policy makers may wish to do this:

- to reduce expenditure (e.g. to reduce public expenditure on health or to reduce social insurance premiums or tax rates, in order to limit public expenditure, premiums and taxes, or to offer service users more choice in allocating resources by increasing service user responsibility for health care)
- to remove whole categories of service thought to be providing poor value for money (e.g. ineffective services, services felt to offer fewer health gains for the resources spent than other services)
- to remove services thought to be irrelevant to health, including services whose characteristics are felt to be unrelated to the reasons that health is often financed and organised through public sources (e.g. to remove those services with particular economic characteristics, such as low cost services, services where service users have more certainty over expenditure, or where services have a high elasticity of demand)
- to remove services regarded as being the responsibility of individuals rather than communities.

Table 4.2

Key features of model of coverage S(A)-FC-I(U)-I, the 'less comprehensive model'

Similar population coverage. Roughly the same range of services is available to all citizens within the principal sector. Central government oversight and policy-making with regards to services, such that it is central government which decides whether to have particular services made available. Resources are then allocated to central, regional or local intermediaries or providers, who have some ability to add or remove services to the range promoted by central government, and a high degree of autonomy in making decisions about the volume and location of services, the style and characteristics of care, in some cases levels of user charges, and waiting times. This autonomy leads to some geographic variations in the range of services available, and greater variations in relation to access to care.

Fairly comprehensive coverage of services.

Implicit coverage, with some limited explicit decision-making at central government level when deciding on the range of services available. Some uncertainty about access to care, due not only to variations in access but also to widespread gaps in service availability and long waiting times and lists for some services.

Insurability of health care services covered in the principal system (i.e., supplementary insurance is allowed). Complementary and gap insurance coverage is also enabled. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

Before analysing the implications of this model for the achievement of policy goals and objectives, a number of introductory comments are required. First, as noted in earlier chapters, population coverage and comprehensiveness are linked with respect to models of coverage regulation. Where there is a change from comprehensive service coverage to less comprehensive service coverage, similar *population* coverage can continue if the change in comprehensiveness is not too great. If it were, then a model of coverage regulation would become one with diverse service coverage. The option assessed is in line with retaining similar population coverage in that comprehensiveness does not change too much.

Second, New Zealand has very comprehensive coverage of health and other services at present. The implications for policy goals and objectives of removing services from coverage will differ depending on the type of service removed from coverage. Long term care and mental health care, for example, are often more difficult to get additional coverage for. In New Zealand, these types of services are generally not covered by private health insurance. An important reason for this may be that the publicly-financed sector covers such services, but the characteristics of such services (where care is often needed over a long period of time and there is a great deal of uncertainty over how much care is required) and experience in other countries suggests that if health care financing were privatised in New Zealand, intermediaries not forced to offer such care would be reluctant to offer it. It would therefore seem unlikely that such services would be removed from coverage in New Zealand, as these are exactly the type of services that governments usually have to step in to fund, because private insurance intermediaries may view them as involving too much uncertainty and because those requiring such care are often unable to pay. Hence, the analysis in this section assumes that those services dropped are those for which private insurance is more likely to be made available.

Third, if some services were removed from coverage, all New Zealanders would have to pay for these services themselves, either out-of-pocket or through insurance. Insurance companies may however choose to not offer cover to all service users. For example, they may exclude those with pre-existing conditions, or they may charge very high premiums for some groups of people or those whose claims exceed some limit. Given that the private health insurance market in New Zealand is largely unregulated, each of the above exclusions is possible, and assumed likely to occur in the analysis that follows.

4.2.1 Maximising Health Outcomes

4.2.1.1 *Allows National Decision Making*

In the less comprehensive model, as with the NZ model, there remains a degree of national decision making with respect to service coverage and distribution. However, as the services covered are no longer quite as comprehensive, national decision-making may apply to a narrower range of services. Hence, this model of coverage obtains a lower score than the NZ model, 20 out of 100, compared to 40 out of 100 for the NZ model. Empirical evidence would however be required to confirm this, and, as with the NZ model, evidence would be required to confirm that when national decisions are taken, issues relating to efficiency are considered.

4.2.1.2 *Allows Local Decision Making*

Given that the role of private intermediaries and providers in decision making increases as a result of a move to the less comprehensive model of coverage, this model scores slightly more than the NZ model in encouraging local decision making: 80 out of 100, compared with 60 out of 100 for the NZ model. Empirical research would, however, be needed to confirm whether local decision making increases in practice. For example, the more the additional insurance sector picks up expenditure, the more individual service users able to afford to pay for care or additional insurance would seem to be able to make their own decisions on whether and when to access care, and to choose between packages of care. However, coverage may be decided mostly by intermediaries that operate across districts, making it difficult for resource allocations to truly meet local needs. Hence, as with the NZ model, empirical evidence would be required to confirm that local needs are considered when deciding on coverage.

4.2.1.3 *Provides Coverage to Those Most Likely to Benefit*

Any change from the NZ model to a less comprehensive model does not affect the fact that New Zealand offers universal coverage to all its residents, and hence covers those most likely to benefit. Hence, the less comprehensive model scores the same as the NZ model in promoting this objective – 90 out of 100.

4.2.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

By definition, the less comprehensive model offers less comprehensive coverage than the NZ model. The impact on allocative efficiency, however, depends on the how many services are removed, the nature of the services removed and on the reasons why services have been removed from coverage. Where only a few services are removed from coverage because they offer little value for money, then the impact on allocative efficiency may not be great, as the benefits lost from the services removed do not greatly impact on health. If entire groups of services are removed, the ability of the system to promote allocative efficiency may be reduced, given that many services are effective for at least some service users, and that some service users may benefit greatly from services removed from coverage. In addition, removing some services from coverage in the principal health care sector may not affect comprehensiveness if there are policies in place that are effective at ensuring additional insurance coverage for all citizens for services not in the principal model.

It is difficult to score this model of coverage with respect to comprehensiveness in New Zealand without clarity about which services would be removed from coverage. What is clear is that if cost-effective services that private insurers will not insure are removed from coverage, then comprehensiveness will reduce in New Zealand. Moreover, as access to private health insurance in New Zealand is not evenly spread throughout the population, comprehensiveness is unlikely to be retained for all citizens by allowing a greater proportion of expenditure to be allocated through additional insurance.

New Zealand does have some experience with services being removed from coverage. For example, access to mental health, alcohol and drug and dental services was reduced during the 1980s and early 1990s, as a result of financial pressures on intermediaries and providers. Mental health and drug and alcohol services are likely to be considered essential services for any health (or social) care system, and may generally be considered cost-effective services. Moreover, although some psychiatric services are covered by private health insurers, they are fairly limited in scope, and those with existing ill-health will generally not obtain coverage. The fact that essential dental services for those on low incomes have now been explicitly covered by New Zealand's publicly-financed health care sector, suggests that they too may be considered relatively cost-effective services. These examples suggest that New Zealand does at times remove cost-effective services from coverage.

As it seems unlikely that only cost-ineffective services would be removed from coverage, the less comprehensive model scores a slightly lower score on comprehensiveness than the NZ model – 60 out of 100 for the less comprehensive model, compared to 80 out of 100 for the NZ model.

4.2.1.5 Promotes Accountability for Cost-effectiveness

For the majority of services covered, there is no difference between the NZ model and a less comprehensive model in terms of promoting accountability for cost-effectiveness. This conclusion is, however, dependent on how the additional insurance market determines coverage and manages accountability.

In an additional insurance market such as presently exists in New Zealand, it is unlikely that intermediaries and providers are held to account for delivering care in ways that promote cost-effectiveness. Southern Cross Healthcare, New Zealand's biggest private intermediary, has only recently begun to see 'that more active involvement in the actual delivery and costs of medicine were [sic] required' and that there is a need to 'shift some of the traditional risk borne by consumers – in

variability of medical practice as well as acuity of medical condition – back to the insurer and provider’ (Smith 2000, p. 207). United States HMOs, on the other hand, may be more inclined to promote cost-effectiveness and to monitor this through the use of practice guidelines, audit and utilisation review (Robinson and Steiner 1998). To my knowledge, although tentative steps towards more managed care have been taken by Southern Cross for example (Sheeran 2002) this approach has yet to be used to any great degree in New Zealand in the private sector.

It is also possible that in New Zealand the private additional insurance market may be worse at promoting cost-effectiveness than the publicly-financed system. This is because of the predominance of fee-for-service arrangements, the lack of a cap on total expenditures in that market, and the likely focus on meeting service users’ wants as opposed to purely health needs. Indeed, delivering care that maximises health is not likely to be viewed as a key goal by the additional insurance sector.

On balance, in New Zealand the less comprehensive model is likely to score slightly worse than the NZ model in promoting accountability for cost-effectiveness – 10 out of 100 (compared with 20 out of 100 for the NZ model). The 10 points it earns relate to the national decision making that is retained by central government for some services, through which a small degree of accountability for cost-effectiveness may be promoted.

4.2.1.6 Incurs Low Costs in Administering the Specification of Services

For most services, there is no difference between the less comprehensive model and the NZ model in terms of the costs of administering the specification of services associated with each model. However, where services are removed from the principal health care sector, and become the responsibility of the additional insurance sector, there may be a small increase in overall administration costs. This will depend on the service specification approach taken in the additional insurance market, and the number of participants in that market.

For example, if pharmaceuticals were removed from coverage in New Zealand, each private sector intermediary would probably wish to develop and specify its own lists of medicines. With pharmaceuticals this could be quite an extensive task given the number of potential medicines that can be covered, and the need to specify quite clearly which medicines are or are not covered. In a competitive market, this development and specification task would be undertaken a number of times, each intermediary designing its own list. (Intermediaries may band together to undertake this task; but this is not the model assessed here.) Thus, administration costs associated with the model of coverage regulation may increase significantly. With other services, the impact would in all likelihood lead to only a small increase in administrative costs, as private intermediaries in New Zealand already spend some resources developing and specifying coverage.

Hence, the less comprehensive model of coverage scores 30 compared with the NZ model score of 50 for this objective. Once again some empirical evidence is required to confirm the impact of such a change in comprehensiveness on administrative costs.

4.2.1.7 *Promotes Efficient Supplementation*

With an implicit service specification, there is no difference between the NZ model and a less comprehensive model with respect to service users' knowledge about coverage and access to care⁵². As a result, the less comprehensive model obtains the same score as the NZ model in terms of promoting efficient supplementation – 30 out of 100.

4.2.1.8 *Provides Mechanisms to Manage Cream Skimming*

As with the NZ model, the less comprehensive model provides no mechanisms to manage cream skimming; indeed as some services are now purchased through the additional insurance sector, there is a slightly increased chance of cream skimming as the already small impact made by some national decision making ability is reduced. Hence, this model scores 10 out of 100 with respect to this objective⁵³.

⁵² Whether or not less comprehensive coverage would result in improvements in efficiency with respect to supplementation might in practice depend on two issues. First, whether a sponsor or intermediary is explicit about the services removed. If they are explicit, at least for a time service users will have some knowledge that some care is no longer covered, and hence can consider whether to purchase additional insurance. If decision making is implicit, service users' knowledge about the services covered will not improve. A second issue is whether whole services or only parts of services are removed from coverage. Removal of whole services will be easier for service users to insure privately for, while removal of partial services, such as where thresholds change, may be more difficult for service users to separately obtain additional insurance for. However, the assumption here is that service coverage remains implicit; hence, by definition service users' knowledge about the services covered and their need for additional insurance does not change when services are removed from coverage. This implies that services are gradually removed over time.

⁵³ An analysis that scores both the model of coverage and the health care system on mechanisms to manage cream skimming would recognise that the shift of some services to the additional insurance market would lead to a higher likelihood of cream skimming overall, because the competitive nature of the additional insurance market is more likely to see cream skimming occurring than with the publicly-financed sector in New Zealand. However, as it is the model of coverage alone that is being scores here, this analysis is inappropriate here.

4.2.2 Equal Access for Equal Need

4.2.2.1 *Offers Universal Coverage*

Any change from NZ model to a less comprehensive model does not affect the fact that the model covers all a country's residents (albeit, now across a less comprehensive range of services). Hence, the less comprehensive model scores the same as the NZ model on this objective – 90 out of 100.

4.2.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

By definition, a less comprehensive model will score less well than a more comprehensive model in promoting comprehensive coverage. Yet the differences between the two models in relation to comprehensive coverage and equal access for equal need in part depend on the ways in which comprehensiveness is reduced.

For example, it is possible that there is reduced equal access if the services removed from coverage are those that affect access for particular groups in society more so than other groups. Thus, if mental health services were excluded from coverage, those service users with mental health needs would no longer have access to the care they need the most. If medication for HIV/AIDS is excluded from coverage, then many of the health needs of service users with HIV/AIDS will not be met, while service users with other needs are able to obtain care.

In other cases, however, the services removed from coverage might be ineffective in meeting health care needs, and the goal of promoting equal access for equal need would then be unaffected by a reduction in comprehensiveness (given that need is defined as capacity to benefit).

As with the potential impact of changes in comprehensiveness on the efficiency goal, this model of coverage scores a slightly lower score on comprehensiveness than the NZ model of coverage – 60 out of 100, compared with the NZ model score of 80 out of 100. This again reflects the fact that it seems unlikely that only cost-ineffective services would be removed from the model, leading to reduced comprehensiveness of effective services, and hence increased inequalities in access to care.

4.2.2.3 Offers Uniform Coverage

As a result of reduced comprehensiveness, the less comprehensive model does less well than the NZ model in ensuring there are few differences in the packages of care available – scoring a 40 out of 100 compared with 60 out of 100 for the NZ model. This is because some services become the responsibility of individual service users, who will obtain care either through out-of-pocket payments or through additional health insurance. As noted earlier (Chapter 3.1.2.3), this is likely to lead to greater variation in coverage through different packages of care, and hence to reduced uniform coverage.

4.2.2.4 Promotes Accountability for Equal Access

The less comprehensive model puts more decision making in the hands of intermediaries and providers compared with the NZ model. It also keeps the model of coverage implicit. As a result, it scores slightly less than the NZ model in terms of promoting accountability for equal access – 10 out of 100 (compared with 20 out of 100 for the NZ model). This lower score occurs because of a small loss in national decision making (and hence a small loss in ability to promote accountability for equal access), that comes about where responsibility for some services shifts to the individual service user or to additional insurance market intermediaries.

4.2.2.5 *Provides Mechanisms to Manage Cream Skimming*

As noted above (Chapter 4.2.1.8), the less comprehensive model scores slightly less than the NZ model in providing mechanisms to manage cream skimming – 10 out of 100.

4.2.3 **Choice**

4.2.3.1 *Offers Choice Over Package of Care*

The less comprehensive model of coverage obtains a higher score than the NZ model in terms of offering choice over the package of care. This is because the services no longer covered by the principally-financed health care sector become the responsibility of individual service users. Service users are therefore able to choose for themselves whether to purchase additional insurance or not, whether to remain uninsured for such services or to pay for them out-of-pocket if they need them. This contrasts with the NZ model where service users had no choice but to be covered for (i.e. to pay for) a very comprehensive range of services.

In the New Zealand case, a reduction in the range of services covered in the publicly-financed health care sector means that service users become responsible for deciding whether they wish to obtain insurance coverage for the 'delisted' services, or whether to pay for care out-of-pocket should they need it. In deciding whether to obtain insurance coverage, service users can therefore decide that range of services they wish to have insurance cover for. Hence the less comprehensive model of coverage scores twenty more points than the NZ model; 50 out of 100, in relation to choice over the package of care. The score reflects additional choices not available with the NZ model, but the moderate score also reflects that choice continues to apply to a limited range of services, as the publicly-financed system continues to offer fairly comprehensive coverage. Note however that individual service user choice is affected by ability to pay; and that individual intermediary

choices over package design may limit the choices that service users have in practice.

4.2.3.2 *Offers Choice Over Style and Characteristics of Care*

In relation to choice over style and characteristics of care, the difference between the NZ model and a less comprehensive model is that central government no longer controls some aspects of decision making about the style and characteristics of care to be made available. Rather, this decision making is offered to individual service users (who can choose which styles and characteristics of care to purchase for themselves and through insurance), and to intermediaries and providers operating in the out-of-pocket and additional insurance sectors (who can design insurance cover to offer the styles and characteristics of care that will appeal most to those service users they wish to attract as customers or members). These choices will of course be limited by ability to pay.

In the New Zealand case, removing some services from coverage under the publicly-financed sector does allow individual service users, as well as intermediaries and providers, greater choice over style and characteristics of care. For example, if primary care services were removed from coverage, service users would be able to choose for themselves how to spend the resources freed up as a result of the reduction in comprehensiveness. They could then choose the style and characteristics of primary care provision that best suit them. Intermediaries and providers, including additional insurance intermediaries, would also be able to determine the styles and characteristics of care they offered.

Hence, the less comprehensive model scores 80 out of 100 in relation to offering choice over style and characteristics of care, compared with 60 out of 100 for the NZ model. The score is less than a perfect 100, in that a number of the same restrictions on choice with the NZ model – from variations, gaps in services and long waiting times – would continue for those services still covered by the principal insurance sector under the less comprehensive model.

4.2.4 Expenditure Control

4.2.4.1 *Makes It Possible to Ration Care*

The less comprehensive model alters the nature of rationing within the health system as a whole. Responsibility for purchasing some services now lies with individual service users, and overall the entire system may become less adept at controlling expenditure if their ability and willingness to pay means that there is less questioning as to the benefits of care. On the other hand, price rationing will apply as those unable to afford care no longer obtain it. Empirical evidence would be required to determine the overall implications for rationing.

In New Zealand, the delisting of services from the publicly-financed sector is taken in this analysis to lead to an increase in the proportion of New Zealanders who purchase additional, private insurance. The ability to ration care in this sector is less than in the publicly-financed sector, as a result of the explicit nature of the service specification leading to an entitlement to care and the philosophy of having care offered more or less on demand, as well as a fee-for-service payment system. On the other hand, some New Zealanders may choose to self-insure and rely on out-of-pocket payments to pay for care. This may slightly increase or reduce the ability of the system to ration care, depending on how service users respond to providers' advice in relation to care.

The overall balance of these two factors is difficult to judge. Experience in the early 1990s in New Zealand suggests that both changes in rationing ability apply. During the late 1980s and early 1990s, membership of private health insurance schemes increased in New Zealand, possibly as a response to fears that the publicly-financed sector was increasingly unable to meet key demands, elective surgery among other things. However, as premiums rose in the early to mid 1990s, membership fell away somewhat. Delisting of publicly-financed services may therefore encourage New Zealanders to purchase insurance, but this would seem to depend heavily on the price of that insurance at least for some New Zealanders. At the same time, expenditure in private health insurance has increased rapidly over this period

(Ministry of Health 2000). On balance, therefore it is argued that overall expenditure control becomes more difficult as a result of having a less comprehensive model compared with the NZ model. Hence, the less comprehensive model of coverage scores 60 out of 100 for the objective of offering the ability to ration care. (The NZ model scores 80 out of 100 for this objective.)

4.2.4.2 *Promotes Accountability for Style and Characteristics of Care*

Like the NZ model, a less comprehensive model offers very little ability to hold intermediaries and providers to account for the style and characteristics of care offered. The loss of government decision making means that this model scores slightly less than the NZ model for this objective – 10 out of 100.

4.2.5 Overall Score

The results of the scoring on key policy goals and objectives for the less comprehensive model are shown in Figures 4.6 To 4.10. (Note 4.6 is an unweighted profile.) The overall scores for each goal are: efficiency, 41 (fairly poor); equity, 42 (fairly poor); choice, 65 (fairly good); and expenditure control, 35 (poor). The overall score is 44, that is fairly poor. The model is particularly good at promoting local decision-making coverage of those most likely to benefit, and providing comprehensive coverage to promote efficiency; universal and comprehensive coverage to promote equity; choice over style and characteristics of care; and the ability to ration care. It is particularly poor at national decision-making, accountability for cost-effectiveness, involving low administration costs, promoting efficient supplementation, and managing cream skimming to ensure efficiency; uniform coverage to promote equity, promoting accountability for equal access, and managing cream skimming to promote equity of access; and accountability for style and characteristics of care.

Figure 4.6: Less comprehensive model: Overall profiles for sub-criteria

Figure 4.7: Less comprehensive model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 4.8: Less comprehensive model: Equal access for equal need: Profiles for sub-criteria

Figure 4.9: Less comprehensive model: Choice: Profiles for sub-criteria

Figure 4.10: Less comprehensive model: Expenditure control: Profiles for sub-criteria

4.3 *An Alternative Model of Coverage Regulation for New Zealand (3) An Explicit, Detailed Model*

New Zealand has always had some elements of service specification that have been explicit. The most obvious example is that of pharmaceuticals, where for many years New Zealand has had a broadly explicit service specification known as the pharmaceutical 'tariff' – a listing of the pharmaceuticals that are subsidised by the government. During the 1990s, New Zealand policy makers began developing a more explicit approach to service specification in an additional service category – elective surgery. They also moved towards a more detailed service specification than has been attempted in New Zealand before. The CPAC and booking system approach are described in Chapter 1 and Appendix 1. These together constitute an explicit, detailed service specification and model of coverage in that they define in detail the medical and social circumstances under which an individual service user will receive elective surgery and clearly state that such care should be available within six months of first specialist assessment. In addition, greater attention began to be given in New Zealand to the development of practice guidelines or protocols to guide practice. This is yet a further way of increasing detail in specifications of coverage.

This section focuses on analysing a model of coverage that involves the explicit development of a list of services that service users are entitled to, with a great deal of detail in the list of services and an explicit waiting time associated with this specification. The analysis assumes that this approach could be applied to all services.

As discussed in Chapter 1, a fully explicit, detailed approach may in practice not be feasible. It would involve analysing a great deal of information about services and their effectiveness, the information required is not always likely to be available (e.g., in relation to the characteristics of service users associated with effectiveness), and it may be a very complex and politically contentious process to get agreement on the list of services to be made available. However, the point is to assess how

well an explicit, detailed model contributes to key policy goals and objectives. If an explicit detailed model seems to offer potential, it will be worth investigating the range of services where it is feasible, and how such an approach can be implemented.

In this section, it is assumed that there is only *one* centrally defined specification of services, applying to the principal insurance sector. (Multiple detailed service specifications are analysed in Chapter 5.5.) There is therefore also a central agency whose responsibility it is to design and implement the service specification. The analysis contrasts this explicit, detailed model with the NZ model analysed in Chapter 3.

Table 4.3

Key features of model of coverage S-C-E-I, 'the explicit, detailed model'

Similar population coverage. Achieved through central government oversight and policy making with regards to services, in the form of an explicit service specification.

Very comprehensive coverage of services.

Explicit service specification; one only. Requires a central agency to take responsibility for specifying the services that are to be made available. This is done at a very detailed level. Includes an explicit waiting time.

Supplementary insurance no longer exists – by definition, all insurance coverage becomes complementary or gap insurance. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

4.3.1 Maximising Health Outcomes

4.3.1.1 *Allows National Decision Making*

The explicit, detailed model promotes national decision making by including a role for a central agency to decide on the services that are to be made available. Such an agency is therefore able to decide if economies of scale, shortages of expertise or the need to evaluate new techniques and technologies, mean that more health gain could be obtained by establishing services regionally or nationally. Thus, this model of coverage scores very well in relation to this objective – 90 out of 100. This compares with a score of 40 for the NZ model. A perfect score is not achievable, however, as a number of health care resource allocation decisions remain in the hands of individual service users and private intermediaries and providers in the additional insurance market.

Of course, as noted in Chapter 3, this approach has only the *potential* to promote allocative efficiency through allowing national decision making. Empirical evidence would be required to determine if economic factors are indeed taken into account when resource allocation decisions are being made.

4.3.1.2 *Allows Local Decision Making*

As a result of centralised decision making and the development of a national, single service specification, the explicit, detailed model scores very poorly in relation to this objective. At the extreme, this model has no local decision making, other than where individual service users, private intermediaries and providers make decisions for services that are not financed through the principal sector. Hence, a very poor score is obtained – 10 out of 100. This contrasts with the NZ model, which scores 60 out of 100 for this objective.

4.3.1.3 *Provides Coverage to Those Most Likely to Benefit*

Any change from the NZ model to an explicit, detailed model does not affect population coverage, with all residents covered through both approaches. Hence, the explicit, detailed model scores the same as the NZ model – 90 out of 100 in providing coverage to those most likely to benefit.

4.3.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Like the NZ model, the explicit, detailed model offers very good comprehensive coverage. This is because it has been assumed in designing the model that it offers comprehensive coverage, albeit based on an assessment of how likely this might be. In practice, of course, whether this is the case depends on how the explicit, detailed model is developed. If it simply specifies the same services available as in the NZ model then comprehensiveness does not differ between the two models. In other circumstances, however, an explicit, detailed model may remove some services from coverage for particular service users; but equally, it may also add services. The impact on allocative efficiency would depend on the reasons for why services were removed.

Looking at experiences in countries that have tried to develop a more explicit and detailed model gives a mixed picture, but one which supports the assumption made for continued comprehensiveness. For example, Oregon appears to have added services to coverage; the Netherlands government has tried to remove services, for reasons of poor cost-effectiveness; while United Kingdom and Canadian agencies have tried to remove cosmetic services which can be argued to be less about health than about appearance. In New Zealand, comprehensiveness does not appear to have been affected by the move to an explicit model for elective surgery. Rather, the approach seems to have been one of systematising existing practice.

The explicit, detailed model is therefore assessed as achieving a score of 80 out of 100 in relation to comprehensiveness, the same as the NZ model.

4.3.1.5 *Promotes Accountability for Cost-effectiveness*

With an explicit and detailed service specification, the explicit, detailed model scores very highly in having the potential to promote cost-effectiveness, and in terms of enabling sponsors, intermediaries and providers to be held accountable for cost-effectiveness.

Services that are not felt to be important contributors to health can be excluded explicitly from coverage, through the development of an explicit service specification. Moreover, this model of coverage regulation allows a sponsor to specify particular circumstances in which services are or are not available. For example, there may be research evidence that suggests a service is very effective for some people, but not for others in different medical circumstances. Sponsors can make decisions about the relative importance of the health benefits offered by services made available to individual service users at different clinical thresholds. In addition, the waiting time can also be altered to achieve policy goals – for example, a slightly longer waiting time may be deemed appropriate for particular services (e.g. moderately painful varicose veins) when compared with other services (e.g. elective surgery for severe heart disease).

Similarly, this explicit and detailed approach improves accountability. Sponsors and service users have an explicit list of services, which can be used to hold intermediaries and providers to account for the delivery of only those services on the list. This approach has the potential to enhance cost-effectiveness by ensuring that services not considered cost-effective are not delivered.

It is however an empirical matter as to whether the agency that is responsible for defining the service specification does indeed take cost-effectiveness into account, and then ensures that participants are held to account for delivering only such services.

New Zealand has experience of an approach such as this – in terms of pharmaceuticals and, more recently, elective surgery. For pharmaceuticals, Pharmac has in recent years been operating a reference price system, that encourages providers to prescribe, and service users to use, the most cost-effective medicines. This reference price system involves a number of steps. Medicines in a therapeutic group (i.e. with similar therapeutic effects for similar conditions) are assessed for their relative therapeutic equivalence. If deemed equivalent (in terms of effectiveness), Pharmac will reduce the subsidy on all equivalent medicines to the lowest subsidy able to be negotiated for medicines within the therapeutic group. If other medicines do not fall in price to match the subsidy, service users must make up any difference between the subsidised price and the manufacturer's price themselves. Thus, service users have a financial incentive to choose the most 'cost-effective' medicine. In more recent cases, Pharmac has gone further – and actively encouraged service users to switch to lower cost medications. Many New Zealanders have switched medicines as a result of this policy, although not without some cost to the health system, to service user health, and goodwill. (See for example the evaluation report on reference pricing for ACE-Inhibitors, Maling, Andersen, Norris, Cumming, Roberts, Arroll and Kerr 2000.)

In the case of elective surgery, the CPAC approach and the booking system have been discussed in some detail in Chapter 1 and in Appendix 1. This approach is aimed at enabling a more equitable assessment of service users' severity of illness and capacity to benefit, and ensuring that those service users with the greater capacity to benefit are those who are offered treatment first. This is intended to improve the amount of health gain that can be obtained from the health care system. The approach is still in its early stages, and has yet to be fully evaluated, but it clearly offers potential for the future as a way of determining coverage and of holding sponsors, intermediaries and providers to account.

Overall, the detailed, explicit model has excellent potential to promote accountability for cost-effectiveness – scoring 90 out of 100. This contrasts with the NZ model which scores 20 out of 100 for this objective. A perfect score is once again not possible, because of the explicit, detailed service specifications does not apply in the additional insurance sector.

4.3.1.6 Incurs Low Costs in Administering the Specification of Services

On one level, the explicit, detailed model scores poorly in relation to administrative efficiency, because a detailed service specification requires a significant amount of administrative effort. This includes reviewing international and local research literature on the health benefits of providing services at different thresholds, estimating the costs associated with particular thresholds, engaging in some form of public consultation, specifying and publicising the services that are to be made available, establishing an on-going review mechanism to keep up to date, and putting in place audit mechanisms to ensure individual intermediaries and providers are providing the services on the list at the appropriate thresholds. This is likely to prove expensive, and the decisions made may well be controversial:

...if guidelines are to control practice, they have to be specific in their criteria for every step in the diagnostic process and treatment of patients if compliance is to be monitored. In turn, monitoring compliance would require extra information to be generated...the cost of attempting to eliminate 'waste' may be heavy in terms of extra bureaucracy.... (Klein, Day and Redmayne 1996, p. 107)

However, although these types of costs are required with the move from an NZ to an explicit, detailed model, scoring the model of coverage regulation in relation to administration costs also involves considering how many agencies must incur these costs. With a single explicit model, many administration costs are only incurred once (although a number of agencies may be involved in consultation on the specification of coverage). Thus, this model of coverage scores better than would a

concept where many individual intermediaries and providers design their own explicit and detailed service specifications. (See Chapter 5.5 for an analysis of a model where numerous agencies each specify their own services explicitly and in depth.)

A judgement has to be made about the relative impact on administration costs of service specifications involving an NZ model with some local decision making, an implicit model with a greater degree of local decision making and slightly more formal decision making (the local model), and an explicit model where many administration costs are incurred only once. The judgement made is that the explicit model incurs slightly higher administration costs than the local model. This gives a score of 30 out of 100 for a single explicit model. This score is also lower than the score of 50 earned by the NZ model, indicating that the explicit, detailed model incurs higher administration costs than the NZ model.

4.3.1.7 Promotes Efficient Supplementation

The explicit and detailed service specification associated with this model of coverage regulation provides much greater clarity about access to care in the principal health sector than does the NZ model. This model of coverage enhances efficiency by providing individual service users with information so they can decide whether or not to purchase additional insurance. Decisions about purchasing such insurance can be made with full knowledge of the thresholds and timing of care that is available through the principal system. Over- and under-insurance are therefore less likely with this model of coverage regulation, although individual service users will still have to consider how likely it is that they will need care below the thresholds offered by the principal system, and whether or not the threshold is such that additional health insurance is thought to be worth the cost of the premiums incurred.

In moving towards a more explicit approach, the nature of additional health insurance is likely to change. The more stable the thresholds people receive care at in a principal sector, the more likely it is that additional health insurance will become purely complementary, i.e. covering medical and social circumstances where care is not available in the principal sector. If the thresholds are changed regularly, an element of supplementarity may remain, in that service users will require supplementary insurance in case there are changes in the coverage offered by the principal sector.

For example, New Zealand's CPAC approach could provide service users with clarity about the circumstances where they can access publicly-financed elective care. If the CPAC and thresholds used around the country were the same, if they remained the same over time, and if service users were aware of the levels thresholds were set at, we would expect the additional insurance market to offer policies that perfectly complement publicly-financed coverage. However, in practice the CPAC tools differ from hospital to hospital in many cases, as do the thresholds. It is also likely that the thresholds will change from time to time, in response to expenditure pressures in other parts of a hospital's budget and other resource constraints. With such differences in practice, and with the potential for thresholds to change, service users cannot be certain about the coverage they might get within the publicly-financed sector if they become ill. In New Zealand, service users are therefore likely to continue to purchase health insurance with less than perfect knowledge about the care likely to be offered by the public sector if they do become ill.

An explicit, detailed model has the potential to offer certainty about coverage in a principally-financed sector, and hence to promote efficient decision making with respect to additional insurance. In New Zealand, it is not yet quite living up to this expectation at present however, due to lack of service user knowledge about thresholds, and apparent differences in tools and thresholds across the country. However, this model of coverage obtains a score of 100 for its potential in promoting efficient supplementation. Further empirical evidence on consistency of tools and thresholds and on how much thresholds and waiting times are maintained

over time would be useful for assessing in more detail if the potential for this model is possible in practice.

4.3.1.8 *Provides Mechanisms to Manage Cream Skimming*

The explicit, detailed model has a great deal of potential to manage cream skimming. The definition of the package of services available is in central hands, and sponsors can ensure that this package of care is offered to all service users. Individual intermediaries and providers have no means of being able to manipulate the service listing in order to encourage service users with particular characteristics or health needs to join, nor can they choose to leave out particular services that will discourage others from joining. Moreover, as the services are specified in detail, intermediaries and providers cannot use different thresholds of care to deny some service users care, in the hope they may decide to go elsewhere.

Further evidence is required to test the assumption that an explicit detailed model of coverage does indeed contribute to managing cream skimming. But with additional supporting regulations⁵⁴, and good monitoring of the packages of care and of the care provided to different groups of service users, an explicit detailed model would seem to offer a way of ensuring intermediaries and providers cannot use package design to cream skim. Hence, this model of coverage scores very well in relation to this objective – 90 out of 100. Once again, in the New Zealand case, the privately financed additional insurance sector has some opportunities to cream skim, and these opportunities are not eliminated by this model of coverage; as a result, the score is less than a perfect 100.

⁵⁴ An explicit detailed model of coverage cannot fully manage cream skimming on its own. Additional regulations, and monitoring of those regulations, are required to ensure that no cream skimming occurs. See Cumming 2000 for further discussion on this point.

4.3.2 Equal Access for Equal Need

4.3.2.1 *Offers Universal Coverage*

Any change from the NZ model to an explicit, detailed model does not affect the fact that the model offers universal coverage to all residents. Hence, the explicit, detailed model scores the same as the NZ model in offering universal coverage – 90 out of 100.

4.3.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Again, there is no difference between the NZ model and an explicit, detailed model in terms of offering comprehensive coverage. Hence, the explicit, detailed model scores the same as the NZ model for this objective – 80 out of 100.

4.3.2.3 *Offers Uniform Coverage*

The explicit, detailed model does better than the NZ model in terms of limiting differences in coverage that might arise from the availability of a range of packages of care. In this case, there is only one package of care available, and it is available to all citizens. This reflects for example existing New Zealand policy in relation to community pharmaceuticals, and in theory to elective surgery under the CPAC/booking system, where the same services are supposed to be covered for all New Zealanders. This promotes a good degree of uniform coverage.

An explicit, detailed model alters the kind of additional insurance that service users may choose to purchase. By definition, such insurance is no longer supplementary – rather, it becomes complementary insurance. Service users will have more information about coverage under the principal insurance arrangement, and some

may be more or less inclined to purchase additional insurance as a result; but there is no *a priori* reason for thinking that there will be a more even spread of additional insurance coverage as a result of the explicit nature of this model of coverage. Access to additional insurance will remain dependent on willingness and ability to pay. Hence, the implications of having an additional insurance market for uniform coverage do not appear to differ between the NZ model and the explicit, detailed model of coverage.

Policy makers may, however, be less concerned about differences in coverage and hence access with the explicit, detailed model of coverage, particularly if the services that service users require additional coverage for are viewed as representing poor value for money. This will depend on the comprehensiveness of coverage and the threshold levels that apply in the principal sector – the greater the contribution to health of services that are not covered by the principal sector, the more concern there will be over the distribution of additional insurance. In the New Zealand case, coverage in the principal sector is currently very comprehensive, but not fully comprehensive, such that the services offered by additional insurance do indeed offer good gains in health for some people. In this way, the goal of uniform coverage is slightly undermined in New Zealand because such gains in health are available to only those who can afford to pay for additional insurance. The explicit, detailed model therefore scores 90 out of 100 in relation to ensuring few differences in the packages of care available. This is a higher score than the NZ model scores for this objective, as the single, explicit detailed model better promotes uniform coverage by reducing opportunities for variations in coverage across the country.

4.3.2.4 *Promotes Accountability for Equal Access*

In the explicit, detailed model of coverage, service users are able to hold sponsors, intermediaries and providers to account for delivering a service within a specified time frame, provided that a service user meets certain criteria and the threshold set for treatment. Intermediaries and providers can also be held to account by sponsors for delivery of care at particular thresholds and within particular timeframes.

Financial risks for delivery of care become the responsibility of sponsors, unless they are able to pass some of this risk onto intermediaries and providers by capping budgets.

Thus, in contrast with the implicit NZ model, service users have clear entitlements that cannot be changed unless the thresholds or services specified change; this information can be used by all participants to ensure that all service users are treated fairly. Hence, the explicit, detailed model promotes accountability for equal access very well – obtaining a score of 90 out of 100. This contrasts with a score of 20 out of 100 for the NZ model. This less than perfect score reflects the fact that a broadly explicit service specification remains within the additional insurance sector, such that an element of lack of accountability for equal access remains within the health care system.

4.3.2.5 Provides Mechanisms to Manage Cream Skimming

As the above Sections have shown, the explicit, detailed approach scores very well in relation to promoting equal access for equal need. The approach clearly specifies the individual circumstances under which care is to be made available, and the thresholds at which care is offered. Provided that all individuals are equally assessed, all individuals meeting those thresholds should be offered care. The explicit nature of the model removes some element of autonomy from intermediaries and providers in deciding whether and by when care should be offered, and this should enhance equity of access.

