

Idaho Immunization Coalition Newsletter

September 2015



Idaho Immunization Summit

Earn 6.5 hours of CME!

Online registration Continuing Education Credits (CME) - 6.5
<http://www.idahoimmune.org/>



Immunization Summit 2015

September 21, 2015
Monday 8am – 4pm

Nampa Civic Center
311 3rd St S, Nampa, ID 83651

Summit Keynote Speakers

David R. Williams, PhD



Dr. Williams, a renowned professor at the Harvard School of Public Health, is an internationally recognized social scientist for his research on the social determinants of health. Dr. Williams has been involved in national health policy development by serving on numerous committees in the Department of Health and Human Services and the Institute of Medicine.

Dr. Williams has appeared on national television, including ABC's Evening News, CNN, PBS, the Katie Couric Show, Al Jazeera, C-SPAN and the Discovery Channel. He was a key scientific advisor to the award-winning PBS film series. *Unnatural Causes: Is inequality Making Us Sick?*

Carolyn Buxton Bridges, MD



Dr. Carolyn Bridges is the Associate Director of Adult Immunizations in the Immunization Services Division, National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC). A board-certified Internal medicine physician, Dr. Bridges was in clinical practice before joining the CDC as an Epidemic Intelligence Service Officer in 1996 working primarily on influenza.

Her career in public health has included research and policy on influenza prevention and control, vaccine effectiveness, and transmission, and improving coverage for recommended adult vaccines. Her current focus is on increasing the evidence base for adult vaccinations, vaccine coverage assessment, and adult vaccination policy and education.

For questions, please contact Karen Sharpnack, IIC Executive Director: kjs@idahoimmune.org.

Upcoming Events

2015 BOOSTER SHOTS

Idaho Immunization Program

Registration for the Twin Falls, Idaho Falls, Ponderay, Post Falls, Lewiston and Grangeville locations **will close on September 11th**. Registration for Nampa and McCall locations **will close on September 25th**. Register before free training opportunity is full!

Follow Us Online

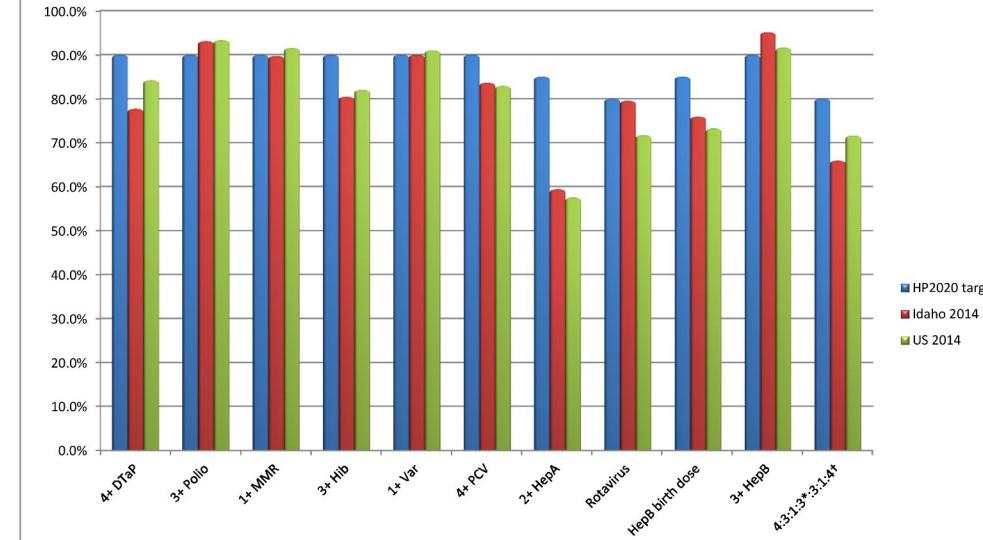


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2014 Idaho Immunization Data Out Now!

