Preparing for Adolescent Immunizations

As the new school year starts, many preteen and teen students are returning to their health care providers to receive their physicals and recommended immunizations. At 11-12 years of age, adolescents are recommended to receive the first dose of MenACWY, one dose of Tdap, and the first dose of the HPV series. Fall also signals the beginning of the flu season, which means that everyone six months of age and older should receive the flu vaccine. There may also be other recommended vaccines based on risk-factors or travel. For more information on the recommended immunization schedule, please view the Centers for Disease Control and Prevention (CDC) 2018 Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger.

National Immunization Survey-Teen (NIS-Teen) data from 2016 indicated that vaccination coverage rates for human papillomavirus (HPV) and influenza continue to lag behind rates for tetanus, diphtheria, acellular pertussis (Tdap) and first dose MenACWY vaccines (see graph on page 7). A strong provider recommendation continues to be the strongest predictor of patient vaccination. In addition to using a strong recommendation, several tools and resources are available to further

Continued on page 7
CDS Rebrands Antibiotic Awareness Campaign

Last year, the Centers for Disease Control and Prevention (CDC) embarked on a total redesign and rebranding of the Get Smart About Antibiotics program. The iconic owl logo of the Get Smart campaign has been replaced with a new slogan and logo design. Despite the name change, the mission of the campaign remains the same...to help improve antibiotic prescribing and use as a tool to combat antibiotic resistance. The New Jersey Department of Health (NJDOH) will be following suit by embracing the new CDC campaign brand and will adapt current and future materials to be consistent with the national program.

Slated for November 12-18, 2018, the U.S. Antibiotic Awareness Week will once again promote messages to both health care providers and the general public about the role antibiotics play in the development of antibiotic resistance and how serious this threat remains across the globe. The NJDOH has participated in the awareness week for many years and will do so again by launching the rebranded website and materials.

Health care providers and public health workers in New Jersey are being asked to plan local events in order to make this annual observance more visible across the state. Check the NJ Antibiotics Aware website at https://www.nj.gov/health/cd/topics/hai_ar.shtml to see new materials. Follow NJDOH on social media and be sure to “like” and forward campaign messages. Contact Suzanne Miro at suzanne.miro@doh.nj.gov or 609-826-5964 for more information about antibiotic resistance resources.
Strengthening Antibiotic Stewardship in Long-term Care Facilities

Antibiotics are among the most commonly prescribed drugs used in human medicine and can be lifesaving. According to the Centers for Disease Control and Prevention (CDC), in nursing homes, up to 70% of residents receive one or more courses of antibiotics annually. However, up to 75% of the time, antibiotics are not optimally prescribed. Any antibiotic use comes with possible risks, one of which being *Clostridium difficile* infection. There are an estimated 104,000 nursing home-onset cases of *Clostridium difficile* infections per year. The risk for *Clostridium difficile*-related infections is higher among the elderly, those with lengthy stays in health care settings, and those with underlying illness and immunocompromising conditions. These infections can cause watery diarrhea, fever, loss of appetite, nausea, and abdominal pain. The severity of the illness can vary and can lead to death.

A growing body of evidence is showing that programs dedicated to improving antibiotic use can both optimize the treatment and reduce adverse events associated with antibiotic use. The CDC created *The Core Elements of Antibiotic Stewardship for Nursing Homes*, a document that summarizes the various functions of a successful stewardship program, and provides a roadmap of actions that long-term care facilities can implement to move them toward a more judicious use of antibiotics.

Through a grant from the CDC, the Communicable Disease Service worked on a project to specifically identify needs and target antibiotic stewardship education for the long-term care industry. After several meetings and a focus group with long-term care employees, it was clear that there are many challenges to effective antibiotic stewardship in the long-term care setting. One need was educational support for the nursing staff who are interacting with...
Infection Control Professionals Caught Red Handed

As part of a three-year nationwide program to reduce health care-associated infections (HAIs), New Jersey formed the Infection Control Assessment and Response (ICAR) team, comprised of epidemiologists and infection preventionists. The team conducts voluntary, non-regulatory assessments of basic infection prevention practices in New Jersey health care facilities. To date, the team has visited over 100 facilities, including acute care hospitals, hemodialysis centers, long-term care facilities and outpatient ambulatory surgery centers. During these assessments, the team takes a collaborative approach to highlight and share what facilities are doing well and identify opportunities to enhance or improve infection prevention efforts. The team strives to make every assessment consultative, collaborative, and enjoyable for all health care staff that attend. Following the assessment, health care facilities are given a “goody bag” that includes resources, guidance documents, and educational ideas to improve their infection prevention program.

