



# DELAWARE LABORATOR

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## LABORATORY PREPAREDNESS UPDATE FROM MAY 2012 MEETING

DEBRA RUTLEDGE, MBA, MT(ASCP) LAB MANAGER II,  
 BIOTERRORISM LAB COORDINATOR



At the multi-agency exercise review in November 2011, it was noted that the Chain of Custody (COC) forms were complicated and needed to be modified. It was agreed that a uniform COC for all agencies to use should be developed. A COC workshop was organized with our partners to develop a functional chain of custody that would benefit everyone by making submittal of specimens/samples easier, while decreasing liability.

Sergio Huerta and Ben Pressley from the Department of Natural Resources and Environmental Control (DNREC) Laboratory facilitated this workshop. The agencies represented were the Division of Public Health Laboratory (DPHL), Office of Drinking Water, Office of Food Protection, and Health Systems Protection, Bureau of Epidemiology, Environmental Emergency Response, DNREC Laboratory, Delaware Dept. of Agriculture, United States Postal Service, Federal Bureau of Investigation, Emergency Response Branch.

As a result of this workshop, DPHL decided to adapt the Office of Drinking Water COC as this form has been used on a daily basis for many years. Due to the modifications to the form, many of our related forms needed to be modified and

they are all completed and available on our webpage <http://www.dhss.delaware.gov/dhss/dph/lab/labprep.html>

Forms needed for Preparedness testing:

Clinical specimens:

1. DPH Chain of Custody
2. Request for Preparedness Training
3. Test Requisition

Environmental specimens:

1. DPH Chain of Custody
2. Request for Preparedness Testing
3. DPH Field Screening

Always call DPHL for authorization before sending any preparedness testing specimens. Rule out isolates from sentinel laboratories that do not require a chain of custody form. Environmental specimens must be prescreened before we can accept them in our laboratory to ensure the safety of our staff and facility.

### Inside this issue:

<b>Laboratory Preparedness Update May 2012</b>	<b>1-2</b>
<b>Influenza Summary Report</b>	<b>3</b>
<b>Delaware Public Health Laboratory Week</b>	<b>4-5</b>
<b>Employees News</b>	<b>6</b>

### Special Points of Interest:

<b>DPHL Lab Week</b>	<b>Page 4-5</b>
<b>Lab Week Pictures</b>	<b>Page 5</b>
<b>Employee News</b>	<b>Page 6</b>

## LABORATORY PREPAREDNESS UPDATE CONT'D.

Also, as of March 2012, Centers for Disease Control and Prevention (CDC) has modified their DASH form for specimens that are sent for testing. This new form is available on our web page.

Training on these forms was provided to our partners in April and a copy of the training presentation is available on our webpage at [www.dhss.delaware.gov/dhss/dph/lab/labs.html](http://www.dhss.delaware.gov/dhss/dph/lab/labs.html) for those who could not attend this training. If you have any questions or comments regarding these forms please do not hesitate to call the DPHL at 302-223-1520 and ask for Tara Lydick or Debbie Rutledge.

### **Public Health Preparedness (PHEP) Grant Laboratory Activities-**

(shortened list of activities, required to perform quarterly for our preparedness grant)

- Biological and chemical terrorism testing competency & capabilities
- Training and proficiency testing for all sentinel laboratories in Delaware
- Training and outreach for first responders, labs, health facilities, etc
- Training and certification for packaging & shipping of infectious materials
- Exercise protocols, planning and participation
- Unannounced proficiency testing participation & competency
- Select Agent registration, USDA permit, certification & plans
- Preparedness plans, triage and chain of custody, security procedures
- Continuity of operations plans (COOP) for labs
- Laboratory surge and supply access planning
- Biosafety, Select Agent and Biosecurity trainings
- Communication drills – lab wide/Delaware Public Health wide/ Epidemiology to lab/ lab to Epi/ sentinel labs
- Laboratory Information Management system & HL7 data messaging processes
- Security & maintenance of records management, instrumentation and facility
- Biosafety Level III laboratory and rapid molecular methods instrumentation
- Security/safety breach drills
- Documentation of compliance with mandated testing timeframes.

