

**Re-invigorating immunisation policy**

*Hosted by Fondation Merieux in Annecy, France, on November 21 – 23, 2011*

While the science of immunology and vaccines has seen major advances in recent years, public scepticism and anti-vaccine sentiment have increased. A number of health scares, such as the debunked but high profile claim that the MMR vaccine causes autism, have hampered immunisation campaigns. Creeping mistrust of science, and of authorities in general, have also fed into the debate on vaccine safety and efficacy.

It was in this context that experts from across a range of disciplines gathered in the *Fondation Merieux* Conference Centre in Annecy, France, for a three-day examination of the forces that shape health decision-making. *Re-invigorating Immunisation Policy Implementation and Success: From Parent to Partner and from Broadcast to Engagement* sought to take a multidisciplinary approach drawing on the latest research from the fields of psychology, anthropology, communications and behavioural sciences. Participants were drawn from academia, public administrations, industry and the media in Europe, Asia and the Americas.

Introducing the programme, Angus Thomson, Director of Vaccination Policy and Advocacy at Sanofi Pasteur, said research and experience has shown that scientific evidence alone is not sufficient to convince the public of the value of vaccination. While most parents want to vaccinate their children, they do so for a complex range of reasons. Similarly, the decision to shun or stray from recommended immunisation schedules is also based on deep-seated cultural and psychological biases and heuristics. Thomson said a closer examination of human behaviour will help public health advocates to understand the “predictably irrational” choices we make.

The keynote address was delivered by award-winning investigative journalist Brian Deer, whose work at the *Sunday Times*, *British Medical Journal* and Channel 4 Television, led *The Lancet* to retract research led by Andrew Wakefield which had sparked a crisis of confidence in the MMR vaccine. Deer recounted the painstaking work that led him to write about vaccine controversies, starting with the whole-cell diphtheria, tetanus and pertussis (DTP) vaccine before moving to the measles, mumps and rubella (MMR) vaccine. He also offered insights into what drives media coverage of immunisation issues.

“Aristotle said if you want to engage people what you need is fear or pity. From a media perspective, the anti-vaccine stories do both. The mother-child vignette plays well and nothing travels quite like fear,” he said, adding that simple interviews with a parent or with a contrarian expert makes for cost-effective, yet high-impact, news stories. Deer said new media have shattered the traditional dominance of large media outlets, presenting policymakers with new challenges as well as opportunities to engage the public.

There was much discussion throughout the conference on whether and how public health authorities, scientists, industry and frontline health professionals should deploy anecdote and emotion. Several participants noted that critics of vaccination typically use these rhetorical devices in making anti-vaccine arguments.

Day two began with a moving personal story by Danny Darche, a father from Belgium who lost a daughter, Lore, to pertussis in 2010. Having been born healthy, Lore died after just 83 days. She was too young to have been vaccinated against pertussis but Darche noted that a regional campaign to encourage doctors to vaccinate pregnant women had had little impact on health professionals or the public.

With the sobering reality of what happens when immunisation communication campaigns fall short, the conference turned to the psychology of how personal health decisions are made. Dr Cornelia Betsch, a psychologist at the University of Erfurt in Germany, said understanding the drivers of risk perception is crucial to successful health communication.

Discussing childhood vaccination, she said parents prefer narrative information to hard scientific data and tend to trust other parents more than they trust the government, industry or media. However, Betsch sounded a note of caution on how narratives and emotion can be adopted by public health communicators. In particular, using fear can backfire, she warned.

This topic was taken up by Paul Arnold, a leading UK-based advertising consultant, who relayed the experience of successful road safety campaigns which have used humour, fear and shock tactics to grab the attention of television viewers. Arnold's contention is that simple, powerful messages, delivered through graphic storytelling, is necessary in order to have your message heard in the noisy modern media landscape.

The role of fear, trust, prior experience and political worldview are major factors in decision-making, the conference heard, but so too is regret. Dr Nick Sevdalis, lecturer in patient safety at Imperial College London, described human beings as fundamentally "regret averse". One of our biggest fears, particularly when making decisions for others, is of making a mistake.

"We feel worse about negative outcomes that result from our actions than for equivalent outcomes that result from the status quo. The decision to vaccinate is a departure from status quo. You feel worse about outcomes of your own decision than those that you see as having happened due to bad luck or an 'act of God'," Sevdalis said.

Turning to broader societal factors which have influenced how the public approaches medical matters, Dr Stuart Blume, Professor Emeritus at the Department of Sociology and Anthropology, University of Amsterdam, the Netherlands, said paternalistic approaches to increasing vaccination uptake are at odds with the trend towards empowering the individual to make their own choices.

He said that in the increasingly market-oriented world of healthcare, we are no less willing to take advice based on trust and attach less weight to expert opinion than was once the case. "We are encouraged in all other areas of healthcare to function as informed consumers, but when it comes to vaccination we're largely expected to do what we're told," Dr Blume said.

