Epi Notes

North Carolina Department of Health and Human Services ◆ Division of Public Health

Volume 2006-4 December 2006- February 2007

IN THIS ISSUE:

Get Real Get Tested Campaign

Prepared by Holly Crane, Testing Campaign Coordinator, HIV/STD Prevention and Care Branch

The North Carolina HIV and STD Prevention and Care Branch, in collaboration with FOX 50, Duke Medicine and UNC Health Care, has kicked off a statewide educational and HIV testing campaign called "Get Real Get Tested".

The "Get Real Get Tested" campaign will be conducted by the HIV/STD Prevention and Care Branch, in cooperation with community-based organizations and local health departments. The campaign will focus on getting people tested for HIV who have never been tested before. It will consist of two phases – a general campaign and a targeted campaign. The general campaign is a series of educational announcements and a weekly feature. While the general campaign is running, the targeted campaign will begin, and the two will continue simultaneously.

FOX 50, UNC Health Care, Duke Medicine and the HIV/STD Prevention and Care Branch are working to change the misperceptions surrounding HIV and AIDS. By getting educational messages out to the general public, we believe that they will be more inclined to be tested for HIV and to learn about prevention methods and education. The effectiveness of the campaigns will be reflected by the number of people who get tested and referred into care as a direct result of the educational announcements, as well as by the number of hits on a dedicated web site.

The first targeted testing campaign took place in Fayetteville on December 8 and 9. With the help of the Cumberland County Health Department and local community organizations, we were able to test many people in the community that had never been tested before. We are still waiting on the final results for number of people tested and positivity rates.

The next targeted testing events will take place in Raleigh on February 8 and Durham on February 9. The other cities with 2007 testing events include Greensboro, High Point, Rocky Mount, Goldsboro, Kinston, Charlotte. ~

North Carolina Public Health: The State of Phlebotomy

Prepared by Lisa O. Ballance, BSMT (ASCP), Laboratory Improvement Consultant, N.C. State Laboratory of Public Health

In December 2005, the Laboratory Improvement Unit of the State Laboratory of Public Health (SLPH) developed a phlebotomy survey that was distributed to all North Carolina local health departments and the HIV/STD Prevention and Care Branch. The purpose of the survey was to assess the current staffing, training, ongoing educational needs and preferences of blood collection personnel working within these agencies. We received a total of 67 completed surveys representing more than 81 laboratory testing sites and a total of 610 staff that draw blood as part of their assigned duties. With a response rate of approximately 76 percent the findings will guide Laboratory Improvement staff in creating future educational strategies. By determining the current state of phlebotomy in North Carolina public health agencies, specific training needs as well as barriers to accessing educational resources were identified. Highlights from the tabulated survey results are below.

Specimen collection

Of the agencies surveyed, a total of 10 different departments, programs, and/or individuals were identified as performing blood collection, with the laboratory performing collections in 90 percent of the agencies. Nursing and WIC also perform blood collections in a significant percentage of facilities, 64 percent and 37 percent, respectively. Distantly following were provider draws (12 percent), and collections by Health Education (5 percent), disease intervention specialists (5 percent), home health (5 percent), the Syphilis Elimination Program (3 percent), HIV counselors (3 percent), and Hospice (2 percent). In 22 percent of the agencies, laboratory personnel perform all phlebotomy procedures. In contrast, 10 percent of the agencies reported having no lab personnel on staff to perform any blood draws. Over a third (39 percent) of the agencies indicated that three or more departments/programs perform phlebotomy procedures as part of client services. In 40 percent of the agencies, one to five individuals perform all the blood draws. The majority of agencies (74 percent) reported having between one to 10 staff assigned blood collection duties, while 26 percent reported a collection staff numbering 11 or more.

Staff training

Of the 610 staff identified as performing blood collection procedures, 45 percent had received formal training in phlebotomy as part of a standard course curriculum. Twenty-eight percent of the agencies reported having all formally trained collection staff; whereas 11 percent stated that they had no personnel formally trained in phlebotomy on staff at the time of the survey. The responses also a covered broad range in regards to the number of hours new or newly assigned staff is trained and/or observed prior to allowing them to collect blood specimens unsupervised (0 to 80 hours), with 31 percent of facilities having no established standard and/or giving no response. On-the-job training (OJT) for phlebotomy is provided by 58 percent of the facilities surveyed. However, about one-half of those providing phlebotomy OJT do not follow a standard training curriculum, with 19 percent stating this activity is not documented.

