Fight the Flu Script December 9, 2009
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Fight the Flu Slide
Welcome to Fight the Flu: Get Vaccinated! A webinar hosted by Quality Assurance and Improvement at the Department of Aging and Disability Services (DADS). My name is Tracy Fuller and I am a nursing consultant for the Quality Monitoring Program in the Quality Assurance and Improvement Unit at DADS. We are joined today by Dr. Lilani Muthali, from the Center for Policy and Innovation at DADS and Glen Bason, a Business Continuity Planner at DADS.

Objectives Slide
Today we will be discussing the Influenza virus, importance of vaccination among healthcare personnel, and strategies to improve vaccination rates. Immediately following today’s presentation, a short survey will appear on your screen. Please take a few moments to provide feedback regarding this webinar. This survey will also provide you an opportunity to be informed of future webinars.

Slide 1:
Influenza is a highly infectious viral illness.

Slide 2:
Basic antigen types A, B, and C are determined by the nuclear material. Influenza A causes moderate to severe illness and affects all age groups. The virus infects humans and other animals. Influenza A viruses are perpetuated in nature by wild birds, predominantly waterfowl. Most of these viruses are not pathogenic to their natural hosts and do not change or evolve. Influenza B generally causes milder disease than type A and primarily affects children. Influenza B is more stable than influenza A. It affects only humans. Influenza C is rarely reported as a cause of human illness, probably because most cases are sub-clinical. It has not been associated with epidemic disease.
Following respiratory transmission, the virus attaches to and penetrates respiratory epithelial cells in the trachea and bronchi. Viral replication occurs, which results in the destruction of the host cell. Viremia has rarely been documented. Virus is shed in respiratory secretions for 5–10 days.

Slide 4:

Influenza is primarily transmitted from person to person via large virus-laden droplets that are generated when infected persons cough or sneeze. These large droplets can then settle on the mucosal surfaces of the upper respiratory tracts of susceptible persons who are near (within 3 feet). Transmission may also occur through direct contact or indirect contact with respiratory secretions, such as when touching surfaces contaminated with influenza virus and then touching the eyes, nose or mouth. Adults can transmit influenza from the day before symptom onset to approximately 5 days after symptoms begin. Children can transmit influenza to others for 10 or more days.

Slide 5:

The incubation period for influenza is usually 2 days, but can vary from 1 to 4 days. The severity of influenza illness depends on the prior immunologic experience. In general, only about 50% of infected persons will develop the classic clinical symptoms of influenza. “Classic” influenza disease is characterized by the abrupt onset of fever, myalgia, sore throat, nonproductive cough, and headache. The fever is usually 101°–102°F. The onset of fever is often so abrupt that the exact hour is recalled by the patient. Myalgias mainly affect the back muscles. Cough is believed to be a result of tracheal epithelial destruction. Additional symptoms may include rhinorrhea (runny nose), headache, substernal chest burning and ocular symptoms, such as eye pain and sensitivity to light. Systemic symptoms and fever usually last from 2 to 3 days, rarely more than 5 days.

Slide 6:

The most frequent complication of influenza is pneumonia, most commonly secondary bacterial pneumonia, such as Streptococcus pneumoniae, Haemophilus influenzae, or Staphylococcus aureus. Primary influenza viral pneumonia is an uncommon complication
with a high fatality rate. Death is reported in 0.5–1 per 1,000 cases. The majority of deaths occur among persons 65 years of age and older.

**Slide 7:**

An increase in mortality typically accompanies an influenza epidemic. Increased mortality results not only from influenza and pneumonia but also from cardiopulmonary and other chronic diseases that can be exacerbated by influenza. Persons 65 years of age and older account for more than 90% of deaths attributed to pneumonia and influenza. In the United States, the number of influenza-associated deaths might be increasing, in part because the number of people who are aging is increasing. In addition, influenza seasons in which influenza A viruses predominate are associated with higher mortality.

**Slide 8:**

The risk for complications and hospitalizations from influenza are higher among persons 65 years of age and older, young children, and persons of any age with certain underlying medical conditions. An average of more than 200,000 hospitalizations per year are related to influenza, more than 57% of which are among persons younger than 65 years. A greater number of hospitalizations occur during years that influenza A is predominant. In nursing facilities, attack rates may be as high as 60%, with fatality rates as high as 30%.

