Vaccines, polarising divides and the role of public health

Kevin Dew and Sarah Donovan

In 1962, Alexander Langmuir and his colleagues at the epidemiology branch of the Communicable Disease Center of the United States Public Health Service argued that measles should be eradicated, not because of concerns about the disability and morbidity that it caused in the US, but because the tools for eradication were becoming available and, quoting the answer given by our compatriot Edmund Hillary on why he wanted to climb Everest, ‘because it is there’ (Langmuir, Henderson, Serfling, & Sherman, 1962). From the epidemiological perspective of the 1960s, measles was not such a concern in affluent countries, but there was faith that with the new tools of vaccination available early eradication of measles was possible. Nearly 60 years later we are still struggling to eliminate the disease, and during outbreaks in affluent countries the finger of blame is often pointed at those who choose not to vaccinate their children.

McCoy’s report in this issue focuses on some of the characteristics of Americans who may be opposed to vaccination (McCoy, 2018). In the survey research analysed by McCoy there were two questions related to vaccines, one about what respondents thought about the safety of vaccines, and the other whether vaccines could be compulsory. Despite the broad brush stroke taken to these questions (for example, how would a respondent deal with being concerned with the safety of one vaccine but happy with the others) there are some interesting findings. The research found that 10.2% of respondents thought vaccines were unsafe, and that 30.6% thought that compulsory vaccinations were not required. Digging a little deeper, Black Americans were five times more likely to think vaccines are unsafe than White Americans. This simple finding alerts us to a way of thinking about vaccination opposition, or uncertainty, or hesitancy, in a way that is familiar to public health researchers. We can consider the social determinants of vaccine opposition. What kinds of people are more likely to avoid vaccines, and what might be driving that. For example, structural barriers to trust in the health system by Black Americans have been identified, a mistrust that is embedded in a collective memory of being ‘fooled’ by the medical system (Ferrera, Feinstein, Walker, & Gehlert, 2016). But to date, public health advocates have been, at best, complacent about how people who show some concern about vaccines are portrayed in public and social media, if not actually colluding in that portrayal. There has been a discernible ratcheting up of the demonization of ‘anti-vaxxers’ – a term now that is used to cover a broad range of people with different concerns about vaccine development, policy and delivery. And some public health advocates have been happy to throw fuel on the fire and suggest that even academics who critically engage with vaccination issues should have restrictions placed on their academic freedom (Durrheim & Jones, 2016; Martin, 2016).

Qualitative research on people who have concerns about vaccines dives still deeper than a social determinants argument. The research paints a different picture from that of the vaccine hesitant as irrational, emotional, anti-science, worthy of being criminalised and having the same credibility status as flat earthers and other conspiracy theorists. People, and most often we are talking about mothers, may question the received wisdom about vaccines for a number of reasons. Concern may arise from having witnessed an adverse reaction to a vaccine, or they may have had a child get the disease they were supposed to be protected from, or their concerns may relate to specific vaccines and not vaccines in general (Sobo, Huhn, Sannwald, & Thurman, 2016). In being concerned they may take on responsibility for knowing more, seeking out a greater understanding so that they can support the difficult decision they may be making (Hobson-West, 2007). And they may do so against vitriolic opposition, with their decision potentially consequential, for example, having school attendance restrictions imposed upon their child in the event of an outbreak of disease.

Dissenters may start from a positioning of simply asking themselves questions about vaccines, and then asking health providers, who might be dismissive of their questions. A journey of seeking out answers might then ensue, with the developing dissenter taking an active role in their relationship to expert systems, rather than passive acceptance (Cunha & Durand, 2013). An easy dismissal of the vaccine hesitant and vaccine critical should also be troubled by findings that health professionals are not immune from having concerns about vaccinations, and may even avoid taking some (Manca, 2018). Epidemiologists themselves may express views that disturb the simple picture of eradication and the benefits of vaccine coverage, such as Professor Michael Baker, a member of the World Health Organization Regional Verification Commission for Measles Elimination, in response to a developing measles epidemic in New Zealand stating that “The level of risk is affected a lot by when you were born and its one of the benefits of being over 50 years of age, we were all exposed to measles because the vaccine was only introduced in 1969” (Radio New Zealand broadcast, 20 March 2019).