Phlebotomy competency

Seventy-two percent of surveyed agencies reported having no phlebotomy competency assessment (CA) program in place to evaluate the knowledge and skills of employees assigned blood collection duties. However, 79 percent of agencies indicated that standardized assessment tools and model blood collection procedures would be beneficial to them. Of the 28 percent of agencies with a phlebotomy CA program in place, all were assessing technical skill, while only 47 percent included the assessment of an individual's theoretical knowledge as a component of their program.

Continuing education: obstacles and opportunities

Locating and providing on-going educational opportunities can be a challenge for any agency. For those in the public health sector who wish to provide and/or obtain phlebotomy-related continuing education (CE), this challenge appears significant. According to the survey, 66 percent of agencies polled provide no phlebotomy CE for their staff, with 73 percent of respondents considering the current availability of phlebotomy CE resources inadequate. In addition, four elements emerged as the primary obstacles to staff obtaining phlebotomy CE. Those obstacles are:

1. The time required – 74 percent
2. Current staffing shortages – 62 percent
3. The location of training, and
   Money/costs involved (tied) – 49 percent

(*continued on page 6)*

Occupational and Environmental Epidemiology Branch Responds to the EQ Chemical Fire in Apex, N.C.

Prepared by Peter J. Costa, MPH, CHES, Public Health Epidemiologist and Bill Pate, PE, CIH, Medical Evaluation and Risk Assessment Unit Supervisor, Occupational & Environmental Epidemiology Branch

The Occupational and Environmental Epidemiology Branch (OEEB) responds during emergencies by providing technical support and assistance to local, regional, state and federal response agency personnel. The OEEB identifies and quantifies the presence of and potential for exposure to contaminants conducts assessments and surveillance for adverse health effects and provides health-based guidance on possible levels of exposure to such contaminants. This past fall OEEB responded to a large chemical fire inside the city of Apex.

On the evening of October 5 2006 a large fire occurred at the Environmental Quality (EQ) hazardous waste treatment, storage and disposal facility. As plumes of potentially noxious chemicals were released into the air, neighboring residents were asked by local officials to evacuate the area.

In response to the incident, the Wake County Emergency Operations Center was activated Friday morning. At the state level, the Office of Public Health Preparedness & Response (PHP&R) initiated command and control and activated the Public Health Command Center. Several personnel from the OEEB staffed the command center and provides expertise and guidance on toxicology, industrial hygiene and medical epidemiology. These individuals are experts in their fields and as such were inserted into the incident command structure to serve as technical specialists.

Chemical analysis, air monitoring and toxicological data taken in the surrounding area during and immediately after the fire detected no contaminants at levels high enough to pose immediate health problems. Officials from the Departments of Health and Human Services (DHHS) and Environment and Natural Resources (DENR) conducted environmental screening assessments of multiple residential and commercial sites in the Apex. The purpose of the assessments was to determine if the sites selected were contaminated by the EQ fire. This approach served as a screening method to determine if additional sampling would be necessary or if additional information and guidance on cleaning would need to be provided.

OEEB conducted indoor environmental evaluations of 31 sites in Apex. The evaluations consisted of wipe samples for 15 selected metals, total cyanides, and polycyclic aromatic hydrocarbons or PAHs (chemicals formed from the incomplete burning of coal, oil and gas, garbage, or other organic substances[1]). Indoor and outdoor air monitoring for mercury vapor was also done. All results from the indoor environmental evaluations and mercury sampling, as well as DENR's findings, were found to be at levels well below the concentrations that would pose a health risk. The full report, including the survey form and the findings can be accessed online at http://www.epi.state.nc.us/epi/pdf/Apexindoorresults.pdf.

For more information on chemical preparedness please contact the OEEB at (919) 707-5900 or visit the chemical emergencies "Questions and Answers" page of the OEEB web-site at http://www.epi.state.nc.us/epi/oee/QandA_CTCE.html ~

[1] *ATSDR ToxFAQs for Polycyclic Aromatic Hydrocarbons (PAHs). Accessed on 12/12/06 from http://www.atsdr.cdc.gov/tfacts69.html*

Postmortem Testing for Inborn Errors of Metabolism

Prepared by Lori Scanga, MD, PHD, and John Butts, MD, Chief Medical Examiner, Office of the Chief Medical Examiner, Chapel Hill, N.C.

Inborn errors of metabolism are metabolic disorders resulting from an absent or defective enzyme or cofactor. More than 300 inborn errors of metabolism have been described and most are caused by mutations in a single gene leading to a single defective enzyme that disrupts one step of a metabolic pathway. This disruption causes the accumulation of metabolites (or compounds synthesized by the body in an attempt to dispose of the intermediates) preceding the interrupted step and deficiency of downstream metabolites.