**PHEP Grant Performance Measures** - Below are a few of the communication performance measures that must be documented annually for the grant application. Please be aware that if you are a sentinel laboratory, on-call epidemiologist/LRN-B laboratorian, or public health partner that we would need to notify, we will be relying on your acknowledgement or actions to these notifications or drills.

1. Time (start, 50%, 90%, all) for sentinel clinical labs to acknowledge urgent message from DPHL LRN-B lab.
2. Time (start notification, arrival at DPHL) for initial LRN-B laboratorian to report for duty at DPHL.
3. Time to complete notification from CDC Emergency Operations Center (EOC) (start) to on-call laboratorian to on-call epidemiologist to CDC EOC (stop)
4. Time to complete notification from CDC EOC (start) to on-call epidemiologist to on-call laboratorian to CDC EOC (stop)
5. Time for CDC PHEP-funded laboratory to notify public health partners of significant laboratory results. (Start) time DPHL obtains a significant lab result; (stop) time when last partner was notified.



[www.dhss.delaware.gov/dhss/dph/lab/labs.html](http://www.dhss.delaware.gov/dhss/dph/lab/labs.html)

## *INFLUENZA SUMMARY REPORT 2011-2012*

*GENNENE MENGISTU, MD, PHD*

Influenza (flu) is an infectious disease caused by influenza viruses that affect mammals including man and birds. The main mode of transmission is aerosols while direct contact with bird droppings, nasal secretions and similar fluids are other possibilities. Seasonal influenza epidemics are caused by a variety of species and strains of viruses. Influenza epidemics cause heavy morbidity and mortality every year throughout the world. Hence, the DPH’s Bureau of Epidemiology collects influenza related data in collaboration with Delaware Public Health Laboratory, CDC, and relevant partners, such as other clinical laboratories, healthcare providers, clinics of different sources, federally qualified health centers, college and university clinics, day care centers, long term care facilities, correctional centers, etc. The collected data are compiled, analyzed, and reported weekly as influenza activity reports throughout the flu season that encompasses from week 40 of the ending year to week 20 of the ongoing year. The influenza activity report includes who contracted influenza, when and where influenza infection and or influenza-like illness {ILI (Fever  $\geq$  100°F (37.8°C) and cough and/or sore throat without other identified cause)} occurred, what influenza viruses are circulating, influenza related hospital admissions, influenza related deaths in children, and other pertinent information. The following is an example of a summary of the influenza activity report.

To date (until week 16) a total of 227 laboratory confirmed influenza cases were reported in Delaware. Of these, 92 % (209) Type A (A1H1 8%, 17; A:H3 84%, 175, and serotype was not done 8%, 17), and 8% (18) Type B. Looking at the county distribution, 81% (183), 11% (26), and 8% (18) were in New Castle, Kent and Sussex counties respectively. The age distribution varied from less than a month to 98 years old. There were 36 hospital admissions with no deaths to date. The age range of the hospital admission was from three months to 88 years. The hospital admissions among the three counties were 67% (24 cases) in New Castle County, 22% (8 cases) in Kent County, and 11% (4 cases) in Sussex County. The proportion of hospital admissions as compared to the total influenza cases was 16%.

A total of 2554 ILI cases were reported from ILNet Providers (Sentinel Providers – Health Care Providers directly reporting to CDC) 276 (11%), seven electronically reporting hospitals 1410 (55%), one manually reporting hospital 155 (6%), two federally qualified health centers 348 (14%), long term care facilities 126 (5%), universities 40 (2%), child care centers 191 (7%), and correctional centers 8 (0.3%).

As shown in Fig. 1, the first influenza case was reported at week 47 of 2011. The number of reported influenza cases gradually started to climb, in 2012, from week 7 and reached a peak at week 11 where 42 cases were reported. Reported cases are decreasing gradually and at this time (week 16) a total of 12 cases were reported. There were few non-Delaware resident influenza cases reported to us. Their numbers are not included in this summary report. The trend of influenza cases appeared to peak late in this flu season as compared with last flu season.