2014 National Immunization Rates in Idaho and the U.S. compared to the Health People 2020 Goals



*Refers to 4 or more doses of diphtheria and tetanus toxoids and pertussis vaccine, or diphtheria and tetanus toxoids (DT/DTaP), 3 or more doses of polio virus vaccine, 1 or more doses of a measles-mumps-rubella vaccine (MMR), plus full series of *Haemophilus influenzae* type b (Hib); ≥3 or ≥4 doses, depending on brand received, 3 or more doses of hepatitis B vaccine, 1 or more doses of varicella vaccine, and 4 or more doses of pneumococcal conjugate vaccine (PCV)

2014 National Immunization Survey Data Released

The 2014 National Immunization Survey (NIS) data was released in late August 2015. On par or above US rates in most categories, the data shows that Idaho is on target for reaching Healthy People 2020 goals. Read more at the Idaho Health and Welfare website.

Useful Practice Tips

Vaccine IM Injections in Obese Patients

When delivering an intramuscular (IM) injection, are you considering the patient's weight or body mass index (BMI) when administering vaccines? Do you consider what needle length and where should you give the injection? Why are these questions important? If you give a vaccine with too short of a needle, in the wrong body site, and/or in the fatty tissue rather than the muscle, it may not be as effective which may result in reduced immune response. Furthermore, giving an injection with too short of a needle may cause increased irritation at the site of injection or even tissue damage.

Obesity and vaccines

In 2014 approximately 39% of adults aged 18 and older were overweight globally. As we prepare to give vaccines to overweight and obese individuals, we need to recognize that IM injections need to be administered deep enough in order to reach the muscle. Evidence-based research requires IM deltoid (upper arm) injections to be given with the correct needle length for body size and given at a 90 degree angle without bunching. If the injection is given with the right needle length according to the patient's BMI and/or weight, the IM injections are likely to reach muscle tissue assuming that the needle is fully inserted into the skin.

Whether you give a vaccine to a child, adolescent, adult, or an older adult, consider the size of the patient. The chart below is provided as a reference or you can find the CDC chart on administering vaccines: Dose, Route, Site, and Needle Size located at <http://www.immunize.org/catg.d/p3085.pdf>.

Needle length for intramuscular injection in deltoid muscle.	
Weight and sex	Required needle length
Male 130–260 lbs (60–118 kg)	1 inch–1 ½ inch needle
Female 130–200 lbs (60–90 kg)	
Male >260 + lbs (> 118 kg)	1 ½ - 2 inch needle
Female >200 + lbs (> 90 kg)	

For references to this article, email Pam Strohfus at pamstrohfus@boisestate.edu.

McWilliam, P.L., Botwinski, C.A., LaCourse, J.R. (2015). Deltoid intramuscular injections and obesity. MEDSURG Nursing.



Contributor

Pam Strohfus
DNP, RN

Vaccine-preventable Disease Updates

We continue to see a large number of pertussis (whooping cough) cases both locally and nationally. In 2014, 367 cases of pertussis were reported in Idaho, an increase from 2013. Since the early 1980's, there has been an increased trend in reported cases (see figure). This trend is likely multifactorial, reflecting increased awareness, improved diagnostic tests, better reporting, and waning immunity. Unfortunately, with an increase in pertussis cases comes an increase in pertussis complications – pneumonia, apnea, encephalopathy, and even death.

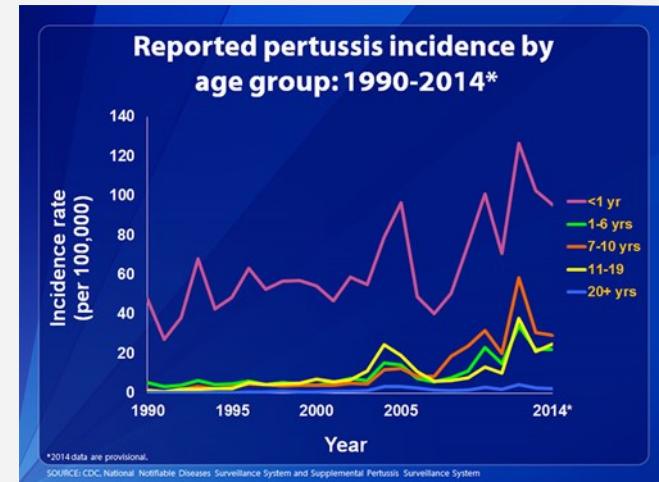
The best way to prevent pertussis is with vaccination. The Advisory Committee for Immunization Practices (ACIP) recommends that infants and children complete a 5-dose pertussis vaccine series. In 1997, in an effort to improve vaccine safety, whole-cell pertussis vaccine (DTP) was replaced with acellular pertussis vaccine (DTaP). In 2005, a single booster dose of pertussis-containing vaccine (Tdap) was recommended for adolescents and adults. While the new acellular vaccine is associated with milder side effects, its immunity seems to fade faster.