Following the ICAR team’s motto, “steal shamelessly and share selflessly,” the team shares a wealth of resources on site, but also directs health care facilities to publicly available resources that staff can adapt to their needs. One of the ICAR team’s favorite activities is an educational in-service entitled “Caught Red Handed.” The photos above are from recent ICAR assessments, where both ICAR team members and facility staff were demonstrating hand hygiene and donning and doffing gloves, using red paint, in an activity called “caught red handed.” This activity teaches and enforces appropriate hand washing, putting on and taking off gloves, and use of alcohol-based hand rub. At the end of the activity, you don’t want to be “caught red handed,” thus transferring the red paint from the gloves to your hands while removing the gloves. The short in-service was led by Bridget Farrell, one of the ICAR team’s infection preventionists, and included facility staff and the other ICAR infection preventionist, Jessica Felix.

For more information on ICAR or on our educational initiatives, visit the ICAR team’s website at www.nj.gov/health/cd/topics/hai.shtml or contact the team at CDS.ICAR@doh.nj.gov or at (609) 826-5964.
Sixth Annual Protect Me With 3+ Adolescent Immunization Awareness Contest

The Partnership for Maternal and Child Health of Northern New Jersey, in collaboration with the New Jersey Department of Health, hosted the sixth annual Protect Me With 3+ adolescent contest. The contest raises awareness about the importance of adolescent immunizations among preteens, teens and parents in an effort to increase vaccination rates for adolescent immunizations: tetanus, diphtheria, acellular pertussis (Tdap), human papillomavirus (HPV), meningococcal conjugate (MenACWY), and flu vaccination.

The teachers from the classrooms with the highest number of eligible entries were also honored at the ceremony. The winning entries can be viewed at http://protectmewith3.com/.

This year, over 400 adolescents representing 12 counties and 23 middle and high schools in New Jersey were involved in the creation of the posters and videos. Thirty-three teachers across the state were involved in supporting and encouraging the students’ efforts. Public voting was held to determine the top three submissions among the finalists, logging over 5,000 votes.

This fall, the contest will launch its 7th annual competition. Please visit the website www.protectme with3.com, or email info@protectmewith3.com for additional details! Additionally, copies of posters from prior winners are available upon request. To request posters, please call 609-826-4861.

The winners and finalists in each category were honored at an awards ceremony and banquet held at The Conference Center at RWJ Hamilton Center for Health & Wellness on April 29, 2018. The top three winners in the poster and video categories received awards and the opportunity for their artistic creations to be distributed during statewide immunization awareness activities.

Finalists in attendance at the awards ceremony for the sixth annual Protect Me With 3+ adolescent immunization contest.
Epi Spotlight - Legionellosis

Background

Bacteria of the genus *Legionella* cause Legionnaires’ disease and Pontiac fever, collectively referred to as legionellosis. Pontiac fever is a milder febrile illness without pneumonia and is characterized by an abrupt onset and a self-limited, influenza-like illness. Legionnaires’ disease varies in severity from mild to severe pneumonia characterized by fever, cough, and progressive respiratory distress. Legionnaires’ disease can be associated with chills, myalgia, and gastrointestinal tract, central nervous system, and renal manifestations. Respiratory failure and death can occur. The case-fatality rate for Legionnaires’ disease among community-dwelling persons is as high as ten percent. Delayed initiation of appropriate antimicrobial drug therapy further increases death rates.

Key Points

- Health care providers should maintain a high index of suspicion for legionellosis among all adults with pneumonia, whether community-acquired or health care-associated.
- Diagnostic testing for *Legionella* infection should include both urine antigen and culture of lower respiratory specimens. Testing for *Legionella* urine antigen guides clinical treatment of the patient and *Legionella* culture further assists public health authorities to link clinical isolates to potential environmental sources of *Legionella* exposure.
- Laboratory-confirmed legionellosis cases should be reported to the local health department where the case-patient resides.

