Message From the Section Administrator

Amy C. Riggen, BSN, RN

Welcome to the 2019 third quarter issue of IMMU-NEWS.

Another summer has come and gone, and another school year has begun. As we forge ahead into fall and gear up for cooler weather, football season and upcoming holidays we should all remember to protect the ones we love with vaccination. The 2019–2020 flu season is upon us—don't forget your flu shot!

This quarter marked a few national observances of note—July 28 was World Hepatitis Day, and the month of August was National Immunization Awareness Month (NIAM). Posters were placed in all buildings at the State Health Office to promote and raise awareness about the importance of vaccination. Prevention is key!

In this issue, you will read about NIAM, hepatitis, flu and other immunization-related events and topics.

The Immunization Section had staff additions since the last issue.

Carmen Grantham, BSN, RN, has joined the Clinical Quality Improvement (CQI) Team as a Community Health Nursing Consultant for the Perinatal Hepatitis B program.

Amanda Terminello, MPH, has joined the CQI Team as a Public Health Advisor.

Emily Drew, MPH, has joined the CQI Team as a Health Educator and Outreach Coordinator.

Casandra McClain has joined the Field Staff Team in Area 10 as an OPS Operations Analyst.

Welcome aboard Carmen, Amanda, Emily and Casandra—we look forward to working with you!

We want to wish everyone a safe, happy and healthy season.

Enjoy this issue, and visit us at ImmunizeFlorida.org!
World Hepatitis Day 2019

World Hepatitis Day is recognized annually on July 28, the birthday of Dr. Baruch Blumberg (1925–2011). Dr. Blumberg discovered the hepatitis B virus in 1967 and two years later developed the first hepatitis B vaccine. For these achievements, he won the Nobel Prize. According to the World Hepatitis Alliance, about 500 million people are currently infected with chronic hepatitis B or C, and one in three people have been exposed to one or both viruses. The World Hepatitis Alliance first launched World Hepatitis Day in 2008, and the United Nations declared official recognition of this event in 2010.

Hepatitis Facts

Viral hepatitis is caused by infection of one of the five viruses—hepatitis A, B, C, D, or E. Viral hepatitis is the seventh leading cause of death globally, accounting for 1.4 million deaths per year. Together, hepatitis B and C viruses cause 80 percent of most liver cancer cases in the world, and 95 percent of those living with viral hepatitis are not aware of their status. With the availability of effective vaccines and treatments for hepatitis A and B and a cure for hepatitis C, elimination of viral hepatitis is achievable. However, greater awareness of the disease and the risks needs to be brought to the forefront to aid in prevention.

An estimated 800 U.S. newborns are still becoming chronically infected with hepatitis B each year from exposure at birth or during the first months of life. Having strong policies and practices in place across all maternity and infant care settings is critical to protect newborns from early exposure. The hepatitis B virus (HBV) can cause both acute and chronic infections. Approximately 90 percent of children who are infected at birth or during the first year of life will become chronically infected.

Each year in the U.S., more than 24,000 infants are born to mothers who are chronically infected with HBV. Perinatal transmission from mother to infant at birth is very efficient! If none of these infants were to receive prophylaxis consisting of the HBV vaccine and hepatitis B immune globulin injections within twelve hours of birth, along with the completion of the HBV vaccine series, it is estimated that almost 10,000 would become chronically infected with HBV, and 2,500 would eventually die of liver failure or liver cancer as early as the second decade of life.

While most acute HBV infections in adults result in complete recovery, fulminant hepatitis occurs in about one to two percent of acutely infected persons. Although the consequences of acute HBV infection can be severe, most of the serious complications associated with HBV infection are due to chronic infection. Only four percent of newly infected adults go on to become chronically infected, compared to 90 percent in the pediatric population. A child infected at birth can face years of liver damage from chronic HBV exposure over their lifetime.

Perinatal Hepatitis B Prevention Programs (PHBPP) were created to identify and manage infants born to women who are infected with HBV. The mother may be infectious, regardless of whether the infection is acute or chronic. Florida Statutes

Continued on next page
require HBV testing for all pregnant women during each pregnancy, and HBV-positive pregnant women are reported to the local health department as a chronic or an acute HBV carrier. PHBPP case management activities begin soon after the pregnant client is identified as an HBV carrier.

