Influenza 2012-2013: What a Season!

Influenza activity started early this season. The United States and most of the country is experiencing high levels of influenza-like-illness (ILI). Federal and State Public Health Agencies continue to encourage influenza vaccination for people who have not yet been vaccinated and antiviral treatment as early as possible for people who get sick and are at high risk of flu complications.

For the influenza season week 4 ending January 26, 2013; forty-two states reported widespread geographic influenza activity; 7 states reported regional activity; the District of Columbia and Hawaii reported local activity.

During this same period, the geographic spread of flu in North Carolina was regional. Influenza-like illness reported from ILINet providers sharply increased. Hospital-based Public Health Epidemiologists (PHEs) reported 66 positive influenza results for week ending 1/26/13: 43 influenza A (not subtyped), 9 influenza A/H3; 12 influenza B; and 2 influenza A/H1.

North Carolina flu activity has been at the highest levels recorded in a decade. For the week ending January 26, 2013, the geographic spread of influenza in NC was regional. There were no influenza related deaths in NC reported during this timeframe. Influenza deaths have been updated to 35. These deaths occurred in the following age groups: 18-24 (1), 25-49 (2), 50-64 (5), 65+ (27). An influenza-associated death is defined for surveillance purposes as a death resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test. These data are based on reports to public health from providers. All flu-associated deaths (adult and pediatric) are reportable in North Carolina.

Mecklenburg County has not reported an influenza related death this season as of this writing. Outpatient provider and emergency department visits remain high although there seems to be a continued decrease the week ending January 26th. To date, all isolates tested by the North Carolina State Laboratory of Public Health sent from Mecklenburg County were A/H3. The safest, most effective way to prevent the flu is to get vaccinated. The Centers for Disease Control recommends that everyone 6 months and older get their yearly flu vaccine. According to State Health Director Laura Gerald, “This year’s vaccine is well-matched to the strains of flu we are seeing in North Carolina.” Flu vaccine is still available at both Health Department locations.

For further information about national flu activity and surveillance, please refer to http://www.cdc.gov/flu/weekly/fluactivitysurv.htm. North Carolina information can be found by visiting Public Health News at http://publichealth.nc.gov/ or contact Beth Quinn at 704.336.5398 or Elizabeth.Quinn@MecklenburgCountyNC.gov.
A Farewell and A Welcome

A Farewell
While we look to many new public health beginnings in Mecklenburg County in 2013 we have to take a look at those who got us where we are today. It was a bittersweet ending to 2012 as we said farewell to Lorraine Houser the Sr. Health Manager for HIV/STD and Communicable Disease Control. Lorraine retired on December 31 after 32 years of public health service.

Lorraine began her public health nursing career in Binghamton, New York, and joined the Mecklenburg County Health Department in 1992 serving in many positions including: TB, STD, Refugee/Travel/Hypertension Clinics, Communicable Disease Control (one time being the only CD Control nurse for adults), Preparedness, Syndromic Surveillance (where she won the prestigious Mecklenburg County Managing 4 Results Award), and became the manager of the HIV Surveillance Program in 2005 and eventually took over the management of CD Control in 2010.

While there have been many memorable experiences, some of those that really stand out include the anthrax and smallpox threats that followed 9/11, developing and editing the CD Control/Update Newsletter in 2001, SARS and H1N1 events.

Lorraine has been a dedicated public health nurse with invaluable experience and leadership. We asked Lorraine what she would miss most about leaving and she said not only the programs and work, but becoming the manager of the smartest, funniest, kindest, and most dedicated people she has ever met.

For those who know Lorraine it is well known what an involved animal activist she is with Friends of Feral Felines and also the local Humane Societies. She will spend more time with these groups and she is looking forward to becoming a Master Gardener again and hopes to do some Master Gardening in her own yard! We are also pleased to say that Lorraine has continued involvement with CD Control/Update.

Lorraine, thank you for your years of public health service. While we are so pleased you will still be here bringing your expertise and experience to Mecklenburg County, we are all so happy for you to have more time to spend doing other things that you love. It truly is the best of both worlds. Thank you for all that you have done over the years and your fine contributions to public health.

