

## Lessons from the pandemic

Dr Paul Martiquet, Medical Health Officer

**The H1N1 influenza pandemic is** officially over. The World Health Organization declared the end of the pan-

demic on August 10, 2010. Good thing this was such a mild pandemic. Last time out, in 1918, it killed at least 20 million people (estimates go as high as 40 million). Fortunately, we were able to learn a great deal from this event.

The first surprise about this strain of influenza was the speed with which it spread across North America. We expected to have the "usual" weeks to months to prepare that we usually do for seasonal influenza. Wrong. It arrived and spread much more quickly than normal.

We discovered that despite all-out efforts to create, produce and distribute an effective vaccine, it was already past the peak of the pandemic by the time

most people received the vaccine. The goal needs to be speedier action to get vaccines out to the public. Done sufficiently fast and with high enough penetration (no pun intended)

Even if we devise the perfect vaccine in plenty of time to be effective, it will do little good if not enough people get vaccinated.

we could potentially slow or even halt the spread of a pandemic.

Another lesson of the 2009 pandemic is that no matter how effectively vaccines are produced and distributed, the whole strategy goes awry if too few people subscribe to vaccination. In other words, even if we have vaccines available in sufficient quantity and in advance of the spread of disease, it does little good if not enough people get vaccinated.

In the United States only about 20% of adults were vaccinated against pandemic influenza. Worse, fewer



than half of health care workers were vaccinated, even if they knew they could pass on infections to their immunity-compromised patients.

It would be simple to blame the small but vocal minority of people who blame vaccines for many of the world's ills, but that would be too simple. It would also give too much credit to this small group.

Vaccination is probably the single most important public health achievement of the past century. A century ago infectious diseases were the leading cause of death worldwide. Today, they cause only 5% of deaths in Canada. Immunization has likely saved more lives in Canada in the past 50 years than any other health intervention. So why are people resistant to vaccines?

The success of vaccines could well be their greatest public relations weakness. It is easy today to ignore the dangers and deadliness of polio—who has even seen a case? Vaccines made polio disappear, but that

rarely gets mentioned. Sound medical research has long proven the efficacy and safety of immunization, yet some continue to resist the wisdom of getting vaccinated.

And that points to one more lesson learned from the H1N1 pandemic of 2009. Most research has been done on the biomedical and technical side of vaccines and little on the social and behavioural side. Even if we devise the perfect vaccine in plenty of time to be effective, it will do little good if not enough people get vaccinated.

We were fortunate that this H1N1 pandemic was so mild—it certainly wasn't last time out. We may not be so lucky next time. And there will be a next time.

**Dr Paul Martiquet** is the Medical Health Officer for Rural Vancouver Coastal Health including Powell River, Sunshine Coast, Sea-to-Sky, Bella Bella and Bella Coola.