Another strategy to prevent perinatal HBV transmission is administration of the birth dose of the hepatitis B vaccine within 24 hours of birth to newborns. In 2017, the CDC’s Advisory Committee of Immunization Practices took further steps to stress the importance of vaccinating infants against hepatitis B by changing the recommendation from administration of the hepatitis B vaccine from “prior to hospital discharge” to “within 24 hours of birth.”

There are three important reasons why the hepatitis B vaccine birth dose is recommended. It prevents mother-to-infant transmission and household transmission after discharge by protecting infants from infected family members and caregivers, and it provides protection if medical errors occur by creating a "safety net." Adoption of the hepatitis B birth dose in the hospital setting provides this safety net when medical errors occur. If an error does occur and an HBV-infected mother is not identified, the hepatitis B vaccine alone, starting at birth, will prevent transmission of the virus in 70–95 percent of infants born to infected mothers. The majority of the birth hospitals in Florida have incorporated standing orders to administer the hepatitis B vaccine birth dose to all infants.

Hepatitis B is only one type of viral hepatitis. There is also hepatitis A, C, D, and E.

Hepatitis A rates have decreased by more than 95 percent since the first vaccine became available in 1995. However, since March 2017, there has been a spike in outbreaks in 15 states. Drug use was the most commonly reported risk factor. The best way to prevent hepatitis A infection is through vaccination. Since 2006, the hepatitis A vaccine is recommended for all children at one year of age. It is also recommended for certain high-risk groups of adults, which includes persons who use both injection and non-injection drugs, persons experiencing homelessness, and men who have sex with men.

Hepatitis C is mainly spread through blood-to-blood contact. Treatment for chronic hepatitis C aims to eradicate the virus. Hepatitis C can be cured in eight to twelve weeks with antiviral drugs, which can elicit sustained response in 94–99 percent of those infected.

Hepatitis D is spread through contact with infected blood. Hepatitis D is found only in people who are already infected with the hepatitis B virus. Conditions may improve with administration of alpha interferon; however, no effective antiviral therapy is currently available for hepatitis D.

Hepatitis E is mainly transmitted through eating food or drinking water that has been contaminated by the feces of an infected person or by eating raw shellfish that has come from water contaminated by sewage. There is a vaccine to prevent hepatitis E, but it is not widely available. Risk exposure can be reduced by practicing good hygiene and sanitation, and avoiding drinking water that has come from a potentially unsafe source. There is no treatment for hepatitis E; however, it is usually self-limiting.

World Hepatitis Day brings the world together to raise awareness of the global burden of viral hepatitis and to influence change in disease prevention and access to testing, treatment, and care.

2019 FCAAP Annual Conference

The Florida Chapter of American Academy of Pediatrics (FCAAP) hosted its 2019 Annual Conference, The Future of Pediatric Practice 2019, August 30–September 1, 2019, in Orlando, Florida. The goal of this annual conference was to provide health care providers with the ability to recognize, intervene, and prevent intentional and unintentional harm to children from a variety of settings. Attendees included physicians, physician assistants, nurses, and other health care providers involved in pediatric care.

The conference included educational sessions and workshops for continuing education credits, research forums for medical students and pediatric residents, and prominent speakers such as Dr. Sara “Sally” H. Goza, 2019 American Academy of Pediatrics President-Elect; Dr. Paul Robinson, President of FCAAP; and other leading medical providers, physicians, professors, and health care business advisors.

National Immunization Awareness Month 2019

August was National Immunization Awareness Month. This annual observance highlights efforts to protect people of all ages against vaccine-preventable diseases through on-time vaccination.

Vaccines are among the most effective ways to protect against serious diseases. Many vaccine-preventable diseases are no longer common in the United States thanks to vaccines. However, these diseases still exist and can spread when people aren’t vaccinated.

According to the CDC, vaccines can help protect against 14 serious diseases before a baby is 2 years old. These diseases include, but are not limited to, hepatitis B, pertussis, polio, chickenpox and measles. The wonderful news is that no child should go without receiving these vaccines because of unaffordability. The Vaccines for Children (VFC) program is federally funded and provides vaccines at no cost, helping relieve the financial burden to the underinsured or uninsured. For more information on the VFC program, please visit www.flhealth.gov/vfc.