Sources of *Legionella*

There are at least 60 different species of *Legionella*; most are considered pathogenic, but most disease is caused by *Legionella pneumophila*, particularly serogroup 1. *Legionella* can be found in natural, freshwater environments, but generally are not present in sufficient numbers to cause disease. In human-made water systems, like the plumbing of large buildings (consisting of water heaters, storage tanks, and pipes), cooling towers, decorative fountains, hot tubs, and medical equipment, such as respiratory machines, bronchoscopes, and heater-cooler units, *Legionella* can grow and be transmitted to susceptible hosts via inhalation of aerosolized water containing the bacteria. Less commonly, *Legionella* can be transmitted via aspiration of drinking water.

Risk Factors

Since hotels, resorts, and cruise ships often use large, complex water systems and other aerosol-generating devices, travel is a risk...
Adolescent Immunizations, continued from page 1

promote adolescent vaccination:

- **New Jersey Department of Health (NJDOH), Adolescent Immunization Toolkit**

- **NJDOH, Human Papillomavirus Webpage**
  [https://nj.gov/health/cd/topics/hpv.shtml](https://nj.gov/health/cd/topics/hpv.shtml)

- **NJDOH, Influenza Webpage**
  [https://nj.gov/health/cd/topics/flu.shtml](https://nj.gov/health/cd/topics/flu.shtml)

- **NJDOH, Vaccines for Teens and Preteens**

- **Protect Me With 3+, New Jersey Adolescent Immunization Contest**
  [www.protectmewith3.com](http://www.protectmewith3.com)

- **CDC HPV Webpage**
  [www.cdc.gov/hpv/index.html](http://www.cdc.gov/hpv/index.html)

- **National HPV Vaccination Roundtable Clinician & Health Systems Action Guides**
  [http://hpvroundtable.org/action-guides/](http://hpvroundtable.org/action-guides/)

Select NJDOH resources are available for free upon request. If interested, please contact the Vaccine Preventable Disease Program at 609-826-4861.

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### Vaccination Coverage by Antigen Among Adolescents 13-17 Years, New Jersey and the United States, NIS-Teen, 2016

<table>
<thead>
<tr>
<th></th>
<th>NJ New Jersey</th>
<th>US United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose #1† MenACWY</td>
<td>91.7%</td>
<td>82.2%</td>
</tr>
<tr>
<td>Dose #2†</td>
<td>89.1%</td>
<td>90.0%</td>
</tr>
<tr>
<td>At least 1 dose Tdap†</td>
<td>59.5%</td>
<td>60.4%</td>
</tr>
<tr>
<td>At least 1 dose HPV†</td>
<td>43.4%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Up-to-date HPV†</td>
<td>43.4%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Dose for 2016-17 Flu*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*FluVaxView: [www.cdc.gov/flu/fluuvaxview/interactive.htm](http://www.cdc.gov/flu/fluuvaxview/interactive.htm)*

†TeenVaxView: [www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html](http://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html)*

‡MMWR: [www.cdc.gov/mmwr/volumes/66/wr/mm6633a2.htm](http://www.cdc.gov/mmwr/volumes/66/wr/mm6633a2.htm)
Long-term Care Facilities, continued from page 3

residents and their families. The nursing staff acknowledge that it is often difficult to explain to residents’ families why antibiotics may not be needed to treat their loved one. Family members can often push medical staff to use antibiotics when not clinically necessary. The second educational gap is that floor staff are largely unaware of the concept of antibiotic stewardship and its importance in protecting the life-saving power of antibiotics. In response to these two needs, a toolkit of materials was developed for both the staff and residents’ family members. The toolkit includes a slide set with scripted talking points for classroom-style staff education, and a narrated version that can be viewed by staff at any time. Another item included in the kit, “Antibiotics: Communication Strategies for Health Care Providers and Nursing Staff in Long-term Care Facilities,” was developed to support antibiotic-related conversations between health care staff and residents/family members. Fact sheets regarding upper respiratory infections and urinary tract infections were created to address why antibiotics might not be prescribed for these two common infections among long-term care residents. Several other tools including a sample antibiotic stewardship policy, brochures, resource list, and a program report form round out the set of offerings.

To order a copy of the kit, please contact Suzanne Miro of the Communicable Disease Service at 609-826-5964 or via email at suzanne.miro@doh.nj.gov.

