EPIC® Educating Physicians in their Communities & Practices INSIDER

Volume 7, Issue 9 September 2017

Follow us on:

CORDIA STARLING, RN
EPIC IMMUNIZATION
PROGRAM DIRECTOR
404-881-5081
cstarling@gaaap.org

SHANRITA MCCLAIN
EPIC IMMUNIZATION
PROGRAM COORDINATOR
404-881-5054
smcclain@gaaap.org

Mark Your Calendars:

Immunize Georgia Conference
September 15, 2017
Columbus, GA

Georgia Pediatric Nurses & Practice Manager Associations Fall Meeting
October 13, 2017
Cobb Galleria Centre, Atlanta, GA

Pediatrics on the Parkway (GAAAP)
Fall CME Meeting
October 26-28, 2017
Westin Buckhead Atlanta, GA

Pediatrics on the Parkway (GAAAP)
Fall CME Meeting
November 2-4, 2017
Cobb Galleria Centre, Atlanta, GA
www.gaaap.org

Are you or someone you know an immunization expert?
Do you enjoy sharing your knowledge with others?

If you answered yes, you could become a trainer for EPIC. We provide training on the program curriculum, use of the program equipment (laptop and projector), a stipend for your time, and some great tips for presenting to adult learners.

Please contact Cordia Starling, RN at (404) 881-5081 or Shanrita McClain at (404) 881-5054 more information.

Researchers call on ACIP to update tetanus schedule

By Rachael Zimlich, RN

A new study reveals that tetanus vaccinations may last longer than previously thought and that updating guidelines as such could save close to $300 million annually.

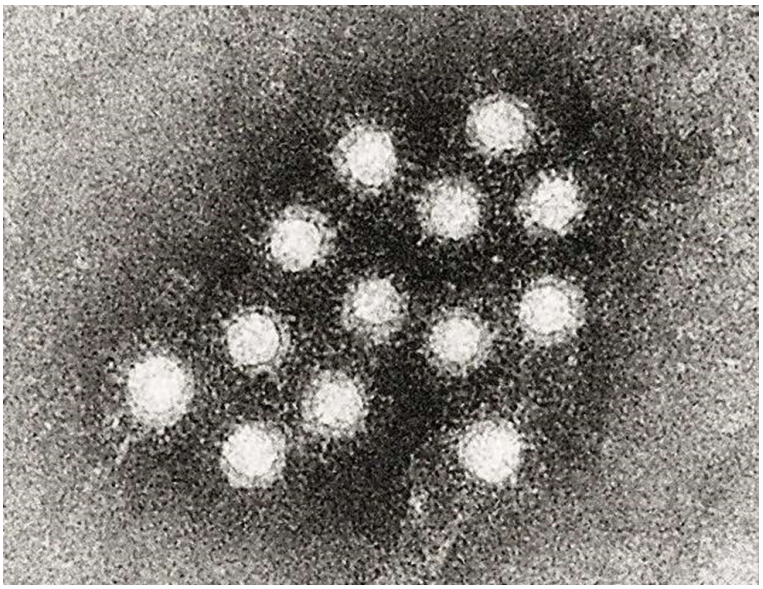
The report, titled "Durability of Vaccine-Induced Immunity Against Tetanus and Diphtheria Toxins: A Cross-sectional Analysis," and published in *Clinical Infectious Diseases*, revealed that antibodies from tetanus and diphtheria vaccination can last up to 30 years and has led researchers to call for a change to immunization schedules. Mark K. Slifka, PhD, of the Oregon National Primate Research Center at Oregon Health and Science University, said this report is just one of several lines of evidence indicating that it might be time to modify the adult booster vaccination schedule.

Tetanus and diphtheria are rare diseases in the U.S., with tetanus occurring at a rate of about 1 case per 10 million people, and just five diphtheria cases reported in the last 15 years. About 99% of U.S. adults under age 60 are protected against these diseases, Slifka said.

Routine annual vaccination against tetanus and diphtheria began in the mid-1940s. By the 1960s, increased rates of adverse events due to hyper-immunization were occurring and a shift was made in 1966 to a 10-year schedule, Slifka said. At that time, the science of vaccine-induced antibody responses were not well understood, but with today's technology he said it appears as though the true duration of immunity has been greatly underestimated.