Two studies published in *Pediatrics* earlier this year shed light on the effectiveness of pertussis vaccinations. One study looking at the duration of protection of Tdap vaccine for adolescents during a 2012 epidemic in Washington State found the vaccine to be ~73% effective after one year and ~35% effective after 2-4 years (Acosta Et al). This confirms our suspicions – pertussis protection is fading fast for teenagers.

A second study conducted by the CDC focused on the effectiveness of pertussis vaccine in small infants by analyzing pertussis cases reported between 1991 and 2008. The study confirmed that vaccine-ineligible infants (aged <42 days) are more prone to severe disease and fatal complications. In fact, 64% of pertussis-related infant deaths occurred in this age group. On the plus side, the study showed that infants vaccinated as early as possible (6 weeks of age) were less likely to be hospitalized with pertussis complications.

With the steady rise in pertussis cases and the discouraging effectiveness of pertussis vaccination in adolescents and older children, our focus shifts to protecting the patients who are most vulnerable – infants and young children. This is accomplished through two important strategies: 1) enhance immunity in newborns and 2) reduce exposure to *B. pertussis* among our youngest infants.

Pertussis – An Update



What can you do as a healthcare provider to protect our most vulnerable patients?

- Encourage pregnant women to discuss Tdap vaccination with their provider. Tdap vaccination during pregnancy allows maternal antibodies to cross the placenta to the infant, providing them with pertussis protection prior to the first DTaP dose.
- Promote “cocooning,” a strategy focused on providing pertussis immunization to all close contacts of infants less than 12 months of age. This includes parents, siblings, grandparents, and childcare providers. Unfortunately, in 2012 only 26% of adults (aged 19-64 years of age) living with a small infant had received a Tdap vaccine.
- Educate families on strategies to prevent *B. pertussis* exposure in vaccine-ineligible patients – practice good hand hygiene and avoid sick contacts.
- Ensure that patients receive their first dose of DTaP on time and consider vaccinating as early as 6 weeks of age.
- Make sure you are up to date on your pertussis vaccine!

For now, pertussis is here to stay. While these recent studies provide insight into vaccine effectiveness and disease trends, we still have a lot to learn about how to protect our most vulnerable patients from pertussis.

References:

- Acosta et al. Tdap vaccine effectiveness and duration of protection among adolescents during the 2012 Washington state pertussis epidemic. *Pediatrics* 2015 135(6).
- Tejpratap et al. First pertussis vaccine dose and prevention of infant mortality. *Pediatrics* 2015 135(6).
- CDC. Noninfluenza vaccination coverage among adults – United States. *MMWR* 63 (05); 95-102.



Contributor

Lisa Barker, MD

St Luke's Treasure Valley Pediatrics



Southeastern
Idaho Public Health

Southeastern Idaho Public Health (SIPH) is composed of eight mostly-rural counties in southern Idaho covering 11,400 miles and has a total population of 169,000. Currently, 82% of the population seen at SIPH Reproductive Health clinics qualifies for some type of financial assistance from our Clinical Services programs.

SIPH is in the midst of a year-long quality improvement plan to increase client HPV immunization rates district wide by 20%. The CDC's goal is to immunize 80% of adolescents against cancers caused by HPV. Idaho's HPV vaccination rate is close to the national average, with 55% of girls, and 35% of boys receiving one HPV shot. The number of HPV vaccines given in SIPH's district during 2014 was 759 doses. In comparison, SIPH gave 981 Tdap vaccines in 2014. This gap in coverage of 222 shots shows missed opportunities to vaccinate boys and girls with HPV vaccine at the same time as regularly recommended vaccines, such as Tdap.

