

# Public Mistrust as a Barrier to Mass Vaccination During Influenza A (H1N1) Pandemic

By Matti Allen

The influenza A (H1N1) pandemic of 2009 was global in scale and deemed menacing enough to lead some nations, including the United States, to declare a national state of emergency<sup>1</sup>. Vaccinations providing individuals with full or partial immunity to prevent the spread of the virus were a key aspect in the health policies of many states<sup>2</sup>. Despite adequate information regarding the threat posed by H1N1 and sufficient supply of vaccine, individuals in jurisdictions across the globe opted to decline vaccination<sup>3,4</sup>. The reasons why so many individuals declined immunization are often rooted in the persistence of misinformation and feelings of uncertainty towards the safety of the vaccine<sup>5</sup>.

Mass vaccination is believed to be the most efficacious and cost-effective measure in reducing the number of infections, hospitalizations and deaths during an influenza pandemic<sup>6</sup>. Modelling studies strongly suggest that the mitigating impact of vaccination is dependent on how quickly it is initiated and the extent of the target population that is immunized<sup>6,7</sup>. Thus, the greater the proportion of individuals vaccinated, the greater the effectiveness of the immunization program. While the perception of a low infection risk or low risk imposed by the virus itself is cited by some, for the majority of individuals declining vaccination is based on a belief that the vaccine might not be safe<sup>5</sup>. It is important to note that this fear persists in spite of multiple, large scale, randomized control studies illustrating that the vaccine is both effective and safe<sup>8,9</sup>. Adverse effects were found to be rare and largely mild, most often consisting of soreness localized to the injection site and fatigue lasting one or two days<sup>8,9</sup>.

The public's fear stems from the mismanagement of past health crises and lingering suspicions of vaccines in general. Memories of the 1976 U.S. swine flu alert, the subsequent vaccination program and the Guillain-Barre syndrome related deaths that followed are still a



source of mistrust<sup>10</sup>. For many, the now discredited study linking the measles-mumps-rubella (MMR) vaccine with autism is enough to keep them away from any vaccination program<sup>11</sup>. Some myths specific to the H1N1 vaccine discouraging patients from vaccination include: mercury (Thiomersal) in the vaccine is harmful to young children and pregnant women<sup>12</sup>, the vaccine's adverse effects are more harmful than the disease itself, receiving the H1N1 weakens the immune system and the vaccine actually causes the flu<sup>13</sup>. These myths have no evidentiary support but they feed into the mistrust of an already wary public. Additionally, the persistence of well-organized and vocal anti-vaccination groups helps to perpetuate these and other common misconceptions, especially with the emergence of new social media such as the internet<sup>14</sup>.

The coverage of target populations with H1N1 vaccination programs worldwide was limited due to this common fear of becoming immunized<sup>5</sup>. For example, in the U.S., enough vaccines were distributed to immunize 75% of the population. However, only 33% of the high priority and 20% of the adult population were vaccinated<sup>15</sup>. If the virulence of H1N1 was greater during the 2009 pandemic, the consequences would have been

substantially more pronounced. Thus, it is important to address these concerns to develop a more effective response in future pandemics. To combat these potentially dangerous misconceptions, the public health community must actively pursue strategies of transparency, improved communication and engage in attentive listening to the concerns of individuals<sup>14</sup>. Rather than simply instructing the public to seek vaccination, more efforts should be made to explain the processes used in vaccine development, the evidence supporting the safety and efficacy of the vaccine, and the policies in place to ensure public safety during immunization programs. The public health community should also make greater use of new media, particularly powerful platforms offered on the internet through social networking sites and “blogging”, in spreading its message. Finally, health professionals should also make an effort to educate politicians and community representatives on the relative risks and benefits of vaccination, as individuals are at times known to be more influenced by their peers rather than health experts<sup>14</sup>. The H1N1 pandemic has clearly illustrated the need to foster greater levels of trust between the public and the health community. This pandemic should spur adoption of the aforementioned strategies to build faith and ultimately allow for a more effective response to future health challenges.

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