The study reviewed immunity levels of 546 adults, and 97% of that population was seropositive to tetanus and diphtheria. Antibody responses had an estimated half-life of 14 years for tetanus and 27 years for diphtheria, according to the study. Using this data, researchers concluded that 95% of the population would remain protected against both diseases for 30 years or more without additional booster vaccination.

Hepatitis A vaccination for Alaskan children has wiped out the virus



Electron micrograph of the Hepatitis A virus (HAV). Credit: CDC/Betty Partin

A comprehensive hepatitis A vaccination program established in Alaska in the 1990s, which became a requirement for school entry in 2001, has virtually wiped out the virus in the native peoples of Alaska, where it had been endemic.

Data from the program is being presented at this year's World Indigenous Peoples' Conference on Viral Hepatitis in Anchorage, Alaska, USA (8-9 August) by Stephanie Massay, Epidemiology Specialist with the Alaska Division of Public Health, Section of Epidemiology, Anchorage, AK, USA, and colleagues.
Hepatitis A is an acute (short-term but severe) infection of the liver caused by the hepatitis A virus. Fever, weakness, nausea, aches and pains, and jaundice can be among the symptoms experienced. The hepatitis A virus can survive in the environment on and in food. It is also relatively resistant to detergents but can be inactivated by high temperature (85°C or higher) and by chemicals such as chlorine. Although it occurs worldwide, HAV occurs more commonly in populations with poor sanitation, such as poor populations in developed countries (e.g. Indigenous populations) and also in developing countries more generally.

Alaska experienced epidemics of hepatitis A every 10-15 years during the 1950s to the 1990s, resulting in thousands of cases. Alaska Native (AN) people living in rural communities were disproportionately impacted.
Hepatitis A virus (HAV) vaccines were licensed in 1995 and recommended by the Advisory Committee on Immunization Practice (ACIP) for routine vaccination of US children in populations with high HAV infection rates. Alaska began universal vaccination for children aged 2-14 years in 1996? HAV vaccination became required for school entrance in 2001. In 1997, following ACIP recommendations, this was expanded to include all children age 2 - 18 years, and in 2006 this was further expanded to include children age 1 - 18 years.

The data showed that during 1972-1995, Alaska's average annual incidence of hepatitis A was 60 per 100,000 population. Rates by race were substantially higher for AN people compared to non-AN people (244 vs 19 per 100,000 respectively, with AN people being 13 times more likely to be infected than non-AN people).
Compared to 1972-1995 (pre-vaccine), 2002-2007 (postvaccine) statewide hepatitis A incidence fell by 98% (0.9 vs. 60 per 100,000); among AN peoples the incidence fell by 99.9% (0.3 vs. 243.8 per 100,000). During 2008-2016, 23 HAV cases were reported in Alaska? 5 among AN, 11 among nonAN, and 7 among people of unknown race/ethnicity.

Continued on page 3……..

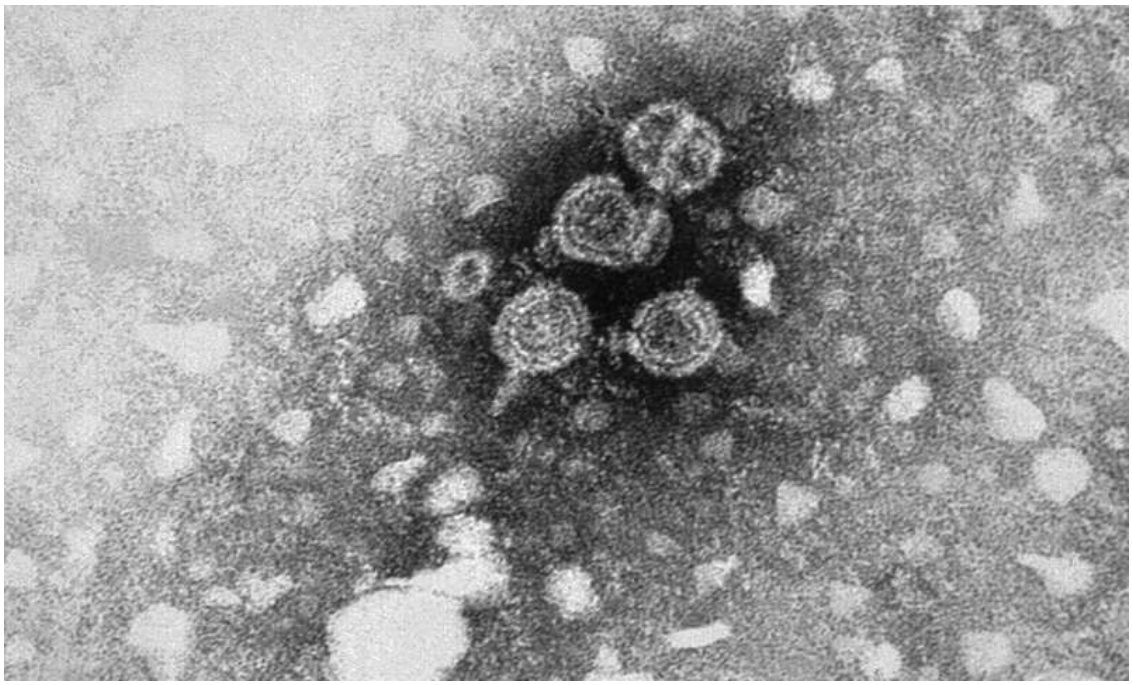
Continued from page 2…….