Congratulations!

Vaccine Preventable Disease Program Wins National Award!

The New Jersey Department of Health, Vaccine Preventable Disease Program (VPDP), has received the 2017 Vaccination Coverage Award. Program leadership accepted the honor during the awards ceremony at the National Immunization Conference in May, 2018.

Congratulations to all of the VPDP staff whose dedication and excellence achieved this recognition.
Hepatitis Surveillance Continues in New Jersey

Last year, the Communicable Disease Service posted new hepatitis C guidance for public health disease investigators. The guidance included new case definitions, prioritized groups for investigation, and added new criteria to monitor perinatal hepatitis C cases. With the new Communicable Disease Reporting and Surveillance System (CDRSS) re-design in place, we remind public health investigators to please complete the case report, including demographics such as gender, race, and ethnicity, and any known risk factors. The hepatitis C team is monitoring case reports to ensure completeness of demographics and risk factors.

Injection Safety is Everyone’s Responsibility!

Are you responsible for providing bloodborne pathogen training to your staff? Did you know that the Centers for Disease Control and Prevention’s injection safety initiative developed a training module that focuses on bloodborne pathogens and injection safety? Check it out… http://www.oneandonlycampaign.org/content/bloodborne-pathogens-training

Safe Injection Practices: Protecting Yourself and Your Patients

A Bloodborne Pathogens Training Activity
factor for disease. This is also true for hospitals and long-term care facilities, which also host susceptible populations. Patients at greater risk for developing legionellosis include the elderly, smokers, persons with chronic lung disease, and those with weakened immune systems. Buildings should develop a water management program that will identify all areas in the water system that may lead to the growth of Legionella and work to maintain healthy water systems. Additional information regarding how to develop a water management program is available at the Centers for Disease and Control and Prevention's website: https://www.cdc.gov/legionella/wmp/toolkit/index.html.

**Epidemiology**

Health departments reported approximately 6,100 cases of Legionnaires’ disease in the United States in 2016. However, because Legionnaires’ disease is likely underdiagnosed, this number may underestimate the true incidence. Legionnaires’ disease follows a seasonal pattern in New Jersey, with an increased number of cases reported during early summer to autumn months, but illness can occur any time of the year. In 2016, the New Jersey Department of Health reported 199 confirmed cases. Essex County historically has the highest crude rate of cases per year in the state.

Since 2000, reported cases of Legionnaires’ disease in the United States have grown by nearly four and a half times. It is unclear whether this increase represents artifact (due to increased awareness and testing), increased susceptibility of the population, increased Legionella in the environment, or some combination of factors.

The rise in reported cases reinforces the need for health care providers to test and treat adults with severe community-acquired pneumonia for Legionnaires’ disease. Legionellosis is a nationally notifiable disease; laboratory-confirmed legionellosis cases should be promptly reported to the local health department where the case-patient resides.

**Diagnostic Testing and Treatment**

Health care providers should consider the diagnosis of Legionnaires’ disease in patients presenting with clinical features of pneumonia, fever, and cough. When testing for Legionnaires’ disease, best practice is to obtain both lower respiratory culture and the urinary antigen test concurrently.

**Culture**

Culture of *Legionella* from a lower respiratory specimen (e.g., sputum, tracheal aspirate, or bronchoalveolar lavage fluid) is the gold standard diagnostic test. Culture can detect other *Legionella* species and serogroups that the urinary antigen test does not.
Do you work in an acute care facility or at an ambulatory surgery center/outpatient facility? Did you know that drug diversion is a public health concern in these health care settings? Drug diversion occurs when prescription medicines are obtained or used illegally by health care providers. The New Jersey Department of Health created a tabletop drug diversion exercise for health professionals. The exercises are for staff in acute care and ambulatory settings and consist of three scenarios that encourage discussion among administration and staff regarding identifying, investigating, and responding to drug diversion in health care facilities. The exercise modules may be accessed on the One & Only Campaign New Jersey partner webpage: http://www.oneandonlycampaign.org. Resources include exercise scenarios, slides, evaluation, and a facilitator’s guide. Also available are drug diversion policy templates for both acute care and ambulatory care settings, as well as a drug diversion algorithm to assist health care facilities with internal and external agency notification.