The major classes of these inborn errors of metabolism are amino acid disorders, organic acidemias, and fatty acid oxidation disorders. The most common inborn error of metabolism is medium chain acyl-CoA dehydrogenase (MCAD) deficiency, a disorder of mitochondrial beta-fatty acid oxidation.

Metabolic diseases commonly initially present in newborns and infants but can also later present in older children and adults. The clinical features vary depending on the age of the patient and the specific defect. Common presenting clinical features in infants with MCAD deficiency are recurrent episodes of vomiting, acidosis and hypoglycemia, especially in the setting of fasting or febrile illnesses. These life-threatening events can result in a sudden unexpected death and thus fall under the jurisdiction of the Medical Examiner System. Metabolic disorders have to be considered in the differential of sudden unexpected deaths in infancy and childhood and biochemical screening for these metabolic disorders is required to make the diagnosis.

At the time of autopsy, if the symptomatology the child presents with and the postmortem findings suggestive, biochemical screening can be performed on postmortem samples of blood or bile dried on filter paper.

For many years this testing was performed at no charge by Duke University Medical Center, however, more recently a substantial charge was instituted and the Office of the Chief Medical Examiner (OCME) decided to evaluate the situation to determine whether the testing could be done by the North Carolina State Laboratory of Public Health (NCSLPH) which was now conducting such screening as a component of routine newborn screening. These results are available to the OCME through the NCSPHL website for those children born in North Carolina and may be sufficient such that retesting of postmortem samples is not necessary.

Screening of newborns by tandem mass spectroscopy for inborn errors of metabolism has been routine in North Carolina since 1997. Heel blood from newborn infants over 24 hours of age is spotted and dried on filter paper. Tandem mass spectroscopy performed on this blood detects more than twenty disorders of fatty acid oxidation, aminoacidopathies, and organic acidemias. If a sample has an abnormal result, the laboratory retests another blood spot from the same sample card. If this retest is also abnormal, the sample is considered abnormal. The Newborn Screening Program uses a dual cutoff and follow-up procedure for abnormal results. Samples have either elevated results above the "borderline" cutoff and a repeat newborn screening sample is requested, or the result is above the "diagnostic" cutoff and the infant is referred to a specialty laboratory for confirmatory testing, which may include enzyme testing or mutation analyses.

Data collected by the NCSPHL indicated that prior to 2004, over 800,000 infants had been screened across the state and the overall incidence of metabolic disorders found to be 1:4800. Four patients who had mild metabolic disorders had normal newborn screening results and were consequently only identified after their first non-fatal catabolic illness. No known cases of MCAD deficiency, the inborn error most commonly associated with fatal outcomes were missed. Therefore, a normal newborn screening result is very sensitive in excluding a metabolic disorder.

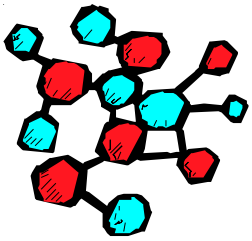
From 1999 to 2004, fifteen North Carolina deaths investigated by the OCME had postmortem screening for metabolic disorders conducted through Duke University Medical Center because clinical or autopsy findings raised the possibility of an inborn error. Fourteen of these children had had normal newborn screening; one child was not screened because he died within 24 hours of birth and a premortem sample was not obtained. Fourteen of these cases had subsequent normal postmortem testing, and one case showed heterozygosity for MCAD deficiency. Therefore, although only a small number of children were tested, postmortem testing did not identify clinically relevant metabolic disorders and was consistent with newborn

(*continued on page 5*)

(***Postmortem Testing,*** *continue from page 4)*
screening results. These cases, in combination with the high sensitivity of newborn screening, are strong evidence that such screening is sufficient to rule out metabolic disorders in most cases.

Our current policy, adopted in 2004, is as follows. In death investigations where the issue is raised by evidence suggesting a metabolic disorder as the cause of death, such as a strong family history of sudden unexpected death, a clinical scenario consistent with a metabolic disorder as previously discussed, and/or suggestive autopsy findings such as fatty infiltration of organs the OCME checks for the newborn screening results with the NCSPHL. If negative, the Medical Examiner is so informed by the OCME and advised that this effectively rules out an inborn metabolic disorder as the cause of death. If positive results were on record further workup would be conducted. If it is determined that a newborn was unscreened due to being born outside of North Carolina, death occurred before 24 hours of age, or was not done for some other reason, postmortem screening is obtained. In rare instances a repeat postmortem test may be obtained when the newborn screen is negative if the evidence suggesting a potential inborn error is particularly compelling.

