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*EPIC Immunization Program
Celebrating Our 15th Anniversary!
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Mark Your Calendars:
Immunize Georgia Conference
September 11, 2015
Crowne Plaza Atlanta Perimeter

Georgia Pediatric Nurses and Practice Manager
Associations Fall Meeting
October 16, 2015
Cobb Energy Centre, Atlanta GA

WHO: Vaccine hesitancy is a mounting challenge for immunization programs

August 20, 2015 | By [Amirah Al Idrus](#)

The reluctance of some parents to vaccinate their children in the U.S. has been in the spotlight this year, with a measles outbreak at Disneyland and the California government striking down exemptions to vaccination requirements for children. But the WHO says that vaccine hesitancy is a worldwide problem.

Worldwide, 1.5 million children die each year of vaccine-preventable diseases and 1 in 5 children does not get routine immunizations, the WHO says. In a special issue of the journal *Vaccine*, researchers discussed the role of vaccine hesitancy in limiting vaccine uptake as well as strategies to address it.

The WHO defines vaccine hesitancy as delay in acceptance, or refusal, of safe vaccines despite the availability of vaccination services. Experiences from polio immunization schemes in Nigeria and India showed that vaccine hesitancy and mistrust or rejection of vaccines "are global issues that threaten to undermine decades of progress," the authors wrote in the introduction to the issue.

The authors found that strategies focusing on awareness and knowledge of vaccines are important, but inadequate. The most effective interventions for vaccine hesitancy used a multifaceted approach, they wrote. In a study, the most effective strategies incorporated directly targeting under- or unvaccinated populations, mandated vaccines or sanctioned against nonvaccination, improved convenience and access to vaccines and engaged influential leaders in addition to increasing vaccine awareness. The least effective strategies were passive ones: using posters and websites to target vaccine hesitant populations.

And while previous efforts to quell vaccine hesitancy and mistrust have focused on individual issues--awareness--and vaccine-specific issues--mode of delivery, risks--these efforts don't address other determinants of vaccine hesitancy. The authors highlighted a need to address hesitancy at the community level and the social network level.

"As the recent Ebola crisis tragically brought to light, engaging with communities and persuading individuals to change their habits and behaviors is a lynchpin of public health success. Addressing vaccine hesitancy is no different," the authors wrote. People have been trying to combat challenges to vaccine uptake for years. By 2009, the WHO's Strategic Advisory Group of Experts on Immunization highlighted the need to address "misinformation propagated by increasingly vocal and sophisticated anti-vaccine movements, particularly in Europe" in a more methodical and proactive way.

CDC data show vaccine rates high but work remains

by **Melissa Jenco** • *News Content Editor*

Breaking News · August 24, 2015 · www.aapnews.org

National vaccination rates are high for young children, but geographic disparities remain, according to new data from the Centers for Disease Control and Prevention (CDC). Anne Schuchat, M.D., director of the CDC's National Center for Immunization and Respiratory Diseases, called the findings "gratifying" and attributed them to collaborations among government, doctors, parents and community groups. "Achieving these high levels has greatly reduced infectious diseases like polio and bacterial meningitis that once routinely killed or harmed many infants and children," she said. "However, there's still work to be done to raise vaccination rates in communities or local pockets where children aren't fully vaccinated."

Kindergarten

The data, published Thursday in *Morbidity and Mortality Weekly Report (MMWR)* (<http://1.usa.gov/1NXPkta>), provide coverage statistics for kindergarten students in 2014-'15.

Vaccine coverage estimates for 49 states and Washington, D.C., show median coverage was 94% for two doses of measles, mumps and rubella (MMR) vaccine. Despite high numbers nationwide, 32 states and Washington, D.C., fell short of the national Healthy People 2020 target of at least 95% vaccination coverage with two MMR doses. Seven states reported less than 90% coverage with two doses. A median of 94.2% of kindergartners fulfilled their local requirements for diphtheria, tetanus and acellular pertussis vaccine (DTaP), and 93.6% received two doses of varicella vaccine in areas that required them, according to the report. Nationwide, the median rate of medical and nonmedical vaccine exemptions for kindergartners was 1.7%. Among the states that provided data, Mississippi had the lowest exemption rate at 0.1%, while Idaho was highest with 6.5%. Dr. Schuchat also highlighted an increase in states providing exemption data online. In 2014-'15, 21 states did so, up from 11 states two years prior. "We do encourage states to share the data with consumers and we've seen how for many conditions, consumers knowing about health conditions can start to help improve them," she said.

