



Communicable Disease Service Mission Statement

Our mission is to prevent communicable disease among all citizens of New Jersey, and to promote the knowledge and use of healthy lifestyles to maximize the health and well-being of New Jerseyans.

We will accomplish our mission through our leadership, collaborative partnerships, and advocacy for communicable disease surveillance, research, education, treatment, prevention and control.

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Commissioner

COMMUNICABLE DISEASE SERVICE

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NJ Communi- CABLE

Fall 2011

Vaccine Preventable Diseases

Ensuring Immunity in Your Community By: Jennifer Smith, Health Educator

The New Jersey Center for Public Health Preparedness (NJCPHP) at the University of Medicine & Dentistry of New Jersey-School of Public Health hosted their seventh annual conference titled, "Vaccine Preventable Diseases: Ensuring Immunity in Your Community" on July 18, 2011. The conference was simulcast from three locations: Montclair State University; Burlington County College; and University at Albany, State University of New York (SUNY).

The conference provided the most current training and guidelines to public health professionals, school nurses, pediatricians, family physicians, health officers, health educators, and other primary care providers. Dr. Christina Tan, Acting Deputy Commissioner, New Jersey Department of Health and Senior Services (NJDHSS), delivered the welcoming address. In her address, Dr. Tan emphasized that immunizations are essential for all age groups, including vulnerable groups such as infants, children, and the elderly, but also including healthy adults. Dr. Tan also stressed the importance of optimal

vaccine coverage in all communities to prevent outbreaks of pertussis, measles, mumps, and other communicable diseases.

The importance of statewide registries was a recurring theme throughout the conference. Angela Sorrells-Washington, Program Manager for the NJDHSS Vaccine Preventable Disease Program (VPDP) presented VPDP and New Jersey Immunization Infor-



mation System (NJIS) updates. Celeste Andriot-Wood, NJIS Education and Outreach Coordinator, reminded participants that prior to December 31, 2011 health care providers who administer vaccines to children less than seven years of age must be regis-

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Hepatitis B Disease

Hepatitis B virus (HBV) infection is a major cause of acute and chronic hepatitis, cirrhosis of the liver, and primary hepatocellular carcinoma. It is the most prevalent chronic infectious disease in the world, a common cause of morbidity and mortality worldwide, and a major health problem in the United States (US). In the US it is estimated that 70,000 people are newly infected with HBV every year and that 1.25 million people are chronically infected with HBV. Many persons who are chronically infected are unaware and are at risk of transmitting the infection to others. Of those chronically infected, about 20%-30% acquired their infection in early childhood. Approximately 5,000 Americans die each year from HBV and its related complications.

HBV is primarily transmitted person to person through direct contact with infectious blood, semen, and other body fluids primarily through birth to an infected mother, sexual contact with an infected person, sharing contaminated needles, syringes, or injection drug equipment and needlesticks or other sharp instrument injuries. Transmission of HBV from an infected mother to infant during the perinatal period represents one of the most efficient modes for acquiring HBV infection. Vaccination with the hepatitis B vaccine is the most effective means of preventing HBV infection.

By: Christine Armenti, Hepatitis B Coordinator

Perinatal Hepatitis B Prevention Program

In June 1988 the Advisory Committee on Immunization Practices (ACIP) revised its recommendations on preventing perinatal hepatitis B transmission to include universal hepatitis B serologic testing of all pregnant women. In 1990, the American College of Obstetrics and Gynecology (ACOG) recom-



mended all pregnant women be tested during each pregnancy for the hepatitis B surface antigen (HBsAg). (HBsAg positive persons are infectious). In 1992, both the ACIP and the American Academy of Pediatrics (AAP) recommended that universal hepatitis B immunization (birth dose) of all infants become standard practice in the United States.

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tered as an NJIIS site and authorized user and commence online reporting of vaccinations (N.J.A.C. 8:57-3.16a). Loretta A. Santilli, Program Manager, Immunization Program New York State Department of Health, shared New York's experience with helping providers transition to using their statewide registry. As of January 1, 2008, New York State's Immunization Registry Law requires health care providers to report all immunizations administered to persons under the age of 19, along with the person's immunization histories, to the New York State Department of Health using the New York State Immunization Information System (NYSIIS). Presentations emphasized how immunization registries can assist state and federal agencies with population assessment in the event of a vaccine preventable disease outbreak.