The explicit detailed model therefore removes many opportunities for cream skimming within the principal health care sector. Intermediaries and providers must offer the same range of services, preventing cream skimming through benefit design. Care can also be audited against the detailed service specification to ensure that there is no under-servicing or over-servicing that might lead to successful cream skimming. Thus, this model of coverage scores 90 out of 100 in providing

mechanisms to manage cream skimming (compared with the NZ model which scores 20 out of 100).

4.3.3 Choice

4.3.3.1 *Offers Choice Over Package of Care*

The explicit, detailed model scores badly in offering choice for service users over the package of care. The range of services is defined at a national level, with no choice over an alternative package for service users' principal coverage. A degree of choice remains with this explicit model from the additional insurance sector, however.

In New Zealand, the key difference between the NZ model and an explicit, detailed model would be that with the explicit model intermediaries and providers would no longer have the ability to make their own decisions about coverage. Service user choice would also be removed because service users could no longer choose to move to a district or locality where intermediaries and providers have chosen a slightly different range of services available for coverage. Hence, this model of coverage scores only 10 out of 100 in relation to offering choice over the package of care. This contrasts with the choice offered by the NZ model, which scores 30 on this objective. The ten points gained reflects the choice of package offered in the additional insurance sector.

4.3.3.2 *Offers Choice Over Style and Characteristics of Care*

With an explicit, detailed model, choice is more limited in relation to the style and characteristics of care than with the NZ model. This is because sponsors can choose not to fund particular styles of care, and they may impose restrictions on characteristics of care, for example limiting the number of days service users may stay in hospital. This removes the flexibility over style and characteristics of care that intermediaries, providers and service users have with the NZ model. Choice remains, as in the NZ model, in relation to purchasing care through additional insurance or out-of-pocket payments.

In New Zealand, the introduction of the CPAC approach gives an indication of the potential effect of an explicit, detailed model on service user and intermediary and provider choice over style and characteristics of care. With CPAC, all those who reach the threshold number of points must be offered care, and they must be booked for such care within six months of assessment. Although it is unlikely that service users will rue the loss of choice over the wait for care (unless waiting times for some service users increase as a result of ensuring that all obtain care within the six month period), intermediaries and providers may do so (Hanning and Spangberg 2000), finding it harder to juggle resources as a result of this restriction (see the following sections on expenditure control for more on this issue). Further, the explicit, detailed approach may also reduce choice over styles of care, restricting the type of provider from whom care may be available or the kinds of techniques available.

Hence this model of coverage scores 10 out of 100 in relation to choice over style and characteristics of care. This compares with a score of 60 for the NZ model. The ten points gained reflects the availability of choice over style and characteristics of care available through paying for care out-of-pocket or through additional insurance.

4.3.4 Expenditure Control

4.3.4.1 *Makes It Possible to Ration Care*

In an explicit, detailed model of coverage, it becomes less likely that sponsors, intermediaries and providers can ration care in the short term, when compared with the NZ model. No longer can they 'fudge' access: if individual service users have met the conditions set out in the service specification, they must be treated. For example, once a service user has obtained a particular threshold score for treatment, then this explicit model offers them an entitlement to care, even specifying the period of time within which care must be offered. There may be still some ability to control access to care, by manipulating any systems (e.g., CPAC scores) used to assess service users, although this could be counteracted by allowing second or third opinions on those scores. But generally, within a particular time frame, sponsors have very limited ability to control expenditure because they must offer care to all those who qualify for it.

The CPAC and booking system approaches developing in New Zealand in theory offer care to all those who meet certain clinical thresholds, and promise that care is to be made available within six months. This should make it more difficult to ration access to care, although in practice the thresholds for access to care may change over time.

The impact on expenditure control of the CPAC system in New Zealand however may also be affected by the nature of the payments that elective surgery providers receive for elective care. With capped expenditures, it is the providers that take the financial risk associated with explicit thresholds. With fee-for-service contracts, it is the sponsors and intermediaries that pick up the financial risk of more service users qualifying for care. The former is likely to threaten access to care that is not explicitly defined, or will be of concern for providers in maintaining financial health where all services are explicitly defined. The latter will threaten the ability to control expenditure for elective care in New Zealand, and overall expenditure

control where the explicit, detailed model applies across all services. On balance, however, an explicit model that applies across all services will eventually lead to severe problems in rationing care and hence in controlling overall expenditures, because the ability for providers to manage a large degree of financial risk across all explicitly defined services appears limited in anything other than the very short run.

Overall, the explicit model of coverage therefore scores very badly in offering the ability to ration care – 10 out of 100. The 10 points gained recognises that within the system there is some ability to ration care, within the additional insurance sector, given its use of a broadly explicit service specification, within which thresholds of care may change.

4.3.4.2 *Promotes Accountability for Style and Characteristics of Care*

With an explicit, detailed model, sponsors and intermediaries do have the ability in the medium to longer term, as distinct from the short term, to control the style and characteristics of care offered. The model offers control over thresholds at which care is offered – these thresholds now change explicitly, removing intermediaries' and providers' independent ability to implicitly raise thresholds (i.e. reduce access to care) or lower them (i.e. enhance access to care). In the latter case, a more detailed, explicit model therefore offers sponsors the potential to control expenditure better over the medium and longer terms than is possible with the NZ model.

Consider for example the CPAC and booking systems approach developing in New Zealand at present. Thresholds for access to care have been determined nationally, and in theory cannot be changed without an explicit national, policy decision. Thus, intermediaries and providers are prevented from subtly altering the thresholds to allow more service users to qualify for care. Rather, decisions to allow more service users to get care must be made explicitly, and by considering other alternative uses of the resources required to treat more service users. Central government therefore has a good deal of control over the style and characteristics of care offered, and over

expenditure in the medium and longer term. Applying this approach across all services allows central government good overall control over the services offered, and hence over overall expenditure levels.

This is not to say that exerting such control will be easy for any central government. Pressures to increase expenditure in one or more service areas, where more service users qualify for care for example or where prices are rising, will be difficult to manage in the medium or longer term if the government does not wish to spend more money on health care. Indeed, requiring an explicit approach, where it is obvious where the government is making decisions to not increase expenditure, may be much more difficult for the government compared with the NZ model where service coverage can change without service users' knowledge. There are numerous examples where governments have found it difficult to remove services from coverage (see Chapter 1 and Appendix 1). In New Zealand, there is mixed evidence on this point: although there are recent cases where the government found it hard to not increase access to care (King 2002); while in other cases it manages to argue on the need to set priorities and for any concerns to die down quite quickly (Walsh and Hoby 2002). The current government's setting of priorities, with elective surgery waiting lists a likely key election platform for 2002, may well provide it with support when having to argue that new spending cannot be found for more health care.

The contrasting arguments make it difficult to score this model in relation to accountability, and its impact on expenditure control. However, the point is that an explicit model enables the government to better explicitly manage the care made available. Hence, the explicit model of coverage scores 90 out of 100 in terms of controlling the style and characteristics of care offered.

4.3.5 Overall score

The results of the scoring on key policy goals and objectives for the explicit model are shown in Figures 4.11 To 4.15. (Note that 4.11 is an unweighted profile.) The overall scores for each goal are: efficiency, 73 (good); equity, 88 (very good); choice, 10 (bad); and expenditure control, 50 (fair). The overall score is 63, that is fairly good. The model is particularly good at promoting national decision-making; coverage of those most likely to benefit, comprehensive coverage, accountability for cost-effectiveness, efficient supplementation, and managing cream skimming to promote efficiency; universal, comprehensive and uniform coverage, accountability for equal access, and managing cream skimming to promote equity; and accountability for style and characteristics of care. It is particularly bad at promoting local decision-making, involving low administration costs to promote efficiency; choice over package and style and characteristics of care; and the ability to ration care. Of particular concern with the explicit, detailed model is the likely to be the potential for such a model to in fact not be feasible (as discussed in Chapter 2), and for the system to become over-managed centrally.

Figure 4.11: Explicit detailed model: Overall profiles for sub-criteria

Figure 4.12: Explicit detailed model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 4.13: Explicit detailed model: Equal access for equal need: Profiles for sub-criteria

Figure 4.14: Explicit detailed model: Choice: Profiles for sub-criteria

Figure 4.15: Explicit detailed model: Expenditure control: Profiles for sub-criteria

4.4 An Alternative Model of Coverage Regulation for New Zealand (4) Non-insurability of Covered Services

Table 4.4

Key features of model of coverage S(A)-C-I(U)-NI, 'the non-insurable model'

Similar population coverage. Roughly the same range of services is available to all citizens. Central government oversight and policy-making with regards to services, such that it is central government which decides whether to have particular services made available. Resources are then allocated to central, regional or local intermediaries or providers, who have some ability to add or remove services to the range promoted by central government, and a high degree of autonomy in making decisions about the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times. This autonomy leads to some geographic variations in the range of services available, and greater variations in access to care.

Very comprehensive coverage of services.

Implicit coverage, with some explicit decision making at central government level about the range of services available. Some uncertainty about access to care, due not only to variations in access but also to widespread gaps in service availability and long waiting times and lists for some services.

Services available in the principal sector are not insurable. This eliminates gap and supplementary insurance coverage. Complementary services remain insurable.

A further option for change in New Zealand is to ban additional insurance for the services covered by the publicly-financed health care system. This is done in a number of countries in relation to gap insurance (for example, Australia banned gap insurance until very recently; see NZ Institute of Economic Research (Inc.) 2001) and Canada has banned supplementary insurance). This may not imply that service users cannot get access to privately-financed health care if particular health care services are publicly-financed, because service users could still have the choice of privately paying for care if they wish, but it does mean they cannot purchase additional insurance cover.

Before analysing the implications of this model for policy goals and objectives, two key issues require discussion. First, to consider whether non-insurability is compatible with an implicit service specification; and second, to determine what effects non-insurability might have on overall health expenditures.

First, the banning of supplementary insurance for care available in a principal system suggests that there is at least a degree of explicitness in service coverage – otherwise individual service users will not know what services they must obtain complementary cover for. The Canadian approach has been to develop a broadly explicit model but this does not always clearly identify which services are supposed to be financed through the principal model. Although a judgement might have been made that a broadly explicit model is generally sufficient in most cases to prevent private financing, recent experience shows that a broadly explicit model does create opportunities for providers to specify for themselves what they see as covered services and that are not (see Appendix 1).

Second, with private health insurance for some services banned, service users will probably expect reasonably timely delivery of services covered by the principal sector. It is therefore possible that sponsors are more likely to have to ensure adequate financing is made available to ensure good access, or risk facing service users clamouring for access to supplementary insurance.

For the purposes of this analysis, it is assumed that an implicit service specification accompanies the banning of supplementary insurance, and that this is sufficient to allow service users a good deal of knowledge about their coverage. This enables a comparison between the NZ and non-insurable models where only one element of coverage differs. It is also assumed that the banning of supplementary insurance sees higher expenditure in the principal sector in order to provide care for those who would otherwise obtain their care through private insurance, although these service users must wait longer for care as a result⁵⁵. There will be lower levels of

⁵⁵ It may also affect the waits for care of those previously cared for in the public system in that those who would have gone private may now have priority access over others who did not have private insurance. This is an empirical matter for further research.

expenditure in the additional insurance market, and lower levels of expenditure overall, than with the NZ model.

4.4.1 Maximising Health Outcomes

4.4.1.1 *Allows National Decision Making*

The banning of supplementary insurance with the non-insurable model makes a small difference in respect of this objective when contrasted with the NZ model. National decision making continues to be promoted as in the NZ model, as central government makes decisions about the availability and distribution of some services.

Banning additional insurance, however, means there is a subtle shift in the balance of decision making, away from individual service user and intermediary decisions in relation to additional insurance, with 'local' decision making therefore covering a lesser amount and a lesser proportion of total expenditure than it would were supplementary insurance available. The degree of national decision making is consequently increased compared with the NZ model. Hence, the non-insurable model scores 10 points more than the NZ model with respect to national decision making, scoring 50 out of 100.

4.4.1.2 *Allows Local Decision Making*

As noted above, there is a small and subtle change in the balance of decision making responsibility as a result of the shift to a non-insurable model. The level and proportion of expenditure decisions now accounted for by 'local' decision making falls. Thus, this model of coverage scores 10 points less than the NZ model in relation to local decision making, obtaining a score of 50 out of 100.

4.4.1.3 *Provides Coverage to Those Most Likely to Benefit*

Any change from the NZ model to a non-insurable model does not affect universal coverage. Hence, the non-insurable scores the same as the NZ model in providing coverage to those most likely to benefit – 90 out of 100.

4.4.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Within a principal insurance arrangement, the range of services covered by the non-insurable model remains the same as in the NZ model, i.e. very comprehensive. Although there is a change in the nature of the additional insurance market, comprehensiveness is not affected, because it is supplementary insurance that is banned, not complementary insurance; i.e. the *range* of services covered overall does not change. What does change, however, is access to care – those service users who previously held additional insurance must now wait longer before they receive care.

A key issue, however, is how a change in comprehensiveness of this nature (an increase in the wait for care for some people) is likely to affect efficiency. The increase in waiting times is argued to slightly improve the potential for efficiency (in the sense of maximising the health gain obtained from the resources used), because intermediaries and providers in the principal sector can have service users wait for care, whereas within the additional insurance sector this is usually not possible. Waiting times can enhance efficiency by having those with lesser needs wait longer for care than those with higher needs, hence targeting resources towards those with greater capacity to benefit. Unfortunately, the non-insurable model (being implicit) does not have sophisticated ways of managing waiting times to ensure those with greater capacity to benefit have their needs met first, but a move away from care available on demand is likely to involve a slightly more efficient approach to allocating resources.

In the New Zealand case, the banning of supplementary insurance would similarly mean no change in comprehensiveness as compared with the NZ model in terms of the range of services available. It would, however, mean an increase in waiting time for some service users, and these would probably be managed in ways that better promote efficiency than the NZ model, but only slightly. As a result, the non-insurable model of coverage scores ten points more than the NZ model, scoring 90 out of 100 in promoting comprehensive coverage to support the efficiency goal.

4.4.1.5 Promotes Accountability for Cost-effectiveness

In both the generic and New Zealand cases, a non-insurable model is a little better at promoting accountability for cost-effectiveness than the NZ model. This is because central government decision-making impacts on a higher level and proportion of expenditure than with the NZ model. As noted earlier (Chapter 3.1.1.5), central government has some ability, through its central decision-making role, to make coverage decisions that promote overall cost-effectiveness and to hold intermediaries and providers to account for cost-effectiveness. Thus, the non-insurable model scores 30 out of 100 in promoting accountability for cost-effectiveness, 10 points more than the NZ model.

4.4.1.6 Incurs Low Costs in Administering the Specification of Services

With a non-insurable model, administration costs are judged to reduce slightly when compared with the NZ model. This occurs because, compared with the NZ model, there will be a slightly narrower range of services specified through broadly explicit service specifications developed by a number of competing health insurers. As a result, the non-insurable model scores 60 out of 100 with respect to the objective of keeping administration costs low in specifying service coverage. This compares to a score of 50 obtained by the NZ model for this objective.

4.4.1.7 Promotes Efficient Supplementation

As with the NZ model, the non-insurable model of coverage is implicit, with variations in coverage, gaps in service provision and long waiting times for care. This provides little or no information to service users about coverage under the principal financing arrangement, and hence may promote both over- and under-insurance in the additional insurance market. However, with supplementary insurance banned, the issue of efficient supplementation does not arise. As this results from the model of coverage regulation itself (and not just from the system the model of coverage regulation is operating in), a non-insurable model of coverage scores a perfect 100 out of 100 in promoting efficient supplementation.

4.4.1.8 Provides Mechanisms to Manage Cream Skimming

In the generic and New Zealand cases, the banning of supplementary insurance closes off one avenue for cream skimming. In New Zealand, this is because the supplementary insurance market is operated by privately-owned, competing health insurers, who are able to cream skim by defining packages of care in ways that encourage some service users to join, and to discourage others from joining. There are also financial incentives for these agencies to cream skim – in order to reduce the likelihood of high claims from some service users and hence keep claims lower than might otherwise be the case. Although some insurers will be (and indeed are in the New Zealand case) not-for-profit organisations, they must still aim to at least break even, and no doubt also aim to retain market share by keeping premiums down.

Banning supplementary insurance allows more service users to remain within the principal health care sector than would otherwise be the case. This is likely to occur even though service users can pay for care out-of-pocket if they so wish, because service users will probably be less inclined to obtain care privately if they have to pay out-of-pocket for care than if the care were offered through private health

insurance (especially for more expensive interventions). As it is also likely that the principally-financed health care sector has fewer incentives and opportunities to cream skim, then it seems possible that possibilities for cream skimming will be reduced as a result of the ban on supplementary insurance.

However, it is the model of coverage regulation which is assessed in relation to cream skimming rather than the performance of the system of health care financing and delivery. The shift of services from the private additional sector to the publicly-financed sector does not affect performance in relation to cream skimming, as neither broadly explicit nor implicit service specifications will limit opportunities for cream skimming. The change from the NZ model to a non-insurable model therefore does not alter the performance of the model with respect to managing cream skimming. As a result, a non-insurable model scores 20 out of 100 with respect to its performance in managing cream skimming.

4.4.2 Equal Access for Equal Need

4.4.2.1 *Offers Universal Coverage*

With the banning of supplementary insurance, there is no difference between a non-insurable model and the NZ model in relation to offering universal coverage. Hence, the non-insurable model scores 90 out of 100 in relation to this objective, the same as the NZ model.

4.4.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The change from the NZ model of coverage to a non-insurable model would affect access to care, reducing access for those who would otherwise have had insurance. A longer wait for care for some service users implies a slight loss of comprehensiveness for these service users. The implications of this change for equity are likely to be positive, however, as all service users will now have the same or similar waits for care. Hence, the non-insurable model scores 90 out of 100 in terms of offering comprehensive coverage that promotes equal access for equal need. This is 10 points higher than the NZ model scores, as equity of access is judged to improve slightly with the change to the non-insurable model.

4.4.2.3 *Offers Uniform Coverage*

There is an improvement in the promotion of uniform access as a result of the banning of supplementary insurance, as a key source of difference in access to care is removed from the model of coverage regulation. That is, no longer can those who are willing and able to pay obtain faster access to care through the purchase of additional insurance. However, the model of coverage regulation continues to enable differences in coverage and hence access arising from incomplete comprehensiveness, variations in access and gaps in coverage. Hence a non-insurable model of coverage scores 70 out of 100 in promoting uniform coverage; 10 points more than the NZ model.

4.4.2.4 *Promotes Accountability for Equal Access for Equal Need*

In both the generic and New Zealand cases, the banning of supplementary insurance has a slight positive effect on the model of coverage regulation's ability to promote accountability for equal access for equal need. This is because although neither the model of coverage in the additional insurance market nor that in the principal-

financed health care market promote accountability for equal access terribly well, the principal-financed sector includes a role for central government to make some resource allocation decisions that it can hold intermediaries and providers to account for (see Chapter 3.1.2.4). With the banning of supplementary insurance, central government decision making impacts on a higher level and proportion of overall expenditure than with the NZ model. Hence, this model of coverage scores 30 out of 100 in promoting accountability for equal access – 10 more points than the NZ model.

4.4.2.5 *Provides Mechanisms to Manage Cream Skimming*

As noted above (Chapter 4.4.1.8), the performance of the non-insurable model of coverage is likely to be the same as the NZ model in managing cream skimming. Hence, the non-insurable model of coverage scores 20 out of 100 in relation to cream skimming.

4.4.3 **Choice**

4.4.3.1 *Offers Choice Over Package of Care*

The banning of supplementary insurance does not affect the choice that service users have over the package of care they can access, when compared with the NZ model. This occurs because supplementary insurance, by definition, provides coverage for the same range of services covered within a principal health care system – but with additional characteristics such as faster and more convenient access, and enhanced facilities. Hence, by preventing supplementary insurance, the range of services covered does not change at all.

In New Zealand, banning supplementary insurance would mean that service users could no longer obtain fast access to elective care, nor enhanced facilities, but they would still be covered for the same package of care as with the NZ model. Thus, the non-insurable model scores 30 out of 100, the same score as the NZ model, in offering choice over package of care. This score recognises that both out-of-pocket coverage and complementary insurance are still available with a non-insurable model, promoting at least a small degree of choice over the package of care.

4.4.3.2 Offers Choice Over Style and Characteristics of Care

Banning supplementary insurance has an important impact on choice over the characteristics of care. As a result of this ban, service users cannot purchase their own insurance for the services that are covered within the principal sector. For example, if maternity and elective services are covered by the principal sector, service users cannot obtain private insurance to supplement the care offered. Service users can only access the services offered in the principal sector.

In the New Zealand case, were supplementary insurance banned for services covered by the publicly-financed sector, the following may no longer be available to those who are willing and able to pay for insurance, and who are offered such insurance if they apply for it:

- coverage for user charges (GP care; pharmaceuticals)
- direct access to specialists, offering faster access for assessment
- faster and more convenient access to inpatient hospital care where there are waiting lists in the publicly-financed health care system
- additional days stays in hospital for e.g. maternity care
- single rooms in more comfortable surroundings, with televisions and more expensive food.

Service users' choices over these styles and characteristics of care would therefore be reduced as a result of the banning of supplementary insurance.

The non-insurable model therefore scores 50 out of 100 in relation to choice over style and characteristics of care. This contrasts with a score of 60 out of 100 for the NZ model, reflecting the reduction in choice that arises where supplementary insurance is banned. The difference of only 10 points reflects the limited role that supplementary insurance plays in New Zealand, and hence that the loss of choice is judged to be not too significant in the New Zealand case, as additional insurance, including complementary, gap and supplementary insurance, covers around 30% of the population, but only 6% of overall expenditure (Ministry of Health 2000).

4.4.4 Expenditure Control

4.4.4.1 *Makes It Possible to Ration Care*

Like the NZ model, a non-insurable model makes it very easy to ration care. Indeed the non-insurable model is better at this than the NZ model, as care is able to be rationed over a higher level and proportion of expenditure. A perfect score is, however, not possible, as some care is still able to be purchased out-of-pocket and through complementary insurance. Hence, the non-insurable model obtains a score of 90 out of 100 with respect to this objective.

4.4.4.2 *Promotes Accountability for Style and Characteristics of Care*

As with the NZ model, a non-insurable model offers limited accountability for style and characteristics of care. The only accountability there is comes from the central government's ability to make some national decisions about style and characteristics of care, for the national programmes that it runs (see Chapter

3.1.4.2). This improves slightly in the case of the non-insurable model compared with the NZ model. Hence, the non-insurable model scores 30 out of 100 with respect to this objective.

4.4.5 Overall Score

The results of the scoring on key policy goals and objectives for the non-insurable model are shown in Figures 4.16 to 4.20. (Note that 4.16 is an unweighted profile.) The overall scores for each goal are: efficiency, 61 (fairly good); equity, 60 (fairly good); choice, 40 (fairly poor); and expenditure control, 60 (fairly good). The overall score is 57, that is fair. The model is particularly good at promoting coverage of those most likely to benefit, comprehensive coverage, involving low administration costs, and promoting efficient supplementation to promote efficiency; providing universal, comprehensive and uniform coverage to promote equity; and enabling rationing of care. It is particularly poor at promoting accountability for cost-effectiveness, and managing cream skimming to ensure efficiency; accountability for equal access and managing cream skimming to ensure equity of access; offering choice over package of care; and promoting accountability for style and characteristics of care.

Figure 4.16: Non-insurable model: Overall profiles for sub-criteria

Figure 4.17: Non-insurable model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 4.18: Non-insurable model: Equal access for equal need: Profiles for sub-criteria

Figure 4.19: Non-insurable model: Choice: Profiles for sub-criteria

Figure 4.20: Non-insurable model: Expenditure control: Profiles for sub-criteria

4.5 *Summary and Conclusions*

Of the alternative models of coverage regulation considered for New Zealand, the explicit model obtains the highest overall score and hence best meets key policy goals and objectives (as defined and weighted here) (Figure 4.21). Compared with the NZ model of coverage regulation, the explicit model contributes much better to the efficiency goal, by enhancing the ability for government policy to make decisions at a national level, promoting accountability for cost-effectiveness, better managing cream skimming, and promoting efficient supplementation. In terms of equity, it leads to fewer differences in the packages of care made available, it clearly holds sponsors, intermediaries and providers better to account for ensuring equal access and it also contributes to improvements in the system's ability to manage cream skimming. The explicit model also better promotes accountability for style and characteristics of care. However, there are trade-offs to be made in better achieving these objectives – with respect to efficiency, the model of coverage is less likely to enable local decision making and it is likely to lead to higher costs overall in administering the model of coverage. The explicit model also leads to less choice over style and characteristics of care and it dramatically reduces the ability to ration care through delaying or denying care in any time period (Figures 4.22-4.26).

Compared with the NZ model, the local model does better at promoting local decision making, but worse at promoting national decision making, and is worse at ensuring uniform coverage. The less comprehensive model is worse at promoting both efficiency and equity goals because of the reduced comprehensive coverage, because it incurs higher administration costs, and because it offers less uniform coverage. It offers better choice over both the package of care and style and characteristics of care, but makes it less possible to ration care and to hold participants to account for the style and characteristics of care delivered. Finally, the non-insurable model is much better at ensuring efficient supplementation (as supplementation is banned), but otherwise is assessed as performing similarly to the NZ model.

With efficiency and equity goals weighted more highly than choice and expenditure control goals, these same conclusions are reached. However, the more highly valued is choice, the more likely it is that policy makers will want to choose a less comprehensive model or the local model, given the options analysed. With a greater value on overall expenditure control, policy makers would choose the non-insurable model over the explicit model.

Figure 4.21: Alternative models of coverage regulation for New Zealand within the existing health care system: Overall scores

Figure 4.22: Alternative models of coverage regulation for New Zealand within the existing health care system: Overall: Profiles for sub-criteria

Figure 4.23: Alternative models of coverage regulation for New Zealand within the existing health care system: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 4.24: Alternative models of coverage regulation for New Zealand within the existing health care system: Equal access for equal need: Profiles for sub-criteria

Figure 4.25: Alternative models of coverage regulation for New Zealand within the existing health care system: Choice: Profiles for sub-criteria

Figure 4.26: Alternative models of coverage regulation for New Zealand within the existing health care system: Expenditure control: Profiles for sub-criteria

Evaluating Alternative Models of Coverage Regulation in New Zealand Within a System of Managed Competition

Chapter 4 analysed the likely implications of alternative models of coverage regulation for their support of key health policy goals and objectives in New Zealand, assuming that New Zealand retains its existing system of health care financing and delivery. This Chapter considers how alternative models of coverage regulation would support key policy goals and objectives if New Zealand were to introduce a system of managed competition.

Managed competition warrants consideration for three main reasons. First, it was the basis for the planned reforms of New Zealand's health care system in 1991 and the original impetus for an explicit model of coverage regulation in New Zealand. As the explicit model received only a limited analysis when the original reform package was announced, a number of key policy issues remain unanalysed as regards its likely impact. In particular, there is a need to more clearly identify the trade-offs between policy goals and objectives were an explicit model developed within a managed competition system, and to determine whether an explicit model is a preferred option under such a system. Second, although the establishment of territorially-based, non-competing DHBs in New Zealand in 2001 would suggest that managed competition is no longer explicitly on New Zealand's policy agenda, this does not totally preclude a move to managed competition in the future. It is possible to envisage DHBs taking on the role of integrated care organisations or health plans, and eventually competing with each other across district boundaries for service users. Third, and of more immediate relevance, the present government is encouraging the development of PCOs, that, it appears, will compete with each

other for service user registrations, and that will eventually be allocated resources on a capitation basis. Thus, elements of a system of managed competition are being promoted in New Zealand at present.

The framing of alternative models of coverage regulation in this Chapter differs slightly from that in Chapter 4. It is assumed that a comprehensive range of services is available, and that those services covered by a service user's principal insurance can also be covered by additional insurance. The models considered differ from each other only with respect to population coverage and service specification elements. Attention is directed to the models that have different roles for government and private agencies in designing and coverage regulation, and different degrees of explicitness or implicitness in relation to service specification. Using these more focused alternatives reduces the repetition that would occur if the same alternatives were considered in this Chapter as were considered in Chapter 4, and allows a detailed consideration of alternatives for population coverage and service specification elements of coverage.

As with Chapters 3 and 4, only the implications of the model of coverage are scored, not the system of financing and delivery. Thus, where the alternative models analysed are similar to those of Chapters 3 and 4 and the scores will also be similar. This raises the question about why further analysis is required. As well as seeking to analyse alternative models of coverage regulation in a system of managed competition (as discussed above), there are two further reasons for this approach. First, the discussion notes where the system of managed competition may impact on the likelihood of policy goals and objectives being met, even if the scoring does not. (The scoring allows a clear identification of where there may be problems meeting policy goals and objectives as the financing and delivery system begins to change.) Second, the logic of the managed competition system fits better with some of the alternative models of coverage considered. For example, greater diversity in coverage, all care being available on demand and intermediary-defined explicit and detailed service specifications seem to more logically apply within a competitive model rather than a non-competitive one as exists in New Zealand.

Four alternative models of coverage regulation are analysed in the sections that follow. The first is a diverse, implicit model, with gaps in services and long waiting times (i.e. an extension of the NZ and local models considered earlier, but with even more diversity arising from intermediaries having greater autonomy in decision making). The second uses privately defined, broadly explicit service specifications, where all care is available largely on demand (i.e. similar to the private regulatory role and service specification and access features of New Zealand's private health insurance market). The third has privately defined, explicit, detailed service and access specifications, with detail provided by clinical priority assessment criteria or guidelines (i.e. as with New Zealand's CPAC approach, but with each intermediary drawing up its own specifications). Finally, the analysis considers a single, publicly defined, explicit, detailed service and access specification, with detail provided by clinical priority assessment criteria or guidelines (i.e. as with New Zealand's CPAC approach, but with a single service specification covering the entire population).

This Chapter discusses how managed competition systems of health care financing and organisation are designed, and sets out the key assumptions that are used in the analyses of alternative models of coverage regulation. Each of the four alternative models are then assessed for their support of key policy goals and objectives.

5.1 *Managed Competition*

In the United States, the idea of encouraging competing pre-paid, capitated integrated networks of purchaser/providers was first put forward by Paul Ellwood in 1971 (Ellwood, Anderson, Billings, Carlson, Hoogberg and McClure 1971). Among the first formal proposals were those suggested by Herman and Ann Somers in 1972 and 1973; their proposals included a top-down global budget and was called 'regulated competition'. The better known managed competition proposals were developed by Paul Ellwood and Alain Enthoven and the 'Jackson Hole Group'. Members of the group have been meeting since the mid-1970s and have developed

a comprehensive set of policy proposals for managed competition reform (Ellwood, Enthoven and Etheredge 1992; Ellwood and Enthoven 1995). Much of their work informed the Clinton plan (known formally as the President's Health Security Plan), other United States Federal reform plans that were hotly debated in the early 1990s, and some United States health care reform at State level.

'Management' (or regulation) of competition is done in various ways in these proposals, but usually includes:

- The encouragement of vertically integrated purchaser/providers, often known as 'health plans'.
- A strong relationship between plans and providers of health services. In some cases, purchasers and providers may be integrated into the same organisation; in other cases, contractual arrangements link purchasers and providers. These relationships are often assumed to include arrangements that share risk between plans and providers (see (Robinson and Steiner 1998) for examples of the organisational forms of integrated care organisations). In some versions, each provider (especially primary care physicians) is only employed by or contracted to one health plan, in order that provider practice be influenced by only one plan⁵⁶.
- Service user choice of health plan, i.e. competition between health plans for service users. In some proposals, some form of service user contribution towards premiums is included in order to encourage cost-conscious choice. In most proposals, service users would have the choice of switching plans only once every year.

⁵⁶ Enthoven (1988) describes the following inefficiencies if each physician belonging to ten plans: 'each doctor would have to deal with the utilisation controls and fee schedules of ten health plans, none of that would command his [sic] loyalty. If one health plan persuaded a doctor to adopt a more efficient health practice, the benefits would be likely to be spread immediately over all ten plans, reducing the incentive of any plan to make the effort to pursue innovation at the provider level'.

- 'Open enrolment' regulations to ensure that health plans take on all service users who apply, to ensure that everyone is covered and that health plans do not exclude service users (for example for pre-existing conditions).
- Standard packages of benefits. Some versions would prohibit balance billing (additional payments over and above the contracted price) and supplementary insurance covering co-payments and additional services.
- Pre-paid capitation payments to health plans in order to encourage efficient use of resources.
- In some systems of managed competition, a cap would also be placed on total health expenditure. There is, however, some controversy about how the cap would fit with managed competition proposals, which are designed in part to help ensure the 'right' level of health expenditure as determined by service user choice. However, some commentators believe that without an expenditure cap, limits on expenditure growth will not be guaranteed by managed competition alone.

(See for example Enthoven 1988; Enthoven 1988; Enthoven and Kronick 1989; Pauly, Danzon, Feldstein and Hoff 1991; Pauly, Danzon, Feldstein and Hoff 1992; Congressional Budget Office 1993; Enthoven 1993; Enthoven 1994; Ellwood and Enthoven 1995; Enthoven and Singer 1995; White 1995.)

In addition, managed competition proposals usually note that in a competitive market with profit-maximising health plans, service users will be charged premiums based on individual and family risk. Many proposals break the link between financing and payment to health plans at this point: either by collecting premiums via taxes or social insurance schemes and allocating them to plans via a separate process; or by requiring community rating of premiums. Such arrangements are designed to promote equity by improving affordability, but they have their own risks: chiefly the encouragement of cream skinning. If payments to health plans

are not adjusted for the risk associated with individual service users requiring higher levels of care, then plans have an incentive to exclude higher risk service users from joining up (an *ex ante* approach); and incentives to actively encourage service users found to be high risk to disenrol (an *ex post* approach). The policy response to these problems varies in proposals for managed competition.

The perceived (theoretical) benefits from managed competition are usually stated in contrast to the existing United States health care arrangements. Benefits for United States citizens include ensuring universal coverage, and providing enhanced incentives for efficiency through encouragement of integration, the use of the prospective payment system that would replace fee-for-service medicine, development of competition between plans, and the use of an expenditure cap.

Commentators remain divided on whether competition between health plans will promote innovation, efficiency and improved services, and better choice for service users. Whether or not gains eventuate would depend on how plans choose to compete and contract with providers and the extent to which competition can develop for different population groups, including high risk groups and those in geographically isolated communities (Congressional Budget Office 1993; Plank n.d). Furthermore, a key driver of improvements in care will be the choices that service users make in relation to plans. A lack of experience in choosing between plans and a lack of good information on plan performance could limit any potential benefits of competition.

In the United States, some commentators have noted that managed competition reforms may lead to service users having fewer providers to choose from, especially if providers have to choose to contract only with one health plan. There may also be fewer services, slower access to new technologies, greater involvement of plans in provider practice and lower provider incomes, as restrictions are placed on the services available and as the expenditure cap 'bites' to restrain expenditure (Congressional Budget Office 1993).

5.2 *A Potential Design for Managed Competition in New Zealand*

In analysing the performance of alternative models of coverage regulation within a managed competition system, a number of assumptions are required about the nature of the system. For this analysis, the following assumptions are made:

- There is largely private financing of premiums, with public subsidies for the elderly, those on low incomes and those with chronic illness.
- All citizens are covered, through the availability of public subsidies, through requirements that health plans must take on all those who apply and through a health plan 'of last resort' that offers coverage to those unable to afford to obtain it elsewhere.
- Service users pay a community-rated capitated payment directly to health plans. Plans have the freedom to set premiums for specified community-rated age-gender bands, with limits on the variations in premiums allowed between age-gender bands. Plans can charge subsidised service users a limited extra premium on top of the capitated payments. This gives greater flexibility in the level of finances than with New Zealand's existing arrangements discussed in Chapters 3 and 4.
- There is private ownership of integrated intermediary-provider organisations, but they can be either for-profit or not-for-profit.
- There is competition amongst integrated intermediary-provider organisations and they are unable to work together as a result of anti-competitive behaviour being outlawed.

- There are more intermediaries competing for service users than DHBs in Chapter 3 (i.e., more than 21⁵⁷) and they compete across geographic boundaries.
- When purchasing additional insurance, most service users will obtain their insurance from the same intermediary who provides them with their principal insurance coverage.

5.3 *The ‘Diverse, Implicit Model’ of Coverage Regulation in New Zealand*

The first model analysed within a managed competition system is the diverse, implicit model. This model offers diverse population coverage, comprehensive service coverage, an implicit service specification and insurability of covered services. Not all care is available, due to significant gaps in services and long waiting times for some care.

Within a managed competition system, the diverse, implicit model of coverage works a bit like the local model of coverage within New Zealand’s existing health care system. This is because the model allows autonomous decision making power to reside with a large number of competing intermediaries. There is however, a key difference between the local model and the diverse, implicit model – in the diverse, implicit model, variations in coverage will occur on an intermediary by intermediary basis; whereas with the local model, variations occur only on a geographical basis.

⁵⁷ Over time it is likely that fewer than 21 intermediaries would compete against each other in a small country such as New Zealand. However, having more than 21 intermediaries is likely in primary care in the short to medium term.

Table 5.1

Key features of model of coverage D-C-I(U)-I; the 'diverse, implicit model'

Diverse population coverage. No or limited government oversight and policy making with regards to services. Resources are allocated to intermediaries who have considerable autonomy in making decisions with respect to the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times. This autonomy leads to variations in the range of services available and access to care, depending on which intermediary a service user is enrolled with.

Most intermediaries offer a fairly comprehensive range of services.

Implicit coverage⁵⁸. Resources are allocated to intermediaries using a risk-rated capitation formula. Intermediaries decide how to allocate those resources in terms of the mix, volume and quality of care to be made available, and decide how to deliver those services – whether through their own services or independent providers. Intermediaries have complete flexibility to make such decisions. Thus not only are there likely to be variations in access to care, gaps in service availability, and uncertain and long waits for some services, but with the potential for significant variations if intermediaries diverge in terms of the decisions they make about service mix and distribution.

