



NOTES FROM ACIP MEETING FEBRUARY 26 – 27, 2014

(Thanks to Stanley E. Grogg, DO, FACOP for Summary)

INFLUENZA

- H1N1 most common serotype during 2013-14 season. Incidence is starting to decline.
- People aged 18-64 represented 61% of all hospitalizations.
- 104 pediatric deaths have been reported as of Feb. 15, 2014.
- Effectiveness of this season's vaccine was about 60%.
- High levels of resistance to the adamantanes (amantadine and rimantadine) persist.

In children 6 months to 18 years of age, LAIV was more protective than TIV. In individuals 17-49 years of age, most comparative studies have demonstrated that LAIV and TIV were similarly efficacious or that TIV was more efficacious. LAIV is preferentially recommended for children and adolescents in UK, Canada and Israel.

No changes to the recommendations for annual influenza vaccine were proposed by ACIP at this meeting. No new influenza vaccines licensed as of this time.

13-Valent Pneumococcal Conjugate Vaccine (PCV13)

Reviewed studies for PCV13 given at different schedules: 3+1, 2+1, and 3+0. No recommendations at this meeting. (example 3+1, which is present recommendation is PCV13 at 2, 4, 6 months with Booster at 15 months)

Pertussis (Tdap)

Safety of Tdap during pregnancy with VAERS reporting indicated no new unexpected vaccine safety concerns noted among pregnant women who received Tdap.

HPV

Merck has developed a 9-valent HPV Vaccine (HPV types 6,11,16,18, 31, 33, 45, 52, 58) – 97% coverage which has not been licensed in U.S. Study conclusions for 9vHPV vs. HPV4: Efficacy, non-inferior; Safety, well tolerated, adverse events, only higher frequency of injection-site reactions, most were of mild or moderate intensity; Immunogenicity, non-inferior immunogenicity in adolescent girls and boys vs. young women, Immunogenicity comparable in boys vs. girls. May be available in U.S. in 2015

ACIP approved the update of a 50 page HPV document.

Mark Your Calendars:

Immunization Webinar: Adolescent Recommendations & Georgia's New School Rules

March 13, 2014

Georgia Pediatric Practice Managers & Pediatric Nurses Spring Meetings

Macon Marriott Hotel & Conference Center

April 25, 2014

Pediatric Vaccine Symposium

Children's Hospital of Georgia

May 3, 2014

Augusta, GA

Pediatrics by the Sea

Summer CME Conference

Amelia Island, Fla.

June 11-14, 2014

Pediatric Vaccine Symposium

May 3, 2014 Children's Hospital of Georgia Augusta, Ga

The Georgia Chapter AAP is sponsoring a Pediatric Vaccine Symposium on May 3, 2014 in Augusta. Join us for this exciting program!

8:30 - 8:45 am	Welcome Davidson Freeman, MD
8:45 - 9:45 am	A New Crisis in US Health Care: Failure of Primary HPV-related Cancer Daron Ferris, MD
9:45-10:00 am	Break
10:00-11:00 am	Vaccine Storage & Handling: What You Kelly Seegmueller
11:00-12:00 pm	A Business Case For Vaccines Geoff Simon, MD
12:00 pm	Wrap-up & Adjourn

Study examines legislative challenges to school immunization mandates

Published on [February 14, 2014](#) by [Marjorie Clark](#) Vaccine News Daily

Research findings from Emory University showed 36 bills introduced in 18 states from 2009-2012 sought to modify school immunization mandates, according to a study published in *JAMA*.

Saad Omer of Emory University and his colleagues reviewed the proposed legislation, all of which did not pass and were not signed into law.

“School immunization mandates, implemented through state-level legislation, have played an important role in maintaining high immunization coverage in the United States,” the study said.

The researchers organized the bills by exemption type such as religious, personal belief and medical. The study showed that certain types of exemptions and the ease of obtaining them can help predict risk of disease among people who use their exemptions and their communities.

The bills were further organized by the presence of an administration requirement, which was defined as an action required by parents beyond signing a form to act on an exemption. Fifteen bills did not have administration requirement, seven had one or two requirements and 14 had between three and five requirements.

Of the 36 bills that were introduced, five restricted exemptions and 31 expanded exemptions. None of the bills that proposed expanding exemptions were passed.

“Exemptions to school immunization requirements continue to be an issue for discussion and debate in many state legislatures,” the study’s authors said.

Is a Wave of Polioliike Symptoms in California Cause for Alarm?

