

# The Vaccine Controversy: Benefits and Risks

## Framing the Issue

Vaccines are credited with reducing the prevalence and consequences of many diseases. National and international public health organizations have made vaccination a central part of their strategies. The consensus of health organizations and medical doctors is that mass vaccination campaigns have been an essential and effective component of eradication or control of several deadly diseases via individual and herd immunity.

The medical community overwhelmingly supports vaccination as an effective and safe means of preventing the spread and reducing the impact of infectious illnesses. Additionally, the majority of public health advocates hold the opinion that the benefit to the public justifies mandatory programs. Despite this apparent strong support, anti-vaccinationists question the efficacy and safety of such programs, often citing lack of research on the adverse effects.

***"We're pumping toxins into our children's bodies. The government refuses to recognize the correlation between more vaccines and more disabilities."***

*Sue Collins, co-founder  
New Jersey Alliance for Informed  
Choice in Vaccination  
January 27, 2007*

## Thimerosal

*In the late 1990s, the American Academy of Pediatrics (AAP) and the US Public Health Service joined in calling for removal of the mercury-containing preservative thimerosal from vaccines. By 2001, all the vaccines recommended for children under age 7 were available without thimerosal or with only trace amounts. But in 2004, in recommending for the first time that 6 to 23-month-old children routinely get flu shots, the Centers For Disease Control and Prevention (CDC) did not go on record in favor of a thimerosal-free formulation of the vaccine. Instead, the CDC said the risk of flu complications far outweighs any possible risk from thimerosal in the vaccine.<sup>1</sup>-CIDRAP News 5/6/2004*

- Parental and watchdog groups have long been concerned about the risk of autism and other neurodevelopmental problems from mercury, a neurotoxin. Thimerosal, which is 49.6% mercury by weight, has been used in vaccines since the 1930's to control bacteria and fungi. The call to remove it from vaccines in 1999 was prompted by the recognition that babies in their first 6 months could receive a cumulative dose of mercury exceeding federal guidelines.
- The most recent major assessment of the evidence on thimerosal was done by the Institute of Medicine (IOM) in 2004.<sup>2</sup> The IOM's Committee on Immunization Safety concluded epidemiological evidence does not support a causal relationship between thimerosal-containing vaccines and autism. The IOM stated, "Five large epidemiological studies conducted in the United States, the United Kingdom, Denmark, and Sweden since 2001 consistently provided evidence that there is no association between thimerosal-containing vaccines and autism." The IOM panel also reviewed five studies that linked autism with thimerosal and two that linked the disorder with MMR vaccine, concluding these studies had flaws that invalidated their stated findings.

## Vaccination Rates

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Children and adults who lack vaccination coverage play a role in vaccine-preventable (VPD) outbreaks. *Healthy People 2010* objectives include increasing vaccination coverage among children in kindergarten and first grade.<sup>3</sup> State laws requiring proof of vaccination at early school entry are key to the U.S. vaccination program and help ensure that no child is unvaccinated. In 2007, one school district in Maryland discovered more than 2,000 school-aged children did not have vaccinations required to attend school. In a controversial move, a judge ordered the parents to bring their children to a mandatory vaccination clinic or face going to jail.

- Each year 2.1 million children 19 to 35 months of age are undervaccinated. Among these are children who have received no vaccinations. Unvaccinated children are at increased risk of acquiring and transmitting vaccine-preventable diseases. In 2001, an estimated 62.8% of all children 19 to 35 months of age in the US were fully vaccinated, an estimated 36.9% were **undervaccinated**, and an estimated 0.3% were completely **unvaccinated**.<sup>4</sup>
- **Undervaccinated** children were more likely to be black; younger; or foreign born. They were significantly more likely to have a mother who was young; widowed, divorced, or separated; had educational attainment that was high school or less than a college degree; and significantly more likely to live in a household with an annual income below the poverty level.

***"We need to get beyond the mentality that vaccines are for kids -- vaccines are for everybody."***

*Dr. Anne Schuchat, director  
U.S. Centers for Disease Control  
and Prevention's National  
Center for Immunization and  
Respiratory Diseases  
January 23, 2008*

- **Unvaccinated** children, when compared to undervaccinated children, were significantly more likely to be non-Hispanic white; to have a mother who had a college degree; to have a mother  $\geq 30$  years of age. Also, children were significantly more likely to live in a household with an annual income at or exceeding \$75,000, and with  $\geq 4$  children.
- Adults are also at risk of vaccine-preventable diseases. Annually, there are more than 1 million cases of Shingles diagnosed in adults over age 60. Pneumococcus pneumonia causes more than 5,000 deaths in the elderly. Both diseases are vaccine-preventable.
- In a recent US survey conducted by the CDC, only 2% of adults over 60 are immunized for herpes zoster, the agent responsible for causing Shingles. For adults aged 18 to 64 years, only 2% are immunized for tetanus, diphtheria, and whooping cough.<sup>5</sup>