The 2008-2016 statewide incidence of hepatitis A was 0.35 cases per 100,000 people? the incidence in children aged <14 years was 0.14 cases per 100,000 children. Of the 17 cases with documentation on travel, 15 (88%) had recent travel outside of Alaska. In 2015, National Immunization Survey data estimated that among children aged 19-35 months, HAV vaccine coverage was similar in Alaska (84%) and all US children (86%).

The authors conclude: "Dramatic declines in the incidence of hepatitis A occurred after HAV vaccine was recommended as a routine childhood vaccine and after it was required for school entry. Prior to routine vaccination, most the reported HAV cases were associated with outbreaks occurring within Alaska. Since 2008 however, 88% of reported hepatitis A cases have been imported, many of which were acquired during travel outside of the United States."

Source: **https://medicalxpress.com/news/2017-08-hepatitis-vaccination-alaskan-children-virus.html**

Study shows universal vaccination has wiped out hepatitis B and associated liver cancer in Alaska's young people



A microscopic image of the Hepatitis B virus, taken by the Centers for Disease Control and Prevention

Updated research presented at this year's World Indigenous Peoples' Conference on Viral Hepatitis in Anchorage, Alaska, USA (8-9 August) shows that the universal hepatitis B vaccination program introduced for all newborn Alaskan children in the 1980s has wiped out hepatitis B infection and liver cancer cases associated with the infection. The study is by Dr Brian McMahon, Director of the Alaska Native Tribal Health Consortium (ANTHC) Hepatitis Program, Anchorage, AK, USA and colleagues at ANTHC including Dr Rosalyn Singleton.

Hepatitis B is a serious liver infection, which, if left untreated, becomes chronic, leading to extensive liver damage, liver cancer, and death. Since Hepatitis B is highly contagious, it spread rapidly in rural villages especially among young children.

Continued on page 4……..

Continued from page 3…….

In the 1970s and 1980s, Alaska Native (AN) people residing in Alaska experienced the highest rates of acute and chronic hepatitis B virus (HBV) infection and hepatocellular carcinoma (HCC - liver cancer) in the USA. In 1981-82, a HBV vaccine demonstration project providing HBV screening and vaccination was conducted in 2 highly endemic regions of Alaska. In 1984, the program was extended to AN people statewide, and AN infants in tribal health facilities were offered 3 doses of hepatitis B vaccine starting at birth. At the same time, a vaccine catch-up program was conducted in schools statewide and also included reminders for AN adults that had tested negative for the virus.

The authors of this updated research used data from the surveillance system set up in 1981 in tribal health facilities to detect acute HBV infections. Cases of HCC in young people aged 20 years and younger were identified using the US National Cancer Institute/CDC-funded cancer registry in place since 1969, combined with an active surveillance program screening those already known to be infected with HBV since 1982. Estimated vaccine coverage with 3 doses of hepatitis B vaccine among AN children living in Alaska was reported by the National Immunization Survey (NIS).

The data collected show that routine infant hepatitis B vaccination and mass screening have resulted in high levels of vaccine coverage in Alaskan AN children 1935 months of age. The 1996 NIS estimated 3 dose hepatitis B vaccine coverage was higher among Alaskan AN children (94%) than the general U.S. population (82%), regardless of race. From 1996 to 2008, NISreported vaccine coverage among Alaska AN children has remained at a high level (87-99%).

