

# **Inquiring Minds. Vaccinations.. March 6, 2015**

## **Mickie Kaplan. .Moderator**

Vaccination is a process, by injection or oral administration, whereby protection is afforded to an individual against a disease process.

(Includes many disease processes, such as Influenza, measles, polio, pertussis, etc.)

The degree of efficacy of a vaccination varies, and is described by scientific data collection.

The potential side effects of any vaccination varies and is described by scientific data collection.

The purpose of vaccination is the protection of the individual receiving same, and the protection of the community from the disease process by contagious contact. Also called Herd immunity

Having laid the basics, questions..

Who shall make the determination of whether an individual receives a vaccination?... Individual, parent, judicial system, government.

What criteria shall be used in such determination? Scientific, religious, individual calculation or predisposition.

Should rights of the community, namely versus contagion, figure in such determinations? If so, how? In terms of school, general contact?

If asking for an an Exemption from Vaccination, how difficult should it be to get an exemption??

## **The Upshot**

Brendan Nyhan

Will a measles outbreak persuade more parents to vaccinate their children?

That's the question people are asking as concern grows about [the outbreak](#) linked to Disneyland that has [spread](#) to 67 cases across seven states.

[Some doctors](#) have expressed hope that parents will be more likely to get their children immunized. I hope they're right, but research suggests that the long-term effects of the

outbreak could be worse, not better. The [social and political conflicts](#) we've seen emerge over the outbreak threaten to polarize the issue along political lines and weaken the social consensus in favor of vaccination.

Measles was declared eradicated in the United States in 2000, but vaccination is still crucial to protect against a resurgence due to cases imported from overseas. The Disneyland outbreak, which was probably caused by just [one infected person](#), highlights just how [explosively contagious](#) the disease can be.

Despite the [anxiety](#) that some parents are feeling after the outbreak, it's [not clear](#) that even such a vivid reminder of a vaccine-preventable disease will change many people's minds given the resistance we [continue](#) to [see](#) from hesitant parents. In a previous study, my co-authors and I found that [a series of messages](#) used by public health officials to convey the dangers of measles, mumps and rubella had no effect on parents' intention to vaccinate. Even events as high profile as [the massacre](#) at Sandy Hook Elementary School tend to have only a brief effect on public opinion toward the issue in question — as was observed in Washington State, where

a recent pertussis outbreak [did not change](#) vaccination rates.

Moreover, the outbreak has fueled a backlash against the anti-vaccine movement that is [likely](#) to be [counterproductive](#). Dr. James Cherry, an infectious disease specialist at U.C.L.A., for instance, labeled parents of unvaccinated children "[selfish](#)" and "[dumb](#)," while a Los Angeles Times columnist, Michael Hiltzik, [called](#) for treating "the anti-vaccination crowd" as "public enemies." If we've learned anything in politics over the last few decades, it's that this kind of language is likely to be polarizing, driving people away rather than persuading them.

What's even more dangerous is [politicizing](#) the debate over vaccines. Comments by Gov. Chris Christie of New Jersey [calling for "balance"](#) in the vaccine debate after President Obama [said](#) Americans should "get your kids vaccinated" could have a similarly perverse effect, turning a public health issue into a matter of [partisan allegiance](#).

[The extensive coverage](#) we've seen of the Disneyland outbreak could also confuse parents by exaggerating the size of the anti-vaccination movement and the prevalence of unvaccinated children. I share the concern of many public health officials about [rising vaccine exemption levels](#) in some states, patterns of [school- and community-level clustering](#) and [widespread misinformation](#) about the safety of vaccines. High levels of vaccination are needed to [maintain herd immunity](#).

However, news articles [focusing](#) on an extreme and unrepresentative group of anti-vaccine parents and celebrities may cause others to wrongly infer that their views are mainstream. Dan Kahan, a professor at Yale Law School, [finds](#) that exposure to news media coverage attributing disease outbreaks to declining vaccination rates or to commentary attacking vaccine opponents as "anti-science" causes people to significantly underestimate current rates of vaccination. Research on social norms campaigns has likewise [found a risk](#) of boomerang effects if messages inadvertently normalize undesirable behavior like binge drinking.

