Spread the Message—Not the Flu

The New Jersey Department of Health and the Centers for Disease Control and Prevention (CDC) recommend that all healthcare personnel (HCP) get vaccinated annually against influenza. When HCP get vaccinated, not only are they protected, but they also protect those who are more vulnerable to serious flu illness, like babies, young children, older people, and people with certain illnesses.

Unfortunately, flu vaccination rates among HCP in the United States are below the Healthy People 2020 target of 90%. According to the CDC internet panel survey¹, during the 2018-19 flu season, only 81.1% percent of HCP in the United States reported receiving influenza vaccination. As in past seasons, the highest coverage (97.7%) was among HCP with workplace vaccination requirements and the lowest (42.1%) among those working in settings where vaccination was not required, promoted, or offered on-site. Overall, vaccination coverage in 2018–19 was higher among physicians (96.7%), nurses (91.8%), pharmacists (91.5%), and nurse practitioners and physician assistants (91.0%), and lower among other clinical HCP.

¹ CDC internet panel survey

Continued on page 6
West Nile virus (WNV) is the leading cause of mosquito-borne disease in the continental United States. Although most individuals with WNV do not experience any symptoms, about 1 in 150 persons infected will develop a serious, sometimes fatal, illness that may present as encephalitis, meningitis, or acute flaccid paralysis.

In New Jersey, 313 cases of WNV have been reported since it was first detected in the state in 2000, with nearly 20% (61 cases) of reports occurring in 2018 (CDC, 2019; Figure 1), three of them fatalities (NJDOH, 2019). Although 2018 was a clear outlier, the spike in occurrence is cause for concern.

NJDOH analyzes WNV surveillance data in humans, mosquitoes, and animals/birds and produces weekly surveillance reports for use by public health and mosquito control partners. NJDOH utilized this historical dataset to establish an objective and data-derived WNV risk index that can be used as a descriptive tool by New Jersey county mosquito control personnel to document the current WNV risk in their county, monitor changes in risk over time, and plan for enhanced mosquito control activities.

To develop the risk index, we used 15 years of county-level surveillance data broken into two-week units and data from the NJ Climate and Weather Network and the National Oceanic and Atmospheric Administration. In the final risk model, four indicators were included: mosquito abundance, mosquito infection rate, human WNV cases, and temperature. These indicators were chosen because previous research has connected them to WNV circulation.

Our analysis included nearly 3,500 observations, with an observation being defined as the average temperature, total mosquito abundance, mosquito infection rate, and human case count in a county during a particular two-week period.

*Continued on page 11*
New Jersey Immunization Education Resources

The New Jersey Department of Health, Vaccine Preventable Disease Program would like to highlight several new materials and resources. Many of the campaigns and webinars were developed through collaborations with our public health partners. Please see the descriptions below and consider utilizing these tools in your practice.

**IMMUNIZATION CAMPAIGNS**

**New Jersey Influenza Honor Roll**
The Honor Roll serves to recognize institutions that encourage and promote flu prevention within their communities across the state. There are four eligible categories to participate: businesses, community-based organizations, institutions of education, and healthcare facilities. Additional information about the initiative and the application form are available at: https://www.nj.gov/health/cd/edu_training/vpdp_flu_honor_roll.shtml.

**NJ Hot Shots for Tots Immunization Campaign-Statewide Expansion**
The Hot Shots for Tots Immunization Campaign is a voluntary, point-based incentive program for child care facilities. The campaign encourages and facilitates a collaboration with immunization stakeholders to promote best practices and improve immunization coverage. For a complete list of activities and more details about the campaign visit https://nj.gov/health/cd/imm_requirements/vpdp_hotshots.shtml.

**Protect Me With 3+**
The Partnership for Maternal and Child Health of Northern New Jersey, in collaboration with the New Jersey Department of Health, is hosting the eighth annual Protect Me With 3+ adolescent contest. The contest raises awareness about the importance of adolescent immunizations among preteens, teens and parents to increase vaccination rates. New Jersey middle school and high school students, in grades five through 12, are encouraged to create informational posters or videos about key vaccinations. More information can be found at www.protectmewith3.com.