A U.S. Centers for Disease Control and Prevention expert sheds light on five cases of children infected with an unidentified virus

Feb 25, 2014 By [Dina Fine Maron](#) Scientific American

Just sixty years ago polio was one of the most dreaded childhood diseases in the U.S. [Vaccination campaigns](#) effectively stamped out domestic cases of the disease, with the last cases of naturally occurring paralytic polio in the U.S. in 1979. But news that a small number of children have developed polio-like symptoms in California has fueled instant public interest and concern. Keith Van Haren, a pediatric neurologist at Stanford University, said in a report released February 23 that five children between August 2012 and July 2013 had developed paralysis reminiscent of polio.

The children had previously been vaccinated against polio virus. And although the children were afflicted with paralysis and severe weakness, physicians have concluded the children do not have polio. Still, none of the children fully recovered limb function after six months. The jury is still out on exactly what caused their condition. Van Haren's findings will be presented at the [American Academy of Neurology's](#) annual conference in April. Physicians and public health officials have submitted 20 reports to the California Department of Public Health of similar cases. Thus far, the CDPH has not identified any common causes that suggest the cases are linked.

Polio virus is part of a larger family of enteroviruses, and the different types each carry a small degree of paralysis risk. Two of the children did test positive for one type of rare enterovirus, enterovirus 68. More common enteroviruses, however, are associated with respiratory conditions including pneumonia. Scientific American spoke with CDC's Deputy Director of the Division of Viral Diseases Jane Seward to get further insights.

These children did not test positive for polio, but two of the children did test positive for a different kind of enterovirus, enterovirus 68. What's your theory for what's going on here?

Acute flaccid paralysis, that's acute paralysis of parts of the body—in this case the limbs, can result from a variety of viruses including polio virus and non-polio enteroviruses including enterovirus 68, West Nile Disease, echovirus and adenoviruses. Most people who get enteroviruses have mild symptoms and no testing is ever done on them. I think we're looking at a rare outcome in these children.

Are we seeing these symptoms in places other than California?

Acute flaccid paralysis is not a nationally notifiable disease in this country so we're really not able to assess the significance of this number of cases. Our understanding is that what happened here is these cases came from people that came in at first for testing of polio virus, or at least some of them did. That's great. We don't want physicians to forget about polio virus and they need to keep testing for it and be alert for it because polio could come from parts of the world where polio is endemic.

In countries that are performing regular surveillance there is at least one case of acute flaccid paralysis per year for every 100,000 people under 15 years old. We don't have that same system in place here but if we did the same numbers would apply. We would expect at least 80 cases of acute flaccid paralysis—at least—from California since they have a population of children under 15 of eight million. So, again, if we were conducting surveillance for acute flaccid paralysis we would expect at least 80 cases.

So then are you saying this is expected or we should not be concerned?

These researchers only report on five cases in the abstract, two of which tested positive for enterovirus 68. Based on that we are not unduly alarmed. We are in touch with California but not have been in touch with the researchers at Stanford that put the abstract together.

Have there been other cases where enterovirus 68 causes paralysis?

CDC tracks enteroviruses that circulate around the country using a passive reporting system from labs that happen to test for those viruses. That just gives us no idea about the total numbers. It just tells us which viruses are circulating from year to year. We have had at least one reported case [of paralysis] as you can see in a [Morbidity and Mortality Weekly Report](#) from 2006. This is just the absolute tip of the iceberg of what may be occurring around the country though, because the reports don't reflect the total numbers in the country. We don't have total surveillance. We are aware of 47 cases of enterovirus 68 since 2000. Those are just the ones we know have been isolated in laboratories and most were respiratory disease.

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Other than polio, would enterovirus 68 or any other enteroviruses be more likely to cause paralysis?

No, they are not commonly known to cause paralysis.

The most important thing to know is that enteroviruses are common and most people don't get very sick from them. It's only rare that these cause severe illness. With any case of paralysis a clinician should consider if it's polio virus and request testing for that.

So what would spark an enterovirus to cause paralysis when that's such a rare symptom?

It's probably a combination of how the host interacts with the virus. If you think about a condition like chicken pox it used to infect basically every single child in the U.S. With four million cases a year a hundred kids died. Why did those kids die? It's really hard to explain. It's an interaction of the virus and the host. Either genetically they didn't cope with the virus as well or they got an unusually high dose of the virus, it's hard to say.

How do we test for enteroviruses to identify them?

It's usually on the stool or through cerebral spinal fluid testing. It's better to get it out of the CSF because these viruses are common so if you pick up the virus from a nonsterile site like the throat or stool that may not tell you the child has it since healthy carriers could still shed the virus.