**Slide 9:**

The diagnosis of influenza is usually suspected on the basis of characteristic clinical findings, particularly if influenza has been reported in the community. Virus can be isolated from throat and nasopharyngeal swabs obtained within 3 days of onset of illness. The acute-phase specimen should be taken less than 5 days from onset, and a convalescent specimen taken 10–21 days (preferably 21 days) following onset.

**Slide 10:**

Influenza activity peaks from December to March in temperate climates, but may occur earlier or later. During 1976–2008, peak influenza activity in the United States occurred most frequently in January and February.

**Slide 11:**
Vaccination is recommended for all persons 50 years of age or older and all children 6 months through 18 years of age, regardless of the presence of chronic illness. Other groups targeted to receive a vaccine include individuals residing in long-term care facilities, pregnant women, and persons 6 months through 18 years of age receiving chronic aspirin therapy (because of the risk of Reye syndrome following influenza infection).

Slide 12:

Persons 6 months of age and older with a chronic illness should receive a vaccine annually. These chronic illnesses include the following:

- pulmonary illnesses, such as emphysema, chronic bronchitis, or asthma
- cardiovascular illnesses, such as congestive heart failure metabolic diseases, including diabetes mellitus
- renal dysfunction
- hemoglobinopathy, such as sickle cell disease
- immunosuppression, including human immunodeficiency virus (HIV) infection
- any condition, such as cognitive dysfunction, spinal cord injury, seizure disorder, or other neuromuscular disorder that can compromise respiratory function or the handling of respiratory secretions

Slide 13:

Persons who have contact with people who are at high risk should receive a vaccine. These include healthcare personnel, employees of long-term care facilities, and household contacts of people who are at high risk. These individuals may be younger and healthier and more likely to be protected from illness than are people who are aging. All healthcare personnel should receive an annual influenza vaccine. Please note for the purpose of this presentation, any discussion referring to healthcare personnel refers to all who work in a facility or come into contact with the individuals we serve, such as direct care staff, housekeeping, and dieticians. Groups that should be targeted include physicians, nurses, and other personnel in hospitals and outpatient settings who have
contact with people who are at high risk in all age groups, and providers of home care to people who are at high risk, such as visiting nurses or volunteers. Live Attenuated Influenza Vaccine (the intranasal vaccine) may be administered to healthy healthcare personnel 49 years of age or younger, except those who have contact with severely immunosuppressed persons who require hospitalization and care in a protective environment, such as a person in isolation because of severe immunosuppression. Persons who provide essential community services and students or others in institutional settings, such as schools and colleges may be considered for vaccination to minimize disruption of routine activities during outbreaks.

Now to discuss Influenza Vaccination of Healthcare Personnel is Dr. Lilani Muthali.

**Slide 14:**

In the 2004 National Health Survey, only 40% of healthcare personnel reported receiving influenza vaccine in the previous 12 months. The National Health Interview Survey (NHIS) is one of the major data collection programs of the National Center for Health Statistics (NCHS) which is part of the Centers for Disease Control and Prevention (CDC).

**Slide 15:**

How can we improve the vaccination rates among those that provide services and supports to the people we serve? We should have education programs that address the most frequent anti-vaccination ideas. Let’s look at these ideas:

- Many people perceive that the vaccine is not effective; yet it is effective in 70%-90% of adults. Immunization has been shown to significantly reduce Influenza-like and upper respiratory illness. Working adults who have been immunized also take less sick leave. Some studies have shown that physicians have higher vaccination rates than nurses.

- There is a misconception that the vaccine causes Influenza. 10%-45% of healthcare personnel fear getting Influenza from the vaccine.
• Some staff believe that they are not at risk. They have a feeling of being healthy and having good natural defenses towards infection. This idea has been expressed in 6%-58%.

• A main barrier for healthcare personnel not receiving a vaccine is fear of adverse reactions. As with any vaccine, reactions do occur after vaccination:
  
  Mostly: local inflammatory that is generally mild
  
  Less frequently (<15% of recipients): fever, myalgia, arthralgia, and headache can occur.

Influenza vaccines are generally considered to be safe. Improving basic knowledge improves vaccination rates. Improving accessibility and providing free vaccines to all employees also improves vaccination rates.