**TRAINING OPPORTUNITIES: WEBINARS**

**Positive Approaches for Managing Vaccination Fears and Misinformation**
The New Jersey Department of Health, Vaccine Preventable Disease Program, in collaboration with the New Jersey Immunization Network (NJIN)—the statewide immunization coalition, developed this webinar to assist pediatricians and family physicians in developing effective strategies for communicating with vaccine-hesitant parents. The webinar is available at https://nj.gov/health/cd/imm_requirements/vpdp_hotshots.shtml.

Continued on page 5
2019 Local Leaders in Antimicrobial Stewardship Announced!

The first round of winners in the new Antimicrobial Stewardship Recognition Awards were announced at the New Jersey Hospital Association in Princeton, NJ on December 5, 2019. New Jersey Department of Health (NJDOH) Assistant Commissioner/State Epidemiologist Christina Tan, MD, MPH was on hand to present the awards to the healthcare facilities that stood out among their peers as excelling in their efforts to effectively manage use of antimicrobial drugs, such as antibiotics. An antibiotic is a drug that destroys only bacteria. Antimicrobial is a term used to describe drugs that act against a wide variety of microbes such as bacteria, fungi, viruses, and protozoa.

“Antibiotic-resistant bacteria and fungi cause more than 2.8 million infections and 35,000 deaths in the United States each year according to the Centers for Disease Control and Prevention. These powerful medicines combat life-threatening diseases, but overuse leads to an immunity against these drugs and poses significant public health threats,” said Health Commissioner Judith Persichilli.

Modeled on the Centers for Disease Control and Prevention’s Core Elements of Antibiotic Stewardship, the NJDOH’s Communicable Disease Service (CDS) Antimicrobial Stewardship Recognition Program (ASRP) offered healthcare facilities an opportunity to submit and share their current efforts. Facilities were awarded with a gold, silver, or bronze recognition level based upon whether they perform tasks that tackle the seven core elements: Leadership Commitment, Accountability, Action, Drug Expertise, Reporting, Tracking, and Education.

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Education Resources, continued from page 3

www.immunizenj.org. For CME, CNE, and CHES credits, you must complete the survey at www.surveymonkey.com/r/3QLYLT1.

Medical Exemptions: Separating Fact from Fiction
Listen to Dr. Margaret “Meg” Fisher, Medical Director of the Unterberg Children’s Hospital and Chair of the Department of Pediatrics at Monmouth Medical Center and Jenish Sudhakaran, MPH, Population Assessment Coordinator at the New Jersey Department of Health, Vaccine Preventable Disease Program describe true contraindications that constitute a valid medical exemption from vaccination. View the archived recording at www.youtube.com/watch?time_continue=4&v=oTfb65ahW24. Continuing education is not available for this program.

Vaccine Storage and Handling: A Focus on Temperature Excursion
The NJ Vaccines for Children Program recently collaborated with the Rutgers Ernest Mario School of Pharmacy to create this valuable webinar focusing on vaccine storage and handling. It is available at https://njiis.nj.gov/core/web/index.html#vfcDocs. Continuing education credits (CME, CNE, CEU, CHES, and CEUs in pharmacy) are available for this activity.

IMMUNIZATION MATERIALS
Human Papillomavirus (HPV) Vaccination Tool
This tool provides important reminders on how to improve HPV vaccination, tips for talking to parents about the vaccine, as well as an assessment table. You can access this tool and view an on-demand webinar for step-by-step guidance on completing the tool and ideas for implementing it in your practice by visiting https://nj.gov/health/cd/topics/hpv.shtml.

Adult Immunization Standards Job Aid
This job aid assists healthcare facilities implement the adult immunization standards, identify gaps, and locate resources to develop a plan of action for improving vaccination rates. The resource can be found at: https://nj.gov/health/cd/documents/vpdb/adult_imm_standards.pdf.

Request for Medical Exemption from Mandatory Immunization Form
This form serves as a tool that may be used by healthcare providers, schools, preschools, child care facilities, and local health departments to help determine the validity of a medical exemption from a mandatory immunization. The form (IMM-53) and guidance document are available at https://www.nj.gov/health/forms/imm-53.pdf.
(85.8%), assistants and aides (72.5%), and nonclinical HCP (75.5%).