Based on our analysis the need for the retesting of postmortem samples in previously screened infants is rare and we have encountered very few infants who have not had such screening. If postmortem screening is necessary, a number of laboratories provide commercial testing of more than twenty metabolic disorders by tandem mass spectroscopy as well as confirmatory genetic analysis if indicated. ~



Chlamydia Awareness Campaign Highlights Need for Outreach Testing

Prepared by Mary Noel Dodd, Bacterial STD Laboratory Supervisor, N.C. State Laboratory for Public Health

The 2006 Chlamydia Awareness Campaign was held in North Carolina from September 18 through November 3. The overall goal of this project was to increase awareness of chlamydia and other common sexually transmitted infections through education, screening, and treatment in non-traditional or outreach settings. Despite an expansion of screening test programs since the 1990s, chlamydia continues to be the most common bacterial sexually transmitted disease in the nation, predominantly affecting young adults between the ages of 15 and 24 years of age. Though easily treatable with antibiotics, undetected and untreated Chlamydia and gonorrhea infections can lead to serious complications such as ectopic pregnancy, chronic pelvic pain, and pelvic inflammatory disease (PID), which is a major cause of infertility. Since the majority of people with chlamydia and gonorrhea feel healthy and are asymptomatic, education and regular testing for sexually active men and women is vital to reducing the incidence of disease and subsequent adverse outcomes.

The Chlamydia Awareness Campaign is conducted annually by participants in the Infertility Prevention Project (IPP), a federally-funded grant program that is administered in Region IV through Emory University. This collaborative effort of public health care providers and state laboratories in eight southeastern states (North Carolina, Alabama, Florida, Georgia, Kentucky, Mississippi, South Carolina and Tennessee) provides data that can be used to assess the prevalence of chlamydia and gonorrhea infections in targeted populations. With this information, strategies can be designed and implemented to further reduce the incidence of sexually transmitted infections by utilizing more efficient systems for education, detection, and treatment.

North Carolina agencies participating in the 2006 event included the University of North Carolina- Pembroke, North Carolina Agricultural and Technical State University, Metrolina AIDS Project of Charlotte, non-traditional test sites in Forsyth and Wake counties, Robeson County Syphilis Elimination Project, Western North Carolina Community Health Services, and Granville/Vance District Health

(*continued on page 9)*

(***Phlebotomy,*** *continued from page 2)*

In comparison, no staff interest (14 percent) and a lack of administrative support (12 percent) were reported as having much less bearing on the staff's ability to acquire CE.

In citing all current sources of phlebotomy continuing education, NC Clinical Lab Tech Day (2005), a one-day conference co-sponsored by the SLPH, was the top source at 63 percent, followed by professional magazines at 48 percent; the Internet, 37 percent; videos/DVDs, 33 percent; AHEC and/or hospital offerings, 30 percent; Lab Improvement's lending library, 26 percent; and newsletters, 22 percent. Local community colleges and phlebotomy textbooks/documents were both reported as resources by 15 percent of the surveyed agencies.

Phlebotomy's future

Tabulating the preferred sources of future phlebotomy continuing education revealed regional workshops are favored (79 percent), followed by training videos (62 percent), Internet-based training (46 percent), Lab Improvement's lending library (45 percent), PHTIN/ teleconferences (40 percent), AHEC/hospitals offerings (29 percent) and professional conferences (25 percent). In light of previously identified barriers, such as staffing shortages and the time required away from the workplace, it is not surprising 52 percent of those surveyed specified that their *agency's* general preference for educational resources are those that can be used in-house, with 70 percent indicating their agency is "very likely" or "somewhat likely" to purchase such resources.

Our response

Regardless of location, scope or current staffing, one activity all local health departments have in common is the collection of patient blood specimens. However, who performs this procedure, how well they are trained, assessed and kept current with the industry's standard for phlebotomy is data that had not been collected prior to this survey.

Laboratory Improvement has already begun addressing these findings. Through the creation, implementation and ongoing development of the *North Carolina Public Health Phlebotomy Initiative,* eight regional training sessions were offered in 2006, with new sessions planned for 2007. This initiative was very favorably received by the 125 participants who attended and has already generated tangible improvements and benefits on the local level. It has also been showcased as an educational model at a professional laboratory conference outside North Carolina's borders. In addition, Laboratory Improvement is expanding its lending library with such phlebotomy-related resources as ASCP teleconference videos. Successful partnering with the HIV/STD Branch has made purchase of some of these educational videos possible. By reinstituting its *Lab-Oratory* newsletter, the SLPH also has another means to communicate timely information on phlebotomy's standard of care.

