Disease surveillance is an ongoing, year-round effort at the Communicable Disease Service (CDS) and is the foundation of the work performed in this service area. The success of our surveillance efforts is dependent on our many public health partners that report communicable diseases. So often though, agencies are asked to send data, but don’t hear the results of the data analysis. This spring, the CDS initiated a new series of public health forums that provided feedback to our public health partners on the process in which they participate.

The first three regional forums were hosted in April to facilitate communication on communicable disease issues between the New Jersey Department of Health (NJDOH), local health departments, and acute care infection preventionists. Over 225 public health and health care professionals attended at least one of the forums. The Communicable Disease Forums consisted of surveillance highlights on influenza-like illness, updates from CDS programmatic areas of food-borne disease, vaccine preventable diseases, infectious and zoonotic/vector illness as well as health care-associated infections, and an overview of communicable disease activity in each region. The in-person format enhances relationship development and allows for a dynamic presentation of surveillance data to supplement the various written reports that are posted to the NJDOH website and can assist local public health and health care providers in addressing the issues identified through surveillance. Kim Cervantes, CDS epidemiologist, says “Although we work closely on an individual basis with local health departments and acute care partners, the Communicable Disease Forums offer an opportunity to share information on the “big picture” of what is happening in communicable disease and surveillance with our partners throughout the state.” In addition to surveillance data presentation, the forums offer an educational session to enhance the
Summer has finally arrived—the season of outdoor activities and events—and while the warmer weather is long-awaited, the emerging mosquitoes are certainly not. Mosquitoes are pests that can locally spread diseases such as West Nile Virus, Eastern Equine Encephalitis, and St. Louis Encephalitis. Mosquito-borne diseases currently affecting other parts of the world, like dengue and chikungunya, may also pose a threat to New Jersey residents. Furthermore, following Superstorm Sandy, NJ experienced unprecedented storm damage that contributed to the creation and/or exacerbation of mosquito-breeding habitats. Storm-altered habitats include modified waterways and bodies of water, accumulation of debris, abandoned homes and unmaintained swimming pools, damaged structures with stagnant gutter systems, and changes in wetlands and swamp areas.

Fortunately, through the use of Community Development Block Grant-Disaster Relief Relief funds, the Department’s Communicable Disease Service (CDS) has hired two temporary staff, a surveillance professional and a health educator, to implement enhanced surveillance and education programs. These programs will address the potential increased threat of mosquito-borne diseases in NJ and primarily target the nine most impacted counties, as defined by socio-economic factors collected by the federal Department of Housing and Urban Development, including Atlantic, Bergen, Cape May, Essex, Hudson, Middlesex, Monmouth, Ocean and Union.

In addition to the enhanced mosquito-borne disease education and surveillance efforts at the CDS, the Department’s Public

Chikungunya virus is most often spread to people by *Aedes aegypti* and *Aedes albopictus* mosquitoes. These are the same mosquitoes that transmit dengue virus. They bite mostly during the daytime. These types of mosquitoes are found throughout much of the world.
On May 1, 2014, the New Jersey Chapter of the American Academy of Pediatrics and the statewide immunization coalition, the New Jersey Immunization Network, hosted a free webinar featuring Jenish Sudhakaran, MPH, Population Assessment Coordinator; Jennifer Smith, MPH, CHES, Health Educator; and Elizabeth Zaremski, MPH, Surveillance Coordinator from the New Jersey Department of Health, Vaccine Preventable Disease Program.

The large number of attendees and registrants demonstrated the significant demand for information pertaining to vaccine preventable diseases (VPDs) and vaccine requirements for school attendance in NJ. Nearly 700 child care providers, school and public health nurses, epidemiologists, and other public health professionals viewed the live webinar. The presentation provided an overview of VPDs and the impact they have on both the national and local level. The importance of recognizing and reporting VPDs in school settings was emphasized.

