Gonorrhea continues to be a problem in North Carolina, especially in many of the larger counties. Mecklenburg County is listed as one of the 10 counties in the state with the highest number of gonorrhea cases reported. Therefore, the State Health Department has made the following recommendations for healthcare providers in Mecklenburg County:

**Screening Recommendations**

- Consider screening women between the ages of 15-26 years for GC, especially African American women. Over 80% of female GC cases in the 10 high morbidity counties were among African American women.
- Screen all symptomatic and asymptomatic men who have sex with men (MSM) for urethral, pharyngeal and rectal GC. Nucleic acid amplification tests (NAATs) offer testing of the widest range of specimen types because they are FDA-cleared for use with endocervical swabs, vaginal swabs, male urethral swabs, and female and male urine. NAAT tests are currently not FDA-cleared for use in the rectum and pharynx; however, some public and private laboratories have established performance specifications for their NAAT with rectal and pharyngeal swab specimens, thereby allowing results to be used for patient management.
- All patients with gonorrhea should be rescreened for GC 3-4 months after initial treatment.
- Oral cephalosporins have demonstrated insufficient pharyngeal efficacy to be recommended for gonococcal infections of the pharynx. Providers should inquire about oral sexual exposure; if reported, patients should be treated with a regimen with enhanced efficacy against pharyngeal infection. Although chlamydial co-infection of the pharynx is unusual, co-infection at genital sites sometimes occurs. Therefore, treatment for both gonorrhea and chlamydia is recommended and believed to reduce emergence of cephalosporin resistant gonorrhea.
- As for all STD visits, opt-out HIV and syphilis testing should be offered to all patients and partners.

**Recommended Treatment Regimens**

For uncomplicated Gonococcal infection of the pharynx:

- Ceftriaxone 250 mg IM in a single dose
- PLUS treatment for chlamydia infection if present

For uncomplicated Gonococcal Infections of the cervix, urethra, and rectum:

- Ceftriaxone 250 mg IM in a single dose or if not an option, Cefixime 400 mg orally in a single dose, OR
- Single-dose injectible cephalosporin regimens PLUS treatment for chlamydia infection if present

**Reporting Requirements**

All healthcare providers and laboratories should report cases of gonorrhea by FAX or phone within 24 hours of diagnosis. A CD report form (see page 6) and a copy of the lab slip should be faxed to 704.336.6200. Treatment must be noted on the report form. To obtain copies of the report form or for more information, go to [www.meckhealth.org](http://www.meckhealth.org) or call 704.432.1742.
Leprosy was a scourge for humankind since ancient times. Recognized and recorded 4,000 years ago by medical practitioners in India, China, and Israel, all recognized the same disfigurement, deformity of face, limbs and blindness as one malady. Hebrew scholars used the word tsara'ath which was translated to Lepra by the Greeks during the third century BC. In later Latin and English translations Lepra and Leprosy were used respectively to describe this dreaded affliction. All of the ancient societies until modern time ostracized and isolated patients to the extent of complete separation from family and community. The Romans are believed to have brought the disease from Egypt to Europe where it spread across the continent to France and then to England and later to the Americas with early immigrants. No cure was known and all patients were isolated.

In 1873, Gerhard Hansen, a Norwegian physician, proposed that bacillary bodies he had found in unstained fluid from nodules of a leprosy patient were the cause of the disease. Still no treatment was available until Dapsone was introduced in the 1950’s. In the 1970’s a three-drug combination of Dapsone, Rifampicin, and Clofazimine was found to be effective in killing Mycobacterium leprae (M. leprae). Clinical evidence suggests that infectivity is lost within days of treatment. A full course of treatment requires 6 months to one year. This modern multidrug treatment (MDT) allowed patients to leave the leper colonies in Molokai, Hawaii, and Carville, Louisiana, and rejoin society. To ease the social stigma associated with leprosy, medical practitioners adopted the name Hansen’s disease as a tribute to Dr. Gerhard Hansen.

Today clinical diagnosis is based on a thorough skin examination with emphases placed on peripheral nerve damage involving anesthesia, paralysis and trophic ulcers. Skin lesions are tested for sensation by touch, pinprick and temperature discrimination. Clinical manifestations include all of these findings and termed “reactions” of leprosy as erythema nodosum leprosum. Laboratory confirmation of disease requires the presence of alcohol-acid-fast bacilli in the skin scraping incision method. These presentations are then classified as M. leprae and combined chemotherapy begins for adults. The same therapy is used for children in appropriately reduced doses. The MDT is available free of charge to physicians through the World Health Organization (WHO) and is supplied in blister packs for children’s reduced dosages.

Corticosteroids are drugs of choice in cases of allergic reaction associated with neuritis. Clofazimine is the drug of choice in management of erythema nodosum leprosum. This drug’s initial use in the MDT therapy has shown to reduce the frequency and severity of reactions throughout the treatment process.