We will be glad to see you still roaming these old halls. After all, some nurses never retire, they just go PRN.

A Welcome
Congratulations to Jane Hoffman who has accepted the position as the new Sr. Health Manager for HIV/STD and Communicable Disease Control effective December 26, 2012. Jane was born in Spartanburg, S.C. and graduated with a Bachelor of Science in Nursing at Clemson University in 1980. Jane has been employed at the Mecklenburg County Health Department 29 years. In 1992, she earned a Master of Public Health from UNC-Chapel Hill.

Her areas of interest in public health include communicable disease control and epidemiology. Jane has contributed approximately one hundred articles to this newsletter since its inception in 2001. Jane is one of the founding members of the employee fitness center in the Hal Marshall building. She is frequently seen in the hallway wearing her sneakers on the way to the fitness center. Jane can be reached in her new office at 704.336.6438 or Jane.Hoffman@MecklenburgCountyNC.gov

This periodical is written and distributed quarterly by the Communicable Disease Control Program of the Mecklenburg County Health Department for the purpose of updating the medical community in the activities of Communicable Disease Control Program. Program members include: Health Director—E. Wynn Mabry, MD; Medical Director—Stephen R. Keener, MD; Deputy Health Director—Bobby Cobb; Director, CD Control—Carmel Clements; Sr. Health Manager—Jane Hoffman; CD Control nurses—Freda Grant, Penny Moore, Beth Quinn, Belinda Worsham; Beth Young (CD/Childcare) Earlene Campbell-Coleman (CD/Adult Day Health); Rabies/ Zoonosis Control—Al Piery; Health Supervisor—Carlos McCoy; DIS—Mary Ann Curtis, John Little, Michael Rogers, Jose’ Pena; Office Assistants—Pamela Blount, Vivian Brown, Janet Contreras.

Freda Grant, Beth Quinn, Beth Young
Editors
Lorraine Houser
Consulting

Did you know...
North Carolina law requires the local health department to investigate outbreaks in order to protect the public’s health? Outbreaks are defined as an increase in cases above what is expected in the population or two or more epidemiologically-linked cases. Outbreak investigations help to identify and describe the source of the outbreak. Occasionally the investigation provides information on a new disease or infection. The investigation and analysis helps identify populations at risk and evaluate existing prevention strategies. Outbreaks provide an opportunity to educate the public about disease prevention while addressing public concerns. Each outbreak provides an opportunity to develop strategies to prevent future outbreaks.
Leprosy Has Not Vanished

Leprosy, also known as Hansen’s disease, is rarely seen in the United States. However, new cases are reported in the United States and around the world every year. Since 2005 there have been two confirmed cases of leprosy in North Carolina, including one case in Mecklenburg County in 2012. The Hansen’s Disease Center reported 172 cases in 2011 and 293 cases in 2010 in the United States.

Hansen’s disease is caused by a bacillus, Mycobacterium leprae. It mainly affects the skin and peripheral nerves, mucosa of the upper respiratory tract and also the eyes, but can cause a wide range of clinical manifestations including skin lesions, nerve damage and muscle weakness. Skin lesions are light in color, have decreased sensation to touch and do not heal for weeks to several months. Leprosy has two common forms: tuberculoid and lepromatous. They both produce sores on the skin; however the lepromatous form is more severe causing large lumps and nodules.

Leprosy is not very contagious and it is thought to be transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases. It is not sexually transmitted and not passed from mother to her unborn baby during pregnancy. A spouse is known to be the least at-risk family member while children, siblings, or parents of an individual with untreated leprosy are at greatest risk. Household contacts should have a physical exam annually for five years and report any questionable skin rash to their medical providers. The incubation period of the disease is typically between three and five years. However symptoms can take as long as 20 years to appear.

Physician awareness is key to the early diagnosis and treatment that can prevent disability. Physicians should consider the diagnosis of leprosy when patients present with non-responsive skin lesions and are immigrants from countries with high incidence of leprosy (Brazil, Nepal, Mozambique, Tanzania); when patients report foreign travel particularly to countries where leprosy is endemic; or residents of Texas or Louisiana.