Insurability of health care services covered in the principal system (i.e., supplementary insurance is allowed). Complementary and gap insurance coverage is also enabled. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

With the diverse, implicit model, the financing of health care is likely to be restrained in some way; otherwise gaps in service provision and long waiting times would be unlikely to occur. This restraint could result from the level of capitation payments made to intermediaries and providers, or from regulatory limits on the payments able to be requested of service users, or both.

The discussion below focuses largely on those objectives where the diverse, implicit model scores differently from the local model discussed in Chapter 4.1.

⁵⁸ Note that as the intermediaries in this model are privately-owned, an implicit service specification model is in fact unlikely to occur in practice. It is included here for completeness, and in order to assess how the model in New Zealand would work within a system of managed competition.

5.3.1 Maximising Health Outcomes

5.3.1.1 *Allows National Decision Making*

The diverse, implicit model within a managed competition system offers no role for central government decision making about the services available and access to them. Furthermore, although the local model within New Zealand's existing health care system offers a small opportunity for intermediaries to work together – partly because they are all government-owned – this opportunity does not exist within the diverse, implicit model as framed for a managed competition system, where collaboration between intermediaries is not possible. Thus, the potential for national decision making processes is weaker than in the local model of coverage regulation. The diverse, implicit model within a managed competition system therefore scores less than the local model within New Zealand's existing health care system in allowing national decision making. This gives it a 0 score.

5.3.1.2 *Allows Local Decision Making*

The diverse, implicit model allows individual intermediaries to make their own decisions about service coverage, and gives service users the ability to choose between packages of services offered by a range of intermediaries. Thus, the diverse, implicit model promotes a good degree of local decision making within a system of managed competition. However, intermediaries may offer coverage to populations that span geographical boundaries, so that service coverage decisions are unlikely to always focus on local needs and wants. A perfect score of 100 would require that intermediaries *always* design packages of care to meet the particular needs of each community. This might seem very unlikely in practice, because intermediaries might wish to limit spending on package design and consultation, although there is evidence of tailoring in the United States where intermediaries tailor packages of care for individual (large) companies, offering a form of local diversity. Hence, the diverse, implicit model scores 80 out of 100 for allowing local decision making within a system of managed competition, although

empirical evidence would be required to confirm this score were such a model to develop in New Zealand.

5.3.1.3 *Provides Coverage to Those Most Likely to Benefit*

The diverse, implicit model within a managed competition system provides universal coverage. In practice, this occurs as a result of the subsidies offered by the government for health care, and the availability of an intermediary 'of last resort'. Hence, the diverse, implicit model scores 90 out of 100 in providing coverage to those most likely to benefit. (As in Chapter 3, ten points are taken off a perfect score to account for non-New Zealand residents who do not obtain coverage.)

5.3.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

A key assumption underlying this model is that most intermediaries offer a fairly comprehensive range of services and styles of care, and it is also assumed that comprehensiveness does not alter between the models being compared in this Chapter.

In practice some intermediaries, however, will offer slightly less comprehensive coverage, for example removing services where there is uncertainty about the benefits from care or the likely length and cost of treatment. This potential loss of comprehensiveness will, however, be tempered by the existence of an intermediary of last resort, whose decisions on coverage will have an impact on comprehensiveness in a diverse, implicit model in a system of managed competition. On the other hand, intermediaries may also offer improved comprehensiveness, by adding in new services that might attract service users, especially the more healthy service users. In Germany, for example, it has been argued that competition between funds is leading to stratification – with new benefits being added to attract affluent subscribers, and competition therefore

leading to an expansion of overall benefits and costs (Wysong and Abel 1990, p. 543).

It is difficult to judge the impact of such changes on comprehensiveness overall and on efficiency. It is possible that the possible expansion of benefits may promote efficiency, if services are cost-effective. On the other hand, some groups of services may be excluded, making it more difficult to promote efficiency because some cost-effective services are excluded from coverage. This is certainly how private health insurance works in New Zealand at present, and with the diverse, implicit model there is no reason not to expect similar patterns to continue under managed competition.

However, the underlying assumptions give this model a score of 80 out of 100 in offering comprehensive coverage to promote efficiency, the same as the local model assessed in Chapter 4.

5.3.1.5 *Promotes Accountability for Cost-effectiveness*

The local model assessed in Chapter 4 within New Zealand's existing health care system scored 10 points with respect to promoting accountability for cost-effectiveness. This results from the autonomous decision-making power that individual intermediaries and providers have and from the implicit nature of the model, tempered by the ability for some joint decision-making in the local model. The diverse, implicit model within a managed competition system will work in the same way as the local model, but without the joint decision-making ability and it will do nothing to promote cost-effectiveness. Hence it scores a 0 score out of 100 for promoting cost-effectiveness.

5.3.1.6 *Incurs Low Costs in Administering the Specification of Services*

The diverse, implicit model in a managed competition system involves resource allocation decisions being made across a wide range of intermediaries and providers. These costs will be borne by a greater number of intermediaries than with the local model within New Zealand's existing health care system. This will lead to higher administration costs for the diverse, implicit model. Thus it scores 30 out of 100, as compared with the local model in New Zealand's existing health care system, which scores 40 out of 100 in relation to this objective.

5.3.1.7 *Promotes Efficient Supplementation*

Given its implicit nature, the diverse, implicit model offers no information to service users about the circumstances where they might need additional care or additional health insurance coverage. Service users' knowledge about their coverage is also likely to be confused as large variations in coverage are possible because there are many intermediaries, many packages being offered by individual intermediaries, and an opportunity for service users to switch between packages of care and between intermediaries. This may make it difficult for service users to be clear about their coverage, and service users may also find it difficult to link additional coverage to their principal coverage where there are a large number of packages of care on offer. However, individual intermediaries are likely to manage health insurance coverage by offering interlinking packages of care, which service users can build up from basic, but comprehensive⁵⁹, coverage to more extensive coverage. If additional insurance is always purchased from the same intermediary that offers them their principal coverage, then service users will be able to tailor principal and additional packages fairly well. If principal and additional insurance are purchased from different intermediaries, the variety of packages and the ability

⁵⁹ Remembering that a key assumption underlying this analysis is that coverage is fairly comprehensive for all residents.

to switch may make it difficult for service users to choose the package of additional insurance that best suits them. Those service users signed up with the intermediary of last resort may find it particularly difficult to link packages up together, especially if the intermediary of last resort is unable to offer additional insurance packages themselves⁶⁰.

On balance, it is more likely that packages of care will interlock well for many, but not all, residents. However, it is also the case with the diverse, implicit model that there are gaps and long waiting times for care. This will also make it difficult for service users to be clear about whether or not they do indeed require additional insurance to meet their needs. Taking into consideration both of these features leads to a score of 50 out of 100 in promoting efficient supplementation. This is a higher score than for the local model, due to the better ability of the diverse, implicit model to allow interlinking of principal and additional insurance.

5.3.1.8 *Provides Mechanisms to Manage Cream Skimming*

The failure of the diverse, implicit model (as with the local model) to provide a mechanism to manage cream skimming is of greater concern within the system of managed competition than with New Zealand's existing health care system. The combination of competition between intermediaries and capitation payments to intermediaries provides powerful financial incentives to cream skim. Moreover, the existence of an intermediary of last resort ensures that no service user will miss out on coverage and care, and intermediaries may therefore feel less concerned about cream skimming than if an intermediary of last resort did not exist.

⁶⁰ New Zealand's original managed competition reform package left unanswered the question of whether government-owned RHAs would be able to offer additional coverage. This is probably because of concerns that the government would not wish to underwrite the financial risks associated with RHA involvement in the additional insurance market.

It is difficult to predict whether cream skimming would develop in New Zealand if a system of managed competition were introduced here. The financial and competitive incentives that encourage cream skimming have not traditionally been a feature of New Zealand's publicly-financed health care arrangements, although this is slowly changing as capitation of competing PCOs is set to become more common. PCOs are also increasingly being asked to consider how to better reach those with traditionally poor utilisation rates in primary care, and if the costs of providing care to these groups turn out to be significantly higher than the capitation payments offered, PCOs may find it increasingly difficult to not consider cream skimming. The response of the funders of primary care, the DHBs, as well as PCOs, will be crucial in determining whether cream skimming becomes a feature of New Zealand primary care in future.

The diverse, implicit model in a system of managed competition does nothing to manage cream skimming. It therefore scores badly: 10 out of 100.

5.3.2 Equal Access for Equal Need

5.3.2.1 *Offers Universal Coverage*

The local model within New Zealand's existing health care system and the diverse, implicit model within a system of managed competition result in the same overall population coverage, i.e. universal coverage. This is promoted through the key assumption that central government financing of health care continues for those on low incomes, the elderly and for those with chronic illness, and because of the existence of an intermediary of last resort. Hence, the diverse, implicit model scores 90 out of 100 in promoting universal coverage.

5.3.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The diverse, implicit model obtains a score of 80 out of 100 in relation to comprehensive coverage within a system of managed competition. As noted above in Chapter 5.3.1.4, this score reflects that there is indeed a fair degree of comprehensiveness offered by all intermediaries.

5.3.2.3 *Offers Uniform Coverage*

In the diverse, implicit model, intermediaries have complete freedom to design packages of care as they see fit. They are each likely to design a range of packages of care, which individual service users can choose between. Thus, uniform coverage is unlikely to occur within this model of coverage. The diverse, implicit model therefore scores 10 out of 100 for offering uniform coverage. The ten points obtained reflects a small degree of uniformity where there is coverage by the same package of care, although the implicit coverage means that uniformity may not even occur where service users are covered by the same package.

5.3.2.4 *Promotes Accountability for Equal Access*

As with the local model within New Zealand's existing health care system, the diverse, implicit model within a managed competition system offers no mechanisms for holding intermediaries to account for ensuring equal access. That is, individual intermediaries are able to design packages of care in their own ways, and to offer care to individual service users within the terms stipulated by the service specification. With implicit coverage, there is no way of ensuring that equal access is promoted or achieved. As a result, the diverse, implicit model scores 0 out of 100 in promoting accountability for equal access.

5.3.2.5 *Provides Mechanisms to Manage Cream Skimming*

As with the local model considered in Chapter 4, the diverse, implicit model does nothing to manage cream skimming. Hence, it scores a 10 out of 100 in relation to this objective. As cream skimming may be more likely in the managed competition system than within New Zealand's existing health care system, the inability of the model of coverage to manage cream skimming is likely to be a significant problem in managing the overall health care system. In the system of managed competition as configured, problems will arise particularly where less healthy service users are more likely to enrol with the intermediary of last resort. This intermediary may find it difficult to manage access to health care within the financial allocations it receives, unless these allocations are well adjusted for individual health risk.

5.3.3 **Choice**

5.3.3.1 *Offers Choice Over Package of Care*

The diverse, implicit model within a system of managed competition offers service users a large degree of choice over the package of care they get cover for. This occurs because the model allows individual intermediaries to design packages of care as they see fit, and each intermediary is likely to offer a number of different packages of care service users can choose between. All service users have a choice over the package of care, including service users who are covered by the intermediary of last resort. However, lower income service users, the elderly and those with chronic illness may find they have less choice than others, as a result of not being able to afford the most extensive and generous packages of care. Others may find they are excluded from coverage as a result of package design, pre-existing condition limits or limits on the total amount of expenditure allowed for particular conditions.

Overall, this model therefore offers a good choice of package of care for most people, but more limited choice for others. It obtains a score of 70 out of 100 in relation to this objective.

5.3.3.2 *Offers Choice over Style and Characteristics of Care*

The diverse, implicit model offers good choice over the style and characteristics of care, because such decision making is left in the hands of individual intermediaries and providers. However, as with choice over package of care, some service users will have their choices limited by being unable to afford some choices, or by being excluded from some coverage. Hence, the model obtains the same score for choice over style and characteristics of care as for choice over package of care – 70 out of 100.

5.3.4 **Expenditure Control**

5.3.4.1 *Makes It Possible to Ration Care*

The diverse, implicit model of coverage regulation allows good opportunities to ration care. This is enabled by intermediaries and providers having a good deal of autonomous decision making ability, and the implicit nature of the coverage.

In practice, however, the competition that exists between intermediaries for service users would seem to make it less likely that intermediaries will ration care for some service users, in order to encourage them to retain their enrolment. (See Wysong (1990) for the German experience in terms of increasing the range of benefits available.) For other service users, rationing may be just as likely within a system of managed competition as with similar models of regulation coverage in New Zealand's existing health care system, as intermediaries aim to discourage some service users from enrolling or using services.

It is, however, the performance of the model of coverage, and not the system of health care financing and delivery, that is scored. Hence the diverse, implicit model scores 80 out of 100 in providing for the ability to ration care, the same as the local model within New Zealand's existing health care system.

5.3.4.2 *Promotes Accountability for Style and Characteristics of Care*

The diverse, implicit model within a managed competition system offers no means of promoting accountability for style and characteristics of care. Hence, the diverse, implicit model scores a 0 out of 100 with respect to this objective. This is ten points less than the local model, as a result of the loss of joint decision making, and hence possible accountability for style and characteristics of care, which can occur in the local model but cannot occur.

5.3.5 Overall Score

The results of the scoring on key policy goals and objectives for the diverse implicit model are shown in Figures 5.1 To 5.5. (Note that 5.1 is an unweighted profile.) The overall scores for each goal are: efficiency, 42 (fairly poor); equity, 38 (very poor); choice, 70 (good); and expenditure control, 40 (fairly poor). The overall score is 45, that is fairly poor. The model is particularly good at promoting local decision-making, ensuring coverage of those most likely to benefit and offering comprehensive coverage to promote efficiency; ensuring universal and comprehensive coverage to promote equity of access; promoting choice; and enabling rationing of care. It is poor at national decision making, accountability for cost-effectiveness, involving low administration costs and ensuring efficient supplementation, as well as managing cream skimming to promote efficiency; at holding participants to account for equal access, and managing cream skimming for equal access; and at ensuring accountability for style and characteristics of care.

Figure 5.1: Diverse implicit model: Overall profiles for sub-criteria

Figure 5.2: Diverse implicit model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 5.3: Diverse implicit model: Equal access for equal need: Profiles for sub-criteria

Figure 5.4: Diverse implicit model: Choice: Profiles for sub-criteria

Figure 5.5: Diverse implicit model: Expenditure control: Profiles for sub-criteria

5.4 *An Alternative Model of Coverage Regulation In a System of Managed Competition: (1) A Privately Defined, Broadly Explicit Model, All Care Available*

With this model of coverage, each intermediary defines its own service specification, but it does so in a broadly explicit way. Furthermore, all services specified within a particular package of care is available more or less on demand and there are no long waits for care. In order to retain both comprehensive coverage and care being able to be delivered more or less on demand, it is likely that this model of coverage requires higher levels of funding than other models considered in this Chapter.

Table 5.2

Key features of model of coverage D-C-E(A)-I; the 'plural, general model'

Diverse population coverage. No or limited government oversight and policy making with regards to services. Resources are allocated to intermediaries who have considerable autonomy in making decisions with respect to the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times. This autonomy leads to variations in access to care, depending on that intermediary a service user is enrolled with.

Most intermediaries offer a fairly comprehensive coverage of services.

Broadly explicit service specifications, defined by each competing intermediary, with care available on demand. Resources are allocated to intermediaries using a risk-rated capitation formula. Intermediaries decide how to allocate those resources in terms of the mix, volume and quality of care to be made available, and decide how to deliver those services – whether through their own services or independent providers. Intermediaries have complete flexibility to make such decisions. Thus there are variations in access to care across intermediaries; also within intermediaries as they offer different packages of care.

Insurability of health care services covered in the principal system (i.e., supplementary insurance is allowed). However, such insurance is generally not needed, as care covered is generally available on demand. Complementary and gap insurance coverage is also enabled. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

5.4.1 Maximising Health Outcomes

5.4.1.1 *Allows National Decision Making*

As with the diverse, implicit model, the plural, general model does not include a role for national decision making. Hence it scores 0 out of 100 points.

5.4.1.2 *Allows Local Decision Making*

The plural, general model does allow a great deal of local decision making. As with the diverse, implicit model, however, the degree of local focus is likely to be less than desired, as a result of intermediaries designing packages of care that span geographical boundaries. Hence, the plural general model scores 80 out of 100 points in supporting this objective.

5.4.1.3 *Provides Coverage to Those Most Likely to Benefit*

There is no difference between a plural, general model and the diverse, implicit model in relation to promoting coverage of those most likely to benefit. Hence it scores 90 out of 100 in relation to this objective.

5.4.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

Any change from the diverse, implicit model to a plural, general model does affect the comprehensiveness of coverage offered as access to care becomes available more or less on demand. The impact of this on efficiency is not easily assessed, however. On the one hand, the reduced waiting time is likely to be regarded by service users as a very positive development in its own right, and this aspect of improved comprehensiveness improves efficiency (in the sense of maximising

health) if waiting times are causing inefficiencies by not being carefully managed to maximise health gain. On the other hand, having to treat all service users quickly may lead to inefficiencies in relation to maximising health, as it robs intermediaries and providers of the opportunity to organise care in ways that see those with the most need being treated first. It is assumed that these two implications for efficiency balance each other off. Hence, this model scores the same as the diverse, implicit model in a managed competition system, 80 out of 100.

5.4.1.5 Promotes Accountability for Cost-effectiveness

As with the diverse, implicit model, the plural, general model of coverage does nothing to promote accountability for cost-effectiveness. Hence, it scores a 0 out of 100 in relation to this objective.

5.4.1.6 Incurs Low Costs in Administering the Specification of Services

The change from the diverse, implicit model to a plural, general model leads to an increase in administration costs associated with the specification of services. This leads to a poor score of 20 out of 100 in relation to promoting low administration costs with respect to service specification. This reflects that there is more formal decision-making introduced into the coverage regulation model, in order to support a more explicit service specification with administration costs incurred by a large number of intermediaries. Such costs include those incurred in relation to decision making, specification in brochures and insurance contracts, and in ensuring that individual service users are eligible for the services they are making claims for.

5.4.1.7 *Promotes Efficient Supplementation*

With the plural, general model of coverage, all care is available to service users as and when they need it. As a result, the supplementary insurance market would no longer exist⁶¹. Hence, this model of coverage obtains a perfect score of 100 in promoting efficient supplementation.

5.4.1.8 *Provides Mechanisms to Manage Cream Skimming*

The plural, general model scores badly in relation to managing cream skimming: obtaining a score of 20 out of 100. This score reflects the poor ability of this model of coverage (particularly the implicit coverage) to provide any mechanisms to manage cream skimming. This score is, however, slightly higher than the score obtained by the diverse, implicit model discussed above, because the availability of care more or less on demand removes one way in which intermediaries and providers can cream skim. That is, they cannot define or set waiting times in ways that discourage service users with particular conditions from enrolling.

5.4.2 Equal Access for Equal Care

5.4.2.1 *Offers Universal Coverage*

The change from the diverse, implicit model to a plural, general model does not alter the universal nature of the model. Hence, this model of coverage scores the same as the diverse, implicit model, 90 out of 100, in offering universal coverage.

⁶¹ At least in relation to waiting times. A supplementary market may develop to provide better facilities, such as single rooms with televisions, better quality food, or choice of own physician. The broadly explicit service specification should be sufficient to ensure service users are clear about what their principal coverage covers.

5.4.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The plural, general model obtains a score of 90 in relation to offering comprehensive coverage within a system of managed competition. This score reflects the fair degree of comprehensiveness offered by all intermediaries. The score is higher than with the diverse, implicit model within a system of managed competition, however, because all care that is covered is available on demand. This improvement in comprehensiveness promotes equal access for equal need by making it more likely that all service users will receive covered care within a reasonable timeframe.

5.4.2.3 *Offers Uniform Coverage*

With the plural, general model of coverage, intermediaries continue to have complete freedom to design packages of care as they see fit, as they do with the diverse, implicit model. They are likely to design a range of packages of care that individual service users can choose between. Thus, uniform coverage is unlikely to occur within this model of coverage. However, the plural, general model of coverage allows very good access to the care that is offered, providing a degree of uniformity. This gives it a higher score than the diverse, implicit model; the plural general model of coverage scoring 20 out of 100 compared with the diverse, implicit score of 10 out of 100.

5.4.2.4 *Promotes Accountability for Equal Access*

As with the diverse, implicit model, a plural, general model offers few mechanisms for holding intermediaries to account for ensuring equal access. It does, however, score slightly higher than the diverse, implicit model, as it allows care covered to be available more or less on demand, promoting a degree of equal access. Hence, the plural, general model scores 10 out of 100 for promoting accountability for equal access.

5.4.2.5 *Provides Mechanisms to Manage Cream Skimming*

The plural, general model, along with the diverse, implicit model, does little to manage cream skimming in order to promote equal access for equal need. However, it does offer covered care more or less on demand, which at least removes the opportunity for intermediaries and providers to define waiting times in order to discourage less healthy service users from remaining enrolled. Hence the plural, general model scores 20 out of 100 in relation to this objective.

5.4.3 **Choice**

5.4.3.1 *Offers Choice Over Package of Care*

The plural, general model of coverage offers a large degree of service user choice over the package of care. All service users can choose between a number of packages of care, including service users who are covered by the intermediary of last resort. Some service users will have their choices limited by affordability and exclusions, however. Overall, the plural, general model of coverage offers the same degree of choice as the diverse, implicit model within a system of managed competition – obtaining a score of 70 out of 100.

5.4.3.2 *Offers Choice Over Style and Characteristics of Care*

As with the diverse, implicit model within a system of managed competition, the plural, general model offers good choice over style and characteristics of care. Moreover, compared with the diverse, implicit model there is greater choice over the waiting times for care, as care is more or less available on demand if need be, so that individual service users will have a choice over when to schedule their treatment. The model does not, however, allow individuals to trade off lower prices of coverage with greater waiting time, at least explicitly when choosing between packages of care. Hence this model obtains a score of 80 out of 100 in promoting choice over style and characteristics of care. The low score also reflects the fact that it is intermediaries who will design packages of care, which may limit the options service users have to choose between.

5.4.4 Expenditure Control

5.4.4.1 *Makes It Possible to Ration Care*

The plural, general model offers some ability to ration care, but this ability is less than with the diverse, implicit model. Thus, the plural, general model scores 70 out of 100 in terms of the ability to ration care. This reflects the plural, general model having services available more or less on demand, so that an important means of rationing (waiting for care) is denied within the model. However, the broadly explicit definition still enables intermediaries and providers the opportunity to alter the thresholds that care is offered at, and this means they continue to have at their disposal a means of rationing care. (Even if competition between intermediaries and providers means that the ability to ration is not used, this is not relevant for scoring the model of coverage.)

5.4.4.2 *Promotes Accountability for Style and Characteristics of Care*

The plural, general model offers slightly better prospects for holding sponsors, intermediaries and providers to account for style and characteristics of care, when compared with the diverse, implicit model. This arises because the care that is covered is available more or less on demand, enabling service users a way of holding others to account for the delivery of care that is covered, within a reasonable time frame. However, with the broadly explicit service specification, service users have no ability to ensure that thresholds do not move upwards, while sponsors have no way of ensuring that thresholds do not move downwards to expand the care that is being offered. Hence this model of coverage scores 10 out of 100 in promoting accountability for style and characteristics of care delivered.

5.4.5 **Overall Score**

The results of the scoring on key policy goals and objectives for the plural, general model are shown in Figures 5.6 to 5.10. (Note that 5.6 is an unweighted profile.) The overall scores for each goal are: efficiency, 49 (fairly poor to fair); equity, 46 (fairly poor); choice, 75 (good); and expenditure control, 40 (fairly poor). The overall score is 51, that is fair. The model is particularly good at promoting local decision-making, ensuring coverage of those most likely to benefit and offering comprehensive coverage and efficient supplementation to promote efficiency; ensuring universal and comprehensive coverage to promote equity of access; promoting choice; and enabling rationing of care. It is poor at national decision making, accountability for cost-effectiveness, involving low administration costs, as well as managing cream skimming to promote efficiency; at ensuring uniform coverage and at holding participants to account for equal access, and managing cream skimming for equal access; and at ensuring accountability for style and characteristics of care.

Figure 5.6: Plural general model: Overall profiles for sub-criteria

Figure 5.7: Plural general model: Maximising health outcomes for the resources available: Profiles for sub-criteria available: Profiles for sub-criteria

Figure 5.8: Plural general model: Equal access for equal need: Profiles for sub-criteria

Figure 5.9: Plural general model: Choice: Profiles for sub-criteria

Figure 5.10: Plural general model: Expenditure control: Profiles for sub-criteria

**5.5 *An Alternative Model of Coverage Regulation In a
System of Managed Competition: (2) A Privately
Defined, Explicit Detailed Model***

Table 5.3

Key features of model of coverage D-C-E(D)-I; the 'plural, detailed model'

Diverse population coverage. No or limited government oversight and policy making with regards to services. Resources are allocated to intermediaries who have considerable autonomy in making decisions with respect to the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times. This autonomy leads to variations in access to care, depending on that intermediary a service user is enrolled with.

Most intermediaries offer a fairly comprehensive range of services.

Explicit, detailed service specifications, defined by each competing intermediary, with care available as specified. Resources are allocated to intermediaries using a risk-rated capitation formula. Intermediaries decide how to allocate those resources in terms of the mix, volume and quality of care to be made available, and decide how to deliver those services – whether through their own services or independent providers. Intermediaries have complete flexibility to make such decisions. Thus there are variations in access to care across intermediaries; also within intermediaries as they offer different packages of care.

Supplementary insurance no longer exists – by definition, all insurance coverage becomes complementary or gap insurance. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

5.5.1 Maximising Health Outcomes

5.5.1.1 *Allows National Decision Making*

As with the diverse, implicit model, the plural, detailed model of coverage does not include a role for national decision making. Hence it scores 0 out of 100 points on this objective.

5.5.1.2 *Allows Local Decision Making*

The plural, detailed model scores very well in promoting local decision making. However, it obtains a less than perfect score of 80 out of 100 points, as a result of decision making on packages of care applying across local boundaries.

5.5.1.3 *Provides Coverage to Those Most Likely to Benefit*

As with the other models of coverage regulation already considered in this Chapter, the plural, detailed model scores contributes very well to promoting coverage of those most likely to benefit. Hence, it scores 90 out of 100 in relation to this objective.

5.5.1.4 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The change from the diverse, implicit model to a plural, detailed model of coverage does not affect the comprehensiveness of coverage offered. Hence, this model scores the same as the diverse, implicit model in a system of managed competition, 80 out of 100.

5.5.1.5 *Promotes Accountability for Cost-effectiveness*

The plural, detailed model of coverage resembles quite closely the detailed, explicit model of coverage assessed within New Zealand's existing health care system, except that each intermediary takes responsibility for defining its own explicit service specification in detail, within a system where intermediaries compete against each other for service user enrolments. This has three implications for promoting accountability for cost-effectiveness. First, there is no overall control over cost-effectiveness and different interpretations may develop of the concept. For example, different thresholds may apply across different intermediaries. Second, individual intermediaries are able, if they choose to do so, to specify services in order to promote cost-effectiveness, such that individual providers may be able to be held to account for promoting cost-effectiveness. Third, however, individual intermediaries may focus on ensuring service user wants are met, rather than promoting cost-effectiveness, in order to encourage service users to enrol; they may also aim to ensure that they are able to compete in the market for providers, offering the ability for providers to deliver the style of care they feel most comfortable with.

This explicit model is scored at 30 with respect to promoting accountability for cost-effectiveness. This reflects the ability to promote cost-effectiveness through the explicit service specification, but accepts that cost-effectiveness from a national perspective is unlikely to be achieved. The score also excludes consideration that individual intermediaries are competing against each other, such that the focus on cost-effectiveness may not be as likely as with a single, explicit model of coverage, because this is a feature of the system of financing and delivery rather than the model of coverage. The score also reflects the fact that a broadly explicit service specification remains within the complementary additional insurance market, which does not assist in promoting accountability for cost-effectiveness.

5.5.1.6 *Incurs Low Costs in Administering the Specification of Services*

Of all the alternative models of coverage regulation considered in this analysis, this model obtains the lowest score for promoting low administration costs. This low score arises for two reasons. First, administration costs in defining, implementing and monitoring an explicit model are incurred by a large number of intermediaries (as with the plural, general model). Second, the costs for each intermediary are likely to be quite large, because each intermediary defines services in detail. This requires defining the services that are to be made available, reviewing international and local research literature on the health benefits of providing services at different thresholds, estimating the costs associated with particular thresholds, engaging in some form of public consultation, establishing an on-going review mechanism to keep up to date, and putting in place audit mechanisms to ensure individual intermediaries and providers are providing care as defined in the explicit service specification.

Were such a system to develop in a country like New Zealand, it is possible that intermediaries may collaborate to reduce the costs associated with aspects of the service specification process. Intermediaries would need to take care not to breach competition laws, however, but they may be able for example to jointly fund research on costs and benefits of services and on guidelines for service delivery, provided that final decision making about coverage and guidelines were left in the hands of each intermediary. In scoring this model of coverage, it is however assumed that such collaboration does not take place. Further research evidence would be useful in determining whether intermediaries do collaborate on service specification processes and in determining the nature and extent of any reductions in administration costs that result from collaboration.

The overall result is a score of 0 out of 100, because the model of coverage does nothing to keep administration costs in specifying services low.

5.5.1.7 *Promotes Efficient Supplementation*

Compared with the diverse, implicit model, the plural, detailed model of coverage offers service users greater knowledge about coverage under their principal coverage. This arises from the explicit, detailed service specification that each intermediary defines. However, the range of packages available and the competition between intermediaries may make the purchase of additional (complementary) insurance difficult if service users generally obtain their additional insurance from intermediaries that are different from those who provide a service user's principal insurance. As it is assumed that this will be the situation for some service users, this model of coverage scores 90 out of 100 in promoting efficient supplementation. This is less than a perfect score to reflect the confusing position that some service users will find themselves in when they purchase principal and additional insurance from different intermediaries. This score is higher than that for the diverse, implicit model because the explicit service specification makes it easy for service users to identify the actual care they are entitled to, and hence the care they may purchase additional insurance for.

5.5.1.8 *Provides Mechanisms to Manage Cream Skimming*

The plural, detailed model scores badly in relation to managing cream skimming: 10 out of 100. This is because individual intermediaries are able to define packages of care in ways they choose, and can use the package design to discourage individual service users with higher needs from enrolling. Indeed, the opportunities to exclude particular types of service users are to some extent even greater for the plural, detailed model than with an implicit model, because intermediaries can use the process of developing a service specification in detail to subtly exclude certain types of services and service users from coverage altogether. For example, they may define long waiting times for specific services in order to discourage individuals with particular conditions from signing up for coverage. On the other hand, once an individual service user is covered, the explicit, detailed model

removes one way in that service users can be discouraged from remaining with the intermediary, as the access they have to care is very clearly spelled out for them.

5.5.2 Equal Access for Equal Care

5.5.2.1 *Offers Universal Coverage*

The plural, detailed model scores 90 out of 100 in offering universal coverage; the same as the diverse, explicit model.

5.5.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The plural, detailed model obtains a score of 80 in relation to comprehensive coverage within a system of managed competition. This score reflects the assumption that there is a fair degree of comprehensiveness offered by all intermediaries, as with the diverse, implicit model.

5.5.2.3 *Offers Uniform Coverage*

The plural, general model of coverage scores the same as the diverse, implicit model within a system of managed competition, i.e. 10 out of 100, in offering uniform coverage. This results from intermediaries having complete freedom to offer a range of packages of care, which individual service users can choose between, such that uniform coverage is unlikely to occur within this model of coverage. The ten points scored reflects a small degree of uniformity for those service users covered by the same packages of care.

5.5.2.4 *Promotes Accountability for Equal Access*

A model of coverage where there are many detailed service specifications allows a slightly higher score with respect to accountability for equal access than a model of coverage where there are many, generally defined service specifications. This arises because the exact services that are available under any particular set of circumstances are clearly defined, as is access to care. This allows service users covered by particular policies to be able to ensure they get the care they need when they need it, and it promotes equal access if all service users covered by the same packages (and any agencies representing them) are equally capable of holding sponsors, intermediaries and providers to account. However, equal access is not promoted across all service users, because of the range of packages of care that service users are covered for. Hence, the plural, detailed model scores 30 out of 100 in promoting equal access.

5.5.2.5 *Provides Mechanisms to Manage Cream Skimming*

As with the diverse, implicit model, a plural, detailed model does little to manage cream skimming. This is because individual intermediaries and providers have the ability to define the packages of care they offer in ways that encourage cream skimming; moreover, with a detailed service specification, they are able to manipulate the service specification in ways that promotes cream skimming. However, once service users are covered, they are less likely with this model to have poor service which may encourage them to leave, because their coverage is explicit. Hence, the plural, detailed model obtains a score of 10 respect to managing cream skimming to promote equal access for equal need.

5.5.3 Choice

5.5.3.1 *Offers Choice Over Package of Care*

The plural, detailed model offers the same degree of choice over the package of care as the diverse, implicit model. This arises because the explicit model is assumed to offer coverage over the same range of services as the diverse, implicit model; only the degree of explicitness changes. Hence, the explicit model obtains a score of 70 out of 100.

5.5.3.2 *Offers Choice Over Style and Characteristics of Care*

The plural, detailed model is subtly different from the diverse, implicit model with respect to offering choice over style and characteristics of care. Service users have a very good choice when they choose between the packages of care offered by different intermediaries. However, once they have chosen a package of care, their choice over style and characteristics of care is limited to those that are covered within the package of care. As a result, the plural, detailed model is scored 20 points less than the diverse, implicit model in terms of offering choice over style and characteristics of care – 50 out of 100.

5.5.4 Expenditure Control

5.5.4.1 *Makes It Possible to Ration Care*

As with the single explicit model, the plural, detailed model offers little ability for services to be rationed, as once covered, an individual has an entitlement to care. The only way that care might be rationed is in the additional insurance sector, which continues to operate within a broadly explicit service specification. Hence, this model of coverage scores 10 out of 100 in terms of the ability to ration care.

5.5.4.2 *Promotes Accountability for Style and Characteristics of Care*

A model of coverage where there is diffuse decision making but an explicit service specification offers little opportunity for overall accountability for the style and characteristics of care that is offered; but good accountability in terms of the care delivered for service users covered by a particular package of care. Hence, intermediaries may not be held to account by sponsors for the care they cover; but intermediaries and providers can be held to account for delivering the care to service users covered by particular packages of care. Hence, this model of coverage scores 30 out of 100 in promoting accountability for style and characteristics of care.

5.5.5 **Overall Score**

The results of the scoring on key policy goals and objectives for the plural, detailed model are shown in Figures 5.11 To 5.15. (Note that 5.11 is an unweighted profile.) The overall scores for each goal are: efficiency, 47 (fairly poor); equity, 44 (fairly poor); choice, 60 (fairly good); and expenditure control, 20 (very poor). The overall score is 44, that is fairly poor. The model is particularly good at promoting local decision-making, ensuring coverage of those most likely to benefit and offering comprehensive coverage and promoting efficient supplementation to promote efficiency; ensuring universal and comprehensive coverage to promote equity of access; and promoting choice. It is poor at national decision making, accountability for cost-effectiveness, involving low administration costs and managing cream skimming to promote efficiency; at encouraging uniform coverage and at holding participants to account for equal access, and managing cream skimming for equal access; and at rationing care and ensuring accountability for style and characteristics of care.

Figure 5.11: Plural detailed model: Overall profiles for sub-criteria

Figure 5.12: Plural detailed model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 5.13: Plural detailed model: Equal access for equal need: Profiles for sub-criteria

Figure 5.14: Plural detailed model: Choice: Profiles for sub-criteria

Figure 5.15: Plural detailed model: Expenditure control: Profiles for sub-criteria

5.6 *An Alternative Model of Coverage Regulation In a System of Managed Competition: (3) A Single, Publicly Defined, Explicit Detailed Model*

Table 5.4

Key features of model of coverage S-C-E(D)-I; the ‘single, explicit model’

Similar population coverage. Central government oversight and policy making with regards to services. Resources are allocated to intermediaries who have little autonomy in making decisions with respect to the volume and location of services, the style and characteristics of care, levels of user charges, and waiting times.

Comprehensive coverage of services.

Explicit, detailed service specification, defined by central government. Resources are allocated to intermediaries using a risk-rated capitation formula. Intermediaries decide how to allocate those resources in terms of the mix, volume and quality of care to be made available, and decide how to deliver those services – whether through their own services or independent providers.

The supplementary insurance market no longer exists – by definition, all insurance coverage becomes complementary or gap insurance. Coverage in the market for such insurance is unregulated, but there are broadly-defined, explicit service specifications defined individually by a number of competing insurers.

5.6.1 Maximising Health Outcomes

5.6.1.1 *Allows National Decision Making*

The single explicit model operates in exactly the same way as the explicit model already discussed in Chapter 4. That is, it promotes national decision-making very well, as it involves a central agency at a national level deciding which services are to be made available. Having a national decision-making process facilitates national consideration of issues such as economies of scale, shortages of expertise and how to manage new techniques and technologies. As the model is explicitly defined,

incorporating within it detail on access, a national agency also has the ability to stipulate where and under what circumstances care can be accessed. This provides a way of implementing decisions on service availability and access.

As a result, the single, explicit model scores 90 out of 100 points in promoting national decision making. This is ten points less than a perfect score, to account for the lack of national decision making ability that exists in the additional insurance market.

5.6.1.2 Allows Local Decision Making

The single, explicit model scores only 10 out of 100 points in promoting local decision making. This reflects that the model incorporates within it local decision making within the additional insurance market arrangements, but that otherwise, decision making on service availability and access is determined at a national level.

5.6.1.3 Provides Coverage to Those Most Likely to Benefit

The single, explicit model operates in the same way as the other models considered above in promoting coverage of those most likely to benefit. Hence it scores 90 out of 100 on this objective.

5.6.1.4 Offers Comprehensive Coverage of a Range of Services and Styles of Care

The move from the diverse, implicit model to a single publicly defined explicit and detailed model in a system of managed competition is assessed as offering the same comprehensive coverage as the explicit, detailed model considered in Chapter 4. That is, it scores 80 out of 100.