By the end of the webinar, participants were able to:

- Recognize the characteristics of various VDPs
- Understand the impact of VPDs in NJ and nationally
- Identify immunization requirements for school entry/attendance in New Jersey
- Locate tools for interpreting and applying school immunization requirements
- Understand the communicable disease reporting requirements along with the general guidelines for the control of outbreaks in child care and school settings

Participants who viewed the live webinar were given a certificate of completion as documentation for 1.5 credit hours for staff development in the area of Health and Safety of Young Children. Those who missed the opportunity to view the live webinar can register to view the archive by visiting [http://goo.gl/htHRhc](http://goo.gl/htHRhc). Please note registration is necessary in order to receive a certificate of completion and credit hours. Certificates of attendance and credit hours will only be available until July 31, 2014. After July 31, the archived webinar will be available on the NJAAP website, [http://www.aapnj.org/](http://www.aapnj.org/) or you may contact Mary Jo Garofoli at mjarofoli@aapnj.org for further information.
Hepatitis Action Plan Updated

B uilding on the success of the nation’s first comprehensive cross-agency action plan, released in 2011, *Combating the Silent Epidemic of Viral Hepatitis: Action Plan for the Prevention, Care, & Treatment of Viral Hepatitis*, the U.S. Department of Health and Human Services and other federal partners released a 3-year update of the plan in April 2014. The 2014-2016 Action Plan for the Prevention, Care, and Treatment of Viral Hepatitis, outlines the goals to reduce viral hepatitis. It reports that viral hepatitis remains a silent epidemic in the U.S. More than 3.5 million Americans are living with viral hepatitis and 65-75% of them are unaware that they have the disease. Viral hepatitis is the leading cause of liver cancer and liver transplantation in the U.S.

The updated action plan continues the pursuit of four overarching national goals to be achieved by 2020:

- **Increase in the proportion of persons who are aware of their hepatitis B virus infection, from 33% to 66%**
- **Reduce by 25% the number of new cases of HCV infection**
- **Eliminate mother-to-child transmission of HBV**

The updated plan organizes more than 150 actions around the following six priority areas:

1. **Educating Providers and Communities to Reduce Viral Hepatitis-Related Health Disparities**
2. **Improving Testing, Care, and Treatment to Prevent Liver Disease and Cancer**
3. **Strengthening Surveillance to Detect Viral Hepatitis Transmission and Disease**
4. **Eliminating Transmission of Vaccine-Preventable Viral Hepatitis**
5. **Reducing Viral Hepatitis Caused by Drug Use**
6. **Protecting Patients and Workers from Health Care-Associated Viral Hepatitis**

To read the plan and for more information about the Action Plan: [http://aids.gov/hepatitis](http://aids.gov/hepatitis)
Injection Safety Highlighted at NJ Conference

On May 21, 2014, Evelyn McKnight from HONOREform, a patient safety advocacy organization, spoke to members of the Northern Association of Professionals in Infection Control (APIC). Evelyn was one of 99 individuals who contracted hepatitis C during chemotherapy in Nebraska in 2002. She is an advocate for safe injection practices through her non-profit organization, HONOREform, Hepatitis Outbreaks’ National Organization for Reform. Evelyn has been an instrumental member of the national Safe Injection Practices Coalition (SIPC), of which the NJ Department of Health is a state partner. The NJ safe injection team was invited to join Evelyn at the Northern NJ APIC presentation.

Ambassadors are healthcare professionals (e.g., nurses and infection preventionists) who provide safe injection messages to ensure that every medical injection is a safe one. NJ’s Ambassadors represent every region of the state and are employed in various healthcare settings. Since the program launched in 2012, Ambassadors have presented more than 70 programs and reached over 800 public health and healthcare professionals. Northern NJ APIC was a partner in recruiting their members to become Ambassadors.