To accomplish this increase in HPV vaccination district-wide, the nursing staff was educated at a March 2015 staff in-service, utilizing an HPV presentation developed by the CDC. "Studies consistently show that a strong recommendation from their healthcare professional is the single best predictor of vaccination," according to the CDC. Based on the President's Cancer Panel Annual Report 2012-2013, "missed clinical opportunities are the most important reason why the US has not received high rates of HPV vaccine uptake." To assist with this deficit, they have developed a list of "Factors Contributing to Providers' Hesitancy". We developed a quiz based on this resource, and gave it to SIPH staff involved before the educational intervention, to first assess which factors were involved in our staff's hesitancy. Next, staff education was developed specifically to address these hesitations and also addressed ways of making this shot part of the immunization routine.

The CDC has available a wealth of free information to assist with provider HPV education, including a "Tips and Time-Savers sheet for Talking with Parents about HPV Vaccine." They have also produced several videos to remind HC providers why You are the Key to Preventing HPV-Related Cancers. Both of these were used to increase teaching ability to the nurses. The CDC has also produced numerous free handouts, posters, videos, PSA's, podcasts, and even a rap song, that are utilized in our clinics, on

SIPH—HPV Vaccination

our website, and in other venues.

Marketing and outreach have also been an important component in this effort. Strategies implemented include:

- Recalls are being done at all clinics to ensure that adolescents complete the three vaccine series.
- Conducting increased adolescent-based clinics at area high schools in 2015.
- Posting frequently on Facebook about HPV vaccination
- Displaying the CDC's cancer prevention HPV posters in all county clinics.

Increasing use of HPV magnets to help get the series of shots completed in a year. These are free from the manufacturer and blink when your next dose of vaccine is due.

The project established a 6 month timeframe to initially assess progress, with the project lasting for all of 2015. To begin, the target was a 10% increase in 6 months, with a 20% increase goal by year's end. To date, we have exceeded this target. The amount of HPV vaccine given in 2015 will be measured in all

SIPH HPV Vaccinations		
	2014	2015
Jan	52	Jan 33
Feb	40	Feb 56
Mar	21	Mar * 65
Apr	43	Apr 76
May	33	May 49
June	57	June 91
2014 ytd	246	2015 ytd ** 370

* In service March 4, 2015 ** 50% increase ytd

clinics utilizing monthly inventory data.

Currently, HPV vaccinations have increased 50% over 2014. In discussing this with our nurses, we asked what they were doing differently to facilitate this change. The number one answer was rolling the HPV vaccine into the list of all the others when talking to parents, and not treating it any differently. We expect our percentage increase to continue to raise as we roll into Back-to-School clinics, and a higher volume of vaccines given at that time.

Current Idaho Recommendations

Back-to-School Immunizations: It's not too late to vaccinate!

Making sure your children receive their vaccinations on time is one of the best ways to ensure a safe and healthy start to the school year. Even if your child entered school without all of their needed shots, it is worth the time and effort to schedule a catch-up appointment with your healthcare provider. Being up-to-date on immunizations not only provides your children with long-term health benefits, but protects the health of friends, classmates, and others in your community. The Idaho State Department of Education partners with the Idaho Department of Health and Welfare (DHW) to assist and support Idaho schools with meeting state immunization requirements. Vaccines are supplied by DHW for all children through 18 years of age.

Why are immunizations needed before school?

Vaccine-preventable diseases, such as pertussis (whooping cough), chicken pox, and measles are still a threat. These diseases can spread quickly, especially in group settings such as schools. To protect the health of all students, children entering school must meet Idaho school immunization requirements.

Which diseases are making a comeback right now?

The number of cases of pertussis reported in Idaho was higher last year, with 367 cases of the disease reported among Idaho residents. Infants who are too young to be fully immunized are the most vulnerable. Parents, grandparents, or siblings can unknowingly pass the disease to unprotected infants. Pertussis is highly contagious and can be mistaken for a cold in older children and adults. Pneumonia and other life-threatening complications can result from pertussis.