NC DHHS Consumer Guide to Healthcare Associated Infections

In January 2013, the N.C. Department of Health and Human Services (DHHS) released the first public report of healthcare-associated infections (HAIs) in acute care hospitals across the state.

The report, available online at [http://epi.publichealth.nc.gov/cd/hai/figures.html](http://epi.publichealth.nc.gov/cd/hai/figures.html), provides hospital-specific information for consumers and healthcare providers about three of the most common HAIs that occur in North Carolina: central line-associated bloodstream infections (CLABSI) in intensive care units; catheter-associated urinary tract infections (CAUTI) in intensive care units; and surgical site infections (SSI) following abdominal hysterectomies or colon surgeries.

Information about other types of healthcare-associated infections, such as those caused by methicillin-resistant Staphylococcus aureus (MRSA) and by Clostridium difficile (C. diff.) will be included in future reports.

As mandated by North Carolina law, reports will be issued on a quarterly basis during the months of January, April, July, and October. The statewide HAI Prevention Program is part of the DHHS Division of Public Health.
New Head Lice Treatment

Head lice treatment with a pediculicide is recommended for those who are actively infested with lice. Treatment of household contacts is only recommended for those who are actively infested, exhibiting symptoms, or shares a bed with someone who is known to be actively infested. Prophylactic treatment of other close contacts is not required if they are asymptomatic. Retreatment with a pediculicide is generally recommended by the product manufacturer on day 9 to kill any lice that have hatched but have not yet produced eggs; pediculicide’s are not ovicidal and will not kill nits. If using ovicidal treatment, retreatment is only necessary if crawling lice are found 7-9 days post initial treatment.

Ivermectin, a pediculicide lotion commonly prescribed for the treatment of roundworm, was approved by the FDA in February 2012 for the treatment of head lice. This medication has been very effective in the elimination not only of live lice, but also of new lice upon hatching, eliminating the need for additional treatments. The brand name of this medication is Sklice from Topaz Pharmaceuticals and is approved for use in children over the age of 6 months. Instructions are to apply full tube (4 oz.) Sklice to dry hair, let sit for 10 minutes, and rinse with water. No additional treatment required. Most common adverse affects reported include eye irritation, dandruff, and burning sensation of the scalp. With this being a relatively newly approved product, it would be advisable to have patients contact their local pharmacy for availability. Many local pharmacies report this product is not kept in stock but can be ordered and available within 24 hours.

In addition to topical treatments, environmental control measures are key to the successful elimination of head lice. Educate patients to launder clothing, bedding, and other personal items in hot water and dry in hot dryer. Lice cannot sustain temperatures above 128°F. Items that cannot be laundered can be put in plastic garbage bags for 10-14 days. Instruct patients not to share personal items such as combs, scarves or hats, and to be sure that personal items such as coats and book bags do not touch other individual's items if stored close together such as in a classroom.

For additional information please contact Beth Young at Elizabeth.Young@MecklenburgCountyNC.gov or 704.336.5076.

First Anthrax Antitoxin Approved by FDA

Raxibacumab, a new product manufactured by GlaxoSmithKline/Human Genome Sciences, will when used in combination with antibiotics to treat inhalation anthrax, not only treat the anthrax infection but will also treat the effects of the toxins. This combined therapy raises the likelihood that people who become infected with anthrax will recover.

In 2001, 22 confirmed or suspected human cases of anthrax occurred in the eastern United States, when B. anthracis spores were sent through the mail in powder-containing envelopes to news media companies and U.S. congressional leaders. Eleven of the 22 cases were inhalation anthrax, and 11 were cutaneous; 20 of the cases occurred in mail handlers or persons exposed to buildings where contaminated mail was processed or received. Five persons with inhalation anthrax died.

Anthrax is a zoonotic disease caused by the spore-forming bacterium Bacillus anthracis. The disease most commonly occurs in wild and domestic mammals but it can be transmitted to humans when they are exposed to infected animals or tissue from infected animals or when they are directly exposed to B. anthracis spores. Depending on the route of exposure, anthrax can occur in three forms: cutaneous, gastrointestinal, or inhalation.