Below is the Vaccine Schedule for Children from birth to 10 years old, according to the CDC:

**Birth:**
- Hepatitis B (Hep B) (1st dose)

**1 to 2 Months:**
- Hepatitis B (Hep B) (2nd dose)
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (1st dose)
- *Haemophilus influenzae* type b (Hib) (1st dose)
- Polio (IPV) (1st dose)
- Rotavirus (RV) (1st dose)
- Pneumococcal (PCV13) (1st dose)

**4 Months:**
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (2nd dose)
- *Haemophilus influenzae* type b (Hib) (2nd dose)
- Polio (IPV) (2nd dose)
- Pneumococcal (PCV13) (2nd dose)
- Rotavirus (RV) (2nd dose)

**6 Months:**
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (3rd dose)

*Can be given between 6–18 months of age

- *Haemophilus influenzae* type b (Hib) (3rd dose)
- Polio (IPV) (3rd dose)*
- Pneumococcal (PCV13) (3rd dose)
- Rotavirus (RV) (3rd dose)
- Hepatitis B (3rd or 4th dose)

**Between 12 and 23 Months:**
- Chickenpox (varicella) (1st dose)
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (4th dose)
- *Haemophilus influenzae* type b (Hib) (4th dose)
- Measles, mumps, and rubella (MMR) (1st dose)
- Polio (IPV) (3rd dose)*
- Pneumococcal (PCV13) (4th dose)
- Hepatitis A (HepA) (1st dose)
- Hepatitis B (HepB) (3rd dose between 6 months and 18 months)

**Between 4 and 6 years old:**
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (5th dose)
- Polio (IPV) (4th dose)
- Measles, mumps, and rubella (MMR) (2nd dose)
- Chickenpox (varicella) (2nd dose)

**Between 7 and 10 years old:**
- Diphtheria, tetanus, and whooping cough (pertussis) (DTaP) (6th dose)
- Polio (IPV) (5th dose)
- Measles, mumps, and rubella (MMR) (3rd dose)
- Chickenpox (varicella) (3rd dose)
- *Note: Influenza (flu) is recommended every year, starting at 6 months of age.

HPV (may be given at 9 years of age, although it is recommended for children between the ages of 11 to 12).

**Note:** Influenza (flu) is recommended every year, starting at 6 months of age.

It is not only important for children to receive vaccines; the CDC also expresses that it is important for parents to keep track of which vaccines their child has received. One reason is that certain vaccines are required for day care and schools. The CDC has a useful vaccine tracking tool that can be found at www.cdc.gov/vaccines/parents/downloads/milestones-tracker.pdf. Some states do participate in state

---

*Continued on next page*
immunization record keeping, but this varies state to state. The Florida Department of Health tracks vaccinations in Florida SHOTS. However, parents should always keep a record for themselves. For some parents the names and abbreviations for vaccines can become confusing, so they can ask the physician or nurse to fill out their child’s vaccination record.

One deterrent to some children getting vaccines is that some parents continue to be concerned about thimerosal (mercury) found in vaccines. In today’s childhood vaccines, thimerosal is not routinely used in the United States, except in multi-dose vials of flu vaccines. Although there is no evidence of thimerosal causing any harm, single dose vials of flu vaccines without thimerosal can be requested.

Prevention of diseases is an important step to a healthier state and nation. Reliable resources and educational material can help parents feel like they are making the right choice when choosing to vaccinate their children. Additional information about childhood vaccines can be found at www.cdc.gov/vaccines/index.html.

Adolescent Vaccines

The recommended immunization schedule is carefully designed to provide protection early, before adolescents are exposed to potentially serious diseases. Preteens and teens need four vaccines to protect against serious diseases:

- Two doses of meningococcal conjugate vaccine to protect against infections of the lining of the brain (meningitis) and bloodstream infections at 11–12 years old and 16 years old. Meningococcal disease is not very common in the United States, but teens and young adults are at increased risk. Meningococcal meningitis and bloodstream infections can be very serious, even deadly, and progress quickly.