Infants

A separate report in *MMWR* (<http://1.usa.gov/1NKcghF>) also examined children ages 19 to 35 months using data from the 2014 National Immunization Survey. The survey estimated 93.3% coverage for at least three doses of poliovirus vaccine, 91.5% for at least one dose of MMR vaccine, 91.6% for at least three doses of hepatitis B vaccine and 91% for at least one dose of varicella vaccine. Each of those met Healthy People 2020 targets. However, coverage was below the goals for several other vaccines and for the combined vaccine series (71.6%). Roughly 0.8% of children received no vaccinations, according to the data. The report also found the lowest coverage rates tended to be associated with children living in poverty. Carrie L. Byington, M.D., FAAP, chair of the AAP Committee on Infectious Diseases, said she is concerned about the low-income population being unprotected.

"We need to be very creative about how we can bridge (the gap), and the AAP has a role to play," she said.

She also said the differences among states need to be addressed to avoid pockets of unprotected children at any age.

"Pediatricians and child care providers in the community are probably the most likely individuals to understand and to talk with the parents about why they are resistant or hesitant to immunize their children," Dr. Byington said. "So the strategies to combat those hesitations really need to be local."

ACIP Updates Influenza Vaccine Recommendations

Laurie Barclay, MD; August 07, 2015

All persons at least 6 months of age should have routine annual influenza vaccination unless they have specific contraindications, according to updated recommendations from the Advisory Committee on Immunization Practices (ACIP) for the 2015 to 2016 influenza season. The updated recommendations were published in the August 6 issue of the *Morbidity and Mortality Weekly Report*.

"Optimally, vaccination should occur before onset of influenza activity in the community," write Lisa A. Grohskopf, MD, from the Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, and colleagues. "Health care providers should offer vaccination by October, if possible. Vaccination should continue to be offered as long as influenza viruses are circulating."

Of the various available seasonal influenza vaccine formulations, some are licensed for specific age groups, and some may be more suitable than others for persons with certain medical conditions. However, ACIP does not recommend the use of any specific formulation over another for persons in whom more than one type of vaccine is suitable and available.

The new guidelines update the 2014 ACIP recommendations concerning the use of seasonal influenza vaccines. They describe the antigenic and virus composition of the 2015 to 2016 influenza vaccines, with changes in the influenza A (H3N2) virus and the influenza B virus compared with the 2014 to 2015 season.

Recently approved influenza vaccines anticipated to be available this season are *Afluria* (inactivated influenza vaccine, bioCSL Inc), for intramuscular administration via the *Stratis* needle-free jet injector (PharmaJet Inc); *Flublok* (recombinant influenza vaccine, trivalent [RIV3]; Protein Sciences), which now has an expanded age indication for persons aged 18 years and older; and *Fluzone Intradermal Quadrivalent* (Sanofi Pasteur Inc), which will replace the previously available trivalent Fluzone Intradermal.

The new recommendations also contain an updated algorithm to determine the number of vaccine doses needed for children aged 6 months through 8 years.

The guidelines summarize evidence regarding use of live attenuated influenza vaccine (LAIV) and inactivated influenza vaccine (IIV) in children. On the basis of this evidence, the ACIP did not renew last season's preferential recommendation for use of LAIV in healthy children aged 2 through 8 years.



Continued on page 4.....

Continued from page 3.....

Other recommendations include the following:

- Vaccination should not be delayed to obtain a specific vaccine preparation if a suitable formulation is already available.
- There is no preference for LAIV or IIV for any person aged 2 through 49 years for whom either vaccine is appropriate, although an age-appropriate formulation of vaccine should be used.
- LAIV should not be used in persons aged younger than 2 years or older than 49 years, persons with contraindications, children aged 2 through 17 years who are receiving aspirin, persons with severe allergic reactions to any influenza vaccine or its components, pregnant women, immunocompromised persons, persons who care for severely immunosuppressed persons, persons with a history of egg allergy, children aged 2 through 4 years with asthma or wheezing within the past 12 months, or persons who have taken influenza antiviral medications within the previous 48 hours.
- The LAIV package insert describes other warnings and precautions.