In fact, the social consensus in favor of vaccination is overwhelming. Even after recent increases, for instance, [only 3 percent](#) of kindergartners in California had an exemption from vaccination. The evidence suggests we should strengthen and reinforce this norm, not create an uproar that calls it into question.

A more proven approach is to work in a more targeted fashion to help health care providers [identify at-risk patients](#) and [communicate with them](#) more effectively. Likewise, we could support community, business, educational and health groups in areas at greater risk of outbreaks and help them promote the importance of vaccination within their communities. Trusted friends and neighbors can be more effective advocates than government health agencies.

Finally, it may be time to reconsider [overly lenient](#) state exemption policies that fail to strike an appropriate balance between public health and personal autonomy. The Disneyland outbreak may not change most people's minds about vaccines, but [if it causes](#) policy makers to re-evaluate the status quo, this episode might do some good after all. Any other questions?

## A POLITICAL CALCULATION

WASHINGTON — The politics of medicine, morality and free will have collided in an emotional debate over vaccines and the government's place in requiring them, posing a challenge for Republicans who find themselves in the familiar but uncomfortable position of reconciling modern science with the skepticism of their core conservative voters.

As the latest [measles outbreak raises alarm](#), and parents who have decided not to vaccinate their children [face growing pressure to do so](#), the national debate is forcing the [Republican Party's](#) 2016 presidential hopefuls to confront questions about whether it is in the public's interest to allow parents to decide for themselves.

Gov. Chris Christie's trade mission to London was suddenly overshadowed on Monday after he was quoted as saying that parents ["need to have some measure of choice"](#) about vaccinating their children against [measles](#). The New Jersey governor, who is trying to establish his credibility among conservatives as he weighs a run for the Republican nomination in 2016, later tried to temper his response. His office released a statement clarifying that "with a disease like measles there is no question kids should be vaccinated."

Senator Rand Paul of Kentucky, a physician, was [less equivocal](#), telling the conservative radio host Laura Ingraham on Monday that parents should absolutely have a say in whether to vaccinate their children for measles.

"While I think it's a good idea to take the vaccine, I think that's a personal decision for individuals," he said, recalling his irritation at doctors who tried to press him to vaccinate his own children. He eventually did, he said, but spaced out the [vaccinations](#) over a period of time.

The vaccination controversy is a twist on an old problem for the Republican Party: how to approach matters that have largely been settled among scientists but are not widely accepted by conservatives.

It is a dance Republican candidates often do when they hedge their answers about whether evolution should be taught in schools. It is what makes the fight over [global warming](#) such a liability for their party, and what led last year to a widely criticized response to the Ebola scare.

As concern spread about an Ebola outbreak in the United States, physicians criticized Republican lawmakers — including Mr. Christie — who called for [strict quarantines](#) of people who may have been exposed to the virus. In some cases, Republicans proposed banning people who had been to the hardest-hit West African countries from entering the United States, even though public health officials warned that would only make it more difficult to stop Ebola's spread.

On climate change, the party has struggled with how to position itself, with some Republicans inviting mockery for questioning the established science that human activity is contributing to rising temperatures and sea levels.

There is evidence that vaccinations have become more of a political issue in recent years. Pew Research Center [polls show](#) that in 2009, 71 percent of both Republicans and Democrats favored requiring the vaccination of children. Five years later, Democratic support had grown to 76 percent, but Republican support had fallen to 65 percent.

The debate does not break entirely along right-left lines. The movement to forgo vaccinations has been popular in more liberal and affluent communities where some parents are worried that vaccines cause [autism](#) or other disorders among children.

President Obama acknowledged the concern as a candidate in 2008, saying, "Some people are suspicious that it's connected to the vaccines, this person included." But asked about immunization over the weekend in an interview on the NBC News program "Meet the Press," Mr. Obama urged parents to "get your kids vaccinated."

Hillary Rodham Clinton also weighed in with a jab at vaccine naysayers, writing Monday night on [Twitter](#), "The science is clear: The earth is round, the sky is blue, and #vaccines work."