A record number of measles cases was reported in the United States in 2014: 668 cases were reported from 27 states; the highest number since measles was eliminated in the US in 2001. In January 2015, a large, multi-state measles outbreak was linked to Disneyland in California. As of August 21st, 2015, the number of measles cases was reported to be 188 throughout 24 states, including Idaho's neighboring state, Washington.¹ The measles virus is highly contagious and can lead to serious complications, such as pneumonia or swelling of the brain, which can lead to death.

Both measles and pertussis are preventable by vaccination.

What You Can Do:

Choose to vaccinate your child to protect her against vaccine preventable diseases. Your child's vaccinations could help protect your neighbor who has cancer and cannot get certain vaccines, or your friend's newborn baby who is too young to be fully vaccinated. When everyone in a community who *can* get vaccinated does get vaccinated, it helps to prevent the spread of disease and can slow or stop an outbreak.

Have your child's immunization record on hand. The record must show the date (month, day, and year) your child was given each shot.

If you are unsure of Idaho's state school immunization requirements, talk with your child's medical provider or school. You can also visit the Idaho Immunization Program website at www.immunizeidaho.com.

If your child has not been vaccinated or if they are missing recommended vaccines, it is important that you talk to your medical provider about how to get your child caught up on immunizations as soon as possible.

Choose to Immunize! It's the powerful defense that's safe, proven, and effective.

¹(Centers for Disease Control and Prevention)



Reader's Op-Ed

National Immunization Awareness Month: Are your family's vaccinations up to date?

By Amir Piranfar

August is National Immunization Awareness Month, which emphasizes the importance of vaccinations across all stages of life. There is not a more important time of year than now to begin a discussion about vaccine-preventable disease in our community—especially with children returning to school and flu season looming around the corner.

Keeping your family's vaccinations up to date is one of the most important things you can do to ensure they have a healthy future. Immunizations apply to everyone regardless of age, sex, race, socioeconomic status or geographic location. Vaccine-preventable diseases still circulate in the United States. Falling ill to one could be potentially life-threatening, or cause debilitating effects that can last a lifetime.

The vaccination process throughout life should begin before we are even born. Women should make sure their vaccinations are up to date before becoming pregnant to protect themselves and their baby. Receiving the flu and whooping cough vaccines during pregnancy passes the immunity onto the unborn child.

Making sure babies and young children are vaccinated appropriately and on time is vital to their future health. The Centers for Disease Control and Prevention's recommended schedule for immunizations ensures that children are protected from diseases as early in life as possible and is the best way to protect against such diseases. If done correctly, by the time a child is 2 years old, they should be protected from 14 life-threatening diseases. If a child has fallen behind on their vaccinations, pediatricians are trained to help children catch up on their immunization schedules.

As we grow older, our lifestyles and environments change, requiring a new set of protection. Teens and college students have a higher risk for contracting meningitis, as well as cancers caused

by the human papilloma virus or HPV. These immunizations are often controversial because they are recommended to be given between ages 11 and 12, an age predating potential exposure. However, administering these vaccines at this time offers the greatest amount of protection, regardless of their risk of exposure.

Immunizations continue to be important throughout adulthood. Adult immunization recommendations are more specific depending on occupation, travel, and health status and are not necessarily scheduled. For example, those with diseases, such as asthma, diabetes, or heart disease are more easily affected by some infections than the general public. People who travel to less developed countries are at higher risk for contracting vaccine-preventable diseases that are uncommon in the U.S. Health care workers have more strict schedules that help reduce the spread of disease among patients, and because they are exposed to infectious diseases more often than the public.

Lastly, as we consider immunizations throughout life, vaccines such as tetanus, diphtheria, and pertussis wear off over time, so we need to consider boosters as well. It is also important to consider that a yearly flu shot is recommended in **everyone** over the age of six months.

Getting your vaccinations is more convenient than ever; it can be as simple as stopping by your local pharmacy. Immunizing pharmacists are well trained and must go through yearly continuing education to keep their certification.

In Idaho, pharmacists can prescribe and administer vaccinations to anyone over the age of 12. With a prescription from a licensed health-care provider, pharmacists can administer vaccinations to anyone under the age of 12.

Amir Piranfar is a Doctor of Pharmacy candidate in the College of Pharmacy at the Idaho State University-Meridian Health Science Center.