5.6.1.5 *Promotes Accountability for Cost-effectiveness*

The single, explicit model operates exactly as the explicit model within New Zealand's existing health care system, i.e. 90 out of 100. The explicit detailed model allows a central agency to consider the range, style and characteristics of services and service users that are covered in the service specification that regulates the system. The model of course has only the potential to promote accountability for cost-effectiveness, as empirical evidence is required to identify whether or not cost-effectiveness is considered when developing the service specification. Ten points is taken from a perfect score to reflect the lack of attention paid to accountability for cost-effectiveness in the co-existing additional insurance market.

5.6.1.6 *Incurs Low Costs in Administering the Specification of Services*

The single explicit model differs from the diverse, implicit model of coverage in two main ways. First, it will require additional administrative resources in designing, implementing and monitoring the detailed service specification. Second, however, any costs associated with service specification are incurred only once – by the central agency responsible for service specification – rather than by numerous intermediaries.

As a result, this model of coverage scores 30 out of 100 in promoting low costs in administering the specification of services. This is the same score as the diverse, implicit model within a managed competition system and the same as the single, explicit model covered within New Zealand's existing health care system.

5.6.1.7 *Promotes Efficient Supplementation*

As with the explicit model considered in Chapter 4, the single, explicit model of coverage obtains a perfect score of 100 in promoting efficient supplementation. This is because it offers the potential for perfect knowledge about the services covered within a principal financing arrangement. In theory, supplementary insurance would become complementary insurance, efficiently purchased by service users weighing up the costs and benefits of additional coverage. In practice, however, as noted in Chapter 4, the explicit detailed model as it is operating in New Zealand, does not quite promote efficient supplementation, because service users are mostly unaware of the levels of coverage available to them. However, a score of 100 out of 100 is applied to reflect the potential of the model in promoting efficient supplementation.

5.6.1.8 *Provides Mechanisms to Manage Cream Skimming*

A single, explicit model scores highly in managing cream skimming. As with the explicit, detailed model in New Zealand's present system, the explicit service specification, developed independently of intermediaries and providers, removes the opportunity intermediaries otherwise have to define packages of care in ways that successfully lead to cream skimming. Hence, this model of coverage scores 90 out of 100 with respect to managing cream skimming. This is less than a perfect score, reflecting the fact that cream skimming remains unmanaged in the additional health care insurance sector.

5.6.2 Equal Access for Equal Need

5.6.2.1 *Offers Universal Coverage*

The shift from the existing health care financing and delivery arrangements to a system of managed competition results in the same overall coverage as in New Zealand's existing system. This is because of the key assumption used in this analysis that central government financing of health care continues, and because of the existence of an intermediary of last resort. Hence, the single, explicit model scores 90 out of 100 in promoting coverage of those most likely to benefit.

5.6.2.2 *Offers Comprehensive Coverage of a Range of Services and Styles of Care*

The change from the diverse, implicit model to a single, publicly-defined explicit model has no implications for universal, comprehensive coverage. Hence, universal and comprehensive coverage scores the same as the diverse, implicit model, 80 out of 100.

5.6.2.3 *Offers Uniform Coverage*

With the single, explicit model of coverage, there is only a single package of care offered within the principal financing arrangements. The package is defined in detail, including in terms of access to care. Hence, the single explicit model scores 90 out of 100 in offering uniform coverage, just as the single explicit model scores 90 out of 100 within New Zealand's existing health care system. This is less than a perfect score, reflecting the variations in coverage that will exist within the additional insurance market.

5.6.2.4 *Promotes Accountability for Equal Access*

A single, detailed explicit model of coverage scores very well in promoting accountability for equal access. By defining the services available, as well as the style and characteristics of care, sponsors, intermediaries and providers are able to be held to account for the delivery of care in ways that promote equal access for equal need. This single model therefore scores 90 out of 100 in promoting this objective. The score is less than a perfect 100, because the additional insurance sector continues to allow unequal access.

5.6.2.5 *Provides Mechanisms to Manage Cream Skimming*

A single, explicit model scores very well in providing mechanisms to manage cream skimming. As with the explicit model within New Zealand's existing health care system, the detailed model that applies across all intermediaries and providers, and that is developed independently of intermediary and provider interests, ensures that packages of care cannot be designed in ways that discourage some service users from signing up with particular intermediaries. Hence the score on this objective is 90 out of 100 for the single, explicit model. This is ten points less than a perfect score, as a result of the ability of the additional insurance sector to cream skim.

5.6.3 **Choice**

5.6.3.1 *Offers Choice Over Package of Care*

The single, explicit model offers very little choice over the package of care. With only one package offered, service users have no choice within the principally-financed sector about the package of services they have cover for. They can however choose to have additional insurance if they wish, provided they are able to

pay for it and are offered coverage. As a result, this model scores only 10 out of 100 in terms of promoting choice over the package of care.

5.6.3.2 *Offers Choice Over Style and Characteristics of Care*

As with the package of care, service users have no choice over the style and characteristics of care they may obtain coverage for, other than through additional insurance. Hence, the single explicit model scores only 10 out of 100 in terms of promoting choice over style and characteristics of care.

5.6.4 Expenditure Control

5.6.4.1 *Makes It Possible to Ration Care*

As with the single explicit model within New Zealand's existing system, a single explicit model offers little opportunity to ration care. With an explicit detailed service specification, intermediaries and providers must deliver the care specified to those who are eligible under the specification. Only in the additional insurance sector is the ability to ration care possible. Hence this model of coverage scores 10 out of 100 within respect to this objective.

5.6.4.2 *Promotes Accountability for Style and Characteristics of Care*

As with the single explicit model within New Zealand's existing system, a single explicit model offers excellent opportunities to promote accountability for the style and characteristics of care delivered. However, the additional insurance sector falls outside of this control; hence this model scores 90 out of 100 with respect to this objective.

5.6.5 Overall Score

The results of the scoring on key policy goals and objectives for the single, explicit model are shown in Figures 5.16 To 5.20. (Note that 5.16 is an unweighted profile.) The overall scores for each goal are: efficiency, 73 (good); equity, 88 (very good to excellent); choice, 10 (bad); and expenditure control, 50 (fair). The overall score is 63, that is fairly good. The model is particularly good at promoting national decision-making, providing coverage of those most likely to benefits and offering comprehensive coverage, promoting accountability for cost-effectiveness, efficient supplementation and managing cream skinning to enhance efficiency; offering universal, comprehensive and uniform coverage, promoting accountability for equal access, managing cream skinning and ensuring accountability for style and characteristics of care to enhance equity; but is poor at local decision-making and involving low administration costs to promote efficiency; and at promoting choice; and the ability to ration.

Figure 5.16: Single explicit model: Overall profiles for sub-criteria

Figure 5.17: Single explicit model: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 5.18: Single explicit model: Equal access for equal need: Profiles for sub-criteria

Figure 5.19: Single explicit model: Choice: Profiles for sub-criteria

Figure 5.20: Single explicit model: Expenditure control: Profiles for sub-criteria

5.7 *Summary and Conclusions*

Of the alternative models of coverage regulation considered for New Zealand, the single, explicit model obtains the highest overall score and hence best meets key policy goals and objectives (as defined and weighted here) (Figure 5.21). Compared with the plural, general model of coverage regulation, the single, explicit model contributes much better to the efficiency goal, by enhancing the ability for government policy to make decisions at a national level, promoting accountability for cost-effectiveness, better managing cream skimming, and promoting efficient supplementation. In terms of equity, it leads to fewer differences in the packages of care made available, it clearly holds sponsors, intermediaries and providers better to account for ensuring equal access and it also contributes to improvements in the system's ability to manage cream skimming. The single, explicit model also better promotes accountability for style and characteristics of care. However, there are trade-offs to be made in better achieving these objectives – with respect to efficiency, the model of coverage is less likely to enable local decision making and it is likely to lead to higher costs overall in administering the model of coverage. The single, explicit model also leads to less choice over both the package and style and characteristics of care and it dramatically reduces the ability to ration care through delaying or denying care in any time period (Figures 5.22-5.26).

Compared with the diverse, implicit model (i.e., close to the current model in New Zealand), the plural, general model does better at promoting local decision making, and is slightly better at promoting efficient supplementation (as care is more or less on demand), and managing cream skimming, but it is worse at keeping administration costs low. In terms of equity, the plural, general model does slightly better all the equity objectives; and at the allowing choice and better accountability in relation to the styles and characteristics of care. It is slightly worse at rationing care, however. The plural, detailed model is worse than the diverse, implicit model at promoting efficiency because it is worse at keeping administration costs low, and at promoting choice as it is worse at offering choice over styles and characteristics of care (once service users are insured with a particular package of care). It also

does much worse at rationing care. It is, however, better at promoting accountability for cost-effectiveness, equity and style and characteristics of care (within packages) and managing efficient supplementation.

With efficiency, equity and expenditure control goals weighted more highly than the choice goal, these same conclusions are reached. However, the more highly valued is choice, the more likely it is that policy makers will want to choose a plural, general model.

Figure 5.21: Alternative models of coverage regulation for New Zealand within a system of managed competition: Overall scores

Figure 5.22: Alternative models of coverage regulation for New Zealand within a system of managed competition: Overall: Profiles for sub-criteria

Figure 5.23: Alternative models of coverage regulation for New Zealand within a system of managed competition: Maximising health outcomes for the resources available: Profiles for sub-criteria

Figure 5.24: Alternative models of coverage regulation for New Zealand within a system of managed competition: Equal access for equal need: Profiles for sub-criteria

Figure 5.25: Alternative models of coverage regulation for New Zealand within a system of managed competition: Choice: Profiles for sub-criteria

Figure 5.26: Alternative models of coverage regulation for New Zealand within a system of managed competition: Expenditure control: Profiles for sub-criteria

Conclusions

This research has evaluated both existing and alternative models of coverage regulation with a view to assessing the possible changes that might be made to such regulation in New Zealand in order to better meet efficiency, equity, choice and expenditure control policy goals and objectives. The research drew on the experiences of seven Western industrialised countries, including New Zealand, to identify four key elements of alternative models of coverage regulation and to derive a number of alternative models of coverage regulation. Next a decision-making schema was developed to assess the implications of alternative models of coverage regulation. Benchmarks in the form of lower-level health policy objectives were established to assess alternative models' ability to promote the higher-level policy goals of allocative efficiency, equal access for equal need, choice and expenditure control. Alternative models of coverage regulation were evaluated qualitatively and then scored, based on the qualitative evaluation, for their support of the benchmarks and therefore policy goals, both within New Zealand's existing health care financing and delivery arrangements, and within a system of managed competition. Policy objectives were weighted equally within policy goals so that each alternative model of coverage regulation received a score for its contribution to each policy goal; the policy goals were then weighted, based on the author's values, to produce an overall score for each of the alternative models of coverage regulation. Sensitivity analysis was conducted to test the degree to which specific scores and weightings influenced the results.

This Chapter discusses the policy implications of the main findings and sets out a number of issues for further research.

6.1 *Elements of Coverage Regulation*

The framework developed for thinking about coverage regulation has enabled a number of policy conclusions to be drawn about linkages between various elements of coverage. One conclusion relates to the impacts that different arrangements surrounding the roles of various agencies in specifying coverage or making resource allocation decisions, and for comprehensiveness and insurability, have on population coverage. Thus, a significant role for regional or local agencies, reduced comprehensiveness and increasingly unevenly distributed holdings of additional insurance may shift a country from a model with similar population coverage to one with diverse coverage.

Ostensibly, the New Zealand Government's original 1991 plan was to develop a single service specification, which would cover all New Zealanders. The government implied that an explicit model would reduce variations in access, strengthening the degree of similarity in coverage. Yet the Government did not also consider how lack of complete comprehensiveness or the continuation of private health insurance would work to maintain variations in coverage. Furthermore, Government policy proposals at the time frequently suggested that local decision making would continue, through, for example, regionally or locally defined guidelines which might accompany a nationally-defined, broadly explicit service specification. This would also seem to have undermined the aim of reducing variations. Thus, it was unclear if the New Zealand Government really did wish to achieve greater similarities in coverage, and it failed to consider whether other issues relating to coverage (i.e. beyond service specification) would undermine this objective. The framework developed here clearly raises the question about how far a government can go in allowing local decision making, limiting comprehensiveness and encouraging additional insurance before coverage becomes quite diverse; an issue which all New Zealand governments must continue to grapple with.

The New Zealand Government's proposals in 1991 were clearly aimed at explicitly defining a list of services to which everyone would have access, in part to provide certainty of access to care. However, as shown, specification need not be explicit to ensure an entitlement to care: services can be implicitly defined, so long as access to them is largely on demand. This option wasn't considered for New Zealand. The Government did consider that a broad, explicit list would assist in ensuring an entitlement to care, but the analysis shows that broad explicit lists of services are, in practice, often associated with service gaps, variations in access to care and waiting lists. The Government also did not recognise that a broadly-defined specification would not necessarily imply an entitlement to care and hence may fail to achieve some of the Government's stated objectives. Broadly defined explicit coverage is neither necessary nor sufficient to ensure clarity of entitlement.

In 1991, there was also no in-depth discussion about whether a more explicit service specification would fit with features of New Zealand's health care system more generally. The Government chose to consider only an explicit, entitlement-based model, rather than other alternatives. As this allowed a continuation of similar population coverage (although see above for commentary on this point), the development of an explicit list appeared to fit well with New Zealand's historical focus on ensuring equity. An explicit service specification did not, however, appear appropriate when combined with a strong budget cap, used in New Zealand to manage overall expenditure. The apparent contradiction between an explicit service specification and fixed budgets was briefly noted in Government discussion documents, but was not considered in depth. In any case, as shown in this analysis, a broadly, explicit service specification might not have quite the implications for expenditure as at first thought, given that experience shows such approaches to also be linked with service gaps and variations in care. On the other hand, an explicit service specification did seem more appropriate if New Zealand were to move towards a purchaser/provider split, and where privately-owned, independent organisations were to play a larger role in organising and delivering health care services.

6.2 *Evaluating Alternative Models of Coverage Regulation*

The implications of alternative models of coverage regulation for key policy goals and objectives were analysed using benchmarks as lower-level health policy objectives that models of coverage regulation must meet in order to promote higher-level policy goals of allocative efficiency, equal access for equal need, choice and expenditure control.

Overall, New Zealand's current model of coverage does not meet key health policy goals and objectives terribly well. The NZ model promotes allocative efficiency by allowing a degree of local decision making through the autonomy offered to intermediaries and providers and the implicit service specification; providing coverage to those most likely to benefit and offering a comprehensive range of services and styles of care. Further empirical evidence is required, however, in relation to the balance of decision making between national and local agencies, and the role that economic factors and local health needs play in determining the services offered. These advantages are offset by elements which work against maximising health, principally not allowing a significant role for national decision making, not promoting accountability for cost-effectiveness, nor promoting efficient supplementation or mechanisms to manage cream skimming. Cream skimming is unlikely to be a significant issue within the existing NZ health care system however; thus the poor performance on the objective of managing cream skimming can be argued to be of little importance.

The goal of equal access for equal need is supported by the model offering universal coverage, comprehensive coverage of a range of services and styles of care, and a good degree of uniform coverage. This support is offset by poor performance in relation to promoting accountability for equal access and providing mechanisms to manage cream skimming. As noted above, the poor performance on the objective of managing cream skimming can be argued to be of little importance.

The NZ model offers poor choice over the package of care offered, but good choice over style and characteristics of care. Its implicit nature allows it to perform well in supporting the objective of making it possible to ration care, but this same element leads to a poor performance in promoting accountability for the style and characteristics of care delivered to service users.

Of the alternative models of coverage regulation considered for New Zealand, the explicit model obtains the highest overall score and hence best meets key policy goals and objectives (as defined and weighted here). Compared with the NZ model of coverage regulation, the explicit model contributes much better to the efficiency goal, by enhancing the ability for government policy to make decisions at a national level, promoting accountability for cost-effectiveness, better managing cream skimming, and promoting efficient supplementation. In terms of equity, it leads to fewer differences in the packages of care made available, it clearly holds sponsors, intermediaries and providers better to account for ensuring equal access and it also contributes to improvements in the system's ability to manage cream skimming. The explicit model also better promotes accountability for style and characteristics of care. However, there are trade-offs to be made in better achieving these objectives – with respect to efficiency, the model of coverage is less likely to enable local decision making and it is likely to lead to higher costs overall in administering the model of coverage. The explicit model also leads to less choice over style and characteristics of care and it dramatically reduces the ability to ration care through delaying or denying care in any time period (Figures 4.22-4.26).

Compared with the NZ model, the local model does better at promoting local decision making, but worse at promoting national decision making, and is worse at ensuring uniform coverage. The less comprehensive model is worse at promoting both efficiency and equity goals because of the reduced comprehensive coverage, because it incurs higher administration costs, and because it offers less uniform coverage. It offers better choice over both the package of care and style and characteristics of care, but makes it less possible to ration care and to hold participants to account for the style and characteristics of care delivered. Finally, the non-insurable model is much better at ensuring efficient supplementation (as

supplementation is banned), but otherwise is assessed as performing similarly to the NZ model.

With efficiency and equity goals weighted more highly than choice and expenditure control goals, these same conclusions are reached. However, the more highly valued is choice, the more likely it is that policy makers will want to choose a less comprehensive model or the local model, given the options analysed. With a greater value on overall expenditure control, policy makers would choose the non-insurable model over the explicit model.

Thus, it was shown that (Figure 6.1), given current financing, allocation and delivery arrangements, New Zealand's predominant implicit approach does not contribute effectively to key health policy goals and objectives. With greater weight given to efficiency and equity goals, the current approach obtains fairly poor to poor scores when compared with alternative models of coverage regulation. Moving to a more explicit model was the preferred option in analyses. Second favoured was the non-insurable model. Third favoured was the current model, followed by a local model, then lastly a less comprehensive model. Quite significant jumps in the scores and weights were required to remove the explicit model from its position as the most highly valued approach to coverage regulation, with a non-insurable model second favoured except where a preference for promoting choice saw the less comprehensive model score well.

The results do suggest that the current approach should be re-considered. An average score may be viewed as particularly politically appropriate given that the current model does not have the extreme trade-offs imposed by the single explicit model; given that a key concern of New Zealand governments may be to retain the ability to ration care; and given that implementation of a more explicit model is likely to raise a number of issues relating to feasibility and implementation (see Chapters 1 and 2). However, further moves towards an explicit model will improve performance in relation to accountability for efficiency, equity and style/characteristics of care, albeit at some cost to choice and short-term expenditure control goals.

Four alternative models of coverage regulation were assessed for their impact on policy goals and objectives within a managed competition health financing and delivery framework (Figure 6.2). Although managed competition between competing, comprehensive intermediaries is no longer on the immediate policy agenda in New Zealand, competition between PCOs may develop in the next few years. It was in this context that New Zealand's current coverage model was assessed for its support of key policy goals and objectives.

Of the alternative models of coverage regulation considered for New Zealand, the single, explicit model obtains the highest overall score and hence best meets key policy goals and objectives (as defined and weighted here) (Figure 5.21). Compared with the plural, general model of coverage regulation, the single, explicit model contributes much better to the efficiency goal, by enhancing the ability for government policy to make decisions at a national level, promoting accountability for cost-effectiveness, better managing cream skimming, and promoting efficient supplementation. In terms of equity, it leads to fewer differences in the packages of care made available, it clearly holds sponsors, intermediaries and providers better to account for ensuring equal access and it also contributes to improvements in the system's ability to manage cream skimming. The single, explicit model also better promotes accountability for style and characteristics of care. However, there are trade-offs to be made in better achieving these objectives – with respect to efficiency, the model of coverage is less likely to enable local decision making and it is likely to lead to higher costs overall in administering the model of coverage. The single, explicit model also leads to less choice over both the package and style and characteristics of care and it dramatically reduces the ability to ration care through delaying or denying care in any time period (Figures 5.22-5.26).

Compared with the diverse, implicit model (i.e., close to the current model in New Zealand), the plural, general model does better at promoting local decision making, and is slightly better at promoting efficient supplementation (as care is more or less on demand), and managing cream skimming, but it is worse at keeping administration costs low. In terms of equity, the plural, general model does slightly

better all the equity objectives; and at the allowing choice and better accountability in relation to the styles and characteristics of care. It is slightly worse at rationing care, however. The plural, detailed model is worse than the diverse, implicit model at promoting efficiency because it is worse at keeping administration costs low, and at promoting choice as it is worse at offering choice over styles and characteristics of care (once service users are insured with a particular package of care). It also does much worse at rationing care. It is, however, better at promoting accountability for cost-effectiveness, equity and style and characteristics of care (within packages) and managing efficient supplementation.

With efficiency, equity and expenditure control goals weighted more highly than the choice goal, these same conclusions are reached. However, the more highly valued is choice, the more likely it is that policy makers will want to choose a plural, general model.

Thus, New Zealand's implicit model is less effective at promoting key policy goals and objectives under a managed competition model. In particular, managed competition threatens both efficiency and equity goals by reducing the role of central government, and reducing the level of uniform coverage available. In addition, as the potential for cream skinning is increased in the managed competition system, the failure of the model to manage this becomes critical, with the potential for even further problems in promoting efficiency and equity. This model would, however, promote choice by allowing service users a good deal of freedom in choosing the package of care and coverage which suits them best.

The model of coverage regulation which scores best overall within a managed competition system, is the *single* explicit detailed model. As with New Zealand's current health care system, this model scores well on a number of goals and objectives, but in particular reduces the impact of managed competition on efficiency and equity goals by better controlling cream skinning, as well as encouraging accountability to promote efficiency, equity and expenditure control goals. It does this, however, at some cost to administrative efficiency and choice objectives.

Figure 6.1: Alternative models of coverage regulation for New Zealand within the existing health care system: Overall scores

Figure 6.2: Alternative models of coverage regulation for New Zealand within a system of managed competition: Overall scores

6.2.1 Limitations

In reaching these conclusions, it must be remembered that citizens and governments have a large number of policy goals and objectives which they wish to see achieved. Including all potential goals and objectives in an analysis is difficult; the greater the number, the more difficult it is to score alternatives using a formal approach. The analyses for this thesis were therefore limited and further research should allow performance to be assessed against a set of goals with different interpretations (e.g, maximising utility, promoting a fair allocation of resources based on contribution to society), and against a wider set of goals, including financial goals.

Further discussion of the feasibility of, in particular, explicit models of coverage regulation is also important, given that there may be difficulties in gaining acceptance across a wide spectrum of society for changing from an implicit to an explicit approach, and given the difficulties that there are in actually succeeding to change, in particular, clinical practice. New Zealand's experience of implementing CPAC is of particular interest in this regard, warranting additional research as suggested below (Chapter 6.4).

The analysis here used the author's views on the relative importance of efficiency, equity, choice and expenditure control goals to weight these goals in the scoring process. Sensitivity analyses showed a degree of robustness in the results, but the more that choice and expenditure control are valued, the more likelihood there is of reaching a different set of conclusions. Further analysis using weights derived from decision-makers and/or members of the general public is also warranted. This should involve interviewing and/or surveying decision-makers and general members of the public for their views on the relative importance of the goals used in this analysis.

6.3 *Progress Towards an Explicit Model of Coverage Regulation in New Zealand*

The overall finding from this analysis is that a detailed explicit model should better promote key policy goals and objectives in New Zealand. The potential pitfalls of anything less than this were recognised early in New Zealand, when the Core Services Committee/National Health Committee argued for development of guidelines to indicate the circumstances under which services are effective. Although the Committee made a start on developing guidelines to indicate the circumstances under which services are effective, implementation of guidelines left a lot to be desired. Proposals to hold RHAs to account for using guidelines do not appear to have ever been seen through, losing an opportunity for the RHAs to begin to hold providers accountable for delivering care which correspond with guidelines. In 2001, with changes in the Core Services Committee/National Health Committee's role and the allocation of funding for guideline development to a private agency, there are now even fewer formal links between guideline development and government policy making, and guideline development and service providers. Thus, in some ways New Zealand is moving away from the explicit service specification sought by the National Government in 1991. This analysis suggests that the government should evaluate the effectiveness of current guideline development and implementation processes, and to begin to seek greater accountability for working to guidelines, particularly in high-cost, high-volume areas of care.

Government agencies have developed a broadly explicit list of services, aimed, it seems, at providing New Zealanders with greater information about the care that they can obtain within their publicly financed health care system. It is doubtful that many New Zealanders, however, are aware of the list. Even if they were, this approach cannot provide certainty to service users where current variations, service gaps and waiting for care continue to occur. Considerable resources have gone into clarifying access to primary care and other care in terms of distance, user charges, and availability, in order to promote equity goals, and this is to be welcomed. But if

a truly explicit entitlement to care is to be developed, New Zealand needs to go further than this, holding DHBs to account for service delivery against a list of cost-effective services, and eventually for implementing guidelines.

New Zealand governments do, however, appear to have reached the conclusion that an explicit approach is desirable for some services. This is clearly shown by the attention and resources which have been allocated in recent years to the development of CPAC tools and the booking system for elective surgery. The CPAC tools involve a far more detailed approach to defining service coverage than a broadly explicit specification. CPAC focus on effectiveness and efficiency as well as equity goals, via a priority criteria approach which is used to score individual service users with respect to severity of illness and capacity to benefit. The CPAC approach shows how complex explicit models of coverage regulation may become. It is an interesting approach which warrants further research to identify its strengths and weaknesses, particularly as a means by which detailed, explicit models can be further promoted. A possible research agenda is discussed in more detail below. This research agenda will be useful in providing better evidence on issues relating to feasibility of an explicit service specification (as discussed in Chapters 1 and 2), on which there continues to be much debate and discussion.

As more is learnt about the implications of explicitness, New Zealand policy makers should consider other services which might appropriately be defined in greater detail than occurs currently. This may be particularly important if explicit service specifications in elective surgery threaten short term expenditure control to the extent that other services are cut back in order to fund elective surgery to the level required and to remain within budget.

New Zealand has now developed a mixed model, combining aspects of the NZ model with the single, explicit detailed model for elective surgery. Aside from the potential financial implications of this, where pressure may be brought to bear on services which are not adequately defined, the two models perform quite differently in relation to health policy goals and objectives, and send confusing signals about the desire for equal access for equal need. This confusion is not helped by the

Labour-Alliance Government establishing 21 DHBs at the same time as promoting equity of access across a range of services and explicitly continuing an elective services policy which aims to ensure equity of access.

The analysis has also raised issues in relation to broader policy changes in New Zealand's health care system. Using the framework developed in this analysis raises questions about where New Zealand's system will lie in a few years time: with the NZ model with a mix of central and local decision making; with the local model with more local decision making; or a diverse model if DHBs have a good degree of autonomy to make their own resource allocation decisions. This will have implications not only for efficiency, but particularly for equity goals. Policy makers will need to manage the trade-offs identified here over the next few years.

The analysis also raises issues relating to the move towards PCOs. Although the Government's primary care strategy is not particularly clear about how the sector will look in a few years time (in particular whether competition between PCOs is to be a key feature of the strategy, and how much devolved decision making is to occur), the regulatory framework being set up around the strategy has similarities to that envisaged under managed competition. It includes enrolment regulations, and a service specification, which is likely to be broadly explicit. The analysis suggests that such an approach will not support key policy goals effectively, and that further moves towards a more detailed service specification does have much to offer. This, however, may constrain some primary care providers, who may wish to offer a more limited or different range of services, and who may never reach the size or sophistication in management required of a PCO in a highly competitive system. Thus, the government faces some particular problems in establishing PCOs, which seemingly need to both be robust enough to ensure efficient *managed* competition, but also need to meet the goals which communities might have to manage their own primary care, promised in part by the Labour-Alliance Government's discussions on the need to promote local responsiveness. A competitive system would seem to have much to offer in terms of ensuring choice and encouraging improved efficiency in primary care service delivery, in which case a more robust coverage regulation model is required for New Zealand.

6.4 *Future Research*

The analysis has raised a number of issues where future research will help to shed further light on the relative performance of alternative models of coverage regulation in promoting key policy goals and objectives. These are discussed in this section.

This analysis has defined policy goals and objectives very particularly. This was necessary in order to be very clear about the ways in which alternative models of coverage regulation contribute to key policy goals and objectives. The framework was also designed to include a reasonably full set of possible goals and objectives. However, a number of financial goals and objectives were excluded, as was community voice. Further, different definitions of efficiency and equity may lead to very different results, hinted at by considering the impact that alternative models of coverage regulation have on choice objectives. This analysis might be taken further, by using additional definitions to shed further light on the trade-offs among different policy goals and objectives. Research is also required to establish the relative values that decision-makers and members of the public place on the goals of efficiency, equity, choice and expenditure control, with such weights used in future research, to replace the views of the author used in this thesis.

The analysis would also benefit from further research on the processes which might be used to decide on the range of services covered. Both the public and professionals should be involved in priority setting, as both community values and professional experience have an important part to play in deciding which services should be offered. Yet we know very little about the different types of consultation processes which have been used in New Zealand, and whether some work better than others to promote an efficient and equitable allocation of resources.

The analysis suggests that a more detailed, explicit approach to coverage does have merit. New Zealand is currently developing and implementing one version of a

detailed, explicit service specification with the CPAC scoring tools and booking system for elective surgery. New Zealand is therefore in a good position to more carefully evaluate the impact of more detailed models of coverage regulation. An evaluation of CPAC should include assessing:

- the extent to which CPAC is based on and support effectiveness and efficiency goals (e.g. on what basis are decisions on the appropriate CPAC thresholds made within and across specialties?)
- the level of support for the approach, perceptions of professionals and the public
- perceptions on professionals' ability to undermine the system
- the extent to which greater explicitness is associated with increased publicity/lobbying over resources; with greater difficulties in changing thresholds than with an implicit approach; and with greater difficulties in keeping within budget, within and across specialties
- the features of the process and the tools which have contributed to its success or failure
- whether particular services are better suited to this approach; and how the approach might be adapted for other services
- administration costs associated with CPAC development, implementation and monitoring
- how regularly CPAC should be updated and the costs associated with this, and the impact on innovation
- whether the general public feels more secure with implicit rather than explicit decision making in some areas (Hunter 1993; Mechanic 1995; Coast, Donovan and Frankel 1996)⁶².

Similar research needs to be undertaken on practice guidelines, as guidelines may also play a role in models of coverage regulation, increasing the degree of explicitness in service specification. There is mixed evidence on the impact of guidelines internationally, and almost none at all in New Zealand. It is important to know how best to work with health professionals and the public to develop and

⁶² A formal evaluation of CPAC implementation and impact on health outcomes is currently underway. The author is a member of the research team.

implement guidelines which are then largely adhered to and whether financial incentives attached to guidelines are needed to ensure guidelines are followed. Further research is needed on the optimum degree of flexibility required with guidelines, as a balance is in all likelihood required between developing tight guidelines that professionals refuse to work with and guidelines which offer so much flexibility that policy goals are not achieved. The impact of guidelines on innovation might also be considered. In designing more explicit models of coverage regulation service specifications, New Zealand also needs to have a much more systematic approach to deciding which services to focus attention on. Some policy research which looks at the criteria and processes in use for deciding which guidelines to develop in other countries would be helpful in getting New Zealand started in developing such a systematic approach.

Central government must continually balance off the breadth and depth of the publicly-financed system with the ability of New Zealanders to purchase their own health insurance. This mixed system reflects acceptance that 'the views of the minority must be respected for and catered for...' (Williams 1988, p. 12). There is little research which tells us how health insurance affects access to care; this is crucial given the increase in the contribution of private health expenditure to total expenditure over the past few years, and the changing nature of private health insurance in New Zealand (i.e., moves from community rating, increasing premiums for the elderly, a seemingly riskier pool). As New Zealand moves to a system with more specification, it will be important to evaluate the impact on the supplementary insurance market. For example, a more explicit service specification in the publicly-financed sector might allow complete segmentation of the market which, when compared with the current implicit approach, might result in less pressure in the supplementary market to restrain prices.

At the same time as implementing an explicit specification for elective services, New Zealand is apparently moving towards allowing more flexibility for DHBs to allocate resources as they best see fit. It may be that central government's desire for accountability and national consistency will mean that explicit requirements on DHBs will continue into the future. Certainly the experience under the RHAs and

the HFA was for funding agreements to become more, and not less, defined. Moreover, as this analysis shows, attempts to improve accountability while also promoting efficiency and equity goals are benefited by having an explicit specification of coverage, defined in terms of services. Research on DHBs should therefore consider the extent to which explicit models of coverage regulation continue to be developed at the expense of local decision making, and the reasons why this might occur, in order to shed further light on the goals and objectives New Zealand governments have for models of coverage regulation.

References

- Anonymous (1982). The Concise Oxford Dictionary of Current English. J.B. Sykes (ed.) 7th edition. Oxford, Oxford University Press.
- Aaron, H. J. (1992). The Oregon experiment. In Rationing America's Medical Care: The Oregon Plan and Beyond. M. Strosberg, J. Weiner, R. Baker and I. A. Fein. Washington, D.C., The Brookings Institution: 107-111.
- Aaron, H. J. and W. B. Schwartz (1984). The Painful Prescription. Rationing Hospital Care. Washington, DC, Brookings Institution.
- Abel-Smith, B. (1988). "The rise and decline of the early HMOs: Some international experiences." The Milbank Quarterly 66(4): 694-719.
- Abel-Smith, B. (1992). Cost Containment and New Priorities in Health Care. Aldershot, Avebury.
- Abel-Smith, B. (1992). "Cost Containment and New Priorities in the European Community." The Milbank Quarterly 70(3): 393-416.
- Abel-Smith, B. and E. Mossialos (1994). "Cost containment and health care reform: a study of the European Union." Health Policy 28(1): 89-132.
- Alpha Center (1997). Risk Adjustment: A Special Report: A Key to Changing Incentives in the Health Insurance Market. Washington, D.C., Alpha Center.
- Andersen, T. F. and G. Mooney (1990). Medical practice variations: where are we? In The Challenge of Medical Practice Variations. T. F. Andersen and G. Mooney (eds). Basingstoke, The MacMillan Press Ltd: 1-15.
- Anderson, G. M., K. Grumbach, H. S. Luft, L. L. Roos, C. Mustard and R. H. Brook (1993). "Use of coronary bypass surgery in the United States and Canada." Journal of the American Medical Association 269: 1661-1666.
- Anonymous (2002). Scoring points. The Press. Christchurch.
- Armstrong, P. and H. Armstrong (1996). Wasting Away: The Undermining of Canadian Health Care. Ontario, Oxford University Press.
- Ashton, T. (1995). "The purchaser-provider split in New Zealand: the story so far." Australian Health Review 18(4): 43-60.
- Ashton, T. (1999). The health reforms: To market and back? In Redesigning the welfare state in New Zealand: Problems, Policies, Prospects. J. Boston, P. Dalziel and S. St John (eds). Auckland, Oxford University Press: 134-153.

Ashton, T., J. Cumming and N. Devlin (1999). Prioritising Health and Disability Support Services: Principles, Processes and Problems. Wellington, National Advisory Committee on Health and Disability.

Ashton, T., J. Cumming and N. Devlin (2000). "Priority-setting in New Zealand: translating principles into practice." Journal of Health Services Research and Policy 5(3): 170-175.

Audit Commission (1996). What the Doctor Ordered: A Study of GP Fundholders in England and Wales. London, HMSO.

Barer, M. L. and R. G. Evans (1983). Prices, proxies and productivity: An historical analysis of hospital and medical care in Canada. In Price Level Measurement: Proceedings from a Conference Sponsored by Statistics Canada. E. Diewert and C. Montmarquette (eds). Ottawa, Minister of Supply and Services Canada.

Barnett, J. R. and R. A. Kearns (1996). "Shopping around? Consumerism and the use of private accident and medical clinics in Auckland, New Zealand." Environment and Planning 28: 1053-1075.

Barr, N. (1993). The Economics of the Welfare State. London, Weidenfeld and Nicolson.

Barr, N. (1998). The Economics of the Welfare State. Stanford, Stanford University Press.

Belk, J. (1991). "Undefined experimental treatment exclusions in health insurance contracts: a proposal for judicial response." Washington Law Review 66: 809-830.

Belton, V. (1990). Multiple criteria decision analysis: practically they only way to choose. In Operational Research Tutorial Papers. L. C. Hendry and R. W. Eglese (eds). Birmingham, Operational Research Society.

Berg, M. (1997). "Problems and promises of the protocol." Social Science and Medicine 44(8): 1081-1088.

Bergthold, L. A. (1993). "Benefit Design Choices Under Managed Competition." Health Affairs 12(Supplement): 99-109.

Blaauwbroek, H. G. (1997). Patient Organizations and Patients' Rights. In Health and Health Care in the Netherlands: A Critical Self-Assessment of Dutch Experts in Medical and Health Services. A. J. P. Schrijvers and L. D. Kodner (eds). Maarssen, De Tijdstroom BV: 223-237.

Bleichrodt, H. (1998). Health utility indices and equity considerations. In Health, Health Care and Health Economics: Perspectives on Distribution. M. L. Barer, T. E. Getzen and G. Stoddart (eds). Chichester, John Wiley & Sons Ltd: 331-362.

Blendon, R. J., K. Donelan, C. A. Hill, W. Carter, D. Beatrice and D. Altman (1994). "Paying medical bills in the United States. Why Health Insurance Isn't Enough." Journal of the American Medical Association 271: 949-951.

Bocken, J., M. Butzlaff and A. Esche, Eds. (2001). Reforming the Health Sector: Results of the International Research. Gutersloh, Bertelsmann Foundation Publishers.

Bodenheimer, T. (1997). "The Oregon health plan: lessons for the nation." New England Journal of Medicine 337(651-655).

Borowitz, M. and T. Sheldon (1993). "Controlling health care: from economic incentives to micro-clinical regulation." Health Economics 2: 201-204.

Brown, L. D. and V. E. Amelung (1999). "'Manacled competition': Market reforms in German health care." Health Affairs 18(3): 76-91.