Knowledge and epidemiology skills among our public health partners. CDS staff Noelle Bessette and Jill Dinitz-Sklar presented “Hepatitis B: Key Tools and Techniques for an Effective Public Health Response.” According to Jill, “The communicable disease forums provide an invaluable opportunity to reach out to our local health partners with information regarding hepatitis B infections and investigations. It also allowed us to gain feedback from the attendees who perform these investigations on a regular basis. Additionally, attendees from the forums have approached the program to engage in collaborations to help provide education to even more people about hepatitis B. Ultimately these events served as a great way to reach our local partners and help to start an ongoing discussion about hepatitis B.”

For those who missed the April Communicable Disease Forums and would like the slides for reference, look online at NJLMN in the Practice Exchange. The April 2014 Forums were a pilot activity. Based on positive feedback, the Communicable Disease Forums will be continued!
In 2013, legionellosis was prevalent throughout the northeastern United States and in New Jersey. Legionellosis can cause two disease forms: a flu-like illness called Pontiac Fever or a more severe, potentially fatal, pneumonia called Legionnaires’ disease. Legionella bacteria are found naturally in water and can grow inside of building water systems which are improperly maintained. Areas of concern include domestic potable water systems, hot tubs, cooling towers, and decorative fountains. On April 11, the Atlantic City Health Department, in conjunction with the New Jersey Department of Health (NJDOH) Communicable Disease Service, held a “Legionella Prevention Conference” in Atlantic City, NJ. More than 60 participants attended from various hotels and casinos, water consulting groups and utilities, and other commercial buildings. The conference presented information on activities and measures to take in large buildings to prevent Legionella growth.

The Atlantic City Health Department Health Officer, Ronald Cash, facilitated the day of presentations. Speakers included Rebecca Greeley (NJDOH), Laurel Garrison (CDC), Claressa Lucas (CDC), and water consultants Tim Keane (Legionella Risk Management Inc.) and Aaron Rosenblatt (Gordon & Rosenblatt, LLC). A special thanks to Janet Reinhard and Martin Connie from the Atlantic City Health Department, and Courtney Kirkland and Kimberly Cervantes from NJDOH for assistance with coordinating the conference. For more information on Legionella cases, environmental management, specimen collection, or diagnostic testing, please go to: http://www.cdc.gov/legionella/index.html.
CDS Welcomes New Staff!

Elizabeth Afriyie – Liz joins the Zoonotic Disease Team as the new Community Development Block Grant-funded (CDBG) mosquito-borne disease surveillance / epidemiology specialist. Liz holds a Master of Public Health degree in Epidemiology from New York Medical College and completed her Bachelor of Science in Biology at Rutgers University. Her most recent work included the NYC Department of Social Services as a Research Data Analyst. She also worked at Mount Sinai Hospital, Department of Oncology as a Research Assistant and at the Somerset Department of Health as a Research Assistant.

Krista Reale – Krista joins the Zoonotic Disease Team as the new CDBG-funded health educator. Krista holds a Master of Arts degree in Health Promotion Management from Rowan University and is a Certified Health Education Specialist. Her most recent position was with Memorial Healthcare System in Florida where she worked as a health educator on employee wellness initiatives. Prior to her position in Florida, Krista worked at AtlantiCare Health Engagement.

Tabeth Jiri – Tabeth is a certified Public Health Professional (CPH) and holds a Bachelor of Science degree in Nutritional Science from the University of Zimbabwe, and a Master of Public Health degree in Epidemiology from Jackson State University. She is currently a candidate for a Doctor of Public Health degree in Epidemiology at Jackson State University. Her dissertation is entitled “The role of chronic kidney disease in predicting CVD outcomes in pre- and non-diabetic individuals.” She has worked in the field of public health for more than seven years and has recently served as the public health epidemiologist for the Cumberland County Health Department. Prior to this she served as the epidemiologist and Chair for the State Epidemiological Outcomes Workgroup with the Mississippi Department of Mental Health. She also has prior experience working as a research assistant, nutritionist and nutrition surveillance coordinator.