The incidence of acute symptomatic HBV infection in AN persons aged 20 years and under decreased from 19 per 100,000 in 1981-1982 to no reported cases since 1992. The incidence of HCC in AN persons aged under 20 years decreased from 3 per 100,000 in 19841988 to no reported cases since 1998. The number of chronically infected HBV AN patients aged 20 years and under decreased from 657 in 1988 to just two cases in total since 1999, the last of those identified in 2010.

The authors say: "Universal newborn vaccination coupled with mass screening and immunization of susceptible AN people has eliminated early onset HCC and acute symptomatic HBV infection as a public health threat among AN children. This populationbased approach can serve as a model for other populations."

They conclude: "The elements of this program that we introduced - which include screening and interventions to reduce perinatal transmission and universal vaccination- are recommended as the standard of care for all US populations, including Indigenous populations. Elimination in other populations, however, depends on the how effectively those interventions are applied, which might not be as comprehensive as took place in the AN tribal system."

Source: World Hepatitis Alliance

More U.S. Teens Getting Vaccinated Against HPV

But rates still lagging against the cancer-causing virus that's caused by sexual contact, CDC says

THURSDAY, Aug. 24, 2017 (HealthDay News) -- Six out of 10 U.S. parents are choosing to get their children vaccinated against the cancer-causing human papillomavirus (HPV), which is spread by sexual contact, federal health officials reported Thursday.

The bad news: while most children are getting their first dose of HPV vaccine, many aren't completing the full vaccination schedule, the officials said.

"I'm pleased with the progress, but too many teens are still not receiving the HPV vaccine -- which leaves them vulnerable to cancers caused by HPV infection," CDC director Dr. Brenda Fitzgerald said in an agency news release. "We need to do more to increase the vaccination rate and protect American youth today from future cancers tomorrow."

An estimated 14 million Americans, including teens, become infected with HPV each year. The infection can cause cervical, vaginal and vulvar cancers in women, and penile cancer in men. It can also cause anal cancer, throat cancer and genital warts in both men and women, according to the CDC.

The CDC recommends two doses of HPV vaccine for children at ages 11 or 12. Teens who get the first vaccine dose before their 15th birthday need two doses to be protected. Teens and young adults who start the vaccine series between ages 15 through 26 need three doses, according to the agency.

In its new report, the CDC said 60 percent of teens aged 13 to 17 received one or more doses of HPV vaccine in 2016 -- an increase of 4 percentage points from 2015.

And the report found that HPV vaccination is becoming more common among boys. An estimated 65 percent of girls received their first dose of HPV vaccine in 2016, compared to 56 percent of boys. That represents a 6 percentage point increase for boys from 2015. Rates for girls were about the same as 2015, the CDC said.

Continued on page 6……..

Continued from page 5……

But agency officials said they're concerned because, while most teens have received the first dose of HPV vaccine, only 43 percent are up to date on all recommended doses. Vaccination rates tend to be lower in rural and less urban areas compared to more urban areas, the CDC said.

"Recent changes to the vaccine recommendations mean preventing cancer is easier now than ever before," said Dr. Nancy Messonnier, who directs the CDC's National Center for Immunization and Respiratory Diseases. "Now is the time for parents to protect their children from cancers caused by HPV."

Latest statistics show that HPV vaccination has led to significant drops in HPV infections: HPV-related cancers and genital warts have decreased by 71 percent among teen girls and 61 percent among young women, the CDC said.

The CDC findings were published in the Aug. 25 issue of the agency's *Morbidity and Mortality Weekly Report*.

Dr. Lois Ramondetta is a professor of gynecologic oncology and reproductive medicine at the University of Texas MD Anderson Cancer Center in Houston.

She said the new CDC report shows that education and outreach efforts to parents about the HPV vaccine are working, with vaccination rates moving in the right direction, albeit slowly.

Ramondetta said it's also encouraging to see that the vaccination gap between boys and girls is shrinking.

"However, the data also show that we have a long way to go, particularly with children completing the vaccine series," she added. "It is concerning that more parents and physicians aren't taking advantage of this safe and effective vaccine to prevent several cancers in their children. I recently vaccinated my own daughter, and I'm thankful to have the opportunity to protect her in this way."

To learn more about the HPV vaccine, visit the U.S. Centers for Disease Control and Prevention.

SOURCES: Aug. 24, 2017, news release, U.S. Centers for Disease Control and Prevention; Lois Ramondetta, M.D., professor of gynecologic oncology and reproductive medicine, University of Texas MD Anderson Cancer Center, Houston