Preventing M. leprae includes avoiding endemic areas and early detection of lesions and nodules in patients presenting with skin abnormalities. Immediate skin scraping and identification of M. leprae must be followed with chemotherapy of Dapsone, Rifampicin and Clofazimine. The disease is transmitted from person to person via nasal mucus droplets to the skin or respiratory tract of others. WHO reports approximately 260,000 cases occur worldwide each year mainly in developing countries. Although humans were considered to be the only significant reservoir known to transmit M. leprae, recently researchers reported armadillos in Texas and mangelboy monkeys in Africa as having transmitted leprosy to humans.

All travelers to endemic areas should see their physicians upon returning home if they are experiencing newly acquired skin nodules and lesions as incubation periods can be from months to years. No chemoprophylaxis is recommended before traveling abroad; however, travelers need to be aware that leprosy still exists today.

For more information, contact Al Piercy at 704.336.6440 or Alford.Piercy@MecklenburgCountyNC.gov.
A Closer Look at Malaria

Mike Mercurio—First Row, Far Right

to the North Carolina Regional HIV/STD office located in Mecklenburg County:

In late May of 2010, I was given the opportunity to work with the President’s Malaria Initiative (PMI) on the continent of Africa. Specifically, I was placed on the island of Zanzibar, in the country of Tanzania. My three month assignment was through the CDC’s International Experience & Technical Assistance (IETA) program, in the area of improving malaria surveillance, timely reporting, and outbreak investigations.

PMI is a five year, 1.2 billion dollar program initiated by President Bush, in efforts to reduce malaria related deaths by 50% in 15 African countries by reaching 85% of the most vulnerable groups. The principal groups targeted are pregnant women and children under the age of five.

I was excited about the assignment, and after the first week of orientation on the mainland city of Dar es Salaam, I moved to Zanzibar. This is where I experienced extreme culture shock. The people, the Swahili language, the food, the climate, and the economic conditions were surprising and a big adjustment for me.

After settling in, I began to collaborate with the Zanzibar Malaria Control Program (ZMCP) and their international partner, Research Triangle International (RTI). We conducted larva breeding site sampling, laboratory quality assurance and rapid diagnostic testing (RDT) analysis and staff re-trainings. I also monitored their Malaria Early Epidemic Surveillance (MEEDS) electronic case database. In Zanzibar, cases are reported weekly by cell phones into this electronic database for cases either under five or over five years of age. We identified two health facilities that experienced reporting and testing issues, in addition to significant malaria increases during the months of June and July. We then conducted two outbreak investigations that included community screening and treatment of any new positive cases.

Although two locations experienced 45 and 144 case increases in a seven week period, I was surprised to learn that both areas were not considered true outbreak areas. The local criteria or reasoning is no deaths, or severe cases occurred, and the increases are due to normal, seasonal transmission because of annual rainfall patterns.

The overall experience was positive for me. I met some incredible people and once I developed a social circle of friends and routine, the cultural adjustment became easier. I do feel we made progress in the areas of prompt reporting and investigation follow-up. We also left a blueprint for a more proactive, surveillance approach for malaria interventions. I also compiled a master provider list which did not exist. My final observation is that although Zanzibar has made significant progress in decreasing malaria rates to approximately 2%, it is literally a world away in terms of both geography and resources. They are on the right track, but there is still work to be done, and of course, there is no place like home!!

For more information, contact Mike Mercurio at 704.566.8990 or Michael.Mercurio@dhhs.nc.gov.

FoodNet

FoodNet is the Foodborne Diseases Active Surveillance Network. Surveillance began in 1996 and is a collaborative project of the Centers for Disease Control and Prevention, ten state health departments, the Department of Agriculture, and the Food and Drug Administration. This surveillance system provides the data necessary for measuring the progress of foodborne illness prevention.

Organisms monitored through FoodNet include Campylobacter, Shiga toxin-producing E. coli (STEC), Listeria, Salmonella, Shigel1a, Vibrio, Yersinia, Cryptosporidium, and Cyclospora. The surveillance area covers approximately 15% of the United States population. It does not include any counties in North Carolina. Analysis of 2009 data revealed a decrease in Shigella, Yersinia, STEC 0157, Campylobacter, Listeria, and Salmonella compared to data from 1996-1998. Rates had increased significantly for Vibrio since 1996-1998 (85% increase). Most Vibrio infections are caused by eating raw oysters.

More information can be found at www.cdc.gov/foodnet.

Did you know...

...that the CDC has partnered with the International Society for Disease Surveillance and the Public Health Informatics Institute to enhance surveillance for influenza-like illness (ILI) through a system called “Distribute”? The Distribute system collects information from hospital emergency department syndromic surveillance systems operated by state and local health departments including information from North Carolina. Information on trends in ILI ED visits from the participating health departments is available at www.ISDSDistribute.org.
From the SOTCH

The following is taken from the 2009 State of the County Health (SOTCH) Report. The SOTCH Report is prepared annually by the Mecklenburg County Health Department’s Epidemiology Program. The full report can be found at www.meckhealth.org.

Did you know...