When considering staff or patient vaccination, there are steps that you can take to help improve flu vaccination uptake:

**Provide Education & Recommendation**
- Educate on the importance of flu vaccination and dispel common myths.
- Share information from credible resources such as the CDC and the New Jersey Department of Health.
- Offer a strong recommendation for the flu vaccine.

**Improve Access**
- Provide free vaccines or partner with larger health organizations or pharmacies to assist with vaccination clinics.
- Offer influenza vaccine at mandatory staff trainings, departmental conferences, or other meetings.
- Schedule clinics at multiple times and locations convenient for all shifts during the flu season.

**Lead by Example**
- Get vaccinated and encourage colleagues and patients to do the same! Establishing a culture of prevention can help to influence staff and patient vaccination even among the most vaccine hesitant.

As a HCP, you play a critical role in preventing and reducing influenza among your patients, colleagues, and communities. Together, let’s #FightTheFluNJ!

For additional information, see the CDC website at [https://www.cdc.gov/flu/](https://www.cdc.gov/flu/) or the New Jersey Department of Health website at [http://nj.gov/health/cd/topics/flu.shtml](http://nj.gov/health/cd/topics/flu.shtml).

1Influenza Vaccination Coverage Among Health Care Personnel — United States, 2018–19 Influenza Season available at [https://www.cdc.gov/flu/fluuvaxview/hcp-coverage_1819estimates.htm](https://www.cdc.gov/flu/fluuvaxview/hcp-coverage_1819estimates.htm)
NJDOH Participates in SEPTEMBER SEPSIS 2019

September 2019 marked the first time the New Jersey Department of Health (NJDOH), Communicable Disease Service participated in sepsis awareness month. Led by the national Sepsis Alliance, SEPTEMBER SEPSIS, is an awareness campaign dedicated to increasing knowledge among healthcare professionals and the public regarding sepsis and the importance of early detection.

The Sepsis Alliance is the leading sepsis organization in the United States working in all 50 states to save lives and reduce suffering from sepsis.

Sepsis is the body’s overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure, and death. Some people are at higher risk of developing sepsis because they are at higher risk of contracting an infection. These include the very young, the very old, those with chronic illnesses, and those with a weakened or impaired immune system. Approximately 30% of patients diagnosed with severe sepsis do not survive and up to 50% of survivors suffer from post-sepsis syndrome. Early detection and treatment are essential to increase chances of survival and to minimize disability for those who survive.

In recognition of SEPTEMBER SEPSIS 2019 NJDOH obtained a signed Governor’s proclamation

Continued on page 12
**2019 Local Leaders, continued from page 4**

In addition to recognizing the achievements of awardees, the program is also intended to encourage facilities to enhance existing programs and influence facilities without robust stewardship programs to develop them. The CDS ASRP ultimately seeks to better preserve the power of antimicrobial drugs and prevent the spread of antimicrobial-resistant germs.

Join us in congratulating all of the winners of the 2019 Antimicrobial Stewardship Recognition Awards!

**Gold: Acute Care**
- CarePoint Health Bayonne Medical Center
- Chilton Medical Center, Atlantic Health System
- Cooper University Hospital
- Hackensack University Medical Center
- Inspira Medical Center Elmer
- Inspira Medical Center Mullica Hill
- Inspira Medical Center Vineland
- Jefferson Cherry Hill Hospital
- Jefferson Stratford Hospital
- Jefferson Washington Township Hospital
- Monmouth Medical Center
- Morristown Medical Center, Atlantic Health System
- Ocean Medical Center
- Overlook Medical Center, Atlantic Health System
- Saint Mary's General Hospital
- Saint Peter's University Hospital
- Southern Ocean Medical Center, Hackensack Meridian Health
- St. Joseph's University Medical Center

**Silver: Post-Acute Care**
- Bergen New Bridge Medical Center, Long Term Care Division

**Silver: Acute Care**
- Bayshore Medical Center
- Deborah Heart and Lung Center
- Hackensack Meridian Health JFK Medical Center
- Holy Name Medical Center
- Hunterdon Medical Center
- Monmouth Medical Center Southern Campus
- Penn Medicine Princeton Medical Center
- RWJBH - Community Medical Center
- Saint Clare's Health - Denville Hospital
- Saint Clare's Health - Dover Hospital
- Saint Michael's Medical Center
- Salem Medical Center