Howard Dean, a presidential candidate in 2004 and a former chairman of the Democratic National Committee, said there are three groups of people who object to required vaccines: "One is people who are very much scared about their kids getting autism, which is an idea that has been completely discredited. Two, is entitled people who don't want to put any poison in their kids and view this as poison, which is ignorance more than anything else. And three, people who are antigovernment in any way."

"But the truth," added Mr. Dean, a physician, "is you can be conservative without putting kids in harm's way." The issue has more political potency among conservative voters who are highly skeptical of anything required by the government.

The vaccine question [surfaced in the 2012 Republican primary](#) when rivals of Rick Perry, then the Texas governor, pounced on him for issuing an executive order requiring sixth-grade girls to be vaccinated against the [human papillomavirus](#) — the first regulation of its kind in the country. One of his opponents, Michele Bachmann, a congresswoman in Minnesota, went as far as saying the vaccine [could cause “mental retardation.”](#) a claim with no scientific merit. But in a sign of the issue’s political weight, Mr. Perry apologized for the mandate.

Asked about the [measles vaccine](#) controversy on Monday, a spokesman for Mr. Perry affirmed his commitment to “protecting life” and pointed to efforts by his administration to increase immunization rates.

But as Mr. Perry’s experience shows, the debate is not one-sided for Republicans. Gov. Scott Walker of Wisconsin, also a possible 2016 candidate, [was asked on Sunday about vaccinations](#) on the ABC News program “This Week,” and insisted that the science was clear and convincing. “Study after study has shown that there are no negative long-term consequences,” he said. “And the more kids who are not vaccinated, the more they’re at risk and the more they put their neighbors’ kids at risk as well.”

Mike Huckabee, the former Arkansas governor who is considering a run for president, [has noted that the link between autism and vaccines](#) was discredited. As governor, he received his [flu shot](#) at the State Capitol and encouraged all Arkansans to get vaccinated.

But for Republicans like Mr. Paul who appeal to the kind of libertarian conservatives who are influential in states like Iowa and New Hampshire, which hold the first two contests in the battle for the nomination, there is an appeal in framing the issue as one of individual liberty.

Asked about immunizations again later on Monday, Mr. Paul was even more insistent, saying it was a question of “freedom.” He grew [irritated with a CNBC](#) host who pressed him and snapped: “The state doesn’t own your children. Parents own the children.”

## **The Return of the Vaccine Wars**

The controversy over vaccines is as old as vaccination itself. When Edward Jenner, a brilliant English country doctor, discovered the vaccine for smallpox in 1796, he faced as much criticism as praise. Ministers thundered against tampering with the Lord’s grand design. The economist Thomas Malthus worried that vaccines would lead to dangerous population increases. The very idea of injecting animal matter into the human body struck many as dangerous and repulsive. Cartoons appeared showing cows’ horns sprouting from the heads of recently vaccinated children.

The current measles outbreak, with more than 140 cases so far, has created a firestorm that may not disappear when this particular crisis ebbs. Last week, New York University Medical School bioethicist Arthur Caplan compared doctors who oppose vaccination to “Holocaust deniers” and demanded that their medical licenses be revoked. Some pediatricians said they would no longer treat the children of vaccine resisters. In response, Barbara Loe Fisher, founder of the National Vaccine Information Center, an antivaccine group, accused the

mainstream media of creating a phony crisis to serve the interests of big government and the “massive Pharma-led lobby.”

The vaccine wars in America have been particularly contentious because they involve our most basic rights (personal liberty, religious freedom) and deepest suspicions (government intrusion, rule by elites). Historians generally trace the antivaccine movement to a number of 19th-century groups, including religious activists, radical libertarians and health faddists, who insisted that Jenner’s vaccine actually caused smallpox. Like some current movement activists, these early leaders had a personal story to tell, claiming that a vaccine had harmed or even killed someone close to them, most often a child. Indeed, their most visible symbol was the smiling but entirely limp Raggedy Ann doll created by a popular cartoonist for his daughter, who had fallen ill and would later die, he believed, from a smallpox shot she received without his permission.