The authors have disclosed no relevant financial relationships.

Morb Mortal Wkly Rep. 2015;64:818-825. [Full text](#)

Concomitant Administration of 9vHPV With MCV4/Tdap Feasible Noninferior to intermittent administration of vaccines for 11- to 15-year olds

MONDAY, Aug. 3, 2015 (HealthDay News) -- For 11- to 15-year olds, concomitant administration of Gardasil 9 (9-valent human papillomavirus [9vHPV] vaccine) and Menactra (MCV4; *Neisseria meningitides* serotypes A/C/Y/W-135) or Adacel (Tdap; diphtheria/tetanus/acellular pertussis) is noninferior to intermittent administration, according to a study published online Aug. 3 in *Pediatrics*.

Andrea Schilling, M.D., from Alemana-Universidad del Desarrollo in Santiago, Chile, and colleagues compared the immunogenicity and safety of 9vHPV administered concomitantly or nonconcomitantly with MCV4 and Tdap in 11- to 15-year-old boys and girls. Participants received 9vHPV at day one and months two and six; MCV4/Tdap was administered concomitantly with 9vHPV vaccine at day one in the concomitant group (621 children); MCV/Tdap was received at month one in the nonconcomitant group (620 children).

The researchers found that the concomitant group was noninferior to the nonconcomitant group in terms of the following: geometric mean titers for all HPV types in 9vHPV vaccine four weeks after dose three; the proportion of subjects with a four-fold increase or greater in titers for four *N. meningitides* serotypes four weeks after MCV4 injection; the proportion of individuals with antibody titers to diphtheria and tetanus ≥ 0.1 IU/mL; and geometric mean titers for pertussis antigens four weeks after Tdap injection. The concomitant group had more frequent injection-site swelling. No vaccine-related serious adverse events were reported.

"Concomitant administration of 9vHPV vaccine with MCV4/Tdap was generally well tolerated and did not interfere with the antibody response to any of these vaccines," the authors write.

Several authors disclosed financial ties to pharmaceutical companies, including Merck, which manufactures Gardasil 9 and funded the study.

Vaccine Sharply Curbs Chickenpox Cases in U.S.

Recommendation for second dose reduced number of infections even more, CDC finds



THURSDAY, Aug. 13, 2015 (HealthDay News) -- Chickenpox cases in the United States have dropped sharply since a vaccine against the disease became available in 1995, a new study shows.

Also, hospitalizations and outpatient visits for chickenpox have continued to fall since 2006, when a second dose of the vaccine was recommended to boost protection against the disease, the researchers found.

Before 1995, about 4 million people in the United States got chickenpox each year, nearly 11,000 were hospitalized, and up to 150 died of the disease, according to the U.S. Centers for Disease Control and Prevention.

For this study, CDC researchers analyzed national health insurance claims data. They found there were 93 percent fewer hospitalizations for chickenpox in 2012, and 84 percent fewer outpatient visits for the disease than in the period before the vaccine was introduced.

After the second dose recommendation took effect, hospitalizations dropped 38 percent and outpatient visits declined 60 percent, according to the study published Aug. 13 in the *Journal of the Pediatric Infectious Diseases Society*. "We found that, in our study, rates for varicella [chickenpox] in the U.S. continued to decline as the varicella vaccine program has become fully implemented," study co-author Jessica Leung said in a journal news release.

"We saw significant declines in rates of varicella after the one-dose vaccine was recommended in 1995 in the U.S., and we're continuing to see additional declines in varicella after two doses were recommended in 2006," she added.

The largest decrease in chickenpox occurred among children and teens aged 1 to 19, a group targeted for vaccination against the disease. But there were also significant drops in outpatient visits and hospitalizations among children younger than 12 months -- for whom the vaccine is not recommended -- and among adults, who tend not to get vaccinated.

These findings suggest the possibility of something called herd immunity.

"The surrounding population that can be vaccinated are not getting sick, and therefore the data suggest that these infants are also being protected," Leung said. "We're seeing that for adults as well."

Chickenpox typically causes a blister-like rash, itching, fever and fatigue.

More information

The American Academy of Family Physicians has more about [chickenpox vaccination](#).

SOURCE: *Journal of the Pediatric Infectious Diseases Society*, news release, Aug. 13, 2015

-- [Robert Preid](#)