Despite the waning faith in institutions and expertise, people's trust in their own doctor is holding up relatively well, according to Dr Glen Nowak, Senior Advisor to the Director of the National Center for Immunization and Respiratory Diseases at the Centre for Disease Control and Prevention (CDC) in the US. He said the CDC has produced conversation aids to support doctors in communicating about immunisation, noting that patients often ask about their doctor's own experience in dealing with the vaccine, its side effects and the disease it prevents.

Nowak acknowledged that most parents have some questions about vaccines and there has been increasing interest among the public for designing customised immunisation plans rather than following the recommended schedule. He added that given the influence of family doctors, it is essential that physicians themselves are vaccinated. "If a healthcare provider isn't vaccinated it undermines their recommendation," Nowak said.

This point was neatly illustrated by Dr Michael Schwarzinger, a social sciences researcher at INSERM, France's national institute for health and medical research. He described a series of studies looking at uptake of the H1N1 influenza vaccine during the 2009 pandemic. In the early phase of the outbreak, 77% of French doctors and 60% of nurses wanted to be vaccinated.

Previous vaccination against seasonal influenza was a major predictor of willingness to be immunised against the new flu strain, according to Schwarzinger's research. By the end of the summer of 2009, when the severity of the pandemic turned out to be milder than first feared, willingness to be vaccinated had fallen to 58% and 46% amongst doctors and nurses respectively.

The lack of enthusiasm amongst doctors was reflected in the general population and, by the time the pandemic was over, just 8% of the public had received the H1N1 vaccine in France. However, not only was previous uptake of seasonal flu vaccines a driver of pandemic flu vaccination, it now appears that the low level of pandemic flu vaccination in 2009 has carried through into 2010 when seasonal flu immunisation rates in France were around 10% lower than in previous years. This provides a stark illustration of how strong past vaccination decisions can bear on future decision-making.

The role of anti-vaccine activists in sowing seeds of doubt in the minds of parents was discussed in some detail. The disproportionate impact of this small hard core of staunch vaccine critics poses a major challenge to immunisation campaigns, the conference heard, although it was stressed that there is a difference between vehement anti-vaccine groups and people with genuine concerns or scepticism.

Prof Seth Kalichman, Professor of Psychology at the University of Connecticut, US, offered a fascinating perspective from inside extremist groups. Having embedded himself in the world of AIDS deniers for two years, Kalichman described how warped perceptions of reality can be reinforced and amplified in fringe activist communities.

He said hard-line anti-vaccine groups – like those who dispute the science behind HIV – often frame issues as part of a wider conspiracy theory. In these narratives, government and industry are typically cast as the dark forces threatening the safety or liberty of individuals for

their own benefit. Kalichman said the Internet is fertile ground for health conspiracies which routinely involve selective use of scientific data and the elevation of maverick scientists to hero status, “confusing credentials with credibility”.

The role of the Internet and new media in fuelling anti-vaccine beliefs was addressed by several speakers. However, for Philip Weiss, founder of Brussels-based communications agency and author of the forthcoming book *Hyperthinking: Creating a New Mindset for the Digital Age*, new media offer a chance to rethink the immunisation conversation.

“If you believe that information is power, and if you believe that the Internet is that the ultimate source of information, the logical conclusion is that Internet is power; the power to shape perception and the power to shape perceptions,” he said. Weiss said non-governmental organisations had been the first to capitalise on the inexpensive but powerful potential of social media. He urged participants to accept that the global communications environment has changed and to adapt their thinking accordingly.

“This demands a new mindset, a new conversation, and new values based on real openness and real transparency,” he said, calling on health advocates to embrace social media or risk being left behind. The conference itself was an exercise in online engagement, with attendees exchanging ideas with participants in the room and beyond via Twitter. Such was the sense of community engendered by the event that it spawned its own mini-social network named ‘Vax Policy’ on the Yammer platform.

Engagement – online and offline – was the thread running through the contribution of Claire Matterson, Director for Medical Humanities and Engagement at the Wellcome Trust, UK. She said the Trust had experimented with a range of formats for engaging the public in scientific issues over the past decade. The so-called “deficit model” of science communication, which presumes that plugging the gap in public knowledge will guarantee more favourable views of science, is now a relic. She said innovative approaches like bringing scientists to music festivals and creating science galleries can spur dialogues which benefit the general public and science alike.

The conference also featured parallel workshops where one group of participants attempted to devise strategies to boost vaccination uptake while another group put themselves in the shoes of anti-vaccine activists bent on undermining immunisation programmes. This in itself proved an innovative way of looking at all sides of the issue, particularly given the diverse spheres from which attendees had been drawn.

Mike Watson, who leads the Global Immunisation Group at Sanofi Pasteur, brought proceedings to a close by tying together the various stands of the three-day conversation on vaccination policy. He spoke about Fuzzy Trace Theory which describes some of the fundamental factors influencing individual decision-making and risk perception. The psychology of how we interpret, remember and recall facts and ideas should inform the development of credible, digestible decision aids, Watson suggested.

He summed up by saying vaccine advocates need to listen more, to understand the social and cultural context in which messages are sent and received, and to engage: “Get out that and enter a dialogue.”