The conference concluded with the acknowledgement of past contributors. Dr. Mark Fulcomer, Adjunct Associate Professor, Department of Epidemiology, UMDNJ-School of Public Health, affectionately named this acknowledgement the "Wenger Awards" in honor of Dr. Peter Wenger who has presented at the conference every year since 2005 with the exception of this year.

**Pictured Left to Right:**

Dr. Christina Tan, Acting Commissioner, NJ Department of Health and Senior Services (NJDHSS); **Dr. Barbara Montana**, Medical Director, NJDHSS Communicable Disease Service; **Dr. Peter Wenger**, Associate Professor of Preventive Medicine and Community Health, University of Medicine and Dentistry of New Jersey (UMDNJ); and **Dr. George T. DiFerdinando**, Co-Director, NY – NJ Preparedness and Emergency Learning Center; NJ Center for Public Health Preparedness at UMDNJ- School of Public Health

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Launch of Free CME/CE Continuing Education Activity on Safe Injection Practices for Healthcare Providers Available on Medscape.org

By: Laura Taylor, Health Educator



A free continuing education (CME, CE) activity for healthcare providers titled **“Unsafe Injection Practices: Outbreaks, Incidents, and Root Causes”** is available on Medscape. Medscape is an accredited CME/CE/CPE education provider. This engaging video roundtable features expert faculty and focuses on safe injection practices for all healthcare providers.

In the last decade, more than 130,000 patients in the United States have been notified of potential exposure to hepatitis B, hepatitis C, and HIV due to lapses in basic infection control practices. Many of these lapses involved healthcare providers inappropriately handling syringes or medications, resulting in contamination of medication vials or containers which were then used on subsequent patients. The Medscape activity, Unsafe Injection Practices: Outbreaks, Incidents, and Root Causes, will educate healthcare providers about safe injection practices, helping to

dispel common myths and emphasizing basic infection control methods that can be applied to any healthcare setting.

This new CME activity is applicable to all healthcare providers that are responsible for giving injections of any type. To date, more than 27,000 healthcare professionals have viewed the continuing education activity and 11,000 continuing education credits have been awarded.

The Medscape injection safety continuing education activity can be found at <http://www.medscape.org/viewarticle/745695>.

Medscape
EDUCATION

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The New Jersey Department of Health and Senior Services (NJDHSS) Vaccine Preventable Disease Program (VPDP) implemented the Perinatal Hepatitis B Prevention Project in 1993 following the Centers for Disease Control and Prevention (CDC), the ACIP and the ACOG recommendations for prevention of perinatal HBV infection. The goal of the program is to identify all pregnant HBsAg positive women to ensure prophylaxis of the newborn at birth and completion of the hepatitis B vaccine series and post vaccination serology testing. The program is dependent on different reporting entities and all positive HBsAg test results, including positive labs in pregnant women, must be reported to NJDHSS as per New Jersey Administrative Code (NJAC) Title 8, Chapter 57, Reporting Requirements for Communicable Disease. All state

laboratories are legally required to report all positive hepatitis B serology to the local health departments (LHDs) and to NJDHSS electronically through the Communicable Disease Reporting Surveillance System (CDRSS). Based on the NJAC, Title 8, Chapter 57, Communicable Diseases case management of HBsAg positive women, their newborns and their household and sexual contacts is completed by the LHD's.

It is important to emphasize that, in accordance with NJAC 8:43G-19.2, the Hospital Licensing Standards, hospitals must ensure all pregnant women admitted to the hospital with unknown or undocumented HBsAg results are immediately tested for HBV and that results are available within 24 hours, but no later than 48 hours, to ensure appropriate prophylaxis of the newborn.