Slide 16:

Persons who provide services and supports are exposed to the flu virus at work and in the community. Close proximity to individuals served, co-workers, and visitors may increase risk of infection. Although “to protect one-self” is a main motivator of immunization among healthcare personnel, we have an obligation to the people we serve. Primary intention should be to protect the individuals we serve. When we come to work when sick or symptomatic, we put the individuals we serve at risk. Sometimes, staff may not have any symptoms, yet be infected. We must protect ourselves, so we can protect the people we serve.

Slide 17: Year 2010 objectives (Healthy People 2010, US Department of Health and Human Services) are to increase influenza vaccination levels to 60% or higher among healthcare personnel, 90% in people residing in long-term care facilities, and to reduce epidemic-related pneumonia and influenza-related deaths among persons 65 years of age and older. In 2006–2007, 66% of persons 65 years of age and older reported receiving influenza vaccine in the previous year. Vaccination levels were lower among African Americans and Hispanics than among non-Hispanic Caucasian.

Slide 18:
To protect oneself is the strongest motivation to get vaccinated. Individuals who have been previously vaccinated are more likely to be revaccinated. Therefore, vaccination programs should focus on convincing people the first time around. To protect the people we serve is also a motivator, as is the perceived effectiveness of the vaccine. Free and convenient vaccination is fairly motivating, and following an example set by peers or peer-pressure in the workplace also has positive influence.

**Slide 19:**

**Education and Campaigns:**

Staff knowledge, perceptions, and attitudes regarding Influenza and Influenza vaccination vary. Basic knowledge has been associated with receiving the vaccine and participation in structured in-service education or conferences. These factors have been associated with improved vaccination rates. Educational programs should emphasize the benefits of receiving a vaccine. Organized campaigns that promote immunization and vaccine accessibility can improve vaccination rates among healthcare personnel.

**Role Models:**

Vaccination of senior medical staff or staff leaders in other departments has been associated with acceptance among staff members as a whole. Improved Access: Removing administrative barriers, such as cost, and providing accessibility to vaccines at convenient locations and times, can substantially improve vaccine acceptance by healthcare personnel.

**Measurement and Feedback:**

Healthcare personnel Influenza vaccination coverage should be regularly measured and reported. Posting of vaccination coverage levels in different areas of a facility is a component of a successful vaccination program. Monitoring vaccination coverage by facility area or group (i.e. direct care staff, dietary, housekeeping, etc.) allows facilities to identify where vaccination levels are low and interventions could be targeted. Obtaining declination statements from personnel who refuse vaccination for reasons other than
medical contraindications can assist facilities in identifying personnel who might require targeted education or other interventions to overcome barriers.

**Slide 20:**

In summary:

- Educate staff regarding the benefits of Influenza vaccination and of potential consequences of Influenza illness for themselves and for the people they serve. Also educate staff on the modes of transmission and their level of responsibility in preventing the spread of infection.
- Offer influenza vaccine annually to all eligible healthcare personnel to protect staff, individuals, and family members. This will also decrease absenteeism. Provide a free Influenza vaccination to all staff at the work site, during all work shifts. This should be a part of your vaccination program. Support increasing vaccination rates among healthcare personnel by modeling and being a leader and getting a vaccination yourself.
- Obtain a signed declination from staff, who decline Influenza vaccination for reasons other than medical contraindications.
- Monitor Influenza vaccination coverage and declination at regular intervals during the Influenza season and provide feedback of rates to staff and administration.
- Use the level of healthcare personnel vaccination as one measurement of your quality assurance and improvement program.

Tracy Fuller will now discuss vaccination strategies to improve vaccination rates; not only among healthcare personnel, but among the individuals we serve.

**Slide 21:**

Assessment refers to the evaluation of medical records to ascertain the immunization rate for a defined group of people as well as to provide targeted diagnosis for improvement. This step is essential because several studies have documented that most healthcare providers, while supportive of immunizations, do not have an accurate perception of their
own practice’s immunization rates. Assessment increases awareness and provides a basis for subsequent actions.

**Slide 22:**

Strategies for high immunization levels include recordkeeping, recommendations and reinforcement, reminder and recall opportunities, reduction of missed opportunities, and reduction of barriers to immunization.