- Two doses of human papillomavirus (HPV) vaccine to protect against some cancers, are given 6–12 months apart. Two doses for persons 9–14 years of age or three doses for persons starting the series at age 15. Eighty percent of people will develop an HPV infection in their lifetime. While most HPV infections go away on their own, some infections can cause cervical or vaginal cancer, penile cancer, anal cancer, cancer of the back of the throat, or genital warts. There is routine screening for cervical cancer, but not for the other types of cancers caused by HPV. These other types of HPV cancer may not be detected until they cause health problems. Vaccination can prevent these cancers from ever developing and are most effective when they are given prior to exposure to HPV.

  - Tdap vaccine to protect against tetanus, diphtheria, and whooping cough at 11–12 years old. Tetanus is a serious disease caused by a toxin that causes painful muscle stiffness and can be deadly. Diphtheria causes a thick coating in the back of the nose or throat that can make it hard to breathe or swallow. Whooping cough can make children have serious coughing fits that may make them turn blue or vomit and make it difficult for them to breathe, eat, drink, or sleep.

  - Yearly flu vaccine to protect against seasonal flu. Flu viruses are constantly changing, so new vaccines are made each year to protect against flu viruses that are likely to cause the most illness. Millions of children get sick with flu each year, and thousands are hospitalized. Children with chronic conditions like asthma, diabetes, and disorders of the brain and nervous system are more likely to end up in the hospital from the flu. Flu vaccines do not cause the flu.

These vaccines are safe and effective at preventing these serious diseases. The side effects of these vaccines are usually mild and go away on their own.

Adult Vaccines

Vaccinations aren’t just for kids! Every year thousands of adults in the U.S. become seriously ill and are hospitalized because of diseases that vaccines can help prevent. Many adults even die from these diseases. By getting vaccinated, you can help protect yourself and your loved ones from serious, sometimes deadly, diseases.

Continued on next page
All adults need immunizations to prevent acquiring and spreading serious diseases that could result in poor health, missed work, and medical bills and not being able to care for family. Adults particularly need to keep their vaccinations up-to-date because immunity from some childhood vaccines can wear off over time. You may also be at risk for different diseases as an adult.

Adults need the influenza vaccine (flu shot) every year. Every adult should get the Tdap vaccine once if they did not get it as an adolescent to protect against pertussis (whooping cough), and then a Td (tetanus, diphtheria) booster shot every 10 years. You may need other vaccines based on your age, health conditions, job, lifestyle, or travel habits.

To find out what vaccines you may need, use the [CDC Adult Vaccine Self-Assessment Tool](https://www.cdc.gov/vaccines/vac-.nzv/adults.html).

### Older Adult Vaccines

As we get older, our immune systems tend to weaken over time, putting us at higher risk for certain diseases. Vaccination is an important part of keeping ourselves and our loved ones healthy.

People 65 years and older are at a higher risk of developing serious complications from flu. During most flu seasons, people 65 years and older have the highest rates of seasonal flu-related deaths and hospitalizations. The best way to protect against the flu and its potentially serious complications is to get a seasonal flu shot each year by the end of October. Flu shots do not cause the flu. Side effects of the flu shot are mild compared to the potentially serious consequences of flu infection.

Almost one out of every three people in the U.S. will develop shingles in their lifetime, and your risk of shingles increases as you grow older. Shingles is a painful skin rash that usually develops on one side of the body, often the face or torso. Shingles is caused by the varicella zoster virus, the same virus that causes chickenpox. Adults ages 50 years or older should get the zoster vaccine to prevent shingles.

Also, every adult should get the Tdap vaccine once if they did not get it as an adolescent to protect against pertussis (whooping cough), and then a Td (tetanus, diphtheria) booster shot every 10 years. Adults 65 years and older should also get pneumococcal vaccines, which protect against infections in the lungs and bloodstream.

You may need other vaccines based on your health conditions, lifestyle, travel habits, and other factors. To find out what vaccines you may need, use the [CDC Adult Vaccine Self-Assessment Tool](https://www.cdc.gov/vaccines/vac-.nzv/adults.html).