Perinatal HBV Prevention

An infant born to a mother who is HBsAg positive is vulnerable to infection. The risk of perinatal transmis-



sion among infants born to HBV infected mothers can be as high as 90% depending on the mother's infectivity status at the time of delivery. Children of HBV infected mothers, even if not infected during the perinatal period remain at high risk of acquiring infection in the household (horizontal transmission). Infants that do acquire perinatal infection most

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often develop chronic HBV and serve as a reservoir of HBV transmission to other household contacts, and if left untreated as sexually active adults they may continue the cycle of perinatal transmission. Proper prophylaxis with hepatitis B immune globulin and completion of the hepatitis B vaccine series can reduce neonatal infection and the potential sequelae by 95%.

While perinatal and early childhood transmission of hepatitis account for a small number of acute hepatitis B cases in the U.S, when it occurs it may have serious consequences. Approximately 25% - 50% of children infected before five years of age become chronically infected with HBV and are referred to as HBV "carriers," whereas only 6% - 10% of acutely infected adults develop chronic infection or become HBV "carriers." This is significant since it is estimated that up to 25% of children who are chronically infected with HBV will develop cirrhosis or liver cancer later in life.

Since the implementation of the perinatal Hepatitis B Prevention Project, NJDHSS receives on average 400 reports of HBsAg positive pregnant women annually. This number is far less than the CDC estimate of (based on NJ demographics) 1,100 births annually to HBsAg positive women. All newborns of HBsAg positive women are followed by NJDHSS from birth until completion of the HBV vaccine series and post-vaccination serology testing to ensure the child has developed protective antibodies from vaccine and not infection.

In 2007, CDC reported that 799 perinatal hepatitis B infections occurred in the US. Since 1993, the number of perinatal infections reported in NJ is 26, however all infants do not complete post-vaccination serology testing. This is one of several program barriers to perinatal case management. Some cases are lost to follow-up and others are not referred for serology by the medical provider. However, with the implementation of CDRSS perinatal case management, staff is optimistic that the number of identified HBsAg positive pregnant women reported will increase and case management of infants will improve.

The chart below summarizes perinatal case management and outcomes from 1996-2006.

Cases Reported 1996-2006	
Case Management Criteria	Number of infants
Completed 3 vaccine doses by 8 months	1953 (55% of total cases)
Completed post vaccine serology	2020 (57% of total cases)
Perinatal infection	23 (1.2% of total cases)
Perinatal infection prevention	1767 (87% of total cases)

Hepatitis B Vaccine Birth Dose

Routine hepatitis vaccination has had significant impact in reducing the number of new HBV infections per year, with the greatest decline among children and adolescents. Nationally since 1990 there has been a 75% de-

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crease in incidence of acute hepatitis B cases and the rate of disease among children <12 years and adolescents aged 12-19 has declined by 94 %.

Since 1992 the ACIP, AAP, and the CDC have recommended the routine administration of a birth dose of hepatitis B vaccine. Administering a birth dose to all infants serves as a safety net to prevent perinatal infection among infants born to HBsAg positive mothers who are not identified because of errors in maternal HBsAg testing or failures in reporting of test results. The birth dose also provides early protection to infants at risk for infection after the perinatal period. Administration of a birth dose has been associated with higher rates of on-time completion of the hepatitis B vaccine series and in certain populations, improved completion rates for all other infant vaccines. NJDHSS supports these recommendations for the Universal Hepatitis B Birth Dose. The National Immunization Survey (NIS) indicates that only 35% of newborns in NJ receive the hepatitis B birth dose. Strategies are currently being discussed to ensure NJ hospitals implement birth dose policy.

The hepatitis B vaccine and prevention recommendations were consolidated and updated in 2005; all recommendations for protection against HBV infection and the immunization strategy to eliminate HBV can be viewed at:

<http://www.cdc.gov/mmwr/preview/mwrhtml/rr5416a1.htm>

The steady decline of hepatitis B infection coincides with CDC, ACIP, ACOG,

and the AAP implementation of a national strategy to achieve the elimination of HBV by the recommendations to:

- 1) **Screen all pregnant women for HBV infection with provision of postexposure prophylaxis to infants born to infected women;**
- 2) **Routine vaccination of all infants and children aged 18 and younger;**
- 3) **Vaccination of others at increased risk of acquiring hepatitis B.**

Resources

- Call NJDHSS at 609-826-4860.
- A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP), Part 1: Immunization of Infants, Children, and Adolescents, MMWR 2005; 54(RR-16).

