

Addressing Vaccine



Hesitancy



By Commissioner Mary E. O'Dowd, MPH

All of us in the medical and public health community have witnessed the lifesaving impact vaccination has made on overall public health. We know that vaccines are responsible for the control of many infectious diseases that were once common in this country and around the world, including polio, measles, diphtheria, rubella, mumps and *Haemophilus Influenzae* Type b. Vaccines eradicated smallpox, one of the most devastating diseases in history. Certainly, we are all aware that over the years, vaccines have prevented countless cases of infectious diseases and saved literally millions of lives.

However, because of the success of vaccines in preventing disease in the United States, parents are often unaware that their children are still at risk for many serious and life-threatening diseases. The recent outbreaks of pertussis around the country and in New Jersey are a reminder of ongoing risks. As medical and public health professionals, we need to address the concerns that some parents have about vaccines and adverse outcomes, particularly in infants and young children. These fears have led to vaccine hesitancy and pockets of unvaccinated children who are more susceptible to disease.

Nationally, approximately 30 percent of parents and guardians are vaccine hesitant.¹ One factor contributing to vaccine hesitancy is the fact that the success of vaccines in reducing disease has given parents the false impression that diseases like polio, mumps and measles have been completely eradicated and no longer pose a danger. Additionally, as new vaccines have been introduced over the years, parents, who are rightfully concerned about their babies' welfare, are questioning the number of shots their children are given—especially during one visit. Parents are also inundated with information about child health and vaccines from a variety of sources including the news, the Internet, social media, other parents and family members. Certain websites and social media display more information about possible risks of vaccines than information about the impact of vaccine-preventable diseases.

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The New Jersey Department of Health recognizes that vaccine hesitancy is a challenge for physicians working with and communicating with patients. Parents have many questions regarding the general health of their children, but vaccine safety is often a primary concern. Research shows that healthcare providers are still parents' most trusted and important source of information who help them make informed decisions about vaccines.²

As health providers and public health professionals, we have to focus our educational efforts on the 30 percent of vaccine-hesitant parents. We must convince them of the value of vaccinations and illustrate the ongoing dangers of vaccine-preventable diseases. In order to effectively reach parents and guardians, we need to provide statistics and compelling stories that demonstrate that, although most vaccine-preventable diseases, such as polio and measles, are not frequently seen in our state, these diseases still cause serious illness and death.

Diseases are often brought into this country by people who get infected abroad and can rapidly spread infection among susceptible individuals in our schools and communities. While measles is almost gone from the United States, it still kills nearly 200,000 people each year around the world, according to the Centers for Disease Control and Prevention (CDC).³ In 2011 alone, 70 individuals were hospitalized due to measles in the U.S.⁴

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Vaccinations for Preteens/Teens and Adults

Meg Fisher, MD

Vaccines are certainly not for babies only. Adolescents and adults, too, need professional medical guidance to protect themselves from a variety of infectious diseases.

Tdap Vaccine

The Tdap booster protects against tetanus, diphtheria and pertussis (whooping cough).

Preteens/Teens: Although the vaccines given to infants and young children protect them up until about age 11, the booster is needed for further protection into the teen years.

Adults: All adults should get the Tdap booster. At this time, a single dose is recommended.

HPV (Human Papilloma Virus) Vaccine

The HPV vaccine protects against warts, cervical cancer and cancers of the rectum and throat.

Preteens/Teens: This age group should receive three doses of the HPV vaccine.

Adults: The HPV vaccine is recommended for adults 19 to 26 years old.

Meningococcal Vaccine

The meningococcal vaccine protects against the bacterial illness that can cause meningitis.

Preteens/Teens: Two doses of the meningococcal vaccine are recommended.

Measles is periodically imported to the United States by international travelers returning or visiting from other countries. A recent example is the 2011 measles outbreak in the U.S. On average, 60 confirmed cases of measles are reported each year in the U.S. However, 222 cases were reported to the CDC in 2011. Of these cases, 90 percent were associated with foreign travel, and 86 percent of infected individuals were unvaccinated or had undocumented vaccination status.⁴ In 2011, New Jersey had four confirmed measles cases, compared to one to two cases each year between 2006 and 2010.⁵ In addition, more than 50 suspected cases of measles were investigated in 2011 compared with 12 suspected cases in 2010. Several investigations involved foreign travelers visiting the state as well as New Jersey residents visiting Europe or other foreign countries.⁶

Another example of increased disease activity due to exposure outside this country occurred from June 2009 through June 2010 in New York and New Jersey. During this period, approximately 3,500 cases of mumps were reported in New York City, in two upstate New York counties and in Ocean County, New Jersey. There were 425 cases reported in Ocean County. As part of this outbreak in New York and New Jersey, 41 patients were hospitalized.⁷ The initial

patient responsible for this outbreak was an 11-year-old child who returned to the U.S. from the United Kingdom, where an outbreak was ongoing. The child became ill while attending a summer camp and exposed other campers. The campers then spread the infection within their communities when they returned home.⁸ Because New Jersey is a transportation hub, the state is especially vulnerable to vaccine-preventable diseases—which are just a plane ride away.