This survey was a crucial first step in establishing the current state of phlebotomy in our N.C. local public health agencies. By recognizing phlebotomy as an invasive medical procedure that requires the knowledge and skills of a competent collector, Laboratory Improvement's educational mission is clear. In the realm of North Carolina Public Health, the concept of "quality phlebotomy" is new and exciting territory that is a natural compliment to an agency's risk reduction and quality improvement objectives. We look forward to North Carolina leading this exploration.~

Update on the New N.C. Pesticide Illness and Injury Surveillance Program

Prepared by Sheila Higgins, RN MPH, Manager, Occupational Surveillance Unit, Occupational and Environmental Epidemiology

The Occupational Surveillance Unit has received a small grant from the Environmental Protection Agency to start an acute pesticide illness and injury surveillance program. The system began collecting data January 1. This surveillance program will improve the state's ability to describe the extent of pesticide-related illness and injury and learn why poisonings happen. Resources will be provided to citizens, employers and physicians to help prevent pesticide exposures. Findings will be shared with stakeholders who can have an effect on best practices, enforce compliance with pesticide laws, state policy, and research priorities.

Why pesticide illness and injury surveillance?

The plan to conduct pesticide illness and injury surveillance in North Carolina was triggered by concerns related to the

(*continued on page 7*)

(***Pesticide Illness & Injury Surveilance ,*** *cont'd from page 6)*
potential toxicity of many pesticide products, the widespread use of products in our state especially in agriculture, and the presence of high risk occupational groups and their families.

Pesticides are toxic to certain life forms by design. They also have the potential to cause adverse health effects in humans and other nontarget species if not used as directed. Acute or chronic exposure can cause adverse health effects with a wide range of symptoms. Acute illness may be mild (headache, rash or flu-like symptoms) or more severe, including serious systemic illness, third degree burns, neurologic effects and rarely, death. Animal and human population studies of pesticides indicate that some may cause chronic health effects including certain cancers, and nervous system, reproductive, and immunologic effects. The most serious exposures involving the general consumer occur from accidental ingestion, often involving children, and deliberate ingestions. The most severe exposures in the agricultural setting occur in workers involved in pest control operations such as mixing, loading, applying, and flagging. These activities involve contact with highly concentrated forms of pesticides. Field workers are typically subject to low level, chronic exposure through skin contact with residues on plants. Poison control data is useful in estimating the number of pesticide poisonings. Information from Carolinas Poison Center indicate that North Carolina experiences approximately 2,300 cases a year of pesticide poisonings, with mostly non-occupational cases reported. It is suspected that many occupational cases likely occur but go unreported due to reticence of workers – especially migrant workers – to identify themselves, access-to-care issues, misdiagnosis by health care providers, and state health and safety laws that exclude certain size farms from having to report injuries and provide workers compensation.

In North Carolina, pesticide products are used extensively in various settings including homes, yards, schools, businesses, in mosquito control and especially agriculture. In fact, North Carolina has particularly large groups at risk. North Carolina ranks seventh in the nation for number of hired farm labor and fourth in the nation for number of farms with migrant farm labor (Census of Agriculture, 2002). Family members are at risk for direct or indirect pesticide exposure because many live in close proximity to fields, participate in farming activities, or come in contact with take-home residues.

In light of these concerns, it has been determined that a closer monitoring of pesticides is warranted by initiating an acute pesticide illness and injury surveillance program.

Components of the program

Several case ascertainment sources have been set up to supply information on acute pesticide-related illness and injury incidents (occupational and nonoccupational). Mandated physician reporting is a cornerstone of the program. A physician reporting rule was approved by the N.C. Commission for Health Services.. The program began accepting reports on January 1, 2007.

Other reporting sources include the Carolinas Poison Center, the N.C. Department of Agriculture and Consumer Services, outreach workers from the North Carolina Farmworker Health Program, and the State Center for Health Statistics. The program will also accept self reports and witness reports. Once a report is received, the case will be investigated and information on exposure prevention will be shared with the affected person. Due to funding and staff constraints, priority response by DHHS will be given to cases reaching a certain severity level (e.g. deaths, hospitalizations, and multiple poisonings). To ensure accurate case classification, a case definition and case classification guideline developed by NIOSH will be used. An internal review panel has been developed to discuss case classification issues. Referral criteria to regulatory agencies have been developed. Data collected will be analyzed yearly and findings will be posted on our website and shared with outside agencies and groups. NIOSH will use the data to add to the national database.