Today, B. anthracis is considered one of the most serious biowarfare or bioterrorism agents because of the ability of the spores to persist in the environment, the ability of the aerosolized spores to readily cause infection via respiratory (inhalation) exposure, and the high mortality of resulting inhalation anthrax. CDC has classified anthrax as a category A biological warfare agent, meaning it has great potential to adversely affect public health.

Because the location and timing of a bioterrorism attack cannot be predicted, the risk-benefit profile for pre-event vaccination for the general public is low, and pre-event vaccination is not recommended. This leaves post exposure treatment as our only response to a terrorist attack involving the release of B. anthracis. Under Project Bioshield, developed in response to the terrorist attacks of 2001, more than a dozen products can be made available under emergency use authorization. Raxibacumab, is the first to complete the FDA approval process and will not require emergency use authorization before it can be used.

For more information, contact Belinda Worsham at 704.336.5490 or Belinda.Worsham@MecklenburgCountyNC.gov.
Brucellosis Risk in Hunters

Persons who hunt wild animals are at risk of infection with Brucellosis. Hunters place themselves at risk when they are exposed to the blood and organs of captured animals. Game animals in North America that can be infected with brucellosis include wild hogs, bison, elk, caribou/reindeer, and moose. Wild hogs can carry the bacteria for life. Bears and wolves may be exposed to brucellosis when they feed on infected animals. Sheep, goats, cattle, deer, coyotes, and dogs have also been reported with brucellosis.

Brucellosis is a zoonotic infectious disease caused by the *Brucella* bacteria. There are approximately 100-200 reported cases in humans each year in the United States. Symptoms in humans may include fever, chills, sweating, headaches, low appetite, arthralgia, muscle pain, weight loss and weakness. Cardiac and neurological complications may be seen in severe infection. Chronic symptoms may include recurrent fever, joint pain and fatigue. Risk factors for human infection include consuming unpasteurized dairy products, foreign travel, hunting/dressing wild pigs, handling game meat, consuming undercooked game meat, working in a slaughterhouse, and caring/birthing of animals. Treatment includes the use of several antibiotics for six weeks.

The last confirmed case in a Mecklenburg County resident was reported in 2005. The risk factor for the Mecklenburg County resident was a six month trip to India.

For more information, contact Jane Hoffman at 704.336.6438 or Jane.Hoffman@MecklenburgCountyNC.gov.

Pertussis Vax Efficacy

A recent study published in the New England Journal of Medicine found that the protective effect from Pertussis vaccination weakens dramatically soon after a child gets the last of the five recommended shots around age 6. It was found that the protection rate decreases from 95 to 71 percent within five years. It has been determined that the majority of the confirmed cases are explained by the waning immunity.

In light of the findings and earlier, similar research, health officials are considering recommending one more booster shot for children, strengthening the vaccine or formulating a brand new one. Although the vaccine’s effectiveness weakens over time, the protection it offers is still critical for maintaining enough population-based immunity to safeguard infants who are too young to be vaccinated against infection.

Mecklenburg County reported 126 cases of Pertussis in 2007, 35 cases in 2008, 13 cases in 2009, 17 cases in 2010, 8 cases in 2011, and 44 cases in 2012.

For more information, contact Belinda Worsham at 704.336.5490 or Belinda.Worsham@MecklenburgCountyNC.gov.

Did you know...  
...that newly available rapid nonculture testing for the diagnosis of acute gastroenteritis limits the identification of isolates which assist in detecting disease outbreaks? While the nonculture tests provide faster test results to the physician, the CDC’s recommendation is to send stool samples for culture *in addition* to the nonculture rapid testing. Culturing stool samples will enable the NC State Public Health Laboratory to identify serotypes which can assist in linking illness outbreaks.
Communicable Disease Control

ATTENTION PHYSICIANS/HOSPITALS:
Mail/fax this form to your local health department.