### Vaccines During Pregnancy

What vaccinations are safe for pregnant woman, and when can they be administered?

**Influenza:** You should get a flu vaccine every fall (or even as late as winter or early spring) for your protection and for the protection of your baby and others around you.

**Tdap:** You should get a Tdap vaccine (the adult whooping cough vaccine) during each pregnancy, preferably in the early part of the third trimester. It's safe to be given during pregnancy and will help protect your baby against whooping cough in the early months of life when he or she is most vulnerable. After Tdap, you need a Td booster dose every 10 years. Consult your health care provider if you haven't had at least three tetanus and diphtheria toxoid containing shots sometime in your life or if you have a deep or dirty wound.

**Hepatitis A:** You need this vaccine if you have a specific risk factor for hepatitis A virus infection or simply want to be protected from this disease. The vaccine is usually given in two doses, 6–12 months apart. If you need to get or continue the hepatitis A vaccine series, it's safe to do so during pregnancy. Consult your health care provider to determine your level of risk for infection and your need for this vaccine.

**Hepatitis B:** You need this vaccine if you have a specific risk factor for hepatitis B virus infection or simply want to be protected from this disease. The vaccine is given in three
Part B, known as the Temporary Medical Exemption, is issued to students who are in the process of completing any necessary vaccine and have received all the immunizations that are medically indicated at that time, based upon age and spacing intervals. The Temporary Medical Exemption requires an expiration date after which the exemption is no longer valid, and the immunizations must be completed before or at that time.

Part C, known as the Permanent Medical Exemption, is issued if a child cannot be fully immunized due to medical reasons. In this case, the child's physician must state, in writing, the reasons for exemption based on valid clinical reasoning or evidence. A Permanent Medical Exemption can only be issued by a physician that is licensed as a medical doctor or osteopathic doctor as outlined in chapters 458 and 459, Florida Statutes.

Religious Exemption from Immunization Form (Form DH 681)
The Religious Exemption from Immunization (Form DH 681) is issued if immunizations are in conflict with religious tenets and practices of the child’s parent or guardian. Form DH 681 is only issued by a Florida county health department and is based upon religious beliefs or practices only.

Enhanced Vaccine Education
The Immunization Section enhanced vaccine education practices with the goal of standardizing and implementing processes that better educate parents and guardians about the risks and benefits of immunizing their children. The new revised process provides more comprehensive education to parents on the potential outcomes of non-vaccination at the time religious exemptions are requested. The department now requires that registered nurses are designated to provide vaccine education. Additionally, the Florida SHOTS system added new features for the documentation of vaccine education encounter.
2019–2020 Flu Season

The influenza vaccine for the 2019–2020 season has been released. On July 25, 2019, influenza vaccine lots approved by the Food and Drug Administration (FDA) were released and made available for distribution by the manufacturers. The distribution schedules will be determined by the manufacturer. Manufacturers have projected they will provide between 162 million and 169 million doses of vaccine for the U.S. market this season.

The influenza vaccine for the 2019–2020 flu season will look different than it has for the past few seasons. The FDA's Vaccines and Related Biological Products Advisory Committee (VRBPAC) and the World Health Organization (WHO) have both selected new strains for each of the two influenza A strains included in the trivalent and quadrivalent vaccines.

On March 6 and 22, 2019, the VRBPAC met in Silver Spring, Maryland, to select which influenza viruses to include in the influenza vaccine for the 2019–2020 U.S. influenza season. The committee recommended that the trivalent formulation influenza vaccines for the U.S. 2019–2020 influenza season contain the following:

- an A/Brisbane/02/2018 (H1N1) pdm09-like virus
- an A/Kansas/14/2017 (H3N2)-like virus
- a B/Colorado/06/2017-like virus (B/Victoria lineage)

The committee also recommended that quadrivalent influenza vaccines for the U.S. 2019–2020 influenza season contain the following:

- an A/Brisbane/02/2018 (H1N1) pdm09-like virus
- an A/Kansas/14/2017 (H3N2)-like virus
- a B/Colorado/06/2017-like virus (B/Victoria lineage)
- a B/Phuket/3073/2013-like virus (B/Yamagata lineage)

The vaccine selection came after the VRBPAC and the WHO made the uncharacteristic step of delaying the decision on which influenza A (H3N2) strain to include in the vaccine composition. Though postponement of the vaccine composition has occurred before, it is rare. Most influenza vaccines are derived from chicken eggs, which take months to produce. The submission of strain compositions so far in advance is necessary in order to ensure that an appropriate supply of influenza vaccination will be available and distributed by the time flu season begins in the Northern Hemisphere in October.

