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Public Health Risk Seen as Parents Reject Vaccines

By [JENNIFER STEINHAUER](#)

SAN DIEGO — In a highly unusual outbreak of [measles](#) here last month, 12 children fell ill; nine of them had not been inoculated against the virus because their parents objected, and the other three were too young to receive vaccines.

The parents who objected to their children being inoculated are among a small but growing number of vaccine skeptics in California and other states who take advantage of exemptions to laws requiring [vaccinations](#) for school-age children.

The exemptions have been growing since the early 1990s at a rate that many epidemiologists, public health officials and physicians find disturbing.

Children who are not vaccinated are unnecessarily susceptible to serious illnesses, they say, but also present a danger to children who have had their shots — the [measles vaccine](#), for instance, is only 95 percent effective — and to those children too young to receive certain vaccines.

Measles, almost wholly eradicated in the United States through vaccines, can cause [pneumonia](#) and brain [swelling](#), which in rare cases can lead to death. The measles outbreak here alarmed public health officials, sickened babies and sent one child to the hospital.

Every state allows medical exemptions, and most permit exemptions based on religious practices. But an increasing number of the vaccine skeptics belong to a different group — those who object to the inoculations because of their personal beliefs, often related to an unproven notion that vaccines are linked to [autism](#) and other disorders.

Twenty states, including California, Ohio and Texas, allow some kind of personal exemption, according to a tally by the [Johns Hopkins University](#).

“I refuse to sacrifice my children for the greater good,” said Sybil Carlson, whose 6-year-old son goes to school with several of the children hit by the measles outbreak here. The boy is immunized against some diseases but not measles, Ms. Carlson said, while his 3-year-old brother has had just one shot, protecting him against [meningitis](#).

“When I began to read about vaccines and how they work,” she said, “I saw medical studies, not given to use by the mainstream media, connecting them with neurological disorders, [asthma](#) and immunology.”

Ms. Carlson said she understood what was at stake. “I cannot deny that my child can put someone else at risk,” she said.

In 1991, less than 1 percent of children in the states with personal-belief exemptions went without vaccines

based on the exemption; by 2004, the most recent year for which data are available, the percentage had increased to 2.54 percent, said Saad B. Omer, an assistant scientist at the Johns Hopkins Bloomberg School of Public Health.

While nationwide over 90 percent of children old enough to receive vaccines get them, the number of exemptions worries many health officials and experts. They say that vaccines have saved countless lives, and that personal-belief exemptions are potentially dangerous and bad public policy because they are not based on sound science.

“If you have clusters of exemptions, you increase the risk of exposing everyone in the community,” said Dr. Omer, who has extensively studied disease outbreaks and vaccines.

It is the absence, or close to it, of some illnesses in the United States that keep some parents from opting for the shots. Worldwide, 242,000 children a year die from measles, but it used to be near one million. The deaths have dropped because of vaccination, a 68 percent decrease from 2000 to 2006.

“The very success of immunizations has turned out to be an Achilles’ heel,” said Dr. Mark Sawyer, a pediatrician and infectious disease specialist at Rady Children’s Hospital in San Diego. “Most of these parents have never seen measles, and don’t realize it could be a bad disease so they turn their concerns to unfounded risks. They do not perceive risk of the disease but perceive risk of the vaccine.”

Dr. Sawyer and the vast majority of pediatricians believe strongly that vaccinations are the cornerstone of sound public health. Many doctors view the so-called exempters as parasites, of a sort, benefiting from the otherwise inoculated majority.

Most children get immunized to measles from a combined measles, [mumps](#) and [rubella](#) vaccine, a live virus.

While the picture of an unvaccinated child was once that of the offspring of poor and uneducated parents, “exempters” are often well educated and financially stable, and hold a host of like-minded child-rearing beliefs.

Vaccine skeptics provide differing explanations for their belief that vaccines may cause various illnesses and disorders, including autism.

Recent news that a federal vaccine court agreed to pay the family of an autistic child in Georgia who had an underlying mitochondrial disorder has led some skeptics to speculate that vaccines may worsen such conditions. Again, researchers say there is no evidence to support this thesis.

Alexandra Stewart, director of the Epidemiology of U.S. Immunization Law project at [George Washington University](#), said many of these parents are influenced by misinformation obtained from Web sites that oppose vaccination.

“The autism debate has convinced these parents to refuse vaccines to the detriment of their own children as well as the community,” Ms. Stewart said.

While many parents meet deep resistance and even hostility from pediatricians when they choose to delay, space or reject vaccines, they are often able to find doctors who support their choice.

“I do think vaccines help with the public health and helping prevent the occasional fatality,” said Dr. Bob Sears, the son of the well-known child-care author by the same name, who practices [pediatrics](#) in San Clemente. Roughly 20 percent of his patients do not vaccinate, Dr. Sears said, and another 20 percent partially vaccinate.

“I don’t think it is such a critical public health issue that we should force parents into it,” Dr. Sears said. “I don’t lecture the parents or try to change their mind; if they flat out tell me they understand the risks I feel that I should be very respectful of their decision.”

Some parents of unvaccinated children go to great lengths to expose their children to childhood diseases to help them build natural immunities.

In the wake of last month’s outbreak, Linda Palmer considered sending her son to a measles party to contract the virus. Several years ago, the boy, now 12, contracted [chicken pox](#) when Ms. Palmer had him attend a gathering of children with that virus.

“It is a very common thing in the natural-health oriented world,” Ms. Palmer said of the parties.

She ultimately decided against the measles party for fear of having her son ostracized if he became ill.

In the late 1960s and 1970s, measles outbreaks in Alaska and California triggered strong enforcement of vaccine mandates by states, and exemption laws followed.

While the laws vary from state to state, most allow children to attend school if their parents agree to keep them home during any outbreak of illnesses prevented by vaccines. The easier it is to get an exemption — some states require barely any paperwork — the more people opt for them, according to Dr. Omer’s research, supported by other vaccine experts.

There are differences within states, too. There tend to be geographic clusters of “exempters” in certain counties or even neighborhoods or schools. According to a 2006 article in *The Journal of The [American Medical Association](#)*, exemption rates of 15 percent to 18 percent have been found in Ashland, Ore., and Vashon, Wash. In California, where the statewide rate is about 1.5 percent, some counties were as high as 10 percent to 19 percent of kindergartners.

In the San Diego measles outbreak, four of the cases, including the first one, came from a single charter school, and 17 children stayed home during the outbreak to avoid contracting the illness.

There is substantial evidence that communities with pools of unvaccinated clusters risk infecting a broad community that includes people who have been inoculated.

For instance, in a 2006 mumps outbreak in Iowa that infected 219 people, the majority of those sickened had been vaccinated. In a 2005 measles outbreak in Indiana, there were 34 cases, including six people who had been vaccinated.

Here in California, six [pertussis](#) outbreaks infected 24 people in 2007; only 2 of 24 were documented as having been appropriately immunized.

A surveillance program in the mid ’90s in Canada of infants and preschoolers found that cases of Hib fell to

between 8 and 10 cases a year from 550 a year after a vaccine program was begun, and roughly half of those cases were among children whose vaccine failed.

Gardiner Harris contributed reporting from Washington.

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