Mecklenburg County Health Department
700 North Tryon St., Ste. 214
Charlotte, NC 28202

Sexually Transmitted Diseases, HIV & AIDS
(Call) 704.432.1742 or (Fax) 704.336.6200
All Other Reportable Communicable Diseases
(Call) 704.336.2817 or (Fax) 704.353.1202

NC DISEASE CODE
(see reverse side for code)

DATE OF SYMPTOM ONSET

Patient’s First Name  Middle  Last  Suffix  Maiden/Other  Alias

Birthdate (mm/dd/yyyy)

Sex  □ M  □ F  □ Trans.

Parent or Guardian (of minor)

Patient Identifier

Social Security Number

Patient’s Street Address

City  State  ZIP  County  Phone

Age  Age Type  Race (check all that apply):

Ethnic Origin

Initial Source of Report to Public Health:

Health Care Provider (specify):

Hospital  Private clinic/practice

Health Department  Correctional facility

Laboratory  Other

Name:

Contact Person/Title: ____________

Phone: ( ) ____________ Fax: ( ) ____________

Date Local Health Department Notified:

Where was disease/condition most likely acquired?

□ In patient’s county of residence

□ Outside county, but within NC - County: ____________

□ Out of state - State/Territory: ____________

□ Out of USA - Country: ____________

□ Unknown

Local Health Department Use Only

Was this disease part of a recognized outbreak?

□ Yes  □ No

Outbreak setting:

□ Restaurant/Retail (name): ____________

□ Household (index case): ____________

□ Child Care (name): ____________

□ Other (specify): ____________

□ Community (index case): ____________

CLINICAL INFORMATION

Specify patient symptoms and treatment:

For sexually transmitted diseases only—If patient was treated, specify medication, dosage, & duration:

DIAGNOSTIC TESTING

LABORATORY TESTING:

Collection Date  Result Date  Type of Test  Specimen Source  Results (include serogroup/type)  Reference Range  Lab Name—City/State

Attach Lab Report

DHHS 2124 (Revised January 2008) EPIDEMIOLOGY
Reporting Communicable Diseases – Mecklenburg County

To request N.C. Communicable Disease Report Forms, telephone 704.336.2817
Mark all correspondence “CONFIDENTIAL”

**Tuberculosis:**

TB Clinic 704.432.2490
Mecklenburg County Health Department FAX 704.432.2493
2845 Beatties Ford Road
Charlotte, NC 28216

**Sexually Transmitted Diseases, HIV, & AIDS:**

HIV/STD Surveillance 704.432.1742
Mecklenburg County Health Department FAX 704.336.6200
700 N. Tryon Street, Suite 214
Charlotte, NC 28202

**All Other Reportable Communicable Diseases including Viral Hepatitis A, B & C:**

Report to any of the following nurses:
Freda Grant, RN 704.336.6436
Elizabeth Quinn, RN 704.336.5398
Belinda Worsham, RN 704.336.5490
Penny Moore, RN 704.353.1270
Beth Young, RN (CD/Child Care) 704-336-5076
Earlene Campbell-Coleman (CD/Adult Day Health) 704-432-1975

Communicable Disease Control FAX 704.353.1202
Mecklenburg County Health Department
700 N. Tryon Street, Suite 271
Charlotte, NC 28202

**Animal Bite Consultation / Zoonoses / Rabies Prevention:**

Al Piercy, RS 704.336.6440
Communicable Disease Control FAX 704.432.6708
Mecklenburg County Health Department
618 N. College St.
Charlotte, NC 28202
or State Veterinarian, Carl Williams, DVM 919.707.5900
State after hours 919.733.3419

**Suspected Food borne Outbreaks / Restaurant, Lodging, Pool and Institutional Sanitation:**

Food & Facilities Sanitation (Mon-Fri) 704.336.5100
Mecklenburg County Health Department (evenings; Sat/Sun) 704.432.1054
700 N. Tryon Street, Suite 208 (pager evenings; Sat/Sun) 704.580.0666
Charlotte, NC 28202 FAX 704.336.5306

Mecklenburg County Health Department

Revised January 2013