Drug Diversion

D

You work in an acute care facility or ambulatory surgery center? Did you know that drug diversion is a public health concern in these health care settings? Drug diversion occurs when prescription medicines are obtained or used illegally by health care providers.

Healthcare Providers To Patients

Drug Diversion Spreads Infection From Patient Care Environment to Patients

Healthcare Providers With Infection Can Spread Infection to Other Hospitals or Other Facilities

Exposure of Patient

Patient Care Environment

Infection or Contamination of Equipment or Patient Result From Use of Contaminated Injection Equipment

Drug Diversion

For more information, visit CDC/InfectionPrevention/DrugDiversion.
**Legionellosis, continued from page 10**

Comparing clinical and environmental isolates using serologic and molecular techniques can help identify the source in Legionnaires’ disease outbreak investigations. Because *Legionella* culture requires special media (i.e., buffered charcoal yeast extract), please alert your microbiology laboratory that you are ordering a culture for *Legionella*, in addition to routine bacterial cultures.

**Urinary Antigen Test**

The urinary antigen test is the most widely available rapid method of diagnosis, and detects *Legionella pneumophila* serogroup 1, which accounts for 70-80% of *Legionella* infections. A negative urinary antigen test, however, does not rule out infection from other *Legionella* species and serotypes. Additionally, the urinary antigen test does not produce an isolate for further characterization and comparison to other clinical or environmental isolates to help determine possible environmental sources of infection.

The urinary antigen test should be ordered in conjunction with the *Legionella* culture.

**Treatment**

If a patient has Legionnaires’ disease, please see the most recent Infectious Diseases Society of America-American Thoracic Society guidelines for treatment of community-acquired and hospital-acquired pneumonia. Please note that first line treatment, however, does not always include *Legionella*-directed antibiotics (e.g., macrolides and respiratory fluoroquinolones). While it is preferred that diagnostic testing is obtained before antibiotic administration, early treatment does result in better outcomes and antibiotic treatment should not be delayed.

Additional information for clinicians on legionellosis is available at the Centers for Disease and Control and Prevention’s *Legionella* Site: [https://www.cdc.gov/legionella/clinicians.html](https://www.cdc.gov/legionella/clinicians.html).
Did you know that there are four new hepatitis B education materials available on the New Jersey Department of Health (NJDOH) website? These materials are the result of a pilot project with NJDOH and the Suburban Essex Nurse Supervisor Association (SENSA). The nurses assisted with the materials and identified relevant languages for translation (English, Spanish, Portuguese, Haitian Creole, and Chinese). They found the materials to be helpful tools when counseling individuals who are newly diagnosed with hepatitis B, and the family and sexual contacts of individuals with hepatitis B.

- **Hepatitis B is not just for kids...** (target audience: older adults)
- **My partner told me they have hepatitis B** (target audience: family/sexual contacts of an individual with hepatitis B)
- **My partner was diagnosed with hepatitis B...what does this mean?** (target audience: family/sexual contacts of individuals with hepatitis B)
- **Living with hepatitis B as a young adult or teen** (target audience: young adults/teens)

Please visit: [http://www.state.nj.us/health/cd/topics/hepatitisb.shtml](http://www.state.nj.us/health/cd/topics/hepatitisb.shtml) to access the education materials.
Save the Date!

The New Jersey Department of Health will be hosting a seminar titled, “Management of Outbreaks in Long-Term Care and Other Institutional Settings.” This training will cover the steps involved in the management and prevention of outbreaks in long-term care and other institutional settings. A hands-on exercise will be included to allow participants to complete some of the documentation necessary in monitoring outbreaks. This training will be useful for long-term care staff who are responsible for the management of disease outbreaks within their facility, but all other public health partners are welcome to attend. All attendees must register on the New Jersey Learning Management Network at https://njlmn.njlincs.net. This training has been approved for 3.00 NCH and 3.00 PH credits.

Dates:

11/8 at the Middlesex County Fire Academy in Sayreville: 9am-12pm or 1-4pm (two sessions)

11/15 at the Regional Emergency Training Center in Blackwood: 9am-12pm or 1:30-4:30pm (two sessions)

11/16 at the Morris County Public Safety Academy in Parsippany: 9am-12pm or 1:30-4:30pm (two sessions)