Butler, P. (1999). The current status of state and federal regulation. In Regulating Managed Care: Theory, Practice and Future Options. S. H. Altman, U. Reinhardt and D. Shactman (eds). San Francisco, Jossey-Bass Inc: 29-52.

Callahan, D. (1990). What Kind of Life. New York, Simon and Schuster.

Callahan, D. (1992). "Symbols, Rationality and Justice: Rationing Health Care." American Journal of Law and Medicine 18(1 & 2): 1-13.

Callahan, D. (1992). "What is a reasonable demand on health care resources? Designing a basic package of benefits." Journal of Contemporary Health Law and Policy 8(1): 1-12.

Callahan, D. (n.d.). Ethical considerations. In Basic Benefits and Clinical Guidelines. D. C. Hadorn (ed). Boulder, Westview Press: 33-44.

Calnan, M., J. Halik and J. Sabbat (1998). Citizen participation and patient choice in health reform. In Critical Challenges for Health Care Reform in Europe. R. B. Saltman, J. Figueras and C. Sakellarides (eds). Buckingham, Open University Press: 325-338.

Campbell, A. and G. Gillett (1993). Justice and the right to health care. In Ethical Issues in Defining Core Services. Wellington, National Advisory Committee on Core Health and Disability Support Services: 9-26.

Canadian Institute for Health Information (2000). Health Care in Canada: A First Annual Report. Ontario, Canadian Institute for Health Information.

Caper, P. (1988). "Solving the medical dilemma." The New England Journal of Medicine 318: 1535-1536.

Chaix-Couturier, C., I. Durand-Zaleski, D. Jolly and P. Durieux (2000). "Effects of financial incentives on medical practice: results from a systematic review of the literature and methodological issues." International Journal for Quality in Health Care 12: 133-142.

Chassin, M. R., R. H. Brook, R. E. Park, J. Keeseey, A. Fink, J. Kosecoff, K. Kahn, N. Merrick and D. H. Solomon (1986). "Variations in the use of medical and surgical services by the Medicare population." New England Journal of Medicine 314(5): 285-290.

Chassin, M. R., J. Kosecoff and C. M. Winslow (1987). "Does inappropriate use explain geographic variations in the use of health care services?" Journal of the American Medical Association 258(18): 2533-2537.

Clark, J. D. (1990). "Variation in Michigan hospital use rates: do physician and hospital characteristics provide the explanation?" Social Science and Medicine 30: 67-82.

Clemen, R. T. (1996). Making Hard Decisions. An Introduction to Decision Analysis. Belmont, Wadsworth Publishing Company.

Coast, J., J. Donovan and S. Frankel (1996). Priority Setting: The Health Care Debate. Chichester, John Wiley and Sons.

Commonwealth Department of Health and Aged Care (1999). Medicare Benefits Schedule. Available at: <http://www.health.gov.au/pubs/mbs/mbs4>

Congressional Budget Office (1993). Managed Competition and Its Potential to Reduce Health Spending. Washington, D.C., Congress of the United States, Congressional Budget Office.

Consumer Reports (2000). "Second-class medicine." Consumer Reports(September): 42-50.

Consumers' Institute (1999). "Health insurance: how it works." Consumer(380): 24-26.

Consumers' Institute of New Zealand (1993). "Health care." Consumer(317): 6-9.

Consumers' Institute of New Zealand (1993). "Your comprehensive guide to medical insurance." Consumer(317): 10-17.

Consumers' Institute of New Zealand (1995). "The cost of care." Consumer(338): 26-31.

Consumers' Institute of New Zealand (1997). "Health insurance." Consumer(361): 20-29.

Contract Monitoring Group (1996). Purchasing For Your Health: 1994/95. Wellington, Ministry of Health.

Cooper, M. H. (1994). "Jumping on the spot - health reform New Zealand style." Health Economics 3(1): 69-72.

Coster, G. (2000). Health Needs Assessment for New Zealand. Wellington, Ministry of Health.

Coster, G. and B. Gribben (1999). Primary care models for delivering population based health outcomes. In Discussion Papers on Primary Health Care. Wellington, National Advisory Committee on Health and Disability.

Crampton, P. (1999). Third sector primary health care. In Discussion Papers on Primary Health Care. Wellington, National Advisory Committee on Health and Disability.

Crampton, P. and M. Brown (1998). "General practitioner funding policy: from where to whither?" New Zealand Medical Journal 111: 302-304.

Crengle, S. (1999). Māori Primary Care Services. In Discussion Papers on Primary Health Care. Wellington, National Advisory Committee on Health and Disability.

Croxson, B. and T. Ashton (1990). "A cost-effective analysis of the treatment of end-stage renal failure." New Zealand Medical Journal 103: 171-174.

Cullis, J. G. and P. A. West (1979). The Economics of Health: An Introduction. Oxford, Martin Robertson.

Culyer, A. J. (1980). The Political Economy of Social Policy. Oxford, Martin Robertson.

Culyer, A. J. (1983). Health Indicators. Oxford, Martin Robertson.

Culyer, A. J. (1989). Cost-containment in Europe. York, Centre for Health Economics, University of York.

Culyer, A. J. (1989). "The normative economics of health care finance and provision." Oxford Review of Economic Policy 5(1): 34-58.

Culyer, A. J. (1991). "The promise of a reformed NHS: an economist's angle." British Medical Journal 302(25 May): 1253-6.

Culyer, A. J. (1993). Health, health expenditures, and equity. In Equity in the Finance and Delivery of Health Care: An International Perspective. E. Van Doorslaer, A. Wagstaff and F. Rutten (eds). Oxford, Oxford University Press: 299-319.

Culyer, A. J. (1995). Equality of What in Health Policy? Conflicts Between the Contenders. York, Centre for Health Economics.

Culyer, A. J. (1997). "Maximising the health of the whole community: The case for." British Medical Journal 314(1 March): 667-669.

Culyer, A. J. (1998). How ought health economists to treat value judgements in their analyses? In Health, Health Care and Health Economics: Perspectives on Distribution. M. L. Barer, T. E. Getzen and G. Stoddart (eds). Chichester, John Wiley & Sons Ltd: 364-371.

Culyer, A. J. (no date). Equity in health care policy. Unpublished paper.

Culyer, A. J., E. van Doorslaer and A. Wagstaff (1992). "Access, utilisation and equity: A further comment." Journal of Health Economics 11(2): 207-210.

Culyer, A. J., E. van Doorslaer and A. Wagstaff (1992). "Comment: Utilisation as a measure of equity by Mooney, Hall, Donaldson and Gerard." Journal of Health Economics 11(1): 93-98.

Culyer, A. J. and A. Wagstaff (1991). Need, Equality and Social Justice. York, Centre for Health Economics, University of York. Discussion Paper No. 90.

Culyer, A. J. and A. Wagstaff (1992). Need, Equity and Equality in Health and Health Care. York, Centre for Health Economics, University of York. Discussion Paper No. 95.

Cumming, J. (1994). "Core services and priority setting: the New Zealand experience." Health Policy 29(1,2): 41-60.

Cumming, J. (1996). An Overview of the Health Economics and Health Policy Literatures on Priority Setting in Health Care. Wellington, Health Services Research Centre.

Cumming, J. (1997). "Defining core services: New Zealand experiences." Journal of Health Services Research and Policy 2(1): 31-37.

Cumming, J. (1998). "Techniques for setting priorities in health care." Victoria Economic Commentaries 15(1): 1-8.

Cumming, J. (1999). Funding Population-Based Primary Health Care in New Zealand. Wellington, Health Services Research Centre.

Cumming, J. (2000). "Health Reforms and Policy Update." Health Manager 7(4): 18-19.

Cumming, J. (2000). Management of Key Purchaser Risks in Devolved Purchase Arrangements in Health Care. Wellington, The Treasury. Treasury Working Paper 00/17. Available at <http://www.treasury.govt.nz/workingpapers>

Cumming, J. and C. Cangialose (2000). The Roles of District Health Boards - A Framework for Analysis. A Report for The Treasury. Wellington, Health Services Research Centre.

Cumming, J. and G. Salmond (1998). Reforming New Zealand health care. In Markets and health care: a comparative analysis. W. Ranade. New York, Addison Wesley Longman.

Cumming, J. and C. Scott (1998). "The role of outputs and outcomes in purchaser accountability: Reflecting on New Zealand experiences." Health Policy 46: 53-68.

Daniels, N. (1985). Just Health Care. Cambridge, Cambridge University Press.

Daniels, N., D. W. Light and R. L. Caplan (1996). Benchmarks of Fairness for Health Care Reform. New York, Oxford University Press.

Davidson, C. and M. Tolich (1999). Social Science Research in New Zealand: Many Paths to Understanding. Auckland, Pearson Education New Zealand Ltd.

Davis, K., G. F. Anderson, D. Rowland and E. P. Steinberg (1990). Health Care Cost Containment. Baltimore, The Johns Hopkins University Press.

Davis, P., R. Lay-Yee, O. Sinclair and B. Gribben (1997). "Māori/non-Māori patterns of contact, expressed morbidity and resource use in general practice: data from the Waikato Medical Care Survey 1991-2." New Zealand Medical Journal 100: 390-392.

DeLeon, P. and P. Resnick-Terry (1999). "Comparative policy analysis: deja vu all over again?" Journal of Comparative Policy Analysis: Research and Practice 2(1): 9-22.

Department of Health (1996). Priorities and Planning Guidance for the NHS 1997/98. London, Department of Health.

Detsky, A. S., S. R. Stacey and C. Bombardier (1983). "The effectiveness of a regulatory strategy in containing hospital costs: The Ontario experience, 1967-1981." New England Journal of Medicine 309: 151-159.

Diehr, P., K. Cain, F. Connell and E. Volinn (1990). "What is too much variation: the null hypothesis in small-area analysis." Health Services Research 24: 741-771.

Dirnfield, V. (1996). "The benefits of privatization." Canadian Medical Association Journal 155(4): 407-410.

Donelan, K., R. J. Blendon, C. Schoen, K. Davis and K. Binns (1999). "The cost of health system change: public discontent in five nations." Health Affairs 18(3): 206-216.

Dovey, S., M. Tilyard, D. Phillips and R. Whitney (1992). "The effect of employment status and household composition on health care utilisation in a general practice." New Zealand Medical Journal 105: 188-190.

Dunning, A. J. (1994). Reconciling Macro and Micro Concerns: Objectives and Priorities in Health Care. High-level conference on health care reform, Château de la Muette, Paris.

Durie, M. (1998). Te Mana Te Kāwanatanga: The Politics of Māori Self-determination. Oxford, Oxford University Press.

Eddy, D. M. (1991). "The individual versus society: resolving the conflict." Journal of the American Medical Association 265: 2399-2406.

Eddy, D. M. (1991). "Oregon's methods - did cost-effectiveness analysis fail?" Journal of the American Medical Association 266: 2135-2141.

Eddy, D. M. (1993). "Three battles to watch in the 1990s." Journal of the American Medical Association 270(4): 520-526.

Ellwood, P., N. Anderson, J. Billings, R. Carlson, E. Hoogberg and W. McClure (1971). "Health maintenance strategy." Medical Care 291(May): 250-256.

Ellwood, P. M. and A. C. Enthoven (1995). "Jackson Hole revisited." Health Affairs 14(2): 24-39.

Ellwood, P. M., A. C. Enthoven and L. Etheredge (1992). "The Jackson Hole initiatives for a twenty-first century American health care system." Health Economics 1: 149-168.

Employee Benefit Research Institute (2000). EBRI Health Care Research: 2000 Findings. Available at: http://www/ebri.org/health_findings.htm

Enthoven, A. (1988). "Managed Competition of Alternative Delivery Systems." Journal of Health Politics, Policy and Law 13(2): 305-321.

Enthoven, A. C. (1988). Theory and Practice of Managed Competition in Health Care Finance. Amsterdam, Elsevier Science Publishers B.V.

Enthoven, A. C. (1993). "The history and principles of managed competition." Health Affairs 12(Supplement): 24-48.

Enthoven, A. C. (1994). "On the ideal market structure for third-party purchasing of health care." Social Science and Medicine 39(10): 1413-1424.

Enthoven, A. C. (1994). "Why not the Clinton health plan?" Inquiry 31: 129-135.

Enthoven, A. C. and R. Kronick (1989). "A consumer-choice health plan for the 1990s." New England Journal of Medicine(5 and 12 January): 29-37 and 94-101.

Enthoven, A. C. and S. J. Singer (1994). "A single-payer system in Jackson Hole clothing." Health Affairs 13(1).

Enthoven, A. C. and S. J. Singer (1995). "Market-based reform: What to regulate and by whom." Health Affairs 14(1): 105-119.

Escarce, J. J. (1993). "Would eliminating differences in physician practice style reduce geographic variations in cataract surgery rates?" Medical Care 12: 1106-1118.

European Observatory on Health Care Systems (2000). Health Care Systems in Transition: Germany. Copenhagen, European Observatory on Health Care Systems.

European Observatory on Health Care Systems (1999). Health Care Systems in Transition: United Kingdom. Copenhagen, European Observatory on Health Care Systems.

Evans, R. (1984). Strained Mercy: The Economics of Canadian Health Care. Toronto, Butterworth.

Evans, R. and N. P. Roos (1999). "What is right about the Canadian health care system?" The Milbank Quarterly 77(3): 393-399.

Evans, R. G. (1983). The welfare economics of public health insurance: theory and Canadian practice. In Social Insurance: Papers presented at the 5th Arne Ryde Symposium. L. Soderstrom (ed). Amsterdam, Elsevier: 71-103.

Evans, R. G. (1985). "Illusions of necessity: evading responsibility for choice in health care." Journal of Health Politics, Policy and Law 10(Fall): 439-467.

Evans, R. G. (1987). Finding the levers, finding the courage: Lessons from cost containment in North America. In A Decade of Health Politics, Policy and Law. L. D. Brown (ed). Durham, Duke University Press: 17-47.

Evans, R. G. (1990). The dog in the night-time: medical practice variations and health policy. In The Challenges of Medical Practice Variations. T. F. Andersen and G. Mooney (eds). Basingstoke, The MacMillan Press Ltd: 117-152.

Evans, R. G. (1990). "Tension, compression and shear: Directions, stresses, and outcomes of health care cost control." Journal of Health Politics, Policy and Law 15(1): 101-128.

Evans, R. G. (1997). "Going for the gold: The redistributive agenda behind market-based health care reform." Journal of Health Politics, Policy and Law 22(2): 427-465.

Evans, R. G. (1998). Toward a healthier economics. In Health, Health Care and Health Economics: Perspectives on Distribution. M. L. Barer, T. E. Getzen and G. Stoddart (eds). Chichester, John Wiley & Sons Ltd: 465-500.

Flood, C. M. (1998). Comparing models of health care reform: internal markets and managed competition. Graduate Department of the Faculty of Law. Toronto, University of Toronto.

Folland, S., A. C. Goodman and M. Stano (1997). The Economics of Health and Health Care. Upper Saddle River, Prentice Hall.

Folland, S. T. and M. Stano (1989). "Sources of small area variations in the use of medical care." Journal of Health Economics 8: 85-107.

Folland, S. T. and M. Stano (1990). "Small area variations: a critical review of propositions, methods and evidence." Medical Care Review 47: 419-465.

Fox, D. M. and H. M. Leichter (1993). "State Model: Oregon." Health Affairs 12: 66-70.

Frankel, S. (1993). The origins of waiting lists. In Rationing and Rationality in the National Health Service: The Persistence of Waiting Lists. S. Frankel and R. West. Houndmills, The Macmillan Press: 1-14.

Fraser, G. (1991). "Waiting lists." New Zealand Medical Journal(25 September): 398-399.

Fraser, G., P. Alley and R. Morris (1993). Waiting Lists and Waiting Times: Their Nature and Management. Wellington, National Advisory Committee on Core Health and Disability Support Services.

Freemantle, N. (1994). The public and professional face of rationing. In Working for Patients: Early Research Findings. S. Harrison and N. Freemantle (eds). Leeds, Nuffield Institute for Health.

Gafni, A., S. Birch and A. Mehrez (1993). "Economics, health and health economics: HYE's versus QALY's." Journal of Health Economics 11: 325-339.

Gerard, K. (1992). "Cost-utility in practice: a policy maker's guide to the state of the art." Health Policy 21: 249-280.

Gerard, K. and G. Mooney (1993). "QALY league tables: handle with care." Health Economics 2: 59-64.

Getzen, T. E. (1997). Health Economics: Fundamentals and Flow of Funds. New York, John Wiley & Sons.

Gillon, R. (1986). Philosophical Medical Ethics. Chichester, John Wiley.

- Glaser, W. A. (1991). Health Insurance in Practice. San Francisco, Jossey-Bass.
- Glaser, W. A. (1993). "How expenditure caps and expenditure targets really work." The Milbank Quarterly 71(1): 97-128.
- Glaser, W. A. (1993). "Universal health insurance that really works: Foreign lessons for the United States." Journal of Health Politics, Policy and Law 18(3): 695-722.
- Glennerster, H., M. Matsaganis, P. Owens and S. Hancock (1994). Implementing GP Fundholding. Buckingham, Open University Press.
- Glynn, A., V. Ward, J. Wilson, A. Charlett, B. Cookson, L. Taylor and N. Cole (1997). Hospital-Acquired Infection. London, Public Health Laboratory Service.
- Godber, E., R. Robinson and A. Steiner (1997). "Economic evaluation and the shifting balance towards primary care: definitions, evidence and methodological issues." Health Economics 6: 275-294.
- Godber, E., A. Steiner and R. Robinson (1997). The Shifting Balance Towards Primary Care: Evidence and Guidelines for Economic Evaluation. Southampton, Institute for Health Policy Studies.
- Goddard, M. (1993). Priority Setting in Purchasing: A Review. York, North Yorkshire Health Authority.
- Goddard, M. and P. Smith (2001). "Equity of access to health care services: Theory and evidence from the UK." Social Science and Medicine 53: 1149-1162.
- Gold, M., K. Chu, S. Felt, M. Harrington and T. Lake (1993). "Effects of selected cost containment efforts: 1971-1993." Health Care Financing Review 14(3): 183-225.
- Goodwin, P. and G. Wright (1998). Decision Analysis for Management Judgement. Chichester, Wiley.
- Gordon, M. and P. B. Berger (1996). "The alluring myth of private medicine." Canadian Medical Association Journal 155(4): 404-406.
- Gosden, T., F. Forland, I. S. Kristiansen, M. Sutton, B. Leese, A. Giuffrida, M. Sergison and L. Pedersen (2001). "Impact of payment method on behaviour of primary care physicians: a systematic review." Journal of Health Services Research and Policy 6(1): 44-55.
- Government Committee on Choices in Health Care (1992). Choices in Health Care. Zoetermeer, Government Committee on Choices in Health Care.
- Graig, L. A. (1991). Health of Nations: An International Perspective on U.S. Health Care Reform. Washington, D C, The Wyatt Company.

Graig, L. A. (1999). Health of Nations: An International Perspective on U.S. Health Care Reform. Washington, D.C., Congressional Quarterly, Inc.

Gray, C. (1996). "Visions of our health care future: Is a parallel private system the answer?" Canadian Medical Association Journal 154(7): 1084-1087.

Greiner, W. and J.-M. G. van der Schulenburg (1997). The Health System of Germany. In Health Care Reform in Industrialized Countries. M. W. Raffel (ed). University Park, The Pennsylvania State University Press: 77-97.

Gribben, B. (1999). "Ethnicity and resource use in general practice in West Auckland. Experience in Practice." Healthcare Review - Online 1(1).

Grilli, R. and J. Lomas (1994). "Evaluating the message: the relationship between compliance rate and the subject of a practice guideline." Medical Care 32: 202-213.

Grol, R. (1990). "National standard setting for quality of care in general practice: attitudes of general practitioners and response to a set of standards." British Journal of General Practice 40: 361-364.

Hadorn, D. and A. Holmes (1997a). "The New Zealand priority criteria project. Part I: Overview." British Medical Journal 314: 131-134.

Hadorn, D. and A. Holmes (1997b). "The New Zealand priority criteria project. Part 2: coronary artery bypass graft surgery." British Medical Journal 314: 135-138.

Hadorn, D. C. (1991). "Setting Health Care Priorities in Oregon." Journal of the American Medical Association 265(17): 2218-2225.

Hadorn, D. C. (n.d.). The Model Proposal. In Basic Benefits and Clinical Guidelines. D. C. Hadorn. Boulder, Westview Press: 27-29.

Hadorn, D. C. (n.d.). Necessary-Care Guidelines. In Basic Benefits and Clinical Guidelines. D. C. Hadorn. Boulder, Westview Press: 13-26.

Hakansson, S. and S. Nordling (1997). The health system of Sweden. In Health Care and Reform in Industrialized Countries. M. W. Raffel (eds). Pennsylvania, Pennsylvania State University Press: 191-217.

Hall, J., R. De Abreu Lourenco and R. Viney (1999). "Carrots and sticks - the fall and fall of private health insurance in Australia." Health Economics 8: 653-660.

Ham, C. (1988). Health Care Variations: Assessing the Evidence. London, The King's Fund Institute.

Ham, C. (1998). "Retracing the Oregon trail: the experience of rationing and the Oregon health plan." British Medical Journal 316(27 June): 1965-1969.

Ham, C. (1998). Setting Priorities for Health Care: Why the Government Should Take the Lead. Belfast, Northern Ireland Economic Development Office.

Ham, C. and M. Hill (1984). The Policy Process in the Modern Capitalist State, Wheatsheaf.

Hanning, M. and U. W. Spangberg (2000). "Maximum waiting time - a threat to clinical freedom? Implementation of a policy to reduce waiting times." Health Policy 52: 15-32.

Harris, J. (1997). "The case against: what the principal objective of the NHS should really be." British Medical Journal 314(1 March): 669-672.

Harrison, M. I. and J. Calltorp (2000). "The reorientation of market-oriented reforms in Swedish health care." Health Policy 50: 219-240.

Hastings Center (1996). The Goals of Medicine: Setting New Priorities. New York, The Hastings Center.

Hay, I. (1989). The Caring Commodity: The Provision of Health Care in New Zealand. Auckland, Oxford University Press.

Health Action Lobby (1994). Getting to the Core of Comprehensiveness, Health Action Lobby.

Health Canada (1999). Canada Health Act Annual Report 1998-1999. Ottawa, Health Canada.

Health Care and Medical Priorities Commission (1993). No Easy Choices - the Difficult Priorities of Health Care. Stockholm, Swedish Government Official Reports, The Ministry of Health and Social Affairs.

Health Care Financing Authority (n.d.a). Medicaid Eligibility. <http://www.hcfa.gov/medicaid/meligib.htm>

Health Care Financing Authority (n.d.b). Medicare and You. <http://www.medicare.gov/publications/handbook.html>

Health Funding Authority (1998). How Shall We Prioritise Health and Disability Services? Wellington, Health Funding Authority.

Health Funding Authority (1998). Prioritisation Methodology and Process. Wellington, Health Funding Authority.

Health Funding Authority (1998). What Can I Expect? Health and Disability Support Services in New Zealand 1998/99. Wellington, Health Funding Authority.

Health Funding Authority (2000). What Can I Expect? Health and Disability Support Services in New Zealand 1999/2000. Wellington, Health Funding Authority.

Hefford, B. and A. Holmes (1999). "Booking systems for elective services: the New Zealand experience." Australian Health Review 22(4): 61-73.

Henderson, J. (1984). Appraising Options. Aberdeen, Health Economics Research Unit.

Hogwood, B. and L. Gunn (1984). Policy Analysis for the Real World. Oxford, Oxford University Press.

Holm, S. (1998). "Goodbye to simple solutions: the second phase of priority setting in health care." British Medical Journal 317: 1000-1002.

Holmström, S. (1995). Sweden and Priority Setting. Seminar on Priority Setting in Health Care, University of Birmingham.

Hopkins, S. and J. Cumming (2001). "Drifting with the current: the impact of changes in private health expenditure on New Zealand households." Health Policy 58(215-219).

House of Commons Health Committee (1994-95). Priority Setting in the NHS: Purchasing. London, House of Commons.

Hugh Adam Cancer Epidemiology Unit (1996). Evaluation of the Otago-Southland Pilot Breast Cancer Screening Programme: Report on the First Round of Screening (1991-1994). Dunedin, Hugh Adam Cancer Epidemiology Unit.

Hunter, D. J. (1993). "Desperately seeking solutions: rationing dilemmas in health care." Australian Health Review 16(2): 130-147.

Hunter, D. J. (1993). Rationing Dilemmas in Health Care. Leeds, National Association of Health Authorities and Trusts.

Hurley, J. (1998). Welfarism, extra-welfarism and evaluative economic analysis in the health sector. In Health, Health Care and Health Economics: Perspectives on Distribution. M. L. Barer, T. E. Getzen and G. Stoddart (eds). Chichester, John Wiley & Sons Ltd: 373-395.

Hurley, J., S. Birch and J. Eyles (1995). "Geographically-decentralized planning and management issues in health care: some informational issues and their implications for efficiency." Social Science and Medicine 41(1): 3-11.

Iglehart, J. K. (1986). "Canada's health care system." New England Journal of Medicine 315(3 (17 July)).

Industry Commission (1997). Private Health Insurance. Canberra, Australian Government Publishing Service.

Institute of Medicine (1985). Assessing Medical Technologies. Washington, D.C., National Academy Press.

Jacobs, L., T. R. Marmor and J. Oberlander (1999). "The Oregon health plan and the political paradox of rationing: What advocates and critics have claimed and what Oregon did." Journal of Health Politics, Policy and Law 24(1): 161-180.

Kamke, K. (1998). "The German health care system and health care reform." Health Policy 43(2): 171-194.

Katz, S. J., L. F. McMahon and W. G. Manning (1996). "Comparing the use of diagnostic texts in Canadian and U.S. hospitals." Medical Care 34: 117-125.

Kennedy, M. (2002). Review 'Untouchable' Health Act: Romanow. Vancouver Sun. Vancouver: p. A04.

King, A. (2000). The New Zealand Health Strategy. Wellington, Ministry of Health.

King, A. (2001). The Primary Health Care Strategy. Wellington, Ministry of Health.

King, A. (2002). Press Release: More heart surgery operations available for South Island. Wellington.

King, H. A. (2000). The Future Shape of Primary Health Care: A Discussion Document. Wellington, Ministry of Health.

King, H. A. (2000). Reduced Waiting Times for Public Hospital Elective Services - Government Strategy. Wellington, Minister of Health.

Kleijnen, J. and G. Bonsel (1998). "Guidelines and quality of clinical services in the new NHS." British Medical Journal 316: 299-300.

Klein, R. (1994). "Can we restrict the health care menu." Health Policy 27(2): 103-112.

Klein, R. (1997). Defining a package of healthcare services the NHS is responsible for: The case against. In Rationing. B. New (ed). London, BMJ Publishing Group and King's Fund: 85-93.

Klein, R. (1998). "Puzzling out priorities." British Medical Journal 317: 959-960.

Klein, R. (2001). The New Politics of the NHS. Harlow, Pearson Education.

Klein, R., P. Day and S. Redmayne (1996). Managing Scarcity: Priority Setting and Rationing in the National Health Service. Buckingham, Open University Press.

Klein, R. and S. Redmayne (1992). Patterns of Priorities. Birmingham, National Association of Health Authorities and Trusts.

Krasnik, A. and S. Vallgarda (1997). The health system of Denmark. In Health Care and Reform in Industrialized Countries. M. W. Raffel (ed). Pennsylvania, Pennsylvania State University Press: 29-48.

Lawton, R. and D. Parker (1999). "Procedures and the professional: the case of the British NHS." Social Science and Medicine 48: 353-361.

Le Grand, J., N. Mays and J.-A. Mulligan (Eds) (1998). Learning From the NHS Internal Market: A Review of the Evidence. London, King's Fund Publishing.

Le Grand, J., N. Mays, J.-A. Mulligan, N. Goodwin, J. Dixon and H. Glennerster (1997). Models of Purchasing and Commissioning: Review of the Research Evidence. London, Department of Social Policy and Administration, London School of Economics and Kings Fund.

Leichter, H. M. (1999). "Oregon's bold experiment: Whatever happened to rationing." Journal of Health Politics, Policy and Law 24(1): 147-160.

Lindblom, C. (1980). The Policy-Making Process. Englewood Cliffs, Prentice Hall.

Lomas, J., G. M. Anderson, K. Domnick-pierre, E. Vayda, M. X. Enkin and W. J. Hannah (1989). "Do practice guidelines guide practice?" The New England Journal of Medicine 321: 1306-1311.

Lomas, J., J. Woods and G. Veenstra (1997). "Devolving authority for health care in Canada's provinces: 4. Emerging issues and prospects." Canadian Medical Association Journal 156(6): 817-823.

Loomes, G. and I. McKenzie (1989). "The use of QALYs in health care decisions making." Social Science and Medicine 28: 467-477.

Maarse, J. A. M. (1997). The health system of the Netherlands. In Health Care and Reform in Industrialized Countries. M. W. Raffel. University Park, The Pennsylvania State University Press: 135-161.

Mabin, V. and M. Beattie (1999). A Practical Guide to Multi-Criteria Decision Analysis: A Workbook Companion to V.I.S.A. Wellington, Victoria University of Wellington.

Mabin, V., M. Menzies, G. King and K. Joyce (1997). Allocating public sector research funds: the use of multi-criteria decision making and electronic brainstorming to guide resource allocation. Fourth International Meeting of the Decision Sciences Institute, Sydney.

Malcolm, L. (1996). "Inequities in access to and utilisation of primary medical care services for Māori and low income New Zealanders." New Zealand Medical Journal 109: 356-358.

Malcolm, L., L. Wright, Aotearoa Health and P. Barnett (1999). The Development of Primary Care Organisations In New Zealand: Report to The Treasury and Ministry of Health. Wellington, Ministry of Health.

Maling, T., V. Andersen, P. Norris, J. Cumming, E. Roberts, B. Arroll and C. Kerr (2000). An Evaluation of the Acceptability, Sustainability and Cost of PHARMAC's ACE-Inhibitor Reference Pricing Initiative. Wellington, Unpublished Report: Wellington School of Medicine, Department of General Practice, Health Services Research Centre.

Managed Health Care Improvement Task Force (1998). Improving Managed Health Care in California. Volumes One, Two and Three. Managed Health Care Improvement Task Force.

Mark D. B., Naylor C. D., Hlatky M. A., Califf R. M., Topol E. J., Granger C. B., Knight J. D., Nelson C. L., Lee K. L., Clapp-Channing N. E., Sutherland W., Pilote L., Armstrong P. W. (1994). "Use of medical resources and quality of life after acute myocardial infarction in Canada and the United States." New England Journal of Medicine 331: 1130-1135.

Marmor, T. R. (1997). Global health policy reform: misleading mythology or learning opportunity. In Health Policy Reform: National Variations and Globalization. C. Altenselter and J. W. Bjorkman (eds). London, Macmillan.

Matsaganis, M. and H. Glennerster (1994). "The threat of 'cream skimming' in the post-reform NHS." Journal of Health Economics 13(31-60).

Maynard, A. (1986). "Public and Private Sector Interactions: An Economic Perspective." Social Science and Medicine 22(11): 1161-1166.

Mayor, A. H. and J. M. Eaton (1992). "Anaesthetic machine checking practices." Anaesthesia 47: 866-868.

Mays, N., J. Cumming, P. Fraser, K. Hand and P. Davies (1999). Quasi-market changes in New Zealand health care: a systematic review. Paper presented at the Health Services Research Conference, 8-11 August, Sydney.

Mays, N. and K. Hand (2000). A Review of Options for Health and Disability Support Purchasing in New Zealand. Wellington, The Treasury. Treasury Working Paper 00/20. Available at <http://www.treasury.govt.nz/workingpapers>

McAvoy, B., P. Davis, A. Rayment and B. Gribben (1994). "The Waikato medical care (WaiMedCa) survey 1991-1992." New Zealand Medical Journal 107(Supplement Part 2): 386-433.

- McDonald, P., Shortt, S., Sanmartin, C., Barer, M L., Lewis, S., Sheps, S.(1998). Waiting Lists and Waiting Times for Health Care in Canada: More Management!! More Money? Ottawa, Health Canada. Available at: <http://www.hc-sc.gc.ca/hppb/nhrdp/wlsum5.htm>
- McFarland, B. H., K. Winthrop and D. L. Cutler (1997). "Integrating Mental Health Into the Oregon Health Plan." Psychiatric Services 48(2): 191-193.
- McLaughlin, C. G., D. P. Normolle, R. A. Wolfe, L. F. J. McMahon and J. R. Griffith (1989). "Small-area variation in hospital discharge rates: do socio-economic variables matter?" Medical Care 27: 507-521.
- McPherson, K., J. E. Wennberg, D. B. Hovind and P. Clifford (1982). "Small-area variations in the use of common surgical procedures: an international comparison of New England, England, and Norway." New England Journal of Medicine 307(21): 1310-1314.
- Mechanic, D. (1995). "Dilemmas in rationing health services: the case for implicit rationing." British Medical Journal 310(24 June): 1655-1659.
- Mental Health Commission (1998). Blueprint for Mental Health Services in New Zealand: How Things Need To Be. Wellington, Mental Health Commission.
- Miller, R. H. and H. S. Luft (1994). "Managed care plan performance since 1980: a literature analysis." Journal of the American Medical Association 271(19): 1512-1519.
- Miller, R. H. and H. S. Luft (1997). "Does managed care lead to better or worse quality of care?" Health Affairs 16(5): 7-25.
- Minister of Health (1991). The Core Debate: Stage One: How We Define the Core. Wellington, Minister of Health.
- Minister of Health (2000). Memorandum to Cabinet Social Policy and Health Committee: The Division of Roles Between District Health Boards and the Ministry of Health. Wellington, Cabinet Office.
- Ministerial Taskforce on Nursing (1998). Report of the Ministerial Taskforce on Nursing: Releasing the Potential of Nursing. Wellington, Ministerial Taskforce on Nursing.
- Ministry of Health (1995). Tertiary Health Services in New Zealand. Wellington, Ministry of Health.
- Ministry of Health (1996). Healthy New Zealanders: Briefing Papers for the Minister of Health 1996: Volume 1: Key Policy Issues. Wellington, Ministry of Health.

Ministry of Health (1997). Purchasing for Your Health: 1995/96. Wellington, Ministry of Health.

Ministry of Health (1999). Taking the Pulse: The 1996/97 New Zealand Health Survey. Wellington, Ministry of Health.

Ministry of Health (2000). Health Expenditure Trends in New Zealand 1980-1999. Wellington, Ministry of Health.

Ministry of Health (2001, 11 October). Media Release: Nurse Prescribing Regulations Take Effect. Wellington, Ministry of Health.

Ministry of Health and New Zealand Health Information Service (1995). Patients in Profile: The Use of Health Care Services in New Zealand. Wellington, Ministry of Health.

Ministry of Health Canada Santé (1998). Health Insurance - Canada - Assurance Santé. Publisher. <http://www/hc-sc.gc.ca/medicare/chaover.htm>

Ministry of Health Welfare and Sport (1998). Health Insurance in the Netherlands. Rijswijk, Ministry of Health, Welfare and Sport.

Ministry of Health Welfare and Sport (2000). Health Insurance in the Netherlands. The Hague, Ministry of Health, Welfare and Sport.

Mooney, G. (1986). Economics, Medicine and Health Care. Brighton, Wheatsheaf.

Mooney, G. (1994). Key Issues in Health Economics. Hemel Hempstead, Harvester Wheatsheaf.

Mooney, G., J. Hall, C. Donaldson and K. Gerard (1991). "Reweighting heat: Response to Culyer, van Doorslaer and Wagstaff." Journal of Health Economics 11(2): 199-205.

Mooney, G., J. Hall, C. Donaldson and K. Gerard (1991). "Utilisation as a measure of equity: Weighing heat?" Journal of Health Economics 10: 475-480.

Mooney, G., S. Jan and V. Wiseman (1995). "Examining preferences for allocating health care gains." Health Care Analysis 3: 261-265.

Mulder, J. (1995). Priority Setting in Health Care: The Dutch Experience. Seminar on Priority Setting in Health Care, Birmingham.

National Advisory Committee on Core Health and Disability Services (1992). The Best of Health: Deciding on the Health Services We Value Most. Wellington, National Advisory Committee on Core Health and Disability Services.

National Advisory Committee on Core Health and Disability Services (1992). Core Services 1993/94. Wellington, National Advisory Committee on Core Health and Disability Services.

National Advisory Committee on Core Health and Disability Support Services (1993). Core Services for 1994/95. Wellington, National Advisory Committee on Core Health and Disability Support Services.

National Advisory Committee on Core Health and Disability Support Services (1994). Core Services for 1995/96. Wellington, National Advisory Committee on Core Health and Disability Support Services.

National Advisory Committee on Core Health and Disability Support Services (1995). Fourth Annual Report. Wellington, National Advisory Committee on Core Health and Disability Support Services.

National Advisory Committee on Core Health and Disability Services (1997). The Best of Health 3: Are We Doing the Right Things and Are We Doing Those Things Right? Wellington, National Advisory Committee on Core Health and Disability Services.

National Advisory Committee on Health and Disability (1996). Fifth Annual Report. Wellington, National Advisory Committee on Health and Disability.

National Advisory Committee on Health and Disability (1997). Sixth Annual Report. Wellington, National Advisory Committee on Health and Disability.

National Advisory Committee on Health and Disability (2000). Closing the Gaps Through Primary Health Care in New Zealand. Wellington, National Advisory Committee on Health and Disability.

National Advisory Committee on Health and Disability (2000). Improving Health for New Zealanders by Investing in Primary Health Care. Wellington, National Advisory Committee on Health and Disability.

National Economic Research Associates (1993a). The Health Care System in France.

National Economic Research Associates (1993b). The Health Care System in Japan.

National Economic Research Associates (1993c). The Health Care Systems in Sweden.

Naylor, C. D. (1999). "Health care in Canada: Incrementalism under fiscal duress." Health Affairs 18(3): 9-26.