How to report a case

Physicians (as well as nurse practitioners and physician assistants) must report cases of suspected or confirmed acute pesticide-related illness or injury within 48 hours of being evaluated, and must report deaths immediately. Physicians may call Carolinas Poison Center at 1-800-222-1222 in lieu of N.C. Division of Public Health to avoid duplicate reporting, reduce paperwork and time, and obtain expert advice on pesticide toxicology and treatment. Details about the program and reporting requirements are found at http://www.ncdhhs.gov/ (click P for pesticides under topic index). Interested persons may call 919-707-5900 for additional information about this program.~

Kiosks Recognized as Innovative Public Health Practice

Prepared by Bill Furney, Information Communication Specialist, Office of Public Health Preparedness and Response

The Office of Public Health Preparedness and Response has been recognized at the national level for its innovative use of public information kiosks to promote readiness for natural and man-made disasters. The interactive kiosks contain touch-screen computers that enable people to access information, to watch and hear video clips, and to find answers about various topics. The National Public Health Information Coalition (NPHIC) presented the 2006 Silver Award for Excellence in Public Health Communication in the New Media (Outsourced) category to communication coordinator Bill Furney and SmartVista representative Carrie Reuben at its annual conference in October. DHHS Hispanic Outreach Coordinator, Jalil Isa, was also a recipient of the award but did not attend the meeting held in Portland, Oregon. The conference brings together public information officers from public health agencies across the nation and its territories. Hundreds of entries in several different categories were submitted to the competition for judging. Being recognized at the national level in a competition that includes major agencies in New York, California and other states is a reflection of the quality of work that is being done in North Carolina.

The information kiosks are portable, self-contained computers using state-of-the art touch screen technology designed to withstand the use and abuse of the general public. The kiosks feature an interactive preparedness "Be Ready!" presentation that helps state and local public health staff provide citizens with vital information about preparing for potential threats and increasing their chances of survival during a disaster. The presentation is based on content from the U.S. Department of Homeland Security and features public service announcements (PSAs) produced by the Ad Council that help draw attention to the kiosks. The presentation and PSAs are presented in both English and Spanish.

The first goal in creating this resource was to develop a better method of generating interest in public health preparedness topics when distributing brochures and pamphlets about disaster preparedness. To help achieve that goal the office of Public Health Preparedness and Response (PHP&R) provided kiosks to the state's seven Public Health Regional Surveillance Teams. The idea is that by having users interact with the presentation, they will be more engaged and interested in the material. Once users have finished viewing information on the kiosk they collect the collateral material and are more motivated to follow up on readiness guidelines once they return home.

The second goal of the kiosks was to develop a resource that would promote more interaction between the state's decentralized local health departments and the seven Public Health Regional Surveillance Teams that were created after 9-11 to help facilitate local preparedness efforts. The county health departments borrow the kiosks from the regional offices for health fairs, county fairs, conferences, clinics, and similar events. Since the local health departments were made aware of the kiosks there has been a steady request for reservation of their use by local health department health educators and preparedness coordinators. During the fall county fair season, there was a tremendous demand for their use. Similar demand is expected during "Public Health Week/Month" observances in the spring.

One of the advantages of using the kiosks is their ability to be used for virtually any topic. A public education presentation on pandemic flu is already in the planning stage as is expected to be completed by summer.

Other benefits of using kiosks for education purposes include:

- Provides an interactive presentation, resulting in higher retention rates.
- Creates a user-driven experience that allows users to access the information they want at their own pace.
- Engages and includes a broad range of users with respect to language and reading level, meeting ADA standards.
- Motivates action and improves confidence, with a clear, proactive message throughout.
- Brings critical information to citizens. ~

DPH to Partner with BioSense National Program

Prepared by Lana Deyneka, N.C. Syndromic Surveillance Coordinator and Jean-Marie Maillard, General Communicable Disease Control Branch

BioSense is the national Centers for Disease Control and Prevention (CDC) program designed to improve the nation's capabilities for real-time biosurveillance and situational awareness. BioSense directly supports CDC's Preparedness Goal 2 – Decrease the time needed to classify health events as terrorism or naturally occurring, in partnership with other agencies. BioSense achieves this goal by allowing surveillance activities based on real-time delivery of healthcare data from hospitals, laboratories, ambulatory settings and other health data sources.

For the year 2006, BioSense objectives include 350 hospitals transmitting real-time data to BioSense, three major commercial clinical laboratories transmitting orders and results in near real-time, and receiving real time data from Veterans Affairs and Department of Defense facilities and from Poison Control Centers.

The selection of data sources for BioSense is based on several components, such as healthcare facilities in large metropolitan areas, healthcare facilities with high-volume emergency departments (ED), health systems with multiple hospitals, existing hospital Internet Technology infrastructure (i.e. ED system), timeliness of data support and follow up by local public health partners, and existing data reporting relationships with CDC.