In addition to sharing these statistics, healthcare providers can also help vaccine-hesitant parents understand the value of vaccinations with true stories—stories of families who never thought their children would be affected by vaccine-preventable diseases but whose children were disabled or died as a result of disease. Physicians may want to share the CDC’s website that offers stories of parents who chose to space or skip vaccinations and the bad outcomes that resulted. Many of those who survived needed to relearn basic skills such as talking, eating and walking and required ongoing medical care. These stories serve as a reminder how important it is to have children vaccinated. To view the CDC’s website, visit www.cdc.gov/VACCINES/vpd-vac/unprotected-stories.htm.

Influenza Vaccine

The influenza vaccine protects against the flu. This vaccine should be given to preteens, teens and adults every year to boost protective antibodies and to take advantage of the vaccine strains that often change from year to year. Pregnant women are at greater risk for complications of the flu; fortunately, if a pregnant woman gets the influenza vaccine and the Tdap booster, her antibodies will cross over to the baby, and the baby will be protected as well.

Pneumococcal Vaccine

The pneumococcal vaccine protects

against infections caused by *Streptococcus pneumoniae*, a type of bacteria that lives in the back of the nose and causes a variety of infections. Serious infections due to the pneumococcus include meningitis (infection of the covering of the brain), pneumonia (infection of the lungs), arthritis (infection of the joints), rarely endocarditis (infection of the lining of the heart), pericarditis (infection in the sac that surrounds the heart) and cellulitis (infection of the skin). These bacteria also cause infection in the middle ear (otitis media) and sinuses.

Adults: This vaccine is recommended for adults with risk factors such as chronic lung disease, heart disease,

kidney disease, asthma, diabetes, smoking, immune problems related to disease (immunodeficiency, HIV) or treatments (cancer therapy, steroids) and for all adults age 65 or older.

Herpes Zoster Vaccine

The herpes zoster vaccine protects against herpes zoster, also known as shingles.

Adults: This vaccine is recommended for adults age 60 and older.

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To help healthcare professionals communicate the benefits and risks of vaccines and the risks of vaccine-preventable diseases, the CDC, the American Academy of Family Physicians (AAFP) and the American Academy of Pediatrics (AAP) have partnered to develop *Provider Resources for Vaccine Conversations with Parents*. These materials include current vaccine safety information, fact sheets on vaccines and vaccine-preventable diseases and strategies for successful vaccine conversations with parents. The materials are available online at www.cdc.gov/vaccines/specgrps/hcp/conversations.htm. This website can be a helpful resource for physicians in communicating with parents.

I hope that New Jersey physicians and all members of the healthcare community will partner with the Department of Health in communicating to our residents the importance of timely and full vaccination.

Mary E. O'Dowd, MPH, is the Commissioner of the New Jersey Department of Health. 

¹ Opel, D. J., Diekema, D. S., Lee, N. R., & Marcuse, E. K. (2009, May). Social marketing as a strategy to increase immunization rates. *Archives of Pediatrics and Adolescent Medicine*, 163(5), 432–437.

² Centers for Disease Control and Prevention. (2012, September 7). National, state, and local area vaccination coverage among children aged 19–35 months: United States, 2011. *Morbidity and Mortality Weekly Report*, 61(35), 689–696. www.cdc.gov/mmwr/preview/mmwrhtml/mm6135a1.htm?s_cid=mm6135a1_w.

³ Centers for Disease Control and Prevention. (2012). *Overview of measles disease*. www.cdc.gov/measles/about/overview.html.

⁴ Centers for Disease Control and Prevention. (2012, April 20). Measles—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(15), 253–257. www.cdc.gov/mmwr/preview/mmwrhtml/mm6115a1.htm?s_cid=mm6115a1_w.

⁵ New Jersey Department of Health. (2012). *Reportable disease statistics*. www.state.nj.us/health/cd/reportable_disease_stats.shtml.

⁶ Note: Data on the investigations are not published.

⁷ Note: Pending publication in *New England Journal of Medicine*.

⁸ Centers for Disease Control and Prevention. (2010, February 12). Update: Mumps outbreak—New York and New Jersey, June 2009–January 2010. *Morbidity and Mortality Weekly Report*, 59(05), 125–129. www.cdc.gov/mmwr/preview/mmwrhtml/mm5905a1.htm.