Eric Adler – For the past 10 years, Eric has served as an epidemiologist for the Atlantic County Division of Public Health. In this capacity, he had led responsibilities for communicable disease reporting, surveillance and outbreak investigations for both Atlantic County and Atlantic City. Several highlights from Eric’s time in Atlantic County include, successfully building and maintaining a strong regional network of public health partners including local/regional health departments, hospitals, schools, long-term care facilities, daycares, private medical providers, large employers and NJDOH to monitor and respond to disease outbreaks. Also, Eric successfully piloted a multi-year hospital-based electronic bio-surveillance project (EpiCenter) in Atlantic County hospitals. The experiences and best practices developed during this project were instrumental in NJDOH’s decision to deploy this system in major NJ hospitals as part of the ongoing surveillance program.

Sandy VanSant - The Zoonotic Disease Team has a new part-time special services person, Sandy Van Sant, HO, MPH, APN. Sandy recently retired from her position as Health Officer for the Monmouth Regional Health Commission. Prior to that, Sandy worked at the CDS as the Hepatitis C Coordinator. Before working for NJDOH, Sandy managed public health programs at the Visiting Nurse Association (VNA) of Central Jersey. In addition to being a certified Health Officer, Sandy is a certified pediatric Advanced Nurse Practitioner and has an MPH; both graduate programs were completed at Emory University.
Health and Environmental Laboratories performed enhanced mosquito specimen testing for dengue and chikungunya virus. In late 2013, chikungunya was detected for the first time in the Americas in the Caribbean islands, and since that time, over 65,000 lab-confirmed and suspect cases have been reported from this region. Chikungunya is maintained in nature by a mosquito-human cycle, where infected humans can pass the virus to certain species of mosquitoes; there is no human-to-human transmission. In July, the CDC reported the first U.S. case of chikungunya acquired locally in Florida. Healthcare providers should be watchful of human cases by noting patient symptoms and travel history. The incubation period is typically 3–7 days following the bite of an infected mosquito and the majority of infected people become symptomatic. The disease is most often distinguished by acute onset of fever (typically >102°F) and polyarthritis. There is no treatment other than palliative care, and mortality is rare. Healthcare providers are required to report suspected chikungunya cases to their local health department to facilitate diagnosis and reduce the risk of transmission to local mosquito populations. Testing is available at one commercial lab, Focus Diagnostics, and the Centers for Disease Control and Prevention (CDC). It is imperative that infected individuals avoid mosquito exposure in the first week of symptoms to prevent further spread of the virus; local health departments should work with healthcare providers to counsel and educate suspected cases. The NJDOH Vector-borne Disease Program sent a LINCS message on May 29, 2014 to all local health departments and health care providers with detailed information on chikungunya and guidelines for reporting, investigating and preventing cases.

Despite the nuisance and threat of disease, mosquitoes do not have to put a damper on outdoor summer fun. We should all take precautions against mosquito bites during the summer months. The most effective way to avoid West Nile Virus and other diseases is to prevent mosquito bites and mosquito-proof your home. Make sure to use insect repellent while outside, wear long sleeves and pants when weather permits,

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install and repair window screens, and regularly remove standing water from your property. These preventive measures can help us all to have a healthier, more enjoyable summer.

For more information on mosquito-borne diseases and prevention strategies, visit the following websites: NJDOH CDS Vector-Borne Illness, CDC West Nile Virus and Preventing Mosquito Bites, and CDC Chikungunya and Rutgers Mosquito-Borne Diseases.