New, B. (1997). "Defining a package of healthcare services the NHS is responsible for: The case for." British Medical Journal 314(7079): 503-506.

New, B. and J. Le Grand (1996). Rationing in the NHS: Principles and Pragmatism. London, King's Fund.

New Zealand Government (2000). New Zealand Public Health and Disability Bill.

Newhouse, J. P., J. Manning, W G, E. B. Keeler and E. M. Sloss (1989). "Adjusting capitation rates using objective health measures and prior utilization." Health Care Financing Review 10(3): 41-54.

NHS Executive (1996). Priorities and Planning Guidance for the NHS: 1997/98. Leeds, NHS Executive.

NHS Executive (1997). Priorities and Planning Guidance for the NHS: 1998/99. Leeds, Department of Health.

Nuffield Institute for Health, Centre for Health Economics, NHS Centre for Reviews and Dissemination and Research Unit, Royal College of Physicians (1994). "Implementing clinical practice guidelines: Can guidelines be used to improve clinical practice." Effective Health Care 8.

Nuffield Institute for Health and NHS Centre for Reviews and Dissemination (1996). "Hospital volume and health care outcomes, costs and patient access." Effective Health Care 2(8).

NZ Institute of Economic Research (Inc.) (2001). The Tax Treatment of Health Insurance Premiums: Report to the Health Funds Association of NZ. Wellington, Health Funds Association of NZ.

NZPA (2001). Clinic turned away sick baby. The Dominion. Wellington: 6.

Oregon Health Plan Administrator (1996). The Oregon Health Plan: The Legal Framework, Oregon Health Plan Administrator.

Oregon Health Services Commission (1991). Prioritization of Health Services: A Report to the Governor and the Legislator. Salem, Oregon Health Services Commission.

O'Reilly, D., K. Steele, B. Merriman, A. Gilliland and S. Brown (1998). "Effect of fundholding on removing patients from general practitioners' lists: retrospective study." British Medical Journal 317: 786-786.

Organisation for Economic Co-Operation and Development (1992). The Reform of Health Care Systems: A Comparative Analysis of Seven OECD Countries. Paris, Organisation for Economic Co-Operation and Development.

Organisation for Economic Co-Operation and Development (1994). The Reform of Health Care Systems: A Review of Seventeen OECD Countries. Paris, Organisation for Economic Co-Operation and Development.

Organisation for Economic Co-operation and Development (1996). New Zealand. Paris, Organisation for Economic Co-operation and Development.

Paul-Shaheen, P., J. D. Clark and D. Williams (1987). "Small area analysis: a review and analysis of the North American literature." Journal of Health Politics, Policy and Law 12(4): 741-809.

Pauly, M. V., P. Danzon, P. J. Feldstein and J. Hoff (1992). Responsible National Health Insurance. Washington, D.C., American Enterprise Institute for Public Policy Research.

Pauly, M. V., P. M. Danzon, P. Feldstein and J. Hoff (1991). "A Plan for 'Responsible National Health Insurance'." Health Affairs 10(1): 5-25.

Penchansky, R. and J. W. Thomas (1981). "The Concept of Access." Medical Care 19(2): 127-140.

Performance Management Unit (1998). Purchasing For Your Health 1996/97. Wellington, Ministry of Health.

Performance Monitoring Unit (1995). Purchasing for Your Health: a Performance Report on the First Year of the Regional Health Authorities and the Public Health Commission. Wellington, Ministry of Health.

Phelps, C. E. (1997). Health Economics. Reading, Massachusetts, Addison-Wesley.

Phelps, C. E. and C. Mooney (1992). "Correction and update on 'Priority setting in medical technology assessment'." Medical Care 30: 744-751.

Phelps, C. E. and S. T. Parente (1990). "Priority setting in medical technology and medical practice assessment." Medical Care 28: 703-723.

Plank, D. (n.d). Supplementary Insurance. Wellington, Unpublished Treasury Report.

Pomare, E., V. Keefe-Ormsby, C. Ormsby, N. Pearce, P. Reid, B. Robson and N. Watene-Haydon (1995). Hauora: A Study of the Years 1970-1991. Wellington, Eru Pomare Māori Health Research Centre.

Raffel, M. W. and N. K. Raffel (1994). The U.S. Health System: Origins and Functions. Albany, Delmar Publishers.

Raffel, M. W. and N. K. Raffel (1997). The health system of the United States. In Health Care and Reform in Industrialized Countries. M. W. Raffel (ed). University Park, The Pennsylvania State University Press: 263-289.

Redmayne, S. and R. Klein (1993). "Rationing in practice: the case of in vitro fertilisation." British Medical Journal 306(5 June): 1521-1524.

- Reinhardt, U. E. (1997). Accountable health care: is it compatible with social solidarity? London, Office of Health Economics.
- Relman, A. S. (1988). "Assessment and accountability: the third revolution in medical care." The New England Journal of Medicine 319(18): 1220-1222.
- Rice, T. (1998). The Economics of Health Reconsidered. Chicago, Health Administration Press.
- Richardson, G. and A. Maynard (1995). Fewer Doctors? More Nurses? A Review of the Knowledge Base of Doctor-Nurse Substitution. York, Centre for Health Economics.
- Robinson, R. and A. Steiner (1998). Managed Health Care. Buckingham, Open University Press.
- Roos, L. L. (1983). "Supply, workload and utilization: a population-based analysis of surgery in rural Manitoba." American Journal of Public Health 73(4): 414-421.
- Roos, N. P., P. Montgomery and L. L. Roos (1987). "Health care utilization in the years prior to death." The Milbank Quarterly 65(2): 231-254.
- Roos, N. P. and L. L. Roos (1981). "High and low surgical rates: risk factors for area residents." American Journal of Public Health 71(6): 591-600.
- Rouleau, J. L. (1993). "A comparison of management patterns after acute myocardial infarction in Canada and the United States." New England Journal of Medicine 328: 779-784.
- Royal New Zealand College of General Practitioners (1999). Guidelines for Primary Care Providers: Early Detection of Breast Cancer. Wellington, Royal New Zealand College of General Practitioners.
- Rutledge, K. M. (1997). "The Oregon health plan: Lessons learned." Healthcare Financial Management 51(4): 48-51.
- Schwartz, M., A. S. Ash, J. Anderson, L. I. Iezzoni, S. M. Payne and J. D. Restuccia (1994). "Small area variations in hospitalization rates: how much you seen depends on how you look." Medical Care 32: 189-201.
- Secretary of State for Health (1989). Working For Patients. London, HMSO.
- Secretary of State for Health (1999). A National Service Framework for Mental Health.
- Secretary of State for Health (2000). The NHS Plan. Norwich, The Stationery Office.

- Sen, A. (1979). "Personal utilities and public judgements: or what's wrong with welfare economics." Economic Journal 89(September): 537-558.
- Sen, A. (1985). Commodities and Capabilities. Amsterdam, North Holland.
- Sheeran, G. (2002). Health insurer likely to up rates. Sunday Star Times. Auckland: E1.
- Sheldon, T. and M. Borowitz (1993). "Changing the measure of quality in the NHS: from purchasing activity to purchasing protocols." Quality in health care 2: 149-150.
- Shipley, H. J. (1991). Social Assistance: Welfare That Works. Wellington, Minister of Social Welfare.
- Shipley, J. (1994). 1994/95 Policy Guidelines for Regional Health Authorities. Wellington, Minister of Health.
- Shipley, J. (undated). Policy Guidelines for Regional Health Authorities 1995/96. Wellington, Minister of Health.
- Shipley, J. (undated). Policy Guidelines for Regional Health Authorities 1996/97. Wellington, Minister of Health.
- Short, P. F. and J. S. Banthin (1995). "New estimates of the underinsured younger than 65 years." Journal of the American Medical Association 274: 1302-1306.
- Silversides, A. (1995). "Role of private insurance in public system source of debate at CHEPA conference." Canadian Medical Association Journal 153: 827-828.
- Smith, P. A. (2000). The Private Prescription: The Story of Southern Cross Healthcare. Auckland, Southern Cross Healthcare.
- Smith, R. (1991). "Where is the wisdom...? The poverty of medical evidence." British Medical Journal 303: 798-799.
- Southern Cross Healthcare (1997). RegularCare. Auckland, Southern Cross Healthcare.
- Strosberg, M. A., J. M. Wiener, R. Baker and I. A. Fein, Eds. (1992). Rationing America's Medical Care: The Oregon Plan and Beyond. Washington D.C., The Brookings Institution.
- Sullivan, P. (1995). "Private health care dominates meeting as General Council calls for national debate on issue." Canadian Medical Association Journal 153: 801-803.

Swedish Parliamentary Priorities Commission (1995). Priorities in Health Care: Ethics, Economy, Implementation. Stockholm, Ministry of Health and Social Affairs.

Szeto, K. and N. Devlin (1996). "The cost-effectiveness of mammography screening: evidence from a microsimulation model for New Zealand." Health Policy 38: 101-115.

The Treasury (1996). Briefing to the Incoming Government. Wellington, The Treasury.

The White House Domestic Policy Council (1993). The President's Health Security Plan. New York, Times Books.

Triggs, S., G. Johnston, P. O'Connor and R. Wong (1995). Patients in Profile - The Use of Health Care Services in New Zealand. Wellington, Ministry of Health.

Tunis, S. R., R. S. A. Hayward, M. C. Wilson, H. R. Rubin, E. B. Bass, M. Johnston and E. P. Steinberg (1994). "Internists' attitudes about clinical practice guidelines." Annals of Internal Medicine 120: 956-963.

Tuohy, C. H. (1999). Accidental Logics: The Dynamics of Change in the Health Care Arena in the United States, Britain and Canada. New York, Oxford University Press.

U.S. Congress Office of Technology Assessment (1978). Report on Assessing Efficacy and Safety of Medical Technologies. Washington, D.C., U.S. Office of Technology Assessment.

U.S. Congress Office of Technology Assessment (1992). Evaluation of the Oregon Medicaid Proposal. Washington D.C.

Upton, S. (1991). Your Health and the Public Health: A Statement of Government Health Policy. Wellington, Minister of Health.

Upton, S. (1992). Policy Guidelines to Regional Health Authorities. Wellington, Minister of Health.

van de Ven, W. P. M. M. (1990). "From regulated cartel to regulated competition in the Dutch health care system." European Economic Review 34: 632-645.

van de Ven, W. P. M. M. (1995). "Regulated competition in health care: With or without a global budget." European Economic Review 39: 786-794.

van de Ven, W. P. M. M. and F. T. Schut (1995). The Dutch experience with internal markets. In Health Care Reform Through Internal Markets: Experience and Proposals. M. Jerome-Forget, J. White and J. M. Wiener (eds). Montreal, The Institute for Research on Public Policy: 95-117.

van de Ven, W. P. M. M., R. C. J. A. van Vliet, E. M. van Barneveld and L. M. Lamers (1994). "Risk-adjusted capitation: Recent experiences in the Netherlands." Health Affairs 13(1): 120-148.

van Doorslaer, E., A. Wagstaff and F. Rutten (1993). Equity in the Finance and Delivery of Health Care: An International Perspective. Oxford, Oxford University Press.

van Doorslaer, E., A. Wagstaff, H. van der Burg, T. Christiansen, G. Citoni, R. D. Biase, U.-G. Gerdtham, M. Gerfin, L. Gross, U. Hakinnen, J. John, P. Johnson, J. Klavus, C. Lachaud, J. Lauritsen, R. Leu, B. Nolan, J. Pereira, C. Propper, F. Puffer, L. Rochaix, M. Schellhorn, G. Sundberg and O. Winkelhake (1999). "The redistributive effect of health care finance in twelve OECD countries." Journal of Health Economics 18: 291-313.

van Vliet, R. C. J. A. and W. P. M. M. van de Ven (1992). "Towards a capitation formula for competing health insurers. An empirical analysis." Social Science and Medicine 34(9): 1035-1048.

Veatch, R. M. (1992). The Oregon experiment: needless and real worries. In Rationing America's Medical Care: The Oregon Plan and Beyond. M. Strosberg, J. Weiner, R. Baker and I. A. Fein (eds). Washington, D.C., Brookings Institution.

Volinn, E., K. M. Turczyn and J. D. Loeser (1994). "Patterns in low back pain hospitalization: implications for the treatment of low back pain in an era of health care reform." Clinical Journal of Pain 10: 64-70.

Wagstaff, A., E. van Doorslaer and F. Rutten (1993). Introduction. In Equity in the Finance and Delivery of Health Care: An International Perspective. A. Wagstaff, E. van Doorslaer and F. F. Rutten. Oxford, Oxford University Press.

Wagstaff, A., E. van Doorslaer, H. van der Burg, S. Calonge, T. Christiansen, G. Citoni, U.-G. Gerdtham, M. Gerfin, L. Gross, U. Hakinnen, P. Johnson, J. John, J. Klavus, C. Lachaud, J. Lauritsen, R. Leu, B. Nolan, E. Peran, J. Pereira, C. Propper, F. Puffer, L. Rochaix, M. Rodriguez, M. Schellhorn, G. Sundberg and O. Winkelhake (1999). "Equity in the finance of health care: some further international comparisons." Journal of Health Economics 18: 263-290

Walsh, R. and K. Hoby (2002). Asthma: an \$825m burden to New Zealand. The New Zealand Herald. Auckland.

Weimer, D. L. and A. R. Vining (1992). Policy Analysis: Concepts and Practice. Englewood Cliffs, Prentice Hall.

Wennberg, J. E. (1984). "Dealing with medical practice variations: a proposal for action." Health Affairs 3(2): 6-32.

Wennberg, J. E., J. P. Bunker and B. A. Barnes (1980). "The need for assessing the outcome of common medical practices." Annual Review of Public Health 1: 277-295.

Wennberg, J. E. and A. Gittelsohn (1973). "Small area variations in health care delivery." Science 182: 1102-1108.

Wennberg, J. E. and A. Gittelsohn (1982). "Variations in medical care among small areas." Scientific American 246(April): 120-134.

White House Domestic Policy Council (1993). The President's Health Security Plan. New York, Random House.

White House Domestic Policy Council (1993). The President's Health Security Plan. The Complete Draft and Final Reports of the White House Domestic Policy Council. New York, Random House.

White, J. (1995). Competing Solutions: American Health Care Proposals and International Experience. Washington, D.C., The Brookings Institution.

Wildavsky, A. (1977). "Doing better and feeling worse: the political pathology of health policy." Daedalus 106(1): 105-124.

Williams, A. (1978). 'Need' - an Economic Exegesis. In Economic Aspects of Health Services. A. J. Culyer and K. G. Wright. London, Martin Robertson & Co. Ltd: 32-45.

Williams, A. (1988). Ethics and efficiency in the provision of health care. In Philosophy and Medical Welfare. M. Bell and S. Mendus (eds). Cambridge, Cambridge University Press.

Williams, A. (1988). Priority Setting in Public and Private Health Care: A Guide Through the Ideological Jungle. York, Centre for Health Economics, University of York.

Williams, J. R. and M. Yeo (2000). The ethics of decentralizing health care priority setting in Canada. In The Global Challenge of Health Care Rationing. A. Coulter and C. Ham (eds). Buckingham, Open University Press: 123-132.

Wilson, R., M. S. Rowan and J. Henderson (1995). "Core and Comprehensive Health Care Services: 1. Introduction to the Canadian Medical Association's Decision Making Framework." Canadian Medical Association Journal 152(7): 1063-1066.

Working Party on Ethics and Resource Allocation in Health Care (no date). Discussion Paper on Ethics and Resource Allocation in Health Care. Canberra, National Health and Medical Research Council.

World Health Organisation (1996). Health Care Systems in Transition: Sweden. Copenhagen, World Health Organisation, Regional Office for Europe.

World Health Organization (2000). The World Health Report 2000: Health Systems: Improving Performance. Copenhagen, World Health Organization.

World Health Organization Regional Office for Europe (1996). Health Care Systems in Transition: Canada. Copenhagen, World Health Organization, Regional Office for Europe.

Wysong, J. A. and T. Abel (1990). "Universal health insurance and high-risk groups in Germany: Implications for U.S. health policy." The Milbank Quarterly 68(4): 527-560.

**HEALTH SERVICES COVERAGE
REGULATION:
AN EVALUATION OF POLICY OPTIONS
FOR NEW ZEALAND**

by

Jacqueline Margaret Cumming
(M.A. Hons; Dip. Health Economics)

VOLUME II: APPENDICES

A thesis
submitted to the Victoria University of Wellington
in fulfilment of the
requirements for the degree of
Doctor of Philosophy
in Public Policy

Victoria University of Wellington
2003

Table of Contents

VOLUME II

List of Figures.....	iii
APPENDIX 1: COVERAGE REGULATION IN SEVEN HEALTH CARE SYSTEMS.....	1
A.1 NEW ZEALAND, THE UNITED KINGDOM AND SWEDEN.....	2
A.2 NETHERLANDS AND GERMANY	15
A.3 CANADA	24
A.4 THE UNITED STATES	34
A.5 RELATIONSHIPS BETWEEN COVERAGE REGULATION AND HEALTH GOALS AND SYSTEMS	45
APPENDIX 2: NOTES ON THE SCORING PROCESS	51
APPENDIX 3: SENSITIVITY ANALYSES	53

List of Figures

VOLUME II

FIGURE A.3.1.1: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SCORES.....	56
FIGURE A.3.1.1 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SCORES.....	57
FIGURE A.3.1.2: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: OVERALL SCORES	58
FIGURE A.3.1.3: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS.....	59
FIGURE A.3.1.3 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS.....	60
FIGURE A.3.1.4: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 10 POINTS: OVERALL SCORES	61
FIGURE A.3.1.5: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS.....	62
FIGURE A.3.1.5 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS.....	63
FIGURE A.3.1.6: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: +/- 20 POINTS: OVERALL SCORES	64
FIGURE A.3.1.7: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT ZERO	65
FIGURE A.3.1.8: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED UNTIL RANKINGS CHANGE.....	66
FIGURE A.3.1.9: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	67
FIGURE A.3.1.10: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	68

FIGURE A.3.1.11: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUAL WEIGHTS	69
FIGURE A.3.1.12: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	70
FIGURE A.3.1.13: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	71
FIGURE A.3.1.14: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	72
FIGURE A.3.1.15: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	73
FIGURE A.3.1.16: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT 1: OVERALL SCORES.....	74
FIGURE A.3.1.17: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EQUITY WEIGHT AT 1: OVERALL SCORES.....	75
FIGURE A.3.1.18: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: CHOICE WEIGHT AT 1: OVERALL SCORES	76
FIGURE A.3.1.19: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN THE EXISTING HEALTH CARE SYSTEM: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT AT 1: OVERALL SCORES	77
FIGURE A.3.2.1: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SCORES.....	81
FIGURE A.3.2.1 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SCORES	82
FIGURE A.3.2.2: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: OVERALL SCORES	83
FIGURE A.3.1.3: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS.....	84
FIGURE A.3.2.3 (CONT.): ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS	85

FIGURE A.3.2.4: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: +/- 20 POINTS: OVERALL SCORES.....	86
FIGURE A.3.2.5: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT ZERO	87
FIGURE A.3.2.6: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED UNTIL RANKINGS CHANGE	88
FIGURE A.3.2.7: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED UNTIL RANKINGS CHANGE.....	89
FIGURE A.3.2.8: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED UNTIL RANKINGS CHANGE	90
FIGURE A.3.2.9: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUAL WEIGHTS.....	91
FIGURE A.3.2.10: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	92
FIGURE A.3.2.11: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT LOWERED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	93
FIGURE A.3.2.12: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE.....	94
FIGURE A.3.1.13: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT INCREASED FROM EQUAL WEIGHTS UNTIL RANKINGS CHANGE	95
FIGURE A.3.2.14: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EFFICIENCY WEIGHT AT 1: OVERALL SCORES.....	96
FIGURE A.3.1.15: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EQUITY WEIGHT AT 1: OVERALL SCORES.....	97
FIGURE A.3.2.16: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: CHOICE WEIGHT AT 1: OVERALL SCORES	98

FIGURE A.3.2.17: ALTERNATIVE MODELS OF COVERAGE REGULATION FOR NEW ZEALAND WITHIN A SYSTEM OF MANAGED COMPETITION: SENSITIVITY ANALYSIS: EXPENDITURE CONTROL WEIGHT AT 1: OVERALL SCORES99

Appendix 1

Coverage Regulation in Seven Health Care Systems

Appendix 1 provides detailed information on the approaches which seven countries take to coverage regulation, traces through changes over the 1990s, and describes health care financing and delivery systems. This information underpins the analysis in the main body of the thesis. Country experiences are grouped according to similarities in health care systems: New Zealand, the United Kingdom and Sweden are considered first; followed by the Netherlands and Germany; then Canada; and finally, the United States. The discussion is laid out around key elements of coverage regulation as described in Chapter 1: population coverage, service coverage, service specification and insurability.

As countries may take more than one approach to coverage regulation simultaneously, some generalisations are made. . The focus is on the main approach to coverage regulation as reflected in the principal financing arrangement for health care in a given country; apart from the United States where a number of alternative approaches to the regulation of coverage are considered.

A.1 *New Zealand, the United Kingdom and Sweden*

A.1.1 Coverage Regulation Prior to the 1990s

In each of New Zealand, the United Kingdom and Sweden, roughly the same range of services is made available to service users, regardless of income, occupation or geographic location. This is facilitated by having all citizens covered by the same health care policy arrangements, where central government agencies play a significant role in overseeing many of the decisions made about the range of services offered. Thus, in each country, resources are distributed to central, regional or local government authorities, whose task it is to deliver services, or arrange for the delivery of services by other providers. The United Kingdom arrangements for service delivery have been based around regional and local health authorities for many years. In New Zealand, regional and local health authorities in the form of hospital boards and area health boards were responsible for secondary care service delivery until the 1980s and 1993 respectively. Central government agencies have been responsible for funding primary care. In the 1990s, four central government agencies were responsible for purchasing services, reduced to one in the mid-1990s. District purchasing is now being implemented once more. In Sweden, where 23 county councils and three municipalities are responsible for not only organising health care but also for financing a proportion of health care expenditure. This provides a degree of freedom for intermediaries in determining resource allocations.

These countries also offer very comprehensive cover. Each system covers community primary and preventive care, pregnancy and child care, secondary and tertiary medical and surgical care delivered in hospitals, and an extensive range of pharmaceuticals. New Zealand's principal health care sector, which is publicly-financed, excludes dental and optical services for adults and services delivered by a range of 'alternative' providers (such as chiropractors, acupuncturists, naturopaths and osteopaths, although some of these services are available through New Zealand's ACC scheme). In the United Kingdom, excluded services include cosmetic services, medicines on an exclusion list, plus services where there is

residual state provision including long term 'non-medical' residential or nursing care, eye tests and eye prescriptions, spectacles, hearing aids, and some self-care medication (New and Le Grand 1996). Increasingly many adult service users are having to finance their own dental and optical services (European Observatory on Health Care Systems 1999). Sweden includes dental and optical care, as well as cash benefits for those off work due to illness (National Economic Research Associates 1993c). New Zealand has a range of co-payments, with most adults paying full fees for GP care, and part charges for pharmaceuticals. The United Kingdom offers care with very few co-payments (European Observatory on Health Care Systems 1999; Bocken, Butzlaff and Esche 2001), but where long term 'non-medical' residential or nursing care, eye tests and eye prescriptions, spectacles, hearing aids, and some self-care medication appear to be increasingly privately paid for, with some residual government subsidies (New and Le Grand 1996). Sweden has user charges for primary care physician visits, specialist care in hospitals, adult dental care and charges for in-patient stays and some pharmaceuticals, with maximum annual fees totalled over a range of services (World Health Organisation 1996).

For most services, none of these countries has traditionally explicitly defined what service users are entitled to, or the time frame in which care is to be made available. Rather, service users have had access to a 'system' of care (White 1995). There have always been some exceptions to implicitness, however. Accident and emergency care and urgent care is available as required in each country. New Zealand and the United Kingdom have also traditionally had an explicit pharmaceutical tariff, which lists the pharmaceuticals that are subsidised and made available to service users (European Observatory on Health Care Systems 1999). Furthermore, more explicit service specification was attempted in the 1990s in each country, an issue which is discussed in further detail below.

Service users in these three countries have faced some uncertainty about their access to health care for three main reasons. First, there can be widespread gaps in the availability of services. For example, there are significant gaps, where services are not as freely available as they might be, in mental health, disability support,

hospice, and alcohol and drug services in New Zealand, in dental health services in the United Kingdom (Ham 1998, pp. 7-8), and concerns over primary care, home nursing and out-patient psychiatric care in Sweden (Swedish Parliamentary Priorities Commission 1995). Secondly, there can be variations in service availability by region or locality. These variations arise where regional or local intermediaries have the autonomy to decide whether or not to provide services and to decide how much of any particular service to fund. Variations in access to care by region or locality are well documented in New Zealand and the United Kingdom (see e.g., National Advisory Committee on Core Health and Disability Services 1992; Klein, Day and Redmayne 1996, p. 45; Goddard and Smith 2001), but little reported on in Sweden (although see National Economic Research Associates 1993c). Thirdly, uncertainty arises as a result of long waiting lists and times for elective surgery. These have existed for many years in New Zealand (Hay 1989; Performance Monitoring Unit 1995; Ministry of Health 1997; Performance Management Unit 1998) and the United Kingdom (Frankel 1993; Klein 2001). In some cases, service users have had to wait up to two years and more for surgery; indeed some service users have never been sure that they will get surgery. In Sweden, waiting lists and times do not appear to have reached the lengths of those New Zealand and the United Kingdom, and have only recently been perceived as a significant policy problem (Hakansson and Nordling 1997).

In each of these countries, service users can pay for their own care, either through out-of-pocket payments or through voluntary, additional insurance. Such insurance in New Zealand, for example, provides three types of coverage. First is complementary insurance, for services not offered in the publicly-financed sector (e.g. dental and optical cover for adults). Second is gap insurance, to cover the cost of user charges (e.g. for adult GP care and pharmaceuticals). Third is supplementary insurance, which covers faster access to care, should the wait for care in the publicly-financed sector be perceived by service users to be too long, and for access to improved facilities while in hospital.

This additional insurance is available from privately-owned and managed insurance companies, and it usually covers a fairly narrow range of services. For example, in New Zealand such insurance usually has traditionally not covered maternity care, although this is changing such that service users can purchase insurance which will cover additional days stay in a private hospital, following the birth. Emergency care and high-tech medical care (e.g. radiotherapy and chemotherapy for cancer) is also not usually privately insured. In the United Kingdom, some private insurance policies restrict cover to particular categories of hospital or only provide inpatient benefits for subscribers placed on an NHS waiting list (Organisation for Economic Co-Operation and Development 1992, p. 116).

New Zealand and the United Kingdom have a long history of such insurance. Private health insurance plays a particularly important role in New Zealand, with around 37% of the population covered, paying for roughly 6.2% of total health care expenditure in 1998/99 (Ministry of Health 2000). It plays a more limited role in the United Kingdom, with around 11% of the population covered in 1996, accounting for around 3.5% of total health expenditures in 1995 (European Observatory on Health Care Systems 1999). In Sweden, private insurance plays a very small role in the financing of health care, with around 0.2 per cent of the population covered, accounting for around 2 per cent of total health expenditure in 1995 (World Health Organisation 1996).

Approaches to each of the elements of coverage regulation work together in these countries to produce a particular set outcomes with respect to coverage and access to care. A high degree of central government responsibility for financing and delivery in New Zealand and the United Kingdom results in not only universal coverage, but also coverage that is reasonably similar for all citizens in each country. The comprehensive nature of the coverage also works to promote fairly even coverage. In Sweden, although local intermediaries have a considerable degree of autonomy, Swedes are also covered by more or less the same range of services and, as in New Zealand and the United Kingdom, can obtain most care without having to produce evidence of their entitlement to a particular service.

Variations in the services available do occur, however, under this approach to coverage regulation. The degree of autonomy which regional and local agencies have in deciding how to spend resources, and the largely implicit specification of coverage, work together so that although the same range of services is generally available to all citizens within each country, there can be variations in the availability of particular services at regional and local levels. Other factors can also lead to variations – including the financial resources made available to different regions and localities, the range and level of services that have been available historically, and the degree of clinical autonomy professionals have in deciding which services to offer and to whom. But implicit service and access specifications reinforce these factors (and hence variations in access to care). The existence of waiting lists – and a culture of service users having to wait for care – also reinforces variation, so that some service users are able to access care more quickly than those living in other parts of each country.

Variation in coverage also occurs as a result of the availability of additional insurance. Governments in New Zealand, the United Kingdom and Sweden allow service users to purchase additional insurance. This creates variation by providing coverage for services not offered through public financing, as well as allowing faster access to care.

A.1.2 Coverage Regulation in the 1990s

New Zealand, the United Kingdom and Sweden began the 1990s with largely implicit specification of coverage. During the 1990s, however, attempts were made in each country to move towards more explicit approaches to regulation of coverage.

A.1.2.1 *New Zealand*

New Zealand's National government, elected in 1990, sought the development of an explicit list that would specify the health care services to which all New Zealanders would have access. The government established an independent advisory committee – originally called the Core Services Committee, now called the National Health Committee – to design this list. Early on in its life, the Committee determined that an explicit listing of services was not feasible. Rather, the Committee decided that the services then available constituted the core; that excluding some services was not helpful; and that the way forward was to encourage the development of practice guidelines which would set out the circumstances in which individual service users would benefit from care (Cumming 1994; Cumming 1997).

With the Core Services Committee engaged in developing guidelines, the Ministry of Health and the four purchasing authorities, the Regional Health Authorities RHAs developed an explicit list of services, via service coverage documents, based on the range of services purchased the time. The role of updating the list was then taken on by the HFA, the single body that succeeded the four RHAs in 1998. Although this explicit list of the range of available services existed in New Zealand between 1994 and 1999, it does not set out the services to which New Zealanders are *entitled*. This is because it is a general description of the range of services available; there are continued gaps in service availability and variations in access to care around the country⁶³, and service users must still wait for elective care.

New Zealand governments have gone even further, however, in designing an explicit entitlement in relation to elective surgery. Following from work which argued that waiting lists were usually unfairly managed (Fraser, Alley and Morris 1993), successive governments have gradually implemented a new policy on access to elective surgery.

⁶³ The HFA has tried, via contracts with providers, to reduce variations in utilisation of care, but as yet there has been no full analysis of the impact of these policies on access and utilisation.

This policy has two parts to it. First, it involves the development of clinical priority assessment criteria (CPAC), which are formal measurement tools for allocating points to individual service users, to determine which of them have the most 'need' for surgery, in terms of ability to benefit and severity of impairment. Three groups of service users are identified in this way – those qualifying for surgery by having more points than a pre-determined 'financially sustainable' threshold; those who fall between a 'clinical' threshold and the 'financially sustainable' threshold; and those who fall below the 'clinical' threshold. A clinical threshold identifies those service users who will benefit from surgery; a financially sustainable threshold identifies those who can be offered surgery given the financial resources available. In general, the clinical threshold involves a lower number of points than the financially sustainable threshold, i.e., the resources made available are, in clinicians' opinions, higher than the thresholds at which care should be offered. This explicitly identifies the group that could benefit from care but for whom the resources are not available to offer such care.

The second part of the policy involves a booking system. Those service users with points above the financially sustainable threshold are to be booked for surgery within six months of assessment. Those with points below the clinical threshold are to be returned to their primary care providers for on-going care, and reassessment at a later date if their condition deteriorates.

This CPAC approach, coupled with the booking system, offers an extremely detailed approach to service specification, and much greater certainty for New Zealanders in relation to their access to elective care. It is therefore an example of how detailed an approach to coverage regulation can be, in that the information required to determine eligibility for care includes service user characteristics to determine effectiveness and capacity to benefit.

A.1.2.2 United Kingdom

Much of the interest in the United Kingdom in an explicit specification of coverage arose as a result of the purchaser-provider split or internal market introduced in 1991 (Secretary of State for Health 1989). When health authorities were given the role of purchasing health care services from separate providers, it was expected that there would be more explicit and transparent decision-making about the services to be made available to users.

In some cases, decision-making did become more explicit early in the reform process. There were initial attempts to remove some services from coverage, with different health authorities taking different stances on whether certain services should or should not be covered (e.g. in relation to in-vitro fertilisation services). However, after an initial flurry of activity, it seems that health authorities and the government were content to retain a good deal of implicitness in the health care system (Klein and Redmayne 1992; Redmayne and Klein 1993; Klein, Day and Redmayne 1996). Although analysts acknowledge that implicit specification of coverage allows decisions on priorities and access to care to be taken by clinicians (who are not accountable for these decisions), and that there are also geographic differences in access to care resulting from implicitness (see, e.g., Klein, Day and Redmayne 1996), central governments have resisted calls to develop an explicit list to clarify the services to which everyone in the United Kingdom (or in each of the health services of England, Scotland, Northern Ireland and Wales) would have access.

The United Kingdom has, however, moved to clarify access to elective surgery. In 1991, it developed the Patient's Charter, which, alongside other patient rights, included a requirement that patients must wait no more than 24 months for elective surgery following first specialist assessment (European Observatory on Health Care Systems 1999). This is not regarded as setting an entitlement as much as a standard of care, however (Calnan, Halik and Sabbat 1998). The current plan is to have a target of 6 months by 2005 and 3 months by 2008 (Secretary of State for Health 2000). Individual providers are now working to improve the management of waiting

lists and to ensure that those with the greatest needs are treated first. There is also a national booking policy being implemented in the United Kingdom (Secretary of State for Health 2000), but with less sophisticated priority setting tools than those used in New Zealand (i.e., based on categories of urgency rather than an explicit points system) .

More recently, the United Kingdom government has established an agency, the National Institute for Clinical Excellence (NICE), to provide explicit advice to the Government on issues relating to coverage, i.e. to bring together and diffuse evidence on effectiveness. This combines with national service frameworks and a Commission for Health Improvement (CHI) which will monitor quality of care, in setting and monitoring performance against, standards of care (Secretary of State for Health 2000; Klein 2001).

A.1.2.3 *Sweden*

As in New Zealand, Sweden's central government established a national committee to consider priority setting in health care. The Priorities Commission was established in 1992 to:

consider the role of health care and medical services in the welfare state and to highlight fundamental ethical principles which can furnish guidance and form a basis of open-ended discussions concerning the priorities of health care and medical services. (Health Care and Medical Priorities Commission 1993)

The Commission gave as background to its work the growing international interest in priority setting, in turn affected by increasing demands and expectations and the growing gap between needs and resources. Following initial deliberations and consultation, the Commission produced a discussion document in 1993: *No easy choices – the difficult priorities of health care* (Health Care and Medical Priorities Commission 1993). This was followed by a final report published in 1995 – *Priorities in health care: ethics, economy and implementation* (Swedish Parliamentary Priorities Commission 1995). The final report was based on the

discussion document, submissions to that document, and five regional meetings with politicians, health service employees and representatives of the general public.

The Commission opted for three principles as its starting point:

- the principle of human dignity, where it was argued that all human beings have equal dignity and the same rights, but that this on its own is not a sufficient basis for prioritisation
- the principle of need and solidarity, where it was argued that resources should be committed to those activities and individuals where needs are greatest, with special attention paid to those groups who have less chance than others of making their voices heard or exercising their rights
- the cost-efficiency principle, such that when choosing between activities there should be a reasonable relation between cost and effect, with the effects measured in terms of improved health and quality of life. The cost-efficiency principle was rejected in comparisons as applied to comparisons between different types of diseases.

The Commission argued that the principles should be ordered as above, such that 'severe illnesses and substantial impairments of quality of life must come before milder ones, even though the care of serious conditions is a good deal more expensive' (Swedish Parliamentary Priorities Commission 1995, p. 21). The Commission then developed two sets of guidelines for prioritisation, one for use on the political/administrative level and another for the clinical level. These are set out below.

Political/administrative level:

- I. Treatment of life-threatening acute diseases and diseases which, if left untreated, will lead to permanent disability or premature death. Treatment of severe chronic diseases. Palliative terminal care. Care of persons with reduced autonomy

II. Prevention with a documented benefit. Habilitation/rehabilitation

III. Treatment of less severe acute and chronic diseases

IV. Borderline cases

V. Care for reasons other than disease or injury.

Clinical level:

IA. Treatment of life-threatening acute diseases. Treatment of diseases which, if left untreated, will lead to permanent disability or premature death.

IB. Treatment of severe chronic diseases. Palliative terminal care. Care of persons with reduced autonomy

II. Individualised prevention during contacts with medical services.
Habilitation/rehabilitation

III. Treatment of less severe acute and chronic diseases.

IV. Borderline cases

V. Care for reasons other than disease or injury (Swedish Parliamentary Priorities Commission 1995).

These principles supply a framework by which 23 local county councils in Sweden are expected to set priorities. However, local variations in approach were considered likely to continue (Holmström 1995).

In addition, the Swedish government became concerned during the 1980s and 1990s at the time that service users were having to wait for care. In 1992, the government introduced a strategy designed to reduce waiting times. Service users were to be treated within three months after being placed on a waiting list for diagnostic tests and nine treatment categories – coronary artery disease treatment, hip and knee replacement, cataract surgery, gallstone surgery, inguinal hernia surgery, surgery of prolapse and incontinence and hearing aid tests. If service users cannot get treatment within three months at their own hospital, they are to be offered same care at another public hospital (World Health Organisation 1996). In spite of this, waiting lists have been growing in the later 1990s (World Health Organisation 1996; Hakansson and Nordling 1997).

A.1.3 The Health Care Systems of New Zealand, the United Kingdom and Sweden

Health systems in New Zealand, the United Kingdom and Sweden are examples of national health systems which have developed in response to a desire for universal access to health care. They each now cover all citizens regardless of their income or health status, or other personal characteristics. Each country has chosen to ensure universal access through government financing of health care, largely through taxation. Overall expenditure control is usually through fixed budget allocations.