How are enteroviruses other than polio transmitted? Is this an issue where you spread the virus through poor hygiene after interacting with feces?

Definitely a lot of them are transmitted via respiratory secretions, especially this one—enterovirus 68, which is commonly associated with respiratory disease.

So what can people do to protect themselves from this unidentified illness?

The best way to protect yourself is if you have any respiratory symptoms to practice cough etiquette and cover your cough, or your sneeze. You should wash your hands often and stay home if you're sick.

CDC researchers say measles outbreaks cost U.S. health authorities up to \$5M in 2011

By Nick Paul Taylor Fierce Vaccines

The measles virus--Courtesy of CDC, public domain

In the decade after the U.S. eliminated indigenous measles, the country experienced few cases of the disease. This began to change in 2011 when the U.S. suffered a spate of outbreaks. While most of the disease clusters were small, Centers for Disease Control and Prevention (CDC) staffers estimate the cost of managing them was up to \$5.3 million.

The CDC tallied the cost of the 16 outbreaks in a paper published in the current issue of the journal *Vaccine*. The calculation considered the time and resources local and state public health authorities allocated to manage the 16 outbreaks in the U.S. in 2011. A total of 107 people were infected that year in clusters that ranged from three to 22 cases. The CDC researchers estimate that each infection cost authorities \$11,933 to \$29,833. A further 113 isolated cases of measles occurred outside of an outbreak situation in 2011.

The CDC paper shows that management of these clusters and isolated cases requires significant investment from health authorities. And each dollar spent on measles has to be diverted from another area of public health. "Beyond the impact on local and state public health departments, responses to measles outbreaks also affect hospitals, clinics, as well as non-health public departments such as schools, universities and occasionally local police departments enforcing quarantines," the authors wrote.

Some of the costs associated with managing even a potential measles outbreak were shown by events in California this week. Health authorities issued a warning after discovering a student at the University of California, Berkeley, had contracted measles. The student could have infected fellow students and travelers on trains. "Measles is a very serious viral illness and it is very contagious," local communicable disease program director Erika Jenssen said at a media event attended by CNN.

Barriers to Adult Vaccination Identified

Fran Lowry February 03, 2014 Medscape Medical News

A survey of 607 general internists and family physicians in the United States has revealed numerous barriers to achieving the recommended vaccination schedule for adults.

Led by Laura P. Hurley, MD, MPH, from Denver Health in Colorado, researchers found inconsistent assessment of patients' vaccination status among the physicians surveyed and insufficient stocking of certain recommended vaccines, in many instances because of the expense of the vaccines. The survey results were published in the February 4 issue of the *Annals of Internal Medicine*.

"Vaccination remains underutilized in adults," Dr. Hurley and colleagues write. "An annual average of more than 30 000 Americans die of vaccine-preventable diseases, mostly influenza, and more than 95% of these persons are adults."

The Advisory Committee on Immunization Practices recommends that adults receive 12 vaccines, including vaccines for people who did not receive them as children (so called catch-up vaccination) and for people who are considered to be high-risk.

Recent estimates show that only 62% of adults aged 65 years or older received a pneumococcal vaccine, and just 65% received an influenza vaccine. Only 16% of adults aged 60 years or older received a herpes zoster vaccine, and just 20% of high-risk adults aged 19 to 64 years received a pneumococcal vaccine.

"All of these percentages are well short of Healthy People 2020 goals," the researchers write.

Therefore, Dr. Hurley and colleagues sought to determine the way US primary care physicians assess their patients' vaccination status; their stocking of recommended adult vaccines; barriers to stocking and administering vaccines, including financial barriers; and experiences and attitudes regarding vaccination outside of the medical home.

The survey was administered between March and June 2012. Response rates were 79% (352/443) for general internists and 62% (255/409) for family physicians.

Just 29% of general internists and 32% of family physicians reported that they assessed their patients' vaccination status at every visit. A few (8% of general internists and 36% of family physicians) said they used immunization information systems.

Almost all physicians said they assessed the need for and stocked seasonal influenza, pneumococcal, tetanus and diphtheria, and tetanus, diphtheria, and acellular pertussis vaccines. However, fewer assessed and stocked other recommended vaccines, such as hepatitis vaccines, catch-up vaccines (human papillomavirus; measles, mumps, and rubella; varicella; and meningococcal), and zoster vaccine.

Family physicians were more likely to report stocking hepatitis B and catch-up vaccines than general internists, but large proportions of both groups said they did not stock zoster vaccine.

Only 31% of family physicians and 20% of general internists reported stocking all 11 adult vaccines that were recommended for routine use in 2012.