To connect with the mosquito control agency in your county, please use the following phone numbers provided from New Jersey Department of Environmental Protection:

- **Atlantic County:** 609-645-5948
- **Bergen County:** 201-634-2880 or 2881
- **Burlington County:** 609-265-5064
- **Camden County:** 856-566-2945
- **Cape May County:** 609-465-9038 or 9039
- **Cumberland County:** 856-453-2170
- **Essex County:** 973-239-3366 x2480
- **Gloucester County:** 856-307-6400
- **Hudson County:** 201-319-3575
- **Hunterdon County:** 908-788-1351
- **Mercer County:** 609-530-7516
- **Middlesex County:** 732-549-0665
- **Monmouth County:** 732-542-3630
- **Morris County:** 973-285-6450
- **Ocean County:** 609-698-8271
- **Passaic County:** 973-305-5754
- **Salem County:** 856-769-3819
- **Somerset County:** 908-541-5021
- **Sussex County:** 973-948-4545
- **Union County:** 908-654-9335
- **Warren County:** 908-453-2545

For more information on mosquito-borne diseases and prevention strategies, visit the following websites: NJDOH CDS Vector-Borne Illness, CDC West Nile Virus and Preventing Mosquito Bites, and CDC Chikungunya and Rutgers Mosquito-Borne Diseases.
In The NEWS

Coming Soon! Community Education Toolkit for Antibiotic Resistance

According to Dr. Tom Frieden, Director of the U.S. Centers for Disease Control and Prevention (CDC), “Antimicrobial resistance is one of our most serious health threats. Infections from resistant bacteria are now too common, and some pathogens have become resistant to multiple types or classes of antibiotics.” Antibiotic resistance is a complex problem and there is no one single solution.

For the past several years, the NJ Department of Health has been working with the CDC’s “Get Smart: Know When Antibiotics Work” campaign to raise awareness among health care providers and the public. It is time to increase our efforts and we are asking for your help in spreading the word. A major issue in the development of antibiotic resistance is improper use of antibiotics by patients. Direct patient education can help increase awareness, knowledge and positively impact patient behaviors.

We are pleased to announce a soon-to-be-released community education tool kit that will make it easy for your organization to teach important messages related to appropriate antibiotic use. The kit will include PowerPoint slides with speaker notes, pre/post-tests, a program report form, and an automated slide show that is perfect for playing at health fairs or in health care waiting areas. All of these items will be loaded onto a customized flash drive for your convenience.

Suzanne Miro, Sr. Health Communication Specialist, will conduct a training for health educators and nurses once the kits are available, so be on the lookout for more information. If you would like to be on an email list for the training announcement, please send a message to Suzanne.miro@doh.state.nj.us.

Middle East Respiratory Syndrome Reaches the United States

With an increasingly global population and readily available flights around the world, the introduction of emerging diseases to the United States can literally be just one airline flight away. This was recently demonstrated by the appearance of two cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) infected patients arriving on planes from Saudi Arabia. As of July 21, there have not been additional identified cases, however it is important for public health officials and health care providers to be aware of MERS-CoV. Please take some time to review the technical guidance documents posted on the Department’s website at http://nj.gov/health/cd/mers/index.shtml.

Health care providers are encouraged to include travel history among patients presenting with fever and respiratory illness. The NJDOH laboratory has been approved to test for MERS-CoV. No specimens will be tested by NJDOH until the case has been reviewed and approved by the Communicable Disease Service staff.
As a co-author of the publication and key member of the clinical team in New Jersey for the Multistate Fungal Infection Outbreak Response Team, Barbara Carothers was presented with a plaque for the New Jersey team.

Fungal Infections Associated with Contaminated Methylprednisolone Injections - Preliminary Report (The New England Journal of Medicine 2012; doi 10.1056/NJEMoa1213978) was awarded the Charles C. Shepard Science Award for Assessment. This publication was nominated by the CDC and the Agency for Toxic Substances and Disease Registry (CDC/ATSDR). The nominated articles were judged on scientific merit and the significance of their effect on a mission of the CDC/ATSDR. This paper describes how the largest ever series of fungal meningitis outbreaks due to mold was contained. In addition to expanding the literature and understanding of fungal meningitis, findings of this paper could affect the future of compounding pharmacies in the United States.

Throughout the country in 20 states, there are 751 cases of fungal meningitis and other infections; New Jersey has 51 outbreak-associated cases.