Instead of standing on the sidelines while the vaccine hesitant are vilified, the public health workforce could consider a different approach – a respectful one (Ward, Attwell, Meyer, Rokkas, & Leask, 2017). Ben Gray, from the Department of Primary Health Care and General Practice at the University of Otago, suggests that rather than demonising the vaccine hesitant and those who choose not to vaccinate their children, in full or part, they should be seen as the equivalent of a cultural minority (Gray, 2016). The starting point here is then for public health to understand *why* choices are made and to build on what might be common. Public health can be upfront and transparent about the decisions made, the values they are grounded in, and any uncertainty around those decisions, so that people can have more confidence in vaccine policy. A respectful position of trying to find out what it would take for people who are hesitant about vaccines to trust this technology could be taken. The qualitative experiences of trust and mistrust could become a focus of research (Ferrera et al., 2016).

There are some precedents that public health advocates can consider. In the Netherlands the Dutch Health Council shows a commitment to transparency in publicly available health information by making accessible extensive reports on its decision-making processes in relation to vaccines. In making decisions, representatives of critical parents groups are invited to have input into the decision-making process (Paul, Wallenburg, & Bal, 2018). But public health advocates can do more to engender trust. They could work to ensure that pharmacovigilance activities around vaccinations are rigorous, which may require actively seeking out concerns about vaccine reactions rather than passively receiving them, and that people’s concerns are taken seriously and not dismissed. To engender trust, communication across divides should be fostered, rather than using or accepting polarising rhetoric. And as public health researchers we surely must not shy away from scrutinising vaccine policies, but we are best placed to take on the duty of interrogating vaccine policy and the efforts made to gain high levels of vaccine coverage (Dew, 2018), to ensure they are robust, fair, and convincing.

**References**

Cunha, M., & Durand, J.-Y. (2013). Anti-bodies: The production of dissent. *Ethnologia Europaea, 43*(1), 35-54.

Dew, K. (2018). *Public health, personal health and pills: Drug entanglements and pharmaceuticalised governance*. London and New York: Routledge.

Durrheim, D., & Jones, A. (2016). Public health and the necessary limits of academic freedom? *Vaccine, 34*(22), 2467-2468.

Ferrera, M. J., Feinstein, R. T., Walker, W. J., & Gehlert, S. J. (2016). Embedded mistrust then and now: findings of a focus group study on African American perspectives on breast cancer and its treatment. *Critical Public Health, 26*(4), 455-465. doi:10.1080/09581596.2015.1117576

Gray, B. (2016). Clinical ethics cultural competence and the importance of dialogue a case study. *Clinical Research and Bioethics, 7*(1), doi: 10.4172/2155-9627.1000256.

Hobson-West, P. (2007). 'Trusting Blindly Can Be the Biggest Risk of All': Organised Resistance to Childhood Vaccination in the UK. *Sociology of Health and Illness, 29*(2), 198-215.

Langmuir, A., Henderson, D., Serfling, R., & Sherman, I. (1962). The importance of measles as a health problem. *American Journal of Public Health and the Nations Health, 52*(suppl. 2), 1-4.

Manca, T. (2018). "one of the greatest medical success stroies:" Physcians and nurses' small stories about vaccine knowledge and anxieties. *Social Science & Medicine, 196*, 182-189.

Martin, B. (2016). Public health and academic freedom. *Social Epistemology Review and Reply Collective, 5*(6), 44-49.

McCoy, C. A. (2018). The social characteristics of Americans opposed to vaccination: beliefs about vaccine safety versus views of U.S. vaccination policy. *Critical Public Health*, 1-12. doi:10.1080/09581596.2018.1501467

Paul, K. T., Wallenburg, I., & Bal, R. (2018). Putting public health infrastructures to the test: introducing HPV vaccination in Austria and the Netherlands. *Sociology of Health & Illness, 40*(1), 67-81. doi:10.1111/1467-9566.12595

Sobo, E. J., Huhn, A., Sannwald, A., & Thurman, L. (2016). Information Curation among Vaccine Cautious Parents: Web 2.0, Pinterest Thinking, and Pediatric Vaccination Choice. *Medical Anthropology, 35*(6), 529-546. doi:10.1080/01459740.2016.1145219

Ward, P., Attwell, K., Meyer, S., Rokkas, P., & Leask, J. (2017). Understanding the perceived logic of care by vaccine-hesitant and vaccine-refusing parents: A qualitative study in Australia. *PLoS ONE, 12*(10), e0185955. doi:10.1371/journal.pone.0185955