The early event detection system that serves public health users in our state is the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). The system is managed by a technical team at the Department of Emergency Medicine at the University of North Carolina at Chapel Hill. One of the major data streams of the system is emergency department data from hospitals statewide. At the present time NC DETECT receives and evaluates ED data daily from 90 of the 112 hospital emergency departments in the state that use electronic data. The N.C. Division of Public Health is currently working with CDC to find a way to provide data to BioSense. At this stage, ED data from North Carolina would represent a large contribution to the national biosurveillance system network. This would also allow increased health surveillance data exchange between North Carolina, its neighboring states, and other states.~

(***Chlamydia Awarness Campaign,*** *continued from page 5)*

Department. During the campaign, educational brochures were distributed and free urine testing for chlamydia and gonorrhea, plus additional testing for HIV and syphilis, were offered to patients seen at the participating sites. Nucleic acid amplification testing for chlamydia and gonorrhea was performed at the N.C. State Laboratory of Public Health using kits provided free of charge by GenProbe, Inc. A total of 790 urine specimens were collected and tested. Of these, 82 (10.4%) tested positive for chlamydia and 19 (2.4%) were positive for gonorrhea. All patients with positive test results were notified and received treatment.

The success of the 2006 Chlamydia Awareness Campaign underscores a continuing need to reach populations at risk of disease that might ordinarily be missed through traditional screening efforts. The overall positivity rate for both chlamydia and gonorrhea observed in these patients was higher than those seen in our normal testing population (7% and 2%, respectively). Enhanced outreach testing could be a valuable tool in reducing the incidence and transmission of these diseases.~

Reported Communicable Diseases, North Carolina, January-December 2006 (by date of report)*

Disease	Year-to-Date (Fourth Quarter)			4rdQuarter 2006	Comments / Note
	2006	2005	Mean (2001-2005)		
Botulism Food	**1**	1	0	0	
Brucellosis	**2**	3	2	0	
Campylobacter	**807**	672	658	154	
Chlamydia, laboratory reports	**33609**	31183	26632	8706	
Creutzfeldt-Jakob Disease	**1**	0	1	0	
Cryptosporidiosis	**99**	92	59	28	Note 1 & 2
Cyclosporasis	**3**	2	1	2	
Dengue	**6**	13	5	4	
E. coli Shiga Toxin-producing	**123**	64	113	40	
Ehrlichiosis, Granulocytic	**1**	4	3	0	Note 1 & 2
Ehrlichiosis, Monocytic	**53**	29	23	13	Note 1 & 2
Ehrlichiosis, Other	**3**	4	1	2	
Encephalitis, California Group	**16**	32	19	12	Note 1 & 4
Encephalitis, West Nile	**1**	2	5	1	
Foodborne, C. Perfringens	**9**	1	2	1	
Foodborne, Other	**121**	349	249	13	
Foodborne, Staphococcal	**1**	9	36	1	
Gonorrhea	**17310**	15068	15487	4314	
Haemophilus Influenzae	**55**	74	52	9	
Hepatitis A	**100**	84	153	34	
Hepatitis B	**154**	167	193	31	
Hepatitis B Carrier	**772**	847	834	120	
Hepatitis B Perinatal	**2**	2	3	0	
Hepatitis C, Acute	**17**	21	19	5	Note 1 & 4
HIV/AIDS	**2022**	1846	1738	368	
HUS	**8**	6	5	5	Note 1 & 2
Influenza Pediatric Mortality	**1**	0	0	0	
Legionellosis	**40**	36	28	11	
Leptospiosis	**1**	0	0	0	
Listeriosis	**25**	34	18	6	Note 6
Lyme Disease	**30**	49	101	6	
Malaria	**31**	40	26	7	
Measles	**1**	0	1	0	
Menincoccal Invasive Disease	**32**	32	41	8	
Meninigitis, Pneumococcal	**41**	32	35	9	
Mumps	**43**	13	5	13	
Q Fever	**4**	6	2	1	
RMSF	**842**	625	394	179	
Rabies	**512**	459	617	115	
Salmonellosis	**1691**	1713	1567	545	
Shigellosis	**160**	202	635	35	
Syphilis, total	**612**	489	579	159	Note 7
VISA/VRSA (Staph aureus)	**1**	0	0	0	
Strep A	**162**	124	126	24	Note 1 & 2
Tetanus	**1**	0	1	0	
TSS	**8**	4	4	2	
TSS Streptococcal	**10**	8	3	0	
Tuberculosis	**370**	329	383	140	
Tularemia	**1**	0	1	0	
Typhoid, Acute	**3**	6	6	0	
Typhus Epidemic	**3**	1	0	1	
Vibrio Vulnificus	**5**	3	6	1	Note 1 & 2
Vibrio, Other	**17**	14	12	6	Note 1 & 5
Whooping Cough	**237**	127	99	83	