The most important barrier to stocking and administering vaccines was financial for both family physicians and internists.

Physicians in private practice, those with fewer than 5 members in a practice, physicians from the South, West (for family physicians only), and Midwest, and those who had a higher proportion of patients with Medicare part D (internists only) reported the most financial barriers.

Most physicians reported that they refer patients to get the vaccines they did not stock, most often to a pharmacy or public health department. The reasons most often cited for referring patients elsewhere included lack of insurance coverage for the vaccine (55% for general internists and 62% for family physicians) or inadequate reimbursement (36% for general internists and 41% for family physicians).

Almost all physicians agreed it was the primary care physicians' responsibility to make sure patients received recommended vaccinations, even if the patients received the vaccines elsewhere; the physicians also thought the pharmacist played an important role in vaccinating adults.

A possible limitation of their study is that the surveyed physicians may not be representative of all physicians.

The authors conclude that improving the delivery of recommended vaccines to adults will require increased use of evidence-based methods "and concerted efforts to resolve financial barriers, especially for smaller practices and for general internists who see more patients with Medicare Part D."

According to Carolyn B. Bridges, MD, associate director for science of the Centers for Disease Control and Prevention's (CDC's) Immunization Services Division, Atlanta, Georgia, and one of the authors of this study, a healthcare professional's recommendation is one of the most important factors in whether a person chooses to get recommended vaccines.

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"The CDC encourages all healthcare providers to incorporate routine assessment of their patients' vaccine needs into their clinical practice, recommend needed vaccines, and either vaccinate or refer them to a vaccinating provider if they don't stock needed vaccines," Dr. Bridges told *Medscape Medical News*.

"Although providers often recommend vaccination during well visits, vaccines are usually not discussed during other visits, and these represent missed opportunities," she said.

Dr. Bridges said healthcare providers should also stress vaccines such as the influenza; tetanus, diphtheria, and acellular pertussis; and shingles vaccines to protect against diseases that affect many people in the United States.

"They should also check to be sure their adult patients are up to date on vaccines they might have missed as an adolescent, such as [the human papillomavirus] vaccine. Many of the illnesses that vaccines prevent are very common. For example, CDC estimates that about 1 million adults in the US get shingles each year. Healthcare providers armed with such statistics can make a very persuasive case for adult immunizations," she concluded.

This study was funded by the CDC. Dr. Hurley reports receiving grants from the CDC during the conduct of the study. The other authors have disclosed no relevant financial relationships.

Ann Intern Med. 2014;160:161-170.

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Elimination of Endemic Measles, Rubella, and Congenital Rubella Syndrome From the Western Hemisphere: The U.S. Experience

JAMA Pediatrics (02/01/2014) Vol. 168, No. 2, P. 148 Papania, Mark J.; Wallace, Gregory S.; Rota, Paul A.; et al.

An external expert panel convened by the Centers for Disease Control and Prevention concluded that the elimination of endemic measles, rubella, and congenital rubella syndrome (CRS) from the United States was sustained through 2011. These diseases continue to be imported from overseas, however, so healthcare providers are advised to suspect measles or rubella in patients with febrile rash illness, especially when associated with international travel or international visitors. Suspected cases should be reported to local health departments. The United States declared endemic measles eliminated in 2000 and endemic rubella and CRS in 2004. Since 2001, U.S. reported measles incidence has been less than one case per 1,000,000 population. Eighty-eight percent of measles cases and 54 percent of rubella cases were internationally imported or linked to importation, the report noted.



What's the Latest with the Flu?

American Academy of Pediatrics

February 2014

Flu activity remains elevated overall in the United States, though some parts of the country are seeing flu activity decline. It's likely that flu season will continue for another couple of months. The predominant virus for this season remains 2009 H1N1. A total of 40 influenza-associated pediatric deaths for the 2013-2014 season have been reported to date.

Among children, vaccination remains especially important for those younger than 5 years of age and those of any age with an underlying chronic medical condition, such as asthma, diabetes mellitus, immunosuppression, or neurologic disorders. These children are at higher risk of serious complications if they get the flu.

Vaccination remains the most important step in protecting against influenza. At this point in the season, people may have to check with more than one vaccine provider in order to locate vaccine, but supplies of vaccine should still be available. The AAP and the Centers for Disease Control and Prevention (CDC) urge everyone who still has not been vaccinated to get vaccinated now.

Also, antiviral treatment should be started as soon as possible because benefit is greatest when treatment is initiated within 48 hours of symptom onset. The sooner antiviral therapy can be started, the better the outcome.