The issue came to a head in 1905 in the vitally important Supreme Court case of *Jacobson v. Massachusetts*. As America industrialized, state legislatures passed numerous measures to protect the “public good.” There were laws abolishing child labor, requiring safety inspections in factories and restricting the hours a woman could work outside the home. In Massachusetts, the legislature gave towns the authority to require vaccination “when necessary for public health or safety,” such as the smallpox epidemic then sweeping the state.

Cambridge quickly put an ordinance in place requiring its residents to get the smallpox shot or pay a \$5 fine. Henning Jacobson, a minister, refused both options, claiming the ordinance violated his Fourteenth Amendment right to liberty. The U.S. Supreme Court strongly disagreed. A “well-ordered society” must be able to enforce “reasonable regulations” in responding to “an epidemic disease which threatens the safety of its members,” wrote Justice John Marshall Harlan. While the Constitution protected against tyranny, it didn’t afford “an absolute right in each person to be, in all times and in all circumstances, wholly free from restraint.”

Justice Harlan’s opinion would prevail for much of the 20th century. In 1915, New York City health officers used the logic of *Jacobson* to quarantine an Irish cook whose patrons kept turning up dead from typhoid fever. When Mary Mallon, or Typhoid Mary, refused to change professions, she was exiled to a barren island in Manhattan’s East River, where she spent the remaining 23 years of her life. Seven decades later, New York forcibly isolated tuberculosis victims who refused treatment, using *Jacobson*.

There were times when this logic went awry. In *Buck v. Bell*, an egregious 1927 decision, the Supreme Court specifically used *Jacobson* to uphold Virginia’s policy of forcibly sterilizing the “feebleminded,” ruling that “the principle sustaining compulsory vaccination [could also] cover cutting the fallopian tubes.” In most instances, though, the true meaning of *Jacobson* prevailed: The state could—and must—exercise its police powers to protect the public’s health.

In 1905, only the smallpox vaccine existed to fight infectious disease. Others appeared in time: a vaccine for polio in the 1950s; vaccines for measles, mumps and rubella in the 1960s—the list growing by the year. Guided by *Jacobson*, all 50 states put laws in place by 1980 requiring

the mandatory vaccination of school children for most of these diseases. Exceptions were made for medical and certain nonmedical reasons, such as religious conviction, though few used them at the time.

People complied because vaccines worked. New polio cases disappeared in the U.S., and smallpox was eradicated world-wide. In a typical year before the measles vaccine was licensed in 1962, more than half a million American children would come down with the disease, 48,000 would require hospitalization, and 450 would die. Thirty-five years later, the number of annual measles cases had dipped below 100.

The revival of the antivaccine movement in the 1990s had less to do with fears of personal liberties being deprived than with claims of a link between vaccines and various afflictions, especially autism. It hardly mattered that study after study would refute this junk science. Spurred on by the Internet, talk radio and other outlets, these discredited claims gained credence through repetition. Many parents now had second thoughts. Why vaccinate against diseases that rarely, if ever, occurred? Why take any chance at all? In an odd way, vaccines had done their job too well. They had erased the evidence of why they're always needed.

In a reversal of Jacobson, politicians began to back away from the notion that community protection trumped individual choice. In the 2008 presidential campaign, both Barack Obama and John McCain remained safely neutral on the bogus health scare surrounding vaccination. State legislatures passed laws allowing vaccine exemptions for philosophical reasons—a loophole so vast that almost anyone living in Oregon or Vermont could opt out for himself or his children.

Vaccination rates dropped, in some areas falling below the level of herd immunity needed to control a contagious disease (generally between 85% to 95%). Studies show that most of the outbreaks occur in states where exemptions are easiest to get and where clusters of unvaccinated children gather.

For now, the consequences of vaccine resistance are on full display. Politicians have walked back the sort of comments about free choice and alleged vaccine dangers that were barely controversial only months before. Bills to toughen school vaccination standards are cropping up across the country.

How long this momentum will last is the key question. Vaccination requires one to take an extremely small risk to ensure a safer future for all members of the community. To refuse it, and to live selfishly off the herd immunity of others, is both dangerous and unfair. Vaccination isn't meant as coercion but rather as a nod to the public good, and that message is again being heard.

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