Day-to-day management of much health care has traditionally lain with government-owned, regionally-based intermediaries, which were historically based around government-owned hospital (secondary) care providers. In Sweden, primary care clinics are also government-owned. Primary medical and health care in the United Kingdom has traditionally been offered through independent GPs who are contracted to the government and who also receive government payments to establish and maintain physical capital, thereby linking GPs closely to central government. Primary care groups and trusts are now taking on more responsibility for purchasing health care in the United Kingdom for their populations (Secretary of

State for Health 2000; Klein 2001). New Zealand GPs are independent practitioners, funded traditionally through fee-for-service subsidy payments, and more recently through contractual arrangements. GPs in New Zealand operate largely independently of the government, however. This greater degree of independence in New Zealand is also related to the user charges paid by service users which account for a greater proportion of expenditure on primary care.

Competition and choice have traditionally been limited in these three countries. For example, Swedes have traditionally had little choice over primary or secondary care providers (World Health Organisation 1996), New Zealanders and the English over secondary care providers.

The three countries face strikingly similar issues in managing health care. All have faced pressures with respect to financing health care, but each has a number of levers with which they can control overall expenditures. The United Kingdom is arguably the most successful at restraining expenditure in terms of the percentage of national income spent on health care, but it has for many years been widely regarded as under-funded (Klein 2001). And even though central Swedish governments do not take responsibility for striking tax rates to finance health care, they have been able to use their powers to place limits on the increases that counties and municipalities can grant (World Health Organisation 1996, p. 4). Although access to care is regarded as fairly good in each country (with the possible exception of access to primary care in New Zealand), each country has problems in ensuring the most vulnerable and those living in particular regions have adequate care.

Issues of micro-economic efficiency and incentives came to dominate discussions on health policy in each country during the 1980s and 1990s. Reforms in the 1990s in these three countries have focused on improving productive efficiency through increased competition and choice. Each of the three countries introduced versions of the purchaser-provider split. New Zealand and the United Kingdom have implemented this policy nationally while Swedish counties and municipalities have taken a variety of approaches to reform (Harrison and Calltorp 2000). It was hoped that increased contracting would improve efficiency, and, in the case of New

Zealand and Sweden, allow a much wider choice of service provider. Choice has probably improved in New Zealand in relation to community-based providers, but change appears to have been more limited in the United Kingdom (Le Grand, Mays and Mulligan 1998) (although general practice fund-holders, have been given the freedom to choose where they refer their service users to). In Sweden, reforms have aimed at increasing choice for both secondary and primary care, as well as improving efficiency and quality of care. Research suggested that the reforms were successful at encouraging choice, improving quality of care and increasing productivity in the secondary care system, but some analysts suggest that other factors (including tighter budget control) could also explain these changes (Harrison and Calltorp 2000). However, by the middle of the 1990s, many of the Swedish reforms had been overturned, with only the waiting time guarantee remaining in tact (Harrison and Calltorp 2000).

A.2 *Netherlands and Germany*

A.2.1 Coverage Regulation Prior to the 1990s

A degree of diversity in population coverage arises in these two countries, as citizens are covered by a various financing arrangements. In addition, health insurance in the Netherlands and Germany is managed by a large number of not-for-profit sickness funds, which operate fairly independently of central government. This would seem to permit a great deal more autonomy than do the government-owned intermediaries in New Zealand, the United Kingdom and Sweden, although in practice the sickness funds also work closely together to manage health care financing and allocation policies.

Central governments in both countries are also involved in establishing formal regulatory frameworks, within which sickness funds must operate. These regulations set out the range of benefits which are to be covered by the sickness

funds, attempting to ensure a degree of similarity in coverage for those covered by different financing and insurance arrangements. However, a degree of flexibility allows sickness funds to offer enhanced benefits if they so wish (Wysong and Abel 1990; Organisation for Economic Co-Operation and Development 1992; Brown and Amelung 1999; European Observatory of Health Care Systems 2000).

In the Netherlands, all residents are covered by the same set of services for catastrophic events, under the Exceptional Medical Expenses Act. This covers services such as hospital care and stays longer than 365 days, nursing home care, day care and home care for people with disabilities. In terms of non-catastrophic services, the Netherlands does not offer the same coverage to all its citizens. (Non-catastrophic services include GP and specialist care, maternity and obstetric care, dental care, pharmaceuticals, hospital stays for up to 365 days, and so on.) Under the Health Insurance Act, all Netherlands citizens with incomes below a specified threshold (NLG 64,600 in 2000; approximately the same in New Zealand dollars prior to introduction of the Euro) must have coverage under the Act. Around 64% of the Netherlands population was covered by the Health Insurance Act in 2000. Those on higher incomes can choose not to have any insurance to cover such expenses, or they can purchase insurance from private funds, under the Medical Insurance Access Act; but they cannot purchase insurance from the statutory sickness funds that provide cover to those below the threshold for coverage by the Health Insurance Act. Around 31% of the Netherlands population obtained coverage from private funds in 2000. Public servants, around five percent of the population, are covered by dedicated health insurance schemes (Ministry of Health Welfare and Sport 2000).

All German citizens are now covered for long-term care (care that is expected to last at least six months). For shorter-term care, those Germans on incomes above a specified amount can choose not to have any health insurance. If they do choose to have insurance, they can obtain it from one of the many statutory funds (which cover all other Germans), or from a substitute or private fund. Around 9% of the German population has private health insurance (European Observatory of Health Care Systems 2000, p. 49). About 88% of Germans have statutory health insurance,

75% being mandatory members and 13% being voluntary members. There are also other categories of coverage, with 2% of the population covered by free government health care (e.g., police officers, soldiers). 0.1% are uninsured (European Observatory of Health Care Systems 2000, p. 39).

In both Germany and the Netherlands, coverage is very comprehensive – including primary and preventive care, maternity care, secondary and tertiary care delivered in hospitals, and an extensive range of pharmaceuticals. Germany also provides a range of cash subsidies and income benefits, as well as spa cures (Graig 1991, p. 132; White 1995, p. 77). In the Netherlands, dental care, home help, hearing aids, prostheses, alternative medicines, and medical expenses incurred while abroad are not covered (Ministry of Health Welfare and Sport 2000); while in Germany, co-payments are required for eyeglasses, dentures, prescription drugs and the first fourteen days in hospital (European Observatory of Health Care Systems 2000), with co-payments, especially for drugs, increasing substantially in the 1990s (Brown and Amelung 1999).

Central government regulations in both countries set out a listing of the minimum services and benefits that sickness funds are to deliver to their members: these countries operate with explicit specification of coverage. In both countries, the services to be made available are defined in a general way. In the Netherlands, the benefits package is set by the Sickness Funds Council, which consists of representatives of physicians, hospitals, sickness funds, employers, labour unions and the government, and which has the legal authority to regulate the sickness funds (Graig 1999); the lists are shown in Ministry of Health Welfare and Sport (2000). In Germany, central government legislation sets out the contents of the benefits package, including preventive services and screening, which are set out in considerable detail. Further regulation is left to the Federal Committee of Physicians and Sickness Funds, which operates at the national level. It now takes on the role of technology assessment for ambulatory care and for issuing guidelines relating to pharmaceuticals, medical aids and care by non-physicians. A new Committee for Hospital Care is now charged with health technology assessment for the hospital sector (European Observatory of Health Care Systems 2000).

In Germany, federal regulations require private insurance benefits to be at least as generous as those covered by the statutory scheme (Organisation for Economic Co-Operation and Development 1992, p. 60), but sickness funds can offer additional benefits if they wish (Wysong and Abel 1990, p. 533). In the Netherlands private insurers can be more flexible in their policies (Maarse 1997, p. 150).

Overall, the approaches in Germany and the Netherlands are more explicit than that in the United Kingdom, New Zealand and Sweden. However, all these countries still leave decisions about which service users to treat and how to treat them in the hands of health care providers.

Service users in Germany and the Netherlands face somewhat less uncertainty in relation to access than do service users in New Zealand, the United Kingdom, Sweden and (as discussed below, Canada). The explicit listing of services at central government and sickness fund level should ensure greater clarity about the range of services available. Both Germany and the Netherlands have gaps in service availability, however – in public health and psychiatric services in Germany (Organisation for Economic Co-Operation and Development 1992, p. 59) and psychosocial services, including nursing homes, psychiatric care, residential care for people with mental illnesses and home care in the Netherlands (Blaauwbroek 1997, p. 224; Maarse 1997, p. 142). Waiting lists for elective care have not been as extensive as they have been in New Zealand and the United Kingdom – although the Netherlands does have problems with such lists for coronary artery bypass surgery and Germany has waiting lists for reasons not always relating to the availability of hospital facilities (e.g., for transplants and access to specialised physicians with a good reputation (Greiner and van der Schulenburg 1997, pp. 90-91).

Additional insurance in these two countries operates rather differently from that in New Zealand and the United Kingdom. Rather than offering the same care as is available under the statutory scheme, additional health insurance in Germany and the Netherlands covers user charges, enhanced facilities (e.g., private rooms in

public hospitals), and services that are not covered at all by the statutory schemes (e.g, dental care and eyeglasses). That is, the insurance is complementary – it covers the services which are excluded from the sickness fund arrangements, as well as improved facilities in hospitals. In the Netherlands, more than 90 per cent of those registered with the statutory sickness funds have additional coverage (Graig 1999).

Approaches to each of the four elements of coverage regulation work together to create an approach to coverage regulation which differs from that in New Zealand, the United Kingdom and Sweden. The potential for a good deal more diversity in coverage is managed partially through regulations that define service entitlements explicitly, as well as through comprehensive coverage and the limited need for supplementary insurance. The explicit coverage might also be credited with offering service users more certainty over access to care, although there are gaps in service availability and some service users still have to wait for certain types of care.

A.2.2 Coverage Regulation in the 1990s

During the late 1980s and 1990s, governments in the Netherlands have proposed a number of reforms which had implications for the approach to coverage regulation in that country. The planned Dekker reforms (later the Simons Plan) proposed a universal insurance scheme (Flood 1998), which would eliminate differences in coverage between those on higher and lower incomes. Under the new arrangements, the regulatory framework governing health insurance, including the explicit specification of entitlements, would continue. Indeed the explicit list of services would play a more important role in regulating health care as the health care system moved towards managed competition. In such a system, such an explicit list is required to promote efficiency as well as equity. The Dekker/Simons proposals therefore included a standardised benefits package, which would be described in terms of services as opposed to institutions. The package would have a degree of flexibility, allowing any provider meeting certain quality standards to offer care. Insurance contracts signed between intermediaries and providers would be able to

differ only in relation to the list of contracted providers of care and the conditions which must be fulfilled for care to be covered (e.g, whether referral slips from a GP are required for specialist care) (van de Ven and Schut 1995).

Only some elements of the Dekker/Simons reforms have been implemented (van de Ven and Schut 1995; Graig 1999). In relation to concepts of core, the most important policy development came in the form of discussions on priority setting and how to decide on the services which would be covered by health insurance in the Netherlands. This debate began with the establishment of a Government Committee on Choices in Health Care (also known as the Dunning Committee). The following criteria were proposed by the Committee to be used to decide (in order) on a basic benefits package:

- necessary care (in terms of a community perspective)
- effective care (confirmed and documented)
- efficient care (cost-effectiveness/efficiency)
- care which cannot be left to individual responsibility (Government Committee on Choices in Health Care 1992).

A service was to meet all four requirements to be eligible as part of the basic benefits package. If a service did not meet all four criteria, it was then to be removed from the insurance package.

Initially, the Government was hostile to these proposals. Gradually, however, the idea of removing services from the basic benefits package was accepted. National debates were held involving anti-conceptives, homes for the elderly and some kinds of physiotherapy. Homoeopathic medicines and dental care for adults were removed from the package of services, and certain kinds of physiotherapy have been scaled back (Mulder 1995; Maarse 1997, p. 149; Graig 1999). Subsequent concern over access for people in need of dental prostheses saw these transferred back into the basket of benefits (Flood 1998; Ministry of Health Welfare and Sport 1998, p. 27). Other changes saw the switching of benefits from the Health Insurance Act to the Exceptional Medical Benefits Act in anticipation of the latter becoming the vehicle

by which standardised benefits would be defined. The benefits that were switched included pharmaceuticals, medical equipment, and rehabilitative services; they were later switched back again when a new government decided to keep the two schemes separate (Graig 1999, p. 86).

During the 1990s, the Netherlands has faced increased problems with waiting times of several months for some specialised services, e.g., coronary artery bypass surgery and laser treatments for retinal bleeding, and longer waiting times for elective surgery. Additional resources have been put into health care in order to reduce such waiting times (Graig 1999).

There does not seem to have been significant debate or significant changes in relation to coverage regulation in Germany during the 1990s. The Health Reform Law of 1989 made some changes, doubling user charges for the first fourteen days in hospital; introducing user charges for prescriptions and implementing a reference pricing scheme; increasing charges for dental services; setting limits on reimbursements of transport and travel costs; eliminating funeral grants for those who are newly insured and reducing them for those already insured; and eliminating lump-sum birth grants (Graig 1999, p. 64). User charges for pharmaceuticals rose again in 1997, as did the daily hospital charge. Coverage for some benefits (e.g., eyeglass frames and spa treatments) has also been cut back (Graig 1999, p. 71).

A.2.3 The Health Care Systems of Germany and the Netherlands

Both Germany and the Netherlands run social insurance systems, with compulsory insurance for all citizens for long-term care and for most citizens for day-to-day care. Health care is financed from payroll taxes with contributions from both employees and employers. All monies so raised are allocated to health care. This differs from New Zealand, the United Kingdom, Sweden and Canada where health

care budgets are carved out from general taxation, the amount going to health care determined each year by central or local governments. Although both approaches make it possible to slow down the rate of growth of health care expenditure, Germany's and the Netherlands' systems can automatically acquire increased budgets where incomes rise over time, while in New Zealand, the United Kingdom, Sweden and Canada, a formal decision is required to increase the budget allocated to health care.

In both Germany and the Netherlands, there is a desire for a good degree of social solidarity in access to health care. This is achieved in part through the sharing of health risks and contributions which rise in line with ability to pay (Kamke 1998); through universal coverage for catastrophic events; and through universal coverage of all those whose incomes fall below a certain threshold, including those who are unemployed or on social security. In the Netherlands, those who fund their own non-catastrophic care privately face risk-based premiums as opposed to the income-based premiums which fund the catastrophic and the statutory non-catastrophic schemes. Since 1986 the government has set maximum premiums for standard insurance policies for high-risk individuals with chronic illness; and since 1989 it has included those aged over 65 in these regulations (Graig 1999).

Both countries also operate social insurance systems where central government allocates responsibility for much of the day-to-day decision making to a large number of intermediaries, in this case not-for-profit sickness funds. Such funds have their historical roots in insurance arrangements that developed for particular occupational and industry groups, and for particular geographic regions, and have gradually evolved to cover the entire population. These funds operate fairly independently of central government, although central governments are increasingly regulating insurance arrangements. For example, in the Netherlands, central government sets the premium levels each year. In Germany, the central government has established arrangements whereby key stakeholders in the system work together to manage health care financing, allocation and delivery.

Most hospitals are privately owned in the Netherlands, and operate (by law) on a not-for-profit basis (Maarse 1997, p. 141). Hospitals in Germany are operated by a range of organisations, including state and town councils and non-profit organisations, with some private hospitals specialising in particular treatments (Greiner and van der Schulenburg 1997, p. 78). Most GPs in both countries are self-employed. Prior to the 1990s, most people in both countries had limited choice of sickness fund; there was choice of GPs and office-based physicians (even if GP shopping was limited, for example in the Netherlands) (Maarse 1997, p. 137). More often than not, hospitals had a monopoly in Germany (Greiner and van der Schulenburg 1997, p. 90).

Both countries face similar problems in health care policy. Rapidly rising expenditures have been managed through a combination of central government leverage over premium rates and fees for physicians and hospitals in the Netherlands, and the establishment of councils of stakeholders to oversee health care (including fees) in both countries. Germany established the Concerted Action advisory body in 1977, and its role was extended to cover hospitals in 1982; and the Netherlands established the Central Office on Health Care Prices in 1982 (Graig 1999). Policy makers in both countries have been concerned about the lack of incentives for efficient behaviour. In the Netherlands, there have been concerns about the effects of a proliferation of regulations which have been argued to result in complexities in planning, a lack of co-ordination between planning and financing, inflexibilities in resource allocation decision-making, and the existence of a number of different insurance schemes and premiums, as well as unregulated private insurance. A further issue has been the users' lack of choice between insurers (van de Ven and Schut 1995). These problems led to the development of the Dekker/Simons plans, which aimed to encourage more efficient behaviour through the development of managed competition. As noted earlier, some aspects of this model have been introduced successfully in the Netherlands, but the reforms have taken many years longer to implement than originally envisaged (Graig 1999). In Germany, reform during the 1980s and 1990s has focused more on cost-containment strategies (e.g., fee controls and user charges), but in the late 1990s, an element of competition has been introduced into the sickness fund model, to permit

users a choice of fund and to encourage funds to become prudent purchasers of health care rather than 'mere check writers' (Graig 1999, p. 70); see also (European Observatory of Health Care Systems 2000).

A.3 *Canada*

A.3.1 Coverage Regulation Prior to the 1990s

In Canada, there is a broadly defined explicit list of services, which forms part of the regulations governing the health care system, while services covered by the principal health care system may not be insured privately – such services can only be financed from the national system of health care, or from out-of-pocket expenditure.

Canada operates what the WHO Regional Office for Europe calls an 'interlocking set of ten provincial and two territorial health insurance schemes...linked through adherence to national principles set at the federal level' (World Health Organization Regional Office for Europe 1996, p. 2). All citizens are covered. There is a national framework for the financing of health care – there are federal government grants to provinces and territories in return for adherence to federally-specified principles of:

- Universality – to cover 100% of the insured population for insured services on uniform terms and conditions.
- Comprehensiveness – all insured health services provided by hospitals and medical practitioners to be covered.
- Accessibility – health services must be provided without barriers, including additional charges.
- Portability – to continue coverage when people move within Canada or overseas.

- Public administration – that administration and organisation is operated on a non-profit basis by an accountable public authority appointed or designated by the provincial government.

Provinces and territories operate their own national health insurance schemes within this overall framework. Each province and territory raises the provincial/territorial financial contribution independently, each defines its own sets of benefits within the federal framework, and each organises health care delivery in its own way.

At the federal level, the Canada Health Act states that all medically necessary hospital services, all medically required physician services, and all medically or dentally required surgical-dental services, must be provided under the provincial and territorial plans. There is however no agreed definition of what constitutes 'medically necessary' or 'medically required' (World Health Organization Regional Office for Europe 1996, p. 15). This gives the provinces a degree of flexibility in defining hospital and physician services. In addition, the Canada Health Act excludes non-hospital and non-medical practitioner services (e.g., pharmaceuticals), leaving provinces and territories to decide on their own arrangements. This combination of features – the lack of an agreed definition, the provincial/territorial role in determining service coverage, and the exclusion of some services – allows differences in the services provided across provinces.

The care made available through Canadian Medicare is somewhat less comprehensive than that offered in the other countries studied. This is because, unlike New Zealand, the United Kingdom, Sweden, Netherlands and the Germany, Canada excludes pharmaceuticals from coverage. Dental and vision services are also excluded. Complementary private insurance is available for such services, and each province offers some kind of assistance in accessing these services for those receiving social welfare (for example, around 44% of Canadians obtained drug coverage from provincial plans in 1997, Graig 1999, p. 140).

Under the Canada Health Act, provinces and territories are supposed to offer 'insured health services on uniform terms and conditions and reasonable access...unprecluded or unimpeded, either directly or indirectly, by charges or other means' (Health Canada 1999). Variations by province and territory are possible where they cover a slightly different range of services. Particular problems with respect to access also arise as a result of slow uptake of some new technologies, leading to waiting lists, and the increasing demand for community care (World Health Organization Regional Office for Europe 1996; Graig 1999).

As a whole, the Canadian system operates with a very broadly explicit specification of coverage, which is set out in law. The Canada Health Act (1984) defines insured health services to include 'all medically necessary hospital services and medically required physician services, as well as medically or dentally required surgical-dental services requiring a hospital for their proper performance', where hospital services are defined as 'all medically necessary in-patient and out-patient services provided at a hospital, except those services specifically excluded by regulations' (Health Canada 1999). Within this broad definition, each province is able to define more explicitly the range of services it offers. Most provinces have also specified coverage in a way that is broadly explicit, setting out both the services that are included and those excluded (Health Canada 1999).

Access to care is generally good, but long waiting times have been a feature of Canadian health care as they have been in New Zealand and the United Kingdom. For example, in 1997, the average waiting time for treatment was 12 weeks from referral from a specialist, an increase from 11 weeks in 1996 and nine weeks in 1993. Waits for elective ophthalmology, orthopaedic surgery and cardiovascular surgery reached 25, 21 and 18 weeks respectively. Waits for MRI and CT scans also reached 10 and four weeks (Ramsay and Walker cited in (Graig 1999, p. 145). More recent statistics suggest that 10% of those on a waiting list reported a wait of more than four months for elective surgery in 1998 (compared with 21% in New Zealand and 29% in England) (Donelan, Blendon, Schoen, Davis and Binns 1999).

As in New Zealand, the United Kingdom and Sweden, Canadians have access to complementary insurance to cover services not covered by the Canada Health Act. Many Canadians – around 88% – had some form of complementary coverage in the mid-1990s, some of them through special government plans (World Health Organization Regional Office for Europe 1996). This insurance covers services such as dental and vision care, prescription drugs, and semi-private and private hospital rooms (Graig 1999, p. 137). In 1998/99, 74 per cent of Canadians 12 years and older had some coverage for prescription medicines. The percentage of those on with such insurance ranged from 58 per cent those with the lowest incomes, through 87 per cent for those with the highest incomes. Coverage rates for dental care insurance range from 30 per cent to 79 percent for those on the lowest and highest incomes respectively; and for corrective eyewear from 29 per cent to 70 per cent (Canadian Institute for Health Information 2000).

Unlike service users in New Zealand, the United Kingdom and Sweden, however, Canadians are unable to purchase supplementary insurance to cover the costs of care that is covered by the Canada Health Act. Thus, if a Canadian service user has to wait for treatment, they do not have the option of financing faster treatment through private health insurance. Such care may, however, be paid for out-of-pocket.

A.3.2 Coverage Regulation in the 1990s

The Canadian health care system came under increasing pressure during the late 1980s and 1990s. Provinces made significant cuts to funding and restructured health care, partly in response to diminishing federal transfer payments (Dirnfield 1996; Gordon and Berger 1996; Naylor 1999). One of the effects of this financial pressure was that provinces and territories reassessed the range of services covered by their plans. As noted at the time, ‘the terms “medically necessary” and “medically required” in the Canada Health Act are ambiguous when it comes to deciding which

services should be insured or de-insured; however, they do provide the leeway to interpret the act to suit prevailing fiscal and political conditions' (Wilson, Rowan and Henderson 1995). A number of provinces and territories considered de-listing services such as pre-employment medicals, chest X-rays, prostate ultrasound tests, family planning operations, removal of warts and blemishes, treatment of obesity, tattoo removal, in vitro fertilisation, and the removal of port wine stain birthmarks in adults (Health Action Lobby 1994). De-listing of some services did take place during the latter part of the 1980s and the 1990s (e.g., tattoo removal, in vitro fertilisation, laser and cosmetic surgery, out-of-country coverage, eye examinations) and some provinces eliminated whole programmes (e.g., Manitoba and Quebec eliminated their children's dental programmes) (Organisation for Economic Co-Operation and Development 1994; Armstrong and Armstrong 1996; Graig 1999, p. 136).

During the 1990s, there have been other changes affecting the services offered and access to them. First, as care moves from hospitals to other facilities, user fees can be charged without federal penalties, and such fees became increasingly common (Armstrong and Armstrong 1996, p. 181). Secondly, some specialists are able to circumvent provincial fee schedules negotiated between provincial governments and associations of physicians, by making extra charges for services that might otherwise be considered routine, but which are not explicitly listed in fee schedules (e.g., telephone consultations, letters for employers, photocopying of records, and in the extreme, booking operating room time) (Naylor 1999). Thirdly, some clinics in Alberta began operating a system whereby people who wanted immediate cataract operations paid a facility fee of around \$1000. The physician would then charge the provincial health plan for performing the procedure. The federal government deducted significant sums from the transfer payments as a result of this arrangement (Gray 1996). Naylor notes that such fees continued late in the decade and that similar fees are also allowed in Newfoundland, Nova Scotia and Manitoba (Naylor 1999). Such fees were later interpreted as user charges, federal penalties were invoked, with the most offending province (Alberta) picking the fees up itself (Tuohy 1999).

The 'crisis' in the 1990s led to increasing calls for private money to be introduced into the Canadian health care system; and for the removal of the ban on private health insurance for services covered by Canadian Medicare (Silversides 1995; Sullivan 1995; Gray 1996; Naylor 1999). The arguments for this – additional funds would take pressure off the publicly funded system – were rejected by a number of commentators. Such 'preferential access' for those fortunate enough to be wealthy was argued to go against the principles governing the Canadian system. It was stated that gradually the two 'tiers' would separate – physicians well rewarded by private health care would spend more time in that system, and wealthy patients would favour the private system, eventually removing their political support for the public system, and making those reliant on the public system wait even longer for want of available skills (Gordon and Berger 1996; Gray 1996). Those mounting such arguments also pointed to the effects of private financing in the United States – large numbers of uninsured, the dominance of 'corporate' for-profit medicine, and control over physician decision-making – as the inevitable result of any Canadian foray into private medicine (Gordon and Berger 1996).

Those in support of the private option pointed to its existence in other developed countries, such as Australia, and argued that the parallel private system decreases waiting lists for public care and therefore improves access to public care, and provides a standard of care to which the public system must then aspire. With a limited take-up of private insurance expected (10–15% of the population), the risk of the best physicians and nurses moving to private care was thought by some to be limited. Moreover, it was suggested that the United States health insurance system would not be that installed in Canada, where a regulated insurance model based on not-for-profit insurers would prevent the worst outcomes associated with the United States experiences.

In addition, it was argued that elements of a two-tier system already exist. The numbers involved are however small: around 0.5 per cent of the Canadian population reportedly obtain care in the United States, but only 0.1 per cent go there specifically for treatment (Naylor 1999). Workplace safety and compensation boards have also institutionalised queue jumping, for example by block purchasing

time for magnetic resonance imaging scans, providing accelerated rehabilitation programmes through their own clinics or private practitioners, and arranging semi-private clinics for fast-track arthroscopic procedures (Naylor 1999). Others noted that it is hard to argue against offering choice where service users are able to buy whatever cars or holidays they wish, but cannot spend their own resources to save their own lives (Keon cited in Gray 1996).

When additional resources became available at the end of the 1990s, the arguments shifted away from reducing coverage to expanding it. The federal government appears to want to see new funding going to new, rather than existing, programmes in order to 'cement their popularity with voters' (Naylor 1999). Two new programmes in particular have attracted the greatest attention – Pharmacare and home care. At the time of writing, Naylor noted that both federal and provincial governments have been wary of adding prescription coverage to Medicare, although home care has received more positive support. Naylor also noted that 'the support for some form of parallel private coverage seems to be related less to fundamental beliefs about civil liberties and more to fears that the public system is deteriorating', and that with more money a certainty, Canada then seemed unlikely to get the parallel private system which some desire (Naylor 1999, p. 23-24).

More recently, a federally-appointed royal commission has expressed concern over the lack of definition of 'medically necessary' services, and how comprehensive plans must be to stay within the Canada Health Act, and is calling for a national debate on the Act itself (Kennedy 2002).

A.3.3 The Canadian Health Care System

The Canadian health care system is rooted in the deeply held conviction that health care is a right, not a privilege. This is illustrated by the early 1960s Royal Commission looking at physician care, which stated that:

What we seek is a method that will provide everyone in Canada with comprehensive coverage regardless of age, state of health, or ability to pay, upon uniform terms and conditions. (Brown K 1989 cited in Graig 1991, p. 65)

Prevention of a two-tier system, differentiating between those who could pay and those who could not, was a high priority. The federal government determined that the best way to avoid this was to offer fairly comprehensive coverage and to outlaw private insurance coverage for any services covered under the provincial plans.

As a result, there is a 'remarkable egalitarian quality about Canadian health care that reflects a society that attaches a higher value to social equity than does the United States' (Iglehart 1986, p. 781 in Graig 1999, p. 129). Canada's distinctive political culture has been called a combination of 'capitalism with social responsibility – a kind of liberal conservatism or vice versa' (Brown, B cited in Graig 1999, p. 129). It has also been argued that Canada exhibits a collectivist culture in a political system that focuses on consensus building and where the natural focus of collective activity is government (Evans cited in Graig 1999, p. 129). This approach is often contrasted with that of the United States, where there is a greater distrust of government and greater aversion to taxation, and consequently a greater reliance on market forces to deliver services (Graig 1999, p. 10).

Canadian Medicare developed over a long period, during which individual provinces established first hospital and then physician plans. By 1972, all provinces and territories had both hospital and physician plans, jointly financed with the federal government, covering hospital and dental care, and medical care offered by physicians. Financing is now principally through federal and provincial taxes.

Federal financing consists of both direct cash transfers, and 'equalisation' payments to smooth out interprovincial differences in per capita incomes and hence provincial tax bases (Naylor 1999). All covered care has traditionally been made available free to service users, although during the 1980s provinces introduced some charges which were later discouraged by the federal government with the passing of the Canada Health Act 1984 (World Health Organization Regional Office for Europe 1996). During the 1990s, as noted above, there have been further challenges to the principle of free care, but a large proportion of hospital and physician care remains free to the service user.

Canadians have long had a choice of primary-care physician and of hospital. Doctors in the Canadian system are mostly independent private practitioners, largely paid on a fee-for-service basis. Fees are mostly fixed according to a negotiated fee schedule, with 'hard' expenditure caps limiting the overall amount that can be spent on physician services in many provinces. Many of the hospitals are operated by private, voluntary not-for-profit organisations, with resources allocated according to global budgets within which hospitals must operate. Financing for capital expenditure is tightly controlled by the need for provincial government approvals to cover the operating costs associated with new equipment or facilities (Graig 1999, p. 141).

The two key themes dominating health policy in the 1980s and 1990s are cost-containment and regionalisation. During the 1990s, the federal government reduced the transfers made to provincial and territorial governments to partially finance health care, so the provincial and territorial governments had to find ways to reduce spending on health care. In Ottawa, the federal share of spending fell from 30.6% of expenditures in 1980 and 21.5% in 1996, with much lower levels in richer provinces (Naylor 1999). The overall public share of financing has fallen from 75 per cent in 1986 to 70 per cent in 1996. As a result, the hospital sector has been downsized considerably and some services are no longer covered by the provincial schemes. Funding for hospitals fell from nearly 41 per cent of total health care spending in 1987 to less than 34 per cent in 1997 and this resulted in a 20 per cent reduction in the number of hospital beds in Canada. Outpatient medical services

and surgery have increased significantly over the same period (Marshall cited in (Graig 1999, pp. 138-139; see also Naylor 1999). Although significant downsizing does not appear to have adversely affected patient outcomes, the public has been concerned about the effects of reform on hospitals, especially outside urban areas where hospitals contribute to the local economy (Naylor 1999; see also Donelan, Blendon, Schoen, Davis and Binns 1999).

The rising cost of prescription medicines has also been an issue in Canada in recent years. Around 10 per cent of Canadians do not have coverage for such medicines, and others pay user charges and deductibles when obtaining medication (Graig 1999, p. 140). One impact of this rise in costs is the growing interest in managed care pharmaceutical programmes, including formularies, generic substitutions, drug utilisation review, preferred provider networks and mail order services (Graig 1999, p. 148).

Between 1992 and 1996, regionalisation (a mix of decentralisation from provincial to regional governments and centralisation from institutions to regional governments) began in all provinces except for Ontario and the Northwest Territories (Lomas, Woods and Veenstra 1997). The reforms aimed to increase local decision making and accountability, and reduce the role of provincial governments in cutting expenditures (Williams and Yeo 2000). As yet, it is too early to tell what the impact of regionalisation might be.

Finally, there is a growing interest in managed care arrangements, not only for medicines, but also to encourage enrolment with a single family physician in order to reduce multiple visits for a single complaint and to reduce the use of emergency rooms. In return for a reduction in physician choice, additional services are being made available, e.g. expanded on-call services, after-hours telephone lines, and additional health education information (Graig 1999, p. 148).

At the end of the 1990s, however, balanced federal budgets saw a promised end to the stop on federal transfers. Improved provincial fiscal positions also suggested that growth in health care spending would be inevitable (Naylor 1999).

A.4 *The United States*

A.4.1 Coverage Regulation Prior to the 1990s

United States citizens are covered by a large range of health care programmes. Many have coverage through employer-based private health insurance, while others are covered through employer self-insurance or obtain care from employer-provided health care facilities (Graig 1991, p. 40). Some purchase private health insurance themselves. Private insurance comes in a number of forms – including indemnity insurance, service benefit insurance based around fee-for-service arrangements (Raffel and Raffel 1994) and managed care arrangements (Robinson and Steiner 1998). Many citizens are covered by a number of separately-managed federal and state health care programmes. For example, the federally-funded Medicare programme covers the elderly, people with disabilities, and people with permanent kidney failure; the joint federal-state Medicaid programme covers those on low incomes who are aged, blind, disabled, pregnant, the parent of a dependent child, or who receive federal income assistance. There is a Federal Employees Health Benefit Plan for federal employees and their families, and there are specific plans for state and local government employees, for those on active duty and for veterans.

Many United States citizens have no insurance coverage at all, relying on state and local government hospital services for care, or on charity care provided by privately-owned hospitals (Phelps 1997, p. 585). An estimated 18.4 per cent, or around 44 million non-elderly Americans, had no insurance in 1998 (Employee Benefit Research Institute 2000). Many millions have difficulties paying their bills (Blendon, Donelan, Hill, Carter, Beatrice and Altman 1994) and find themselves underinsured when they need care. Those with limited or no coverage are also those more likely to need care, and those in particular ethnic, educational and age groups are more likely than others to miss out on care (Short and Banthin 1995).

Those who have no insurance coverage do have access to care, however. They pay for such care themselves, receive it through public clinics, hospitals and programmes run by state and local governments, or get charity care from private

providers (the costs of which are passed on to others) (Graig 1999). Those without insurance receive 'second-class care, if they get any at all' (Consumer Reports 2000).

The range of services available to United States citizens is therefore determined by a multitude of agencies – privately owned and operated agencies in the case of private indemnity health insurers; federal and state regulatory agencies in the case of managed care, Medicare and Medigap insurance; and state agencies in the case of Medicaid. Federal legislation (the Employee Retirement Income Security Act, 1974, known as ERISA) protects self-insured private employers (the vast majority of large companies) from the need to comply with any state-generated insurance requirements (Tuohy 1999).

Because of the number of different coverage arrangements in the United States, different parts of the United States health care system have different arrangements in relation to comprehensiveness and explicitness. Care is often not comprehensive due to total spending caps for individual service users, cost-sharing requirements and conditions on access (White 1995, p. 43).

Explicit entitlement specifications dominate in the United States. The coverage of Medicare is set out explicitly (Health Care Financing Authority n.d.a). For HMOs, states mandate some benefits (e.g., alcohol services, home help) and providers (e.g., chiropractors and optometrists) and some states require plans in the small group market to offer one or two standardised plans (Butler 1999). This appears to operate in much the same way as legislation in European countries, setting out the breadth of services included, while organisation of service delivery is managed by a range of private organisations. Even Medigap insurance – a complementary policy available for services not covered by Medicare – has a set of ten explicitly-defined packages, from which those covered can choose (Health Care Financing Authority n.d.a). Medicaid coverage is specified by each individual state, again in legislation. Finally, those covered by private, indemnity insurance and by managed care also have explicit coverage, in the form of policy documents which act as a contract under contract law.

In the United States, as in Europe, access to covered care for those insured is relatively quick, with short waits for care in most cases. There appear to be longer waits for a small range of care (e.g., breast reduction surgery) and for care in public hospitals (Evans and Roos 1999). Supplementary insurance does not therefore appear to be required. Because care is not always comprehensive complementary insurance is more frequently purchased, however, often in the form of inter-linking packages which may be offered by each insurer. For example, complementary insurance is available specifically to cover gaps in Medicare coverage.

A.4.2 Coverage Regulation in the 1990s

There are three instances in the United States that are particularly relevant to discussions of the regulation of coverage. The first is the Clinton plan for health reform. The second is the increased attention being paid to managed care organisations and processes. The third is the experience of the state of Oregon in defining coverage for Medicaid. Some other relevant policy developments in the US are not considered here, for reasons of space⁶⁴.

A.4.2.1 *The Clinton Plan*

Soon after being elected President in 1992, Bill Clinton placed First Lady Hillary Rodham Clinton in charge of reforming health care in the United States. This reform effort took place against a backdrop of rising expenditures, and increases in the number of United States citizens without adequate insurance coverage. The

⁶⁴ For example, Hawaii has mandated insurance coverage for all employees working more than 20 hours a week, with state government coverage for others; while other states have a 'play or pay' approach (Raffel and Raffel 1994). In both cases there are mandated benefits. For example, Hawaii has mandated insurance coverage for all employees working more than 20 hours a week, with state government coverage for others; while other states have a 'play or pay' approach (Raffel and Raffel 1994). In both cases there are mandated benefits.

Clinton plan was similar to the Enthoven and Jackson Hole managed competition proposals (Enthoven 1988; Enthoven 1988; Enthoven and Kronick 1989; Ellwood, Enthoven and Etheredge 1992; Enthoven 1993; Enthoven 1994; Ellwood and Enthoven 1995; Enthoven and Singer 1995), but with a stronger regulatory role for federal and state governments than envisaged by Enthoven himself (Enthoven 1994; Enthoven and Singer 1994).