Selection of an (A) H3N2 vaccine virus for 2019–2020 Northern Hemisphere vaccines was delayed from February to March. The additional time allowed more opportunity to monitor circulating influenza viruses and characterization of potential strains to include in the vaccine. With the majority of circulating influenza strains characterized as influenza A in recent years, and only about a 44 percent efficacy rate against these strains, the delay was to ensure an increased likelihood of vaccine match for the next flu season.

Pediatric Recommendations For Flu Vaccine 2019–2020

In March 2019, The American Academy of Pediatrics (AAP) updated their recommendations for the 2019–2020 flu season. The AAP will advise families to vaccinate their children against influenza with either the flu shot or the nasal spray vaccine for the best protection against the virus during the 2019–2020 flu season. This is a change from recent flu seasons where the inactivated injection was recommended over the nasal vaccine and from years prior where a preference for the nasal vaccine was stated. The recommendation for injection influenza vaccines began with the 2016–2017 influenza season based on poor efficacy of the nasal vaccine against influenza A (H1N1). Since that time, the manufacturer of the nasal spray made changes to the formulation to include a new A/H1N1 strain, and this year infectious disease experts are encouraged by new data from Great Britain that, while dependent on a limited number of cases in other countries, supports the spray’s effectiveness against some strains of influenza.
Current Vaccine Information Statements

Vaccine Information Statements (VISs) are produced by the CDC to explain the benefits and risks of a particular vaccine. Federal law requires all vaccine providers to provide patients or their parents/legal representatives the appropriate VIS whenever a vaccination is given.

VISs are available in English and many other languages at the CDC website at cdc.gov/vaccines/hcp/vis/index.html.

Multi-, Routine-, & Non-Routine-Vaccine VISs

Multiple Vaccines (DTaP, Hib, Hepatitis B, Polio, and PCV13) (11/5/15)

**UPDATED**

This VIS may be used in place of the individual VISs for DTaP, Hib, hepatitis B, polio, and PCV13 when two or more of these vaccines are administered during the same visit. It may be used for infants and children receiving their routine 4–6 year vaccines.

**Routine**

- DTaP (8/24/18) interim version
- Hepatitis A (7/20/16)
- Hepatitis B (8/15/19) interim version **UPDATED**
- Hib (*Haemophilus Influenzae* type b) (4/2/15)
- HPV – Gardasil-9 (12/2/16)
- Influenza – Live, Intranasal (8/15/19) interim version **UPDATED**
- Influenza – Inactivated (8/15/19) interim version **UPDATED**
- Measles/Mumps/Rubella (MMR) (8/15/19) interim version **UPDATED**
- Measles/Mumps/Rubella & Varicella (MMRV) (8/15/19) interim version **UPDATED**
- Meningococcal ACWY (8/15/19) interim version **UPDATED**
- Serogroup B Meningococcal (MenB) (8/15/19) interim version **UPDATED**
- Pneumococcal Conjugate (PCV13) (11/5/15)
- Pneumococcal Polysaccharide (PPSV23) (4/24/15)
- Polio (7/20/16)
- Rotavirus (2/23/18)
- Tdap (Tetanus, Diphtheria, Pertussis) (2/24/15)
- Td (Tetanus, Diphtheria) (4/11/17)
- Varicella (Chickenpox) (8/15/19) interim version **UPDATED**
- Zoster/Shingles (Live) (2/12/18)
- Zoster/Shingles (Recombinant) (2/12/18)

### I Want Health Insurance for My Child. Whom Do I Call?

Florida KidCare is the state health insurance program for uninsured children under age 19. It includes four different programs—MediKids, Healthy Kids, Children’s Medical Services, and Medicaid. When applying for this insurance, Florida KidCare will check which program your child may be eligible for based on age and family income.