**Gold: Post-Acute Care**
- Bergencare Community Health Care - Long Term Care Division
- Bayshore Medical Center
- Christian Health Care Center: Long Term Care Services
- Elmore Hills Healthcare & Rehabilitation Center
- Encompass Health Vineland
- The Villa at Florham Park
- Virtua Health & Rehabilitation Center at Berlin
- Virtua Health & Rehabilitation Center at Mt. Holly

**Bronze: Acute Care**
- Bergen New Bridge Medical Center
- Cape Regional Medical Center

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2019 Local Leaders, continued from page 8

Capital Health - Regional Medical Center
Capital Health Medical Center - Hopewell
CENTRASTATE MEDICAL CENTER
Christian Health Care Center: Ramapo
Ridge Psychiatric Hospital
Clara Maass Medical Center
East Orange General Hospital
Hackensack Meridian Health Raritan Bay Medical Center
Jersey City Medical Center
Jersey Shore University Medical Center
Riverview Medical Center
Saint Barnabas Medical Center
St. Luke's University Health Network - Warren Campus
University Hospital

Bronze: Post-Acute Care
Allendale Nursing Home
Aristacare at Delaire
CareOne at Cresskill

CareOne at Teaneck
Merry Heart Health Care Center
New Jersey Firemen's Home
Parker at Somerset
Preakness Healthcare Center
Wanaque Center for Nursing and Rehabilitation

Outpatient Facility Satisfactory Completion
Shore Surgical Pavilion

More information about antibiotic awareness can be found at
https://www.nj.gov/health/cd/topics/nj_antibioticsaware.shtml
or at the Centers for Disease Control and Prevention at

CDS Staff Member Recognized for Expertise

The National Syndromic Surveillance Program (NSSP) recently presented Teresa Hamby, Data Analyst with the Communicable Disease Service with a certificate of appreciation for her commitment to syndromic surveillance and her support in identifying a new partner to manage the NSSP Community of Practice. Well done, Teresa!
Tick Surveillance

NJDOH (CDS and Public Health and Environmental Laboratories) staff are coordinating with NJDEP to conduct environmental and wildlife tick surveillance in Sussex county this fall. Deer ticks collected from the environment and off wildlife caught in the county will be submitted to CDC for Powassan testing. While historical data on Powassan infection rates in ticks in Sussex County are unavailable, the information collected this year provides an opportunity for New Jersey to investigate an emerging disease and foster interagency partnerships. The results of the seroprevalence study and tick testing will be available later next year.

Colin Campbell, DVM, CPM, State Public Health Veterinarian, New Jersey Department of Health, retired December 1, 2019 after serving the people of New Jersey for 29 years as a public health veterinarian. Colin spent the vast majority of his time at NJDOH with the Communicable Disease Service (CDS), first as the Assistant State Public Health Veterinarian before rising to State Public Health Veterinarian in 2013. Colin was known for his calm, intelligent professionalism. In his role, he helped to supervise and craft NJDOH’s policy and response to a broad range of subjects – from situations related to shelters/kennels/pounds, to West Nile Virus and Ebola. He was NJDOH’s foremost expert on rabies, and helped guide countless responses to potential rabies exposure. He was also an expert on “inside baseball” working to develop, interpret, and explain numerous laws/regulations regarding veterinary public health. His teammates and co-workers will also miss his wonderful sense of humor and sartorial taste – sometimes expressed at the same time – as well as his friendship. Perhaps the most fitting thing that can be said of Dr. Campbell’s time at NJDOH is that the residents of New Jersey are better off for his service.
WNV disease risk, continued from page 2

The analysis revealed four distinct risk categories: Low, Moderate-Low, Moderate-High, and High. In Figure 2, the bar on the far left shows the proportions of each risk level across all NJ counties during the 15 years included in the model. The green portion of the bar indicates that 14% of all observations fell into the Low Risk category; the tan portion shows that 57% were classified as Moderate-Low Risk; and the orange and red portions indicate that 5% and 23% of the observations fell into the Moderate-High and High Risk categories, respectively.