## Chiropractors vs. Vaccination?

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The International Chiropractors Association (ICA) recognizes that the use of vaccines is not without risk. The ICA supports each individual's right to select his or her own health care and to be made aware of the possible adverse effects of vaccines upon a human body. In accordance with such principles and based upon the individual's right to freedom of choice, the ICA is opposed to compulsory programs which infringe upon such rights. The International Chiropractors Association is supportive of a conscience clause or waiver in compulsory vaccination laws, providing an elective course of action for all regarding immunization, thereby allowing patients freedom of choice in matters affecting their bodies and health. (Official policy statement on vaccination by the ICA.)<sup>6</sup>

Concerns have been raised about the beliefs and behaviors of chiropractors related to immunizations. The following is a summary of beliefs of chiropractors from a survey of chiropractors registered to practice in Alberta, Canada as of August 2001.<sup>7</sup>

- 40% surveyed perceive that immunizations overload/weaken the immune system, or that some vaccines can cause autism, SIDS, or MS, or that people who are vaccinated are likely to be harmed by a preservative found in many vaccines.
- 57.9% surveyed agree that it is better to be naturally infected than to be vaccinated.
- 76.4% surveyed agree that good nutrition and sanitation are more important than immunization in preventing infectious disease.
- 88.8% surveyed perceive that the public is not adequately informed about the risks of immunization.
- 70% surveyed perceive that medical doctors are not adequately informed about the risks of immunization.

## Vaccination Information Service

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Vaccination Information Service is an internet site that makes the following statements: <sup>8</sup>

- “Vaccination Information Service will inform you primarily about the key fundamentals – indeed critical flaws – of vaccination that apply to every type of vaccine; for children, adults (travel vaccines and other) and all animals. So, it applies to the influenza or flu vaccine, polio vaccine, hepatitis B vaccine, chicken pox vaccine, HPV vaccine, small pox vaccination, anthrax vaccine, DPT and MMR vaccines, pneumonia vaccine, dog vaccination, rabies vaccination, yellow fever vaccination, etc.”
- “The term “immunization,” often substituted for vaccination, is false and should be legally challenged, because the direct injection of foreign proteins and other toxic material (particularly known immune-sensitizing poisons such as mercury) sensitizes, meaning makes the recipient more, not less, easily affected by what he/she encounters in the future. This means they do the OPPOSITE of immunize, commonly even preventing immunity from developing after natural exposure.”
- *Vaccination - the Hidden Truth* is a Video that is distributed by the Vaccination Information Service. The video is clearly devoted to presenting the other side of the issue, that parents and others are not being told. It declares parents are not being told the truth by the media, the Health Department nor the medical establishment; featuring Dr. Mark Donohoe, a medical doctor, confessing “It is a problem for me that I am part of a profession that is systematically lying to people...”  
Link to the video: [vaccination hidden truth \(Google Video\)](#)

## HPV Vaccine

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Yvonne Prettner Solon survived one type of cancer and lost her husband to another so she thought everyone would be as excited as she was about a new vaccine to prevent cervical cancer.

- “I thought parents would embrace this and say, ‘Oh my gosh, here's one cancer I can protect my daughter from,’” Solon said. Instead, she discovered that people are scared about a new vaccine and they're scared about a mandate.<sup>6</sup> Some critics are offended by the idea of requiring preteen girls to be vaccinated against a sexually transmitted disease. Others worry that it's too soon to embrace a vaccine that has been on the market for less than three years.

- The vaccine was approved in 2006 to protect girls and young women from a sexually transmitted virus called HPV or human papillomavirus which can cause cervical cancer and genital warts.
- HPV is blamed for an estimated 70 percent of the cervical cancers that kill nearly 4,000 American women each year (70% of 4,000 = ~2,800 U.S. deaths annually due to HPV).
- Attempts to mandate the vaccine for preteen girls has prompted a backlash in many state capitals in part because of concerns about safety and morality.

## The Public Health Response to the Issue: Discussion Questions

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### The issue

- What are the essential elements of this issue?
- What public health problem does this issue raise?
- What are the psychosocial aspects of public health for this issue?
- What are the competing risks to be considered?
- What is the role of the public in this issue?

### The team

- Why does this issue call for a trans-disciplinary public health team?
- What knowledge, skills and experience do you bring to addressing this problem?
- What frames your perspective on this issue?
- What knowledge, skills and experience do you need to address this problem and where can you find that?
- What other perspectives might be useful in addressing this problem?
- What skills, knowledge, and experience do you think are at the table now?

### Reading Assignment

In preparation for small group discussion, each student should review at least one additional resource that addresses this issue. The group should decide who will review each resource, so that there is not overlap. The resources may come from the list below or from an independent search. Bring a copy of your resource if possible.

## References

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8. [Anonymous] Vaccination information service.  
<http://www.vaccination.inoz.com/> Accessed 5/6/2009.
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