* Preliminary data, as of 12/31/2006. Quarters defined as 13 weeks periods. Diseases reported in 2006 define those listed in this table. Notes: 1. - =Not reportable in this entire time period; 2. Became reportable 8/1/1998; 3. Became reportable 10/1/1994; 4. Became reportable as such 8/1/1998; previously within other category ("Encephalitis"; and "Hepatitis, non A-non B");; 5. Became reportable 7/1/1997; 6. Became reportable 7/2001. 7. Includes primary, secondary and early latent syphilis.

Employee Recognition: Debbie Moncol - Employee of the Quarter

Prepared by Patsy West, Administrative Assistant,

Debbie Moncol is the recipient of the Epidemiology Section's Employee Recognition Award for the fourth quarter of 2006. Ms. Moncol was nominated in the category of Service Excellence.

Ms. Moncol has been an employee in the State Laboratory of Public Health (SLPH) since 1984. In 2001, Ms. Moncol became the Supervisor of the Inorganic Chemistry Laboratory in the Environmental Sciences Unit. Just as she did in her previous positions, Ms. Moncol has excelled in her role as supervisor and has taken on additional responsibilities.

The Environmental Inorganic Chemistry Laboratory analyzes a variety of samples such as water, wastes and soils. Water samples from both public and private water systems are examined for chemical and/or physical parameters. Samples are routinely analyzed for alkalinity, arsenic, calcium, chloride, copper hardness, lead, iron, magnesium, manganese, pH, fluoride and zinc.

Ms. Moncol took on the responsibility for the environmental lab testing that supports the Department of Environment and Natural Resources (DENR)/Environmental Health/Child Health Branch Lead Poisoning Prevention (LPP) Program. The environmental lead laboratory component of the LPP program was required to be accredited by the American Industrial Hygiene Association (AIHA) and did receive accreditation by AIHA. Ms. Moncol was instrumental in making several instrument purchases to expand Inorganic Chemistry Laboratory capacity. Under her leadership, three new positions were created to allow the SLPH to provide laboratory support for the new state-wide well construction ordinance, which took effect January 2007. Because of her knowledge of Labworks (Environmental Sciences' Laboratory Information Management System), Ms. Moncol was chosen as a subject matter expert on the new StarLIMS system and has passed on her knowledge to other supervisors in Environmental Sciences.

Ms. Moncol is a true leader in her field. All environmental lead samples that are collected by DENR during a child's exposure investigation are analyzed by an AIHA/ELLAP (Environmental Lead Laboratory Accreditation Program) certified laboratory. The Inorganic Chemistry Laboratory has increased its capability and capacity to meet the demands of statutory requirements. The new LIMS system has been a huge commitment for Ms. Moncol. The StarLIMS project has continued moving forward. The citizens of North Carolina have benefited greatly because of her service excellence.

In addition to receiving the Epidemiology Section's Employee Recognition Award, Ms. Moncol will be presented with a gift certificate to a local restaurant from the Epidemiology Section Management Team.~

Thomas Rhyne Named Program Administrator for the Office of Public Health Preparedness and Response

Thomas Rhyne joined the Office of Public Health Preparedness & Response in October as Program Administrator. Rhyne was previously in the Administrative Local and Community Support Branch in the Division Office of Public Health. His primary responsibilities include the supervising the sub-recipient monitor and administrative staff. He is also the Logistics Chief for the Public Health Command Center for operational readiness. He deals with the daily business operations for the Branch including grant funding issues and approvals. ~

State of North Carolina • Michael F. Easley, Governor
Department of Health and Human Services • Division of Public Health
Epidemiology Section • www.epi.state.nc.us/epi/

Dr. Jeffrey Engel, Chief
Managing Editor, Jeffrey Engel
Layout and Typesetting, Angela Green

Epidemiology Section Office (919) 733-3421
General Communicable Disease Control Branch (919) 733-3419
HIV/STD Prevention and Care Branch (919) 733-7301
Occupational and Environmental Epidemiology Branch (919) 707-5900
State Laboratory of Public Health (919) 733-7834
Office of the State Medical Examiner (919) 966-2253
Office of Public Health Preparedness and Response (919) 715-0919
Rabies Emergency Number - Nights, Weekends, Holidays (919) 733-3419
EMERGENCY NUMBER - Nights, Weekends, Holidays (919) 733-3419

500 copies of this public document were printed at a cost of $265.17, or $.53 per copy, using non-state funds. 2/07