**Slide 23:**

Individual records are of vital importance, and maintaining these records; whether paper or electronic, is critical to providing optimal care. Immunization records, specifically, should meet all applicable legal requirements as well as requirements of any specific program. These records should be available for inspection, and should be easy to interpret by anyone examining the record. Immunization records must be accurate. The active medical records must reflect which individuals are actually present; charts of persons who have moved or are obtaining services elsewhere should be clearly marked accordingly. Records should be kept up-to-date as new immunizations are administered, and all information regarding the vaccine and its administration should be complete. Because individuals often receive vaccines at more than one location, communication between sites is necessary for maintaining complete and accurate immunization records. School-based, public health, and community-based immunization sites should communicate with primary care personnel through quick and reliable methods such as telephone, fax, or e-mail. This will become increasingly important as new vaccines are added to the immunization schedule and more alternative sites are available for receiving immunizations.

**Slide 24:**

The recommendation of a healthcare provider is a powerful motivator for individuals to comply with vaccination recommendations. Even adults who are initially reluctant are likely to receive an influenza vaccination when the healthcare provider’s opinion of the vaccine is positive. Return visits are necessary if an individual is unable to receive a vaccine due to vaccine unavailability or illness. It is useful for individuals to have the
next appointment date in hand, before they leave the site. Even with written schedules or reminders, verbal encouragement and reminders can be incentives.

**Slide 25:**

Reminders and recall messages are messages to individuals stating that recommended immunizations are due soon or past due. The messages vary in their level of personalization and specification. Postcards, telephone calls, and emails are helpful. Both reminders and recall messages have been found to be effective in increasing attendance and improving vaccination rates in various settings.

**Slide 26:**

A missed opportunity is a healthcare encounter in which a person is eligible to receive a vaccination but is not vaccinated completely. Missed opportunities occur in all settings in which immunizations are offered, whether routinely or not.

**Slide 27:**

Missed opportunities occur for several reasons. A physician in the community may be unaware that an individual is in need of vaccination; especially if the immunization record is not available at the visit. An individual may present with an order for a Pneumococcal vaccine, but is also eligible to receive an Influenza vaccine. Some of the reasons for missed opportunities relate to larger systems, such as when a clinic has specific policies of dates vaccines are to occur. Other reasons relate to large institutional or bureaucratic regulations, such as state insurance laws that deny reimbursement if a vaccine is given during an acute-care visit. The degree of difficulty in eliminating the missed opportunity may vary directly with the size of the system that has to be changed.

**Slide 28:**

Several studies have shown that eliminating missed opportunities could increase vaccination coverage by up to 20 percent. Strategies designed to prevent missed opportunities have taken many different forms, used alone or in combination. Examples include the following:
**Standing orders:** These are protocols whereby non-physician immunization personnel may vaccinate individuals without direct physician involvement at the time of the immunization. Standing orders are implemented in settings such as clinics, hospitals, and nursing facilities. When used alone or in combination with other interventions, standing orders have had positive effects on immunization rates among adults.

**Education:** Anyone responsible for administering immunizations should be knowledgeable about principles of vaccination and vaccination scheduling, to the extent required for their position. Providers are largely responsible for educating individuals, so an investment in provider education will result in a higher level of understanding about immunizations among the public in general. Numerous educational materials, in a variety of formats, are available from the Centers for Disease Control and Prevention, the Immunization Action Coalition, and some state health departments, hospitals, or professional organizations.

**Reminder and recall systems:** The reminder systems previously discussed, are not only effective in increasing immunization levels, but can also help avoid missed opportunities if they are a component of other practices directed toward this goal. For example, if a reminder system is used consistently and staff members are knowledgeable about vaccination opportunities, the system can be an additional aid in promoting appropriate immunization practices.

**Slide 29:**

Despite efforts to adhere to appropriate immunization practices, obstacles to individuals being vaccinated may exist. Barriers to immunization may be physical or psychological. Physical barriers might be such things as inconvenient hours, long waits, or the distance individuals must travel. We should be encouraged to determine the needs of the people we serve and take steps, such as providing flexible hours, to address obstacles to immunization. Cost is also a barrier to immunization for many individuals. We should be knowledgeable about vaccine programs. Psychological barriers to health care are often more subtle but may be just as important. Unpleasant experiences, such as fear of immunizations, being criticized for previously missed appointments, or difficulty getting to an appointment may lead individuals to postpone receiving needed vaccinations. Some
individuals have concern about vaccine safety. Knowledge and interpersonal skills on the part of us will help individuals overcome such barriers.