...that in 2005, the Advisory Committee on Immunization Practices (ACIP) recommended Tdap vaccine replace a single dose of Td (tetanus-diphtheria) vaccine for persons aged 10-64 years? In 2008, the National Health Interview Survey (NHIS) interviewed 21,781 civilian adults in the United States in order to measure tetanus and pertussis vaccination levels in adults. This survey confirmed that most adults in the United States were not protected against pertussis in 2008. Among adults aged 18-64 years, Tdap coverage was estimated to be 5.9%. The Mecklenburg County Health Department offers Tdap free of charge to children who qualify. It is also available for a fee. Appointments are necessary and can be made by calling 704.336.6500. For more information on Health Department clinics, go to www.meckhealth.org.
Yellow Fever

On July 30, 2010, the CDC published updated recommendations for the use of yellow fever vaccine.

Yellow fever is a mosquito-borne viral infection found in tropical areas of Africa and Central/South America. There are an estimated 200,000 cases of clinical disease and 30,000 deaths annually. The fatality rate in humans with severe disease is 20-50%. Many human infections are mild or asymptomatic.

Prevention is critical since there is no treatment available for the disease. Yellow fever vaccine is a live attenuated vaccine recommended for persons aged ≥ 9 months who are traveling to areas at high risk for yellow fever virus transmission. Due to frequent changes in the endemic regions, travelers and health care providers should obtain updated information from the CDC at wwwnc.cdc.gov/travel. Because of the risk of serious side effects from the vaccine, only persons who are at risk of infection or persons who are required to be vaccinated for entry to a country should be offered yellow fever vaccine. Yellow fever vaccine should be administered at an approved yellow fever vaccination center. All persons who receive the yellow fever vaccine should be issued an International Certificate of Vaccination or Prophylaxis (ICVP). Fifty-two clinics in North Carolina provide yellow fever vaccine and ICVP including the Mecklenburg County Health Department. Twenty countries require yellow fever vaccination for all arriving travelers.

The best way to prevent mosquito-borne infections is to avoid mosquito bites. Precautions include using insect repellants, wearing permethrin-impregnated clothing/long sleeves/long pants/socks, and choosing accommodations with screened or air-conditioned rooms. Additional information about protection against mosquito bites is available wwwnc.cdc.gov/travel/yellowbook.

From 1970-2009, nine cases of yellow fever were reported in unvaccinated travelers from the United States and Europe who traveled to West Africa (five cases) or South America (four cases). Eight of the nine travelers died. There are 32 counties in Africa and 13 counties in Central/South America with a risk of yellow fever transmission. The risk of acquiring yellow fever in Central/South America is lower than Africa. In March 2010, Brazil posted a yellow fever alert when human yellow fever cases were reported in an area (Rio Grande do Sul) that had been disease free since 1966.

For additional information or questions, contact Jane Hoffman at Jane.Hoffman@MecklenburgCountyNC.gov or 704.336.5490.

Hepatitis B Vax

Children who do not respond to the first series of hepatitis B vaccine should complete a second three-dose vaccine series. The second vaccine series should be given on the usual 0, 1, 6-month schedule. One management option is to assume true vaccine failure and administer a full second series to these children. Serologic testing for anti-HBs should be repeated 1 to 2 months after the sixth dose.

A second, probably less expensive option, is to administer a single dose of hepatitis B vaccine and test for hepatitis B surface antibody (anti-HBs) in 4 to 6 weeks. If the person is anti-HBs positive, this most likely indicates a booster response in a previous responder, and no further vaccination (or serologic testing) is needed. If the person is anti-HBs negative after this “booster” dose, a second series should be completed (i.e., two more doses). If the person is still sero-negative after six total doses, no further vaccines are required.

For further information, please see the Morbidity and Mortality Weekly Report, Recommendations and Reports December 23, 2005 / Vol. 54 / No. RR-16 or contact Beth Quinn at Elizabeth.Quinn@MecklenburgCountyNC.gov or 704.336.5398.

Did you know...

...that between 2004-2008, the majority of outbreak related illnesses due to Shiga Toxin-Producing E. coli 0157 (STEC-0157) were traced back to contaminated beef (57%) and leafy vegetables (36%)? Dairy products resulted in 4% of the illnesses while fruits-nuts resulted in 2% of the illnesses. The number of outbreaks related to fruits and nuts has decreased significantly, likely as a result of pasteurization of juices.
Reporting Communicable Diseases – Mecklenburg County

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

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

Sexually Transmitted Diseases, HIV, & AIDS:
HIV/STD Surveillance
Mecklenburg County Health Department FAX
700 N. Tryon Street, Suite 214
Charlotte, NC 28202
704.432.1742
704.336.6200

All Other Reportable Communicable Diseases including Viral Hepatitis A, B & C:
Report to any of the following nurses:
Freda Grant, RN 704.336.6436
Jane Hoffman, RN, 704.336.5490
Elizabeth Quinn, RN 704.336.5398
Belinda Worsham, RN 704.336.5498
Penny Moore, RN 704.353.1270
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

Child Care Nurse Consultant:
Elizabeth Young, RN 704.336.5076
Communicable Disease Control FAX 704.353.1202
Mecklenburg County Health Department
700 N. Tryon Street, Suite 271
Charlotte, NC 28202

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