Websites

- New Jersey Department of Health and Senior Services, Communicable Disease Service:
<http://nj.gov/health/cd/vpd/index.shtml>
- Centers for Disease Control and Prevention: www.cdc.gov/hepatitis
- National Center for Immunization and Respiratory Diseases:
www.cdc.gov/vaccines
- Immunization Action Coalition:
www.immunize.org
- Healthy People 2020:
www.healthypeople.gov
- Parents of Kids with Infectious Diseases: www.pkids.org
- HepB Moms:
<http://hepbmoms.org/>

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Saying Farewell to a Colleague

As of November 30, 2011 we bid a fond farewell to our colleague, Jo Foster, Public Health Nurse Consultant. After 11 years working for the New Jersey Department of Health and Senior Services, and the last 8 years with the Communicable Disease Service, Jo will begin her retirement from State service. Many of our public health partners know Jo through her expertise in meningococcal disease and for the many educational program offerings she has been involved with around the state. When asked about her impending retirement she responds "I'll miss all the friends I've made at CDS, especially all the wonderful public health nurses at local health departments. I'm looking forward to having the time to do the things I love to do, and to avoid the things I don't like to do!" *Jo certainly will be missed!*



Building Better Public Health Spokespersons!

By: Laura Taylor, Health Educator

One Voice One Message Media and Spokesperson Training, Part 3 was developed by New Jersey Department of Health and Senior Services (NJDHSS) to provide preparedness training for public health professionals, school personnel and other public health partners to work with the media during a public health emergency. In this most recent version of the training, a total of 365 participants from local/county/state health departments, schools and healthcare organizations took part in this daylong training which featured an outbreak of bacterial meningitis as the case scenario.

LINCS agencies were the lead organization for the trainings in each of the counties and invited their staff, as well as local public health and school personnel to this training.

The training covered crisis communication basics and spokesperson/media overview as well as an overview of the disease meningitis. Multiple exercise scenarios were created for the trainings for K-12 and college settings. Depending on the school representative who attended, the appropriate scenario was identi-

fied. Participants were split in two teams to respond to an outbreak of bacterial meningococcal disease: spokespersons and preparation teams and media/concerned citizens. A mock press conference and a town hall meeting were held in the afternoon. Both the press conference and town hall meeting



were taped and replayed with critique by facilitators.

Tom Slater, Risk Communications Manager and Laura Taylor, PhD, MCHES, Communicable Disease Health Educator, served as facilitators for the media and spokesperson training. They created and facilitated all three of the NJDHSS media and spokesperson trainings. Plans for a fourth round of media trainings are in the planning stages.





Fall 2011



Get Smart

Know When Antibiotics Work

November 14 – 20, 2011

During November 14 – 20, 2011, the annual Get Smart About Antibiotics Week will be observed. As in past years, the effort will coordinate work of CDC's **"Get Smart: Know When Antibiotics Work"** campaign, state-based appropriate antibiotic use campaigns, non-profit partners, and for-profit partners during a one-week obser-

vanance of antibiotic resistance and the importance of appropriate antibiotic use. As in 2010, messages and resources for improving antibiotic use in healthcare settings from CDC's **"Get Smart for Healthcare"** campaign will be included. **"Get Smart for Healthcare"** is a program housed in CDC's National Center for Emerging and Zoonotic Infectious Diseases.

The 2011 observance also marks the second year of an international collaboration, which will coincide with European Antibiotic Awareness Day and an observance day in Canada, both on November 18, 2011.

A limited supply of appropriate antibiotic use patient education materials are available. Materials can be ordered by contacting the New Jersey Department of Health and Senior Services, Communicable Disease Service, at 609-826-5964. More information and campaign/educational materials for Get Smart About Antibiotics week can be found at www.cdc.gov/getsmart.



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