A key part of the Clinton plan was a 'guaranteed national benefits package' (White House Domestic Policy Council 1993), which would be mandated in legislation so that all employers and all other intermediaries would have to offer at least that package to their employees and members. Responsibility for defining the package would lie with a National Health Board, which would interpret and update the guaranteed package and issue regulations (White House Domestic Policy Council 1993).

The broad package of benefits would include hospital, emergency, clinical preventive, mental health and substance abuse, family planning, pregnancy-related, hospice care, home health care, extended care, ambulance, outpatient and diagnostic, outpatient prescription drugs and biologics, and outpatient rehabilitation services, as well as the services of health professionals, durable medical equipment, prosthetic and orthotic devices, routine ear and eye examinations, and eyeglasses and dental care for children under 18. A planned expansion of benefits from 2001 would include preventive dental care for adults, orthodontia in special circumstances, and expanded mental health and substance abuse benefits. This plan was argued to provide greater coverage than traditional insurance, as it waived co-payments and deductibles for many preventive services, expanded preventive services and mental health and substance abuse services more generally. It excluded services that are not medically appropriate, private rooms in hospitals, adult eyeglasses and contact lenses, hearing aids and cosmetic surgery (White House Domestic Policy Council 1993, pp. 40-44). White argued that compared with international coverage, the Clinton plan offered coverage, 'on the low end of the scale', at least until the expansions which were planned for 2001 (White 1995, p. 231).

The package would however have remained a minimum package, with employers and others able to expand the package as they saw fit. Some have argued that not only is this inequitable, but it is also costly as it imposes high administration costs on providers, who have to identify which service users are covered by which packages (Glaser 1993).

The Clinton plan failed to gain sufficient support, in large part due to fierce lobbying by those opposed to the plan, who used the plan's complexities and its 'reliance on an expanded governmental regulatory apparatus' (Graig 1999, p. 21) to generate dissatisfaction. A wide range of competing alternatives (Daniels 1985; White 1995; Graig 1999) similarly failed to attract sufficient support to allow reforms to take place.

A.4.2.2 Managed Care

Managed care has existed for many years in the United States, in the form of pre-paid group practices. These practices initially operated as 'closed' systems where service users who are members must use the doctors employed by the group. Defining features of such groups were doctors on salaries, a non-profit orientation, and a focus on prevention (Abel-Smith 1988; Graig 1999). 'Health maintenance organisations' (HMOs), as the early managed care plans became known, were given support in 1973 with the enactment of the Health Maintenance Organization Act. The Act aimed to foster the growth of HMOs, and set out broad standards for them, including a standard package of benefits that they must provide.

It was not until the mid-1980s, however, that managed care really began to expand. A wide range of variants now exist (Robinson and Steiner 1998; Graig 1999). As a result, coverage by indemnity insurance fell from 70 per cent of privately insured employees in 1988 to 14 per cent in 1998 (Graig 1999), while indemnity insurance itself began to take on some of the characteristics of managed care organisations (Robinson and Steiner 1998). Medicare and some Medicaid programmes now offer

service users the choice of managed care organisations as their health care delivery vehicle, or incorporate aspects of managed care techniques into their delivery of health care. By 1997, 15 per cent of Medicare beneficiaries were in Medicare managed care, and further growth was expected with the introduction of the Medicare+Choice programme. In 1996, more than half of all Medicaid beneficiaries were in managed care plans, with further growth expected as the need for federal waivers relating to managed care were removed in 1997 (Graig 1999).

The increased role of managed care in the United States health care system has had implications with respect to various elements of coverage regulation. First, the benefit packages offered by managed care organisations tend to be broader than those offered by indemnity insurance. This is particularly so in relation to preventive care, including routine physicals, and eye and ear examinations, and in relation to prescription drugs (Graig 1999). Hence, comprehensiveness of cover may tend to improve as people move to managed care. Secondly, many plans have practice guidelines to assist in managing utilisation and hence expenditures. Thirdly physicians increasingly feel that their autonomy is being challenged by managed care, with some physicians and hospitals unionising or competing with plans in order to stave off challenges to medical autonomy (Graig 1999). As a result of this 'backlash', many regulations at both state and federal level have been proposed. Such proposals include mandates relating to the services to be offered by plans and providers – for example, requiring emergency room coverage (Graig 1999, p. 36), a minimum hospital stay after birth, extra days in hospital following mastectomy surgery (Serafini cited in (Graig 1999, p. 37), and mental health parity legislation that disallows maximum dollar limits on mental health services that are lower than for physical health services (Graig 1999).

A.4.2.3 *The Oregon Experience*

The Oregon Health Plan represents an attempt by one State to extend Medicaid coverage to uninsured residents with incomes below the poverty line. The plan aimed to do this by explicitly defining a prioritised list of services, which the State Medicaid scheme would offer to all those below the poverty line, and which many employers would be mandated to offer to their employees. The focus of the discussion is on the development and implementation of the prioritised list rather than other aspects of the plan. (For discussion on the full plan, including the ethical implications, see Oregon Health Services Commission 1991; U.S. Congress Office of Technology Assessment 1992; Fox and Leichter 1993; Oregon Health Plan Administrator 1996; McFarland, Winthrop and Cutler 1997; Rutledge 1997; Ham 1998; Jacobs, Marmor and Oberlander 1999; Leichter 1999.)

The Oregon prioritisation process represented an innovative attempt to explicitly define the services that should be available to Oregonians. An 11-member Health Services Commission, comprising both health professionals and lay people, was established to draw up the list. The details of this process are described more fully in (Oregon Health Services Commission 1991; Strosberg, Wiener, Baker and Fein 1992; Goddard 1993). In brief, using information on effectiveness and benefits, costs, and the value which citizens place on particular health outcomes, a list of services was developed which ranked condition/treatment pairs in order, according to the average outcome from any particular treatment. The State government would provide funds for the condition/treatment pairs highest on the list. Below some point on the list, services would not be funded.

When the first list of condition/treatment pairs was produced by the Commission, the rankings of services was found to be unacceptable, both to the public and professionals. The process used to generate the list was then changed, and, in particular, costs were left out of the formula. The final list was generated by ranking the types of conditions that might be treated (eg, acute fatal conditions, comfort care, etc) according to community and Commission views, assigning condition-treatment pairs to the ranked list of conditions, and then ranking condition-

treatment pairs within each category according to the net health benefits available to the average patient.

A key issue with the Oregon experience is whether or not the cost-utility approach originally used to generate the first list was itself flawed, or whether the data put into the formula were flawed and therefore produced unacceptable results (Eddy 1991). Hadorn (1991) for example has argued that economic evaluations rank equally services that are low cost and provide small benefits with high cost-high benefit services. This, however, he argues, doesn't take into account the tendency for people to find it difficult not to treat someone whose life is in danger, particularly if that person is clearly identified (Freemantle 1994).

Others have argued that economic evaluations can incorporate such factors. Eddy (1991) argues for identifying separate utilities for anonymous and identifiable deaths; Mooney suggests that it is possible to identify different weights that might be assigned to different groups of people (Mooney, Jan and Wiseman 1995).

There are various other problems with this approach. For example, because of the averaging of the severity of a particular condition and of the potential to benefit across different individuals, a person capable of deriving better than average benefits would miss out on a service that probably ought to have been available to them on efficiency grounds. This approach was chosen in Oregon because any attempt at a greater degree of disaggregation would have resulted in a very long list of services (Aaron 1992; U.S. Congress Office of Technology Assessment 1992).

Oregon required a federal waiver to institute the list as a part of the Medicaid regulatory framework. On its first attempt, the waiver was rejected on the grounds that the process and resultant list was inconsistent with the Americans with Disabilities Act 1990. This was because the ranking of condition-treatment pairs partly depended on a treatment's potential to restore full quality of life. This is not possible for people with disabilities (Ham 1998). The list was reorganised and coverage was extended to some treatments aimed specifically at people with

disabilities (Raffel and Raffel 1994), and the list came into operation in February 1994 (Ham 1998).

The list is now reviewed every two years, by sub-committees that evaluate outcomes and services, with advice from 70 provider groups. The changes proposed must be approved by the Health Care Financing Authority, a process which is 'both time consuming and extended' (Ham 1998, p. 1966). These reviews have seen changes made –mental health and chemical dependency services added; condition/treatment pairs moved up and down the list; and some significant additions, including cochlear implants, and bone marrow transplantation for breast cancer, provided as part of a clinical trial. The Commission is also developing guidelines for some of the services, to prevent over-provision of services, keep the cost of providing services within budget, or to ensure that services are provided as recommended by national expert groups. Guidelines can also be used for those services that fall below the cut-off point and hence are not funded, to enable service users in particular circumstances access to care (Ham 1998). The system has a safety valve built into it by allowing doctors to provide services below the cut-off point, with managed care plans taking the risk associated with the funding of such services and being responsible for monitoring adherence to the list (Bodenheimer 1997).

The overall result in Oregon has been that the range of services provided to those eligible for Medicaid has expanded (as has the number of people eligible for Medicaid in Oregon). In addition, the plan is increasingly supported by a more active purchasing approach by the State agency charged with administering Medicaid in Oregon. This will include reviewing medical records to ensure that service users are receiving appropriate care (Ham 1998).

Ham's 1998 review of the Oregon experience argued that the Oregon experience has important lessons with respect to explicit priority setting and an explicit entitlement. These are that explicitness tends to result in more services being made available; that guidelines must also be developed to ensure services both above and below the cut-off point are provided in accordance with evidence on effective and

appropriate care; that lists must be updated regularly; that expert advice is an important part of the process as are the views of the community; and, finally, that clinical discretion must be retained. The latter point is reinforced by Leichter, who notes that 'perhaps as often as in one-fourth of all cases' the patient 'receives treatment even when the condition is below the funding line'; indeed the system operates to ensure that some such cases can be treated, and intermediaries set aside money for just this eventuality (Leichter 1999, p. 155). The development of the list is therefore seen by some as a sea-change in rationing methods – a shift of focus from people to services, providing greater explicitness in the services that can be purchased with State resources, and a tool to guide decision making based on a 'sociopolitical consensus and expert judgment' (Jacobs, Marmor and Oberlander 1999; Leichter 1999). Even then, the technocratic process of defining the list has in practice given way to one reflecting both political and administrative judgements (Jacobs, Marmor and Oberlander 1999).

Others have questioned whether the Oregon process can rightly be referred to as 'rationing' given that the plan offers a 'solid benefits package' (Dobbin quoted in Leichter 1999, p. 151), that those treatments that are not offered 'have little effectiveness' (Bodenheimer 1997), and that there is little evidence of dissatisfaction with the plan or of service users regularly being denied care (Leichter 1999). (See also Jacobs, Marmor and Oberlander 1999.) Further, the Health Care Financing Administration wrote in 1996 about its concerns about any further reductions in the benefits provided by Oregon's Medicaid programme, signalling that the federal government has an interest in keeping a comprehensive package (Leichter 1999).

A.4.3 The Health Care System in the United States

The United States is the only country in this study in which population coverage is extremely diverse. Not all citizens are actually insured for health care, some having to rely on public hospitals or charity to obtain treatment if they become ill. Also, a wide range of health care policy arrangements exist in the same country, with no one explicit package of care that is to be offered to all citizens.

Of the health care systems discussed, the United States is the one with the clearest entitlement to health care for those who have insurance. In contrast to the overall management of total expenditure in the other countries already discussed, health care expenditure in the United States is the result of a large number of independently-determined choices. Private financing of health care through health insurance accounts for about one-third of total health expenditures; federal and state financing for around 46%; out-of-pocket payments for 17% (Graig 1999). Medicare and Medicaid programmes both establish annual budgets for expenditure, but tend to manage expenditure through pricing strategies rather than by limiting the quantity of care offered.

Most insurers and hospitals in the United States are privately owned; traditionally they have been not-for-profit, although there has been a move towards for-profit status (Graig 1999). Competition between insurers, hospitals and practitioners is widespread, although under managed care preferred-provider arrangements, user choice can be limited – employers often limit employees' choice of intermediary, for example by self-insuring or limiting the menu of choices made available to employees; intermediaries also often limit service users' choice of provider through preferred-provider arrangements (Managed Health Care Improvement Task Force 1998).

Health care insurance arrangements in the United States clearly reflect the cultural, economic and political environment that has developed over the country's history. In particular, the arrangements reflect a distrust of government and taxation, which

goes back to the latter half of the eighteenth century, when the original thirteen colonies revolted against the British government, and set up a federal government with limited powers to avoid the excesses they saw practiced by the European powers of the day (Raffel and Raffel 1997, p. 283). As a result, health care has become principally a market commodity. Unlike European countries, the United States does not link health insurance to any other social benefit; and the health system has little relationship to other elements of social policy.

A.5 *Relationships Between Coverage Regulation and Health Goals and Systems*

The preceding sections discussed the elements of coverage regulation which the seven countries in this study predominantly employ in their health care systems. Approaches have developed differently in each country, but at the same time there is evidence that they have developed in conjunction with the goals which individual countries have for health care, and with the systems that have developed over time to promote those goals.

In particular, reasonably similar coverage is offered in New Zealand, the United Kingdom, Sweden, Canada, the Netherlands and Germany, in contrast with the United States where there is great diversity in coverage. New Zealand, the United Kingdom, Sweden, Canada, the Netherlands and Germany have different ways of promoting similarities in coverage, but a feature of each country's approach is that it retains a strong central government role in health care and in managing coverage. Central governments in New Zealand, the United Kingdom and increasingly Sweden, manage similarity of coverage partly through strong government oversight of health care financing, allocation and delivery. New Zealand and the United Kingdom also have opportunities to promote similarity in coverage through public ownership of key intermediaries and providers. This contrasts with the social insurance approaches used in Germany and the Netherlands where over time a

number of disparate insurance arrangements have been brought together to create a system of health care coverage, but where central government agencies still retain a good degree of oversight through centrally-determined regulations.

The United States approach to coverage regulation differs dramatically from those of the other countries considered. In the United States, a strong desire for State independence from federal government regulations coupled with a preference for markets over regulations has contributed to a mix of approaches to regulation. Although the United States bears some resemblance politically to Canada (a federal-provincial/state approach), and has a similar desire to Germany and the Netherlands for regional, local and intermediary autonomy, the United States has yet to take a strong federal line in relation to regulation, and does not yet promote universal coverage or similarity of coverage. This suggests that the United States has less interest in promoting equity, or is less able to promote policies that encourage equity of access, than the other countries studied.

Although New Zealand, the United Kingdom, Sweden, Canada, the Netherlands and Germany are classified here as offering similar population coverage, the six countries allow different degrees and types of diversity. Variations in coverage by income are a deliberate and obvious feature of the Netherlands' and German systems, arising from historical circumstances where those on higher incomes have always had greater choice over their insurance coverage than those on lower incomes. There is also a degree of diversity in coverage in New Zealand and the United Kingdom reflecting the ability of service users to purchase additional insurance. In Canada, although variations in coverage by province and for pharmaceuticals are accepted, variations in relation to covered services, for example through private health insurance, are not.

New Zealand, the United Kingdom and Sweden have historically regulated coverage in ways that are largely implicit. Canada, Germany and the Netherlands have greater degrees of explicitness, as does the United States. There are a number of possible explanations for these differences. First, there may be a fear in New Zealand, the United Kingdom and Sweden that a more explicit list could be

interpreted as an entitlement to care. These countries finance health care through taxation. They set annual, largely capped health care budgets, and this enables them to consider the health budget alongside other government expenditures. This approach allows governments to be flexible in their allocation of resources as the socio-economic environment and policy priorities change, and it encourages policy-makers to allocate resources to other policy spheres where health care is considered to not be the best means of improving health status. Moving to a more explicit specification implying entitlement might place this flexibility at risk. Countries with social insurance systems, on the other hand, may have greater flexibility in resource use within the health care budget, if rising incomes lead to increases in the availability of resources for health care. Such countries may be more inclined to offer explicit specification of coverage, because explicit access is more easily financed where health budgets automatically increase.⁶⁵ Canada is unique – it specifies coverage explicitly, and had health care financing based on taxation at the federal level and in many of its provinces. The strong federal framework for health care supports the country's health care system while allowing a degree of independence for the provinces and territories. In this case, the tendency for health systems in which there is a strong degree of autonomy to have a more explicit coverage may dominate the tendency for tax-financed systems to have implicit coverage.

An explicit list of services would seem to reflect an 'insurance' model rather than an 'access to a health system' model. Countries that charge health care premiums may be more inclined to establish a list of services to reflect the insurance aspects of health care financing, so that a premium is paid in return for explicit coverage. Germany and the Netherlands appear to be good examples of this.

⁶⁵ Tax and social insurance financing arrangements may however operate in similar ways, if in practice regular increases in health budgets are voted to health care just as social insurance arrangements automatically increase budgets; or if social insurance expenditure is carefully constrained by changing the premium rates as economic conditions change, just as tax systems offer only limited increases or no increases in the budgets available for health care.

The choice of approach to coverage regulation may also be related to issues of accountability. Government ownership and central management of key facilities may allow the organisation of accountability within one system of care. Governments in New Zealand, the United Kingdom and Sweden often own intermediaries and providers. These central governments manage such agencies more closely than governments in other countries. These countries, then, may not have needed the explicit coverage specification that European countries and United States government programmes developed, where accountability has to be managed across a range of independently owned intermediaries, or which private insurers developed in order to restrain expenditures under an explicit insurance arrangement.

The effect of implicit coverage regulation coupled with constrained tax-financing is reflected not only in variations in access by region and locality, but also in long waiting lists and times for some services. New Zealand and the United Kingdom have experienced problems providing access for all those referred to elective hospital care for many years. These countries view waiting lists as the price to be paid for keeping a tight rein on total expenditures, and preferable to the price- and income-based rationing that occurs in the United States health care system. Clearly, however, a greater degree of explicitness does not necessarily guarantee there are no waits for care. Canada has problems with waiting lists and times for elective surgery, while the Netherlands has problems with access to a range of community services. An explicit specification of coverage does not necessarily imply an entitlement to care, unless also accompanied by a philosophy of access on demand, as it is in much of the United States health care system. The broad definitions often used in explicit listings of coverage may also reduce the implication that explicitness has as an entitlement to care.

The move towards more explicit, and more detailed, coverage in the 1990s clearly reflects a number of policy concerns, many of which cross international boundaries but some of which are also unique to particular countries. New Zealand's move towards a more explicit approach to service coverage reflects the National government's desire to move towards a system of managed competition. Within managed competition, a standard package of benefits is viewed as a necessary part

of a regulatory structure designed to encourage competition and choice. In the Netherlands, debates on priorities also had their origins in the proposal to move towards managed competition; but there, policy makers had an existing package of benefits on which to base an explicit specification of services. The focus in the Netherlands then was on explicitly developing criteria to assess the actual services that might be covered.

That New Zealand continued to develop an explicit list of services even after dropping the managed competition model is perhaps a surprise. But it reflects the changes in health care allocation that did occur – a move towards a purchaser-provider split, and a stronger focus on accountability via contractual arrangements. As these contractual arrangements related not only to relationships between the purchasers and providers, but also the sponsor (the government) and purchasers, the stage was set for a move towards a more explicit list of services.

In contrast, purchaser-provider splits in the United Kingdom and Sweden have not resulted in moves towards a more explicit regulation of coverage at a national level. The Swedes did engage in debate about priority setting, but the debate never had the same flavour as that in New Zealand – a debate about equalising access to services and, at times, about explicit access to care. This perhaps reflects a greater acceptance of local autonomy than in New Zealand, as well as a less pressing need to reduce waiting times for care. In the United Kingdom, governments have not responded to calls for explicit specification of coverage (Ham 1998), and a number of academics and analysts have mounted strong criticism of such explicitness.

In the early 1990s, New Zealand, the United Kingdom and Sweden moved towards guarantees of access to elective care. Sweden seems to have acted quickly to manage concerns over waiting times and lists, but New Zealand and the United Kingdom took some time to implement a guarantee, after many years of living with long waiting times and lists. That explicitness developed in these three countries with respect to elective surgery seems to reflect the political importance of waiting lists in each country, made obvious by the easy availability of lists and thus of numbers of service users waiting for care. What is less clear is whether focusing on

other types of unmet need (which are not captured regularly in information systems) might result in greater health gains for the resources available. In New Zealand, mental health care services suffered years of neglect; a renewed emphasis on mental health care is made possible by the establishment of a strong, central agency which has developed benchmarks on service delivery to identify significant unmet need and to push for greater resource allocation to mental health.

Appendix 2

Notes on the Scoring Process

Scoring a range of alternative models of coverage across 17 benchmarks or policy objectives proved to be a complex task. Care needed to be taken to use the full range of available scores (0 to 100) in order to try to distinguish between alternative models. Scores also needed to be consistently applied within each model of coverage regulation where a model worked in the same way to achieve a number of policy objectives. At the same time, scores needed to be similar where alternative models of coverage performed equally well on supporting various objectives. In practice, this meant cross-checking scores frequently. This proved very time-consuming and required careful thought be given to the scores. In spite of this, the approach has resulted in a clear picture of the trade-offs involved in choosing between alternative models of coverage, and a clear picture of the best alternatives, given the scores applied and the weights chosen.

Scoring rules which are applied in the analysis are set out below.

Within a Model of Coverage Regulation

- 10 points are allocated for the role of additional insurance in contributing to policy objectives.
- 10 points are allocated for the role of central government national decision making in contributing to policy objectives.
- 10 points are taken off the scores for coverage of those most likely to benefit, given that Non-New Zealand residents are not covered by the principal insurance scheme.

Across Models of Coverage Regulation

- The less comprehensive model is scored at 20 points less/more than the NZ model, to reflect the low level of significance assessed as occurring where only some services are removed from coverage.
- The non-insurable model is scored at 10 points less/more than the NZ model, to reflect the small contribution which the additional insurance sector makes to expenditure on health in New Zealand.

Appendix 3

Sensitivity Analyses

A.3.1 Sensitivity Analysis: Current and Alternative Approaches to Coverage Regulation Within New Zealand's Existing Health Care System

The analysis in Chapter 4 may be sensitive to both the scores allocated to current and alternative models of coverage regulation and to the weights used in the calculation of the overall scores. Sensitivity analyses using the V.I.S.A. programme have been run to determine the robustness of the results. The results are presented in this Section.

A first set of points to note relates to the scores. The explicit, detailed model scores 6 points over and above the next highest model, the non-insurable model. This in turn scores 7 points over and above the third highest scoring model, the NZ model. A further 4 points back is the local model, with the less comprehensive model scoring the lowest overall at 44 points (see Figures A.3.1.1, A.3.1.2). A change in the rankings of the first two models as a result of allowing a range of scores to apply is unlikely in practice, because an increase in the score of 10 points on any one objective makes very little difference to the overall scores. Higher scores for choice and expenditure control objectives especially make a greater impact on the overall scores. An analysis whereby all scores over 50 were reduced by 10 points; all scores under 50 were increased by 10 points and scores on 50 remained at 50, resulted in no change in the rankings, with scores of 60, 56, 50, 47 and 45 (see Figures A.3.1.3-4). With a twenty point shift (with scores of 50 reduced by 20 points also), the rankings still remain much the same, with scores of: 56, 52, 49, 49, and 44. The NZ

and local models score the same in this case (see Figures A.3.1.5-6). The overall results are therefore very robust to changes in the scoring.

A second set of decisions surrounded the choice of weights with respect to the goals in the above analysis. This is also clearly subjective. A key question is whether changes in the weights make a significant difference in the rankings of the overall scores. The following results were found in the sensitivity analyses.

Even reducing the efficiency weight to zero, with weights on the other goals remaining in proportion to each other, results in no change in the overall rankings, scores of 57 (explicit), 55 (non-insurable), 51 (NZ), 47 (local), 46 (less comprehensive), although the top two models have scores that are much closer together. The weights are then: zero for the efficiency goal, 46.9% for the equity goal, 26.6% each for the choice and expenditure control goals (see Figure A.3.1.7).

Reducing the equity goal down to 11.1% (i.e. to less than half its weight) does see the explicit model and non-insurable model on equal points (56 each for the explicit and non-insurable models, 49 for the NZ model, 47 each for the local model and 45 for the less comprehensive model; weights are 45.7% for efficiency, 11.1% for equity, and 21.6% for each of the choice and expenditure control goals) (see Figure A.3.1.8).

Increasing the value of the choice goal to 31% sees a similar result (54 each for the explicit and non-insurable models, 49 for the NZ model, 48 for the less comprehensive model and the local model); with weights of 29.9% for efficiency, 24.9% for equity, 31% for choice and 14.1% for the expenditure control goal (see Figure A.3.1.9).

The expenditure goal weight must increase to 46.3% for a similar result (58 for each of the explicit and non-insurable models, 50 for the NZ model, 46 for the local model and 41 for the less comprehensive model (weights are: 23.3% for efficiency, 19.4% for equity, 11.0% for choice, 46.3% for expenditure control) (see Figure A.3.1.10).

Overall, extreme changes in weights are required to shift the explicit and non-insurable models from their top rankings.

With equal weights for each goal, the explicit and non-insurable model score 55 each, with the others on 49 (NZ model), 47 (local model) and 46 (less comprehensive model) (see Figure A.3.1.11). To change the rankings from this point, must see efficiency fall to 19.7% (with the others on 26.8% each); or equity to 22.5% (with the others on 25.8%); choice to 26.8% (the others on 24.4% each); expenditure control to 29.6% (the others on 23.5%) (see Figures A.3.1.12-15).

Hence the results are sensitive to the weights chosen:

- If the key goal were efficiency, then the rank order does not change from that in the base analysis (73 for the explicit model, 61 for the non-insurable model, 49 for the NZ model, 44 for the local model, 41 for the less comprehensive model) (see Figure A.3.1.16).
- If the key goal were equity, then the base analysis rankings remain (88 for the explicit model, 60 for the non-insurable model, 54 for the NZ model, 44 for the local model; 42 for the less comprehensive model) (see Figure A.3.1.17).
- If the key goal were choice, the rankings change significantly, they almost reverse, with the favoured model being the less comprehensive model (65), the local model (55), NZ model (45), non-insurable (40) and explicit (10) (see Figure A.3.1.18).
- If the key goal were expenditure control, a non-insurable model of coverage is favoured (60), with the NZ and explicit model following (50), local (45) and less comprehensive (35). A less comprehensive model is the worst at expenditure control (see Figure A.3.1.19).

Figure A.3.1.1: Alternative models of coverage regulation for New Zealand within the existing health care system: Scores

Alternative Window									
	National d/m	Local d/m	Cov. of those ...	Comp. cov.	A/c for c/e	Low admin.	Eff. suppl.	Manages c/e	U. cov.
									Comp. cov.
▶ NZ model	40	60	90	80	20	50	30	20	90
Local model	10	90	90	80	10	40	20	10	90
Less compref	20	80	90	60	10	30	30	10	90
Explicit model	90	10	90	80	90	30	100	90	90
Non-insurable	50	50	90	90	30	60	100	20	90

Figure A.3.1.1 (cont.): Alternative models of coverage regulation for New Zealand within the existing health care system: Scores

Alternative Window									
	U. cov.	Comp. cov.	Uniform cov.	A/c eq. acc.	Manages c/s	Choice pack.	Choice s/c	Italian	A/c for s/c
▶ NZ model	90	80	60	20	20	30	60	80	20
Local model	90	80	30	10	10	40	70	80	10
Less compreh	90	60	40	10	10	50	80	60	10
Explicit model	90	80	90	90	90	10	10	10	90
Non-insurable	90	90	70	30	20	30	50	90	30

Figure A.3.1.2: Alternative models of coverage regulation for New Zealand within the existing health care system: Overall scores

	National d/m	Local d/m	Cov. of those ...	Comp. cov.	A/c for c/e	Low admin.	Eff. suppl.	Wages c/e	U. cov.	Comp. cov.
ΔNZ model	50	50	80	70	30	50	40	30	80	70
Local model	20	80	80	70	20	50	30	20	80	70
Less comprer	30	70	80	50	20	40	40	20	80	50
Explicit model	80	20	80	70	80	40	90	80	80	70
Non-insurable	50	50	80	80	40	50	90	30	80	80

	U. cov.	Comp. cov.	Uniform cov.	A/c eq. acc.	Manages c/s	Choice pack.	Choice s/c	Ration	A/c for s/c
Δ NZ model	80	70	50	30	30	40	50	70	30
Local model	80	70	40	20	20	50	60	70	20
Less comprer	80	50	50	20	20	50	70	50	20
Explicit model	80	70	80	80	80	20	20	20	80
Non-insurable	80	80	60	40	30	40	50	80	40

Figure A.3.1.4: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: +/- 10 points: Overall scores

Figure A.3.1.5: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: +/- 20 points

Alternative Window									
	National d/m	Local d/m	Cov. of those ...	Comp. cov.	A/c for c/e	Low admin.	Eff. suppl.	Manages c/s	U. cov.
► NZ model	60	40	70	60	40	30	50	40	70
Local model	30	70	70	60	30	60	40	30	70
Less comprer	40	60	70	40	30	50	50	30	70
Explicit model	70	30	70	60	70	50	80	70	70
Non-insurable	30	30	70	70	50	40	80	40	70
4									
									Comp. cov.

Figure 3. Comparison of methods of error reduction for New Zealand rain forest species that are system sensitive to a plus-minus 20% data

Figure A.3.1.6: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: +/- 20 points: Overall scores

Figure A.3.1.7: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Efficiency weight at zero

Figure A.3.1.8: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Equity weight lowered until rankings change

Figure A.3.1.9: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Choice weight increased until rankings change

Figure A.3.1.10: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Expenditure control weight increased until rankings change

Figure A.3.1.11: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Equal weights

Figure A.3.1.12: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Efficiency weight lowered from equal weights until rankings change

Figure A.3.1.13: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Equity weight lowered from equal weights until rankings change

Figure A.3.1.14: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Choice weight increased from equal weights until rankings change

Figure A.3.1.15: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Expenditure control weight increased from equal weights until rankings change

Figure A.3.1.16: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Efficiency weight at 1: Overall scores

Figure A.3.1.17: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Equity weight at 1: Overall scores

Figure A.3.1.19: Alternative models of coverage regulation for New Zealand within the existing health care system: Sensitivity analysis: Expenditure control weight at 1: Overall scores

A.3.2 *Sensitivity Analysis: Alternative Models of Coverage Regulation in New Zealand Within a System of Managed Competition*

The results of the analysis in Chapter 5 may be sensitive to both the scores allocated to each alternative model of coverage and to the weights used in the calculation of the overall scores. Sensitivity analyses using the V.I.S.A. programme have been run to determine the robustness of the results.

A first set of points to note relates to the scores. The single, explicit model scores 12 points over and above the next highest model, the plural, general model. This in turn scores 6 points over and above the third highest scoring model, the diverse, implicit model. A further 2 points back is the plural, detailed model (see Figures A.3.2.1, A.3.2.2). A change in the rankings of the first two models as a result of allowing a range of scores to apply is unlikely in practice, because an increase in the score of 10 points on any one objective makes very little difference to the overall scores. Higher scores for choice and expenditure control objectives especially make a greater impact on the overall scores, however. This is more clearly shown in an analysis whereby all scores 50 and over were reduced by 20 points; and all scores under 50 were increased by 20 points, which resulted in no change in the rankings, with scores of 57 (single, explicit), 49 (plural, general), 45 (diverse, implicit) and 45 (plural, detailed) (see Figures A.3.2.3-4).

The overall results are therefore extremely robust to changes in the scoring.

A second set of decisions surrounded the choice of weights with respect to the goals in the above analysis. A key question is whether changes in the weights make a significant difference in the rankings of the overall scores. The following results were found in the sensitivity analyses.

Even reducing the efficiency weight to zero, with weights on the other goals remaining in proportion to each other, results in no change in the overall rankings: resulting in scores of 57 (single, explicit), 52 (plural, general), 47 (diverse implicit) and 42 (plural, detailed). The weights are then: zero for the efficiency goal, 46.9% for the equity goal, and 26.6% each for the choice and expenditure control goals (see Figure A.3.2.5).

Reducing the equity goal down to 3.8% sees the single, explicit model and plural, general model on equal points (53 points each) with 48 points for the diverse implicit model and 44 points for the plural, detailed model, where the weights are 49.5% for the efficiency goal, 3.8% for the equity goal and 23.4% for the choice and expenditure control goals (see Figure A.3.2.6).

Increasing the value of the choice goal to 30% sees a similar result (55 each for the single, explicit and plural, general models), 49 for the diverse implicit model and 46 for the plural, detailed model, with weights of 30.4% for efficiency, 25.3% for equity, 30% for choice and 14.3% for the expenditure control goal (see Figure A.3.2.7).

Even when the expenditure goal weight increases to 100%, the rankings remain the same with scores of 50 (single, explicit), 40 (plural, general), 40 (diverse implicit) and 20 (plural, detailed) (see Figure A.3.2.8).

Overall, extreme changes in weights are required to shift the single explicit model from its top ranking; and the plural, general model always is second or replaces the single explicit model when choice becomes more highly weighted.

With equal weights for each goal, 55 points are gained for the single, explicit model, 53 for the plural, general model, 47 for the diverse implicit model and 43 for the plural, detailed model (see Figure A.3.2.9). To change the first and second favoured models (single, explicit and plural, general models) rankings from this point, must see efficiency fall to 16.9% (with the others on 27.7% each); or equity to 20.3%; (the others on 26.6%), and choice to 28.8% (the others on 23.7% each).

Shifting expenditure control to 91.5% (the others on 2.8%) sees the single, explicit model still with the highest ranking (51 points), but the diverse, implicit model moves into second spot with the plural, general model on 41 points, and the plural, detailed model on 23 points (see Figures A.3.2.10-13).

Hence the results are slightly sensitive to the weights chosen:

- If the key goal were efficiency, then the rank order does not change from that in the base analysis (73 for the single, explicit model, 49 for the plural, general model, 47 for the plural, detailed model and 42 for the diverse implicit model (see Figure A.3.2.14).
- If the key goal were equity, then the base analysis rankings remain (88 for the single, explicit model, 46 for the plural, general approach, 44 for the plural, detailed approach and 38 for the diverse, implicit model (see Figure A.3.2.15).
- If the key goal were choice, the rankings change significantly, with the favoured model being the plural, general model (75 points), with 70 points for the diverse implicit model; 60 for the plural detailed model and 10 for the single explicit model (see Figure A.3.2.16).
- If the key goal were expenditure control, a single, explicit model of coverage is still favoured (50 points), with the diverse, implicit and plural, general models on 40 points; and the plural, detailed models on 20 points (see Figure A.3.2.17).

These results reinforce the above analyses, with the single, explicit model scoring the best on efficiency and increasing its overall score the more weight is placed on efficiency; the single, explicit model also does well in relation to promoting equal access for equal need, with a higher score the more weight is placed on equal access. Trade-offs are more explicit when considering the choice goal – the more weight is placed on choice, the worse score the single, explicit, model obtains, being replaced by the plural, general model as the more favoured model. With expenditure control, the single, explicit model is also favoured.

Figure A.3.2.1: Alternative models of coverage regulation for New Zealand within a system of managed competition: Scores

Alternative Window									
	National d/m	Local d/m	Cov. of those ...	Comp. cov.	A/c for c/e	Low admin	Eff. supplement	Manages c/s	U. cov.
▷ Diverse, implic	0	80	90	80	0	30	50	10	90
Plural, general	0	80	90	80	0	20	100	20	90
Plural, detaillec	0	80	90	80	30	0	90	10	90
Single explicit	90	10	90	80	90	30	100	90	90
									Comp. cc
									80
									90
									80
									80

Figure A.3.2.1 (cont.): Alternative models of coverage regulation for New Zealand within a system of managed competition: Scores

Alternative Window									
	U. cov.	Comp. cov.	Uniform cov.	A/c eq. acc.	Manages c/s	Choice pack.	Choice s/c	Ration	A/c for s/c
Diverse, implic	90	80	10	0	10	70	70	80	0
Plural, general	90	90	20	10	20	70	80	70	10
Plural, detailec	90	80	10	30	10	70	50	10	30
Single explicit	90	80	90	90	90	10	10	10	90

Figure A.3.2.2: Alternative models of coverage regulation for New Zealand within a system of managed competition: Overall scores

Figure A.3.2.3: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: +/- 20 points

Alternative Window									
	National d/m	Local d/m	Cov. of those ...	Comp. cov.	A/c for c/e	Low admin	Eff. supplement	Manages c/s	U. cov.
▷ Diverse, implic	20	60	70	60	20	50	70	30	70
Plural, general	20	60	70	60	20	40	80	40	70
Plural, detailec	20	60	70	60	50	20	70	20	70
Single explicit	70	30	70	60	80	50	80	70	70
									Comp. cov
									60
									70
									60
									60

Figure A.3.2.3 (cont.): Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: +/- 20 points

Alternative Window							
	U. cov.	Comp. cov.	Uniform cov.	A/c eq. acc.	Manages c/s	Choice pack.	A/c for s/c
Diverse, implic	70	60	30	20	30	50	20
Plural, general	70	70	40	30	40	50	30
Plural, detailec	70	60	30	50	30	50	50
Single explicit	70	60	70	70	70	30	70

Figure A.3.2.4: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: +/- 20 points: Overall scores

Figure A.3.2.5: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Efficiency weight at zero

Figure A.3.2.6: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Equity weight lowered until rankings change

Figure A.3.2.7: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Choice weight increased until rankings change

Figure A.3.2.8: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Expenditure control weight increased until rankings change

Figure A.3.2.9: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Equal weights

Figure A.3.2.10: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Efficiency weight lowered from equal weights until rankings change

Figure A.3.2.11: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Equity weight lowered from equal weights until rankings change

Figure A.3.2.12: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Choice weight increased from equal weights until rankings change

Figure A.3.2.13: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Expenditure control weight increased from equal weights until rankings change

Figure A.3.2.14: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Efficiency weight at 1: Overall scores

Figure A.3.2.15: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Equity weight at 1: Overall scores

Figure A.3.2.16: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Choice weight at 1: Overall scores

Figure A.3.2.17: Alternative models of coverage regulation for New Zealand within a system of managed competition: Sensitivity analysis: Expenditure control weight at 1: Overall scores