The remaining bars in Figure 2 moving from left to right show how the proportions of the observations within each time period change from May to October. The graph shows that the level of WNV risk is mostly Moderate-Low during May and June (over three-quarters of observations during this period were classified as Low-Moderate). WNV risk peaks in August and September, with over half of all observations classified as either Moderate-High or High Risk. In October, risk drops substantially, with 81% of observations during the last two weeks of the month falling into the Low Risk category.

The final model has been discussed with the NJ Vector-borne Disease Working Group and will be built into JerseySurv, which is NJDOH’s new online vector surveillance portal. Starting in spring 2020, the mosquito surveillance data that many counties already enter into JerseySurv will be placed into model-based algorithms, which will classify their county’s current conditions into one of the four risk categories.

Ultimately, this model is intended to reduce the burden on county mosquito control officials by synthesizing multiple streams of information. Furthermore, the risk categories can be utilized to inform the use of public health and vector control interventions intended to mitigate human WNV risk. Finally, the data-driven risk classifications can be used to support requests for additional resources during periods of high WNV risk. Information on WNV activity in NJ is available at [https://www.nj.gov/health/cd/statistics/arboviral-stats/](https://www.nj.gov/health/cd/statistics/arboviral-stats/).
SEPTMBER SEPSIS, continued from page 7

declaring the month of September to be Sepsis Awareness Month. Additionally, NJDOH hosted a webinar featuring Tom Heymann, Executive Director from the Sepsis Alliance, who spoke about the organization and its resources and outreach efforts. Also featured was Shannon Davila, Director, Institute for Quality and Patient Safety at the New Jersey Hospital Association, who talked about the impact of sepsis in the healthcare setting here in New Jersey as well as the initiatives in place to help address the issue and reduce the incidence.

Additionally, a sepsis table display was exhibited at the New Jersey Population Health Summit: Maternal Outcomes Matter, held September 23, 2019 in Princeton, New Jersey to highlight the connection between sepsis and adverse maternal outcomes.

Suzanne Miro, MPH, MCHES, health educator for the NJDOH Communicable Disease Service provided sepsis educational materials and spoke to attendees of the New Jersey Population Health Summit.
Vaccinating Pregnant Women: Protect Moms and Babies

Influenza and whooping cough can be deadly, especially in a baby’s first few months of life. Vaccinating women against these diseases during each pregnancy helps protect both them and their babies. Studies show flu and whooping cough vaccines are very safe for pregnant women and developing babies.

Current Recommendation: CDC recommends all pregnant women receive flu vaccine at any time during pregnancy, and whooping cough vaccine (Tdap) early in their third trimester, during each pregnancy.

Key statistics:
• Women with influenza are more than twice as likely to be hospitalized if they are pregnant. Flu vaccination lowers risk of influenza hospitalization in pregnant women by an average of 40%.
• Sixty-nine percent of reported whooping cough deaths occur in babies less than two months old. When an expecting mother gets Tdap in the third trimester, it is 78% effective in preventing cases of whooping cough in babies less than two months old.
• Only one in three US pregnant women receive both influenza and Tdap vaccines. Thirty-eight percent of pregnant women who didn’t get Tdap say they didn’t know the vaccine was needed in each pregnancy.

What healthcare providers can do:
• Discuss the benefits of vaccination with pregnant women early and often.
• Strongly recommend flu and Tdap vaccines to all pregnant women.
• Offer flu and Tdap vaccines to pregnant women or provide referrals to other vaccination providers.
• Reinforce that vaccination is the best way to protect young babies from influenza and whooping cough.

For more information, please visit: www.cdc.gov/vitalsigns/maternal-vaccines/
### Save the Date!

**CDS Announces 2020 Communicable Disease Forums**

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<th>Time</th>
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<tr>
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**In-person CD Forums**, scheduled for April/May 2020 from 9:30 AM-12:30 PM are:

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<td>April 23</td>
<td>Middlesex Fire Academy&lt;br&gt;1001 Fire Academy Dr,&lt;br&gt;Sayreville, NJ 08872</td>
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<td>April 28</td>
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<td>May 5</td>
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