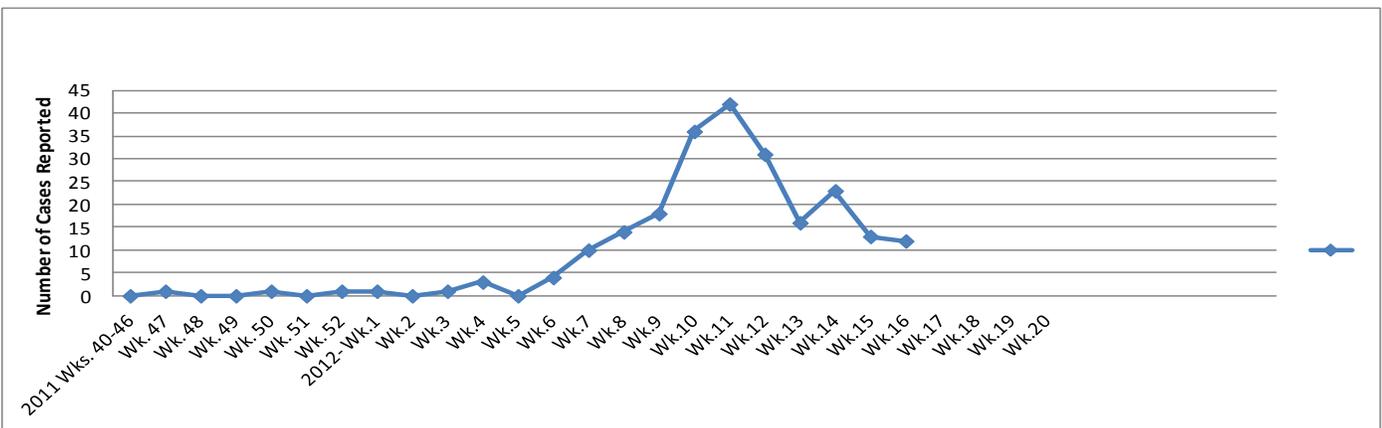


Fig. 1. Trends of weekly reported influenza cases during the 2011/2012 flu season

## *DELAWARE PUBLIC HEALTH LABORATORY WEEK 2012*

### *A HUGE SUCCESS*

*DEBRA RUTLEDGE, MBA, MT(ASCP) LAB MANAGER II, BIOTERRORISM LAB COORDINATOR*

The week of April 22, 2012 was National Medical Laboratory Professionals Week (Lab Week). Lab week is an annual celebration to recognize the important role medical laboratory professionals play in healthcare, public health, and a wide-range of related fields. This week is a unique opportunity to increase the public's understanding and appreciation of laboratory work and the personnel that perform this testing. The staff at the Delaware Public Health Laboratory (DPHL) begins planning and internal fundraising activities in January for this celebration. Events this year included a kickoff breakfast, pizza provided by Dr. Ward (Lab Director), a BBQ pot-luck luncheon, and concluded on Friday afternoon with ice cream sundaes provided by Christina Pleasanton (Deputy Director), and myself. Throughout the week, we enjoyed lab-oriented puzzles and bingo, a guess the pet owner contest, and a spring egg hunt.

#### *DPHL Partner's Displays*

- Delaware State Police Helicopter and Pilots
- 31<sup>st</sup> Civil Support Team of the Delaware National Guard Rescue team & vehicles
- Kent County SPCA & vehicle
- Kent County Decon/hazmat team & vehicle
- 911 Kent Communications & vehicle
- Odessa Fire Company Rehab24 & vehicle
- Kent Count EMS Medic & vehicle
- Department of Natural Resources and Environmental Control Laboratory

#### *DPH Program Partners / Displays*

- Lead Poisoning Protection
- Office of Drinking Water
- Office of Food Protection
- Tuberculosis Elimination Program
- Newborn Screening Program
- Tobacco Prevention & Control Program
- Environmental Emergency Response vehicle
- Preparedness POD tent
- Bureau of Epidemiology

Also during Lab Week, representatives of the DPHL staff attended a Proclamation signing for National Medical Laboratory Professionals Week by Lt. Governor Matt Denn. The signing was held at the Tatnall building in Dover and provided an opportunity to meet and speak with the Lt. Governor about laboratory testing and other lab related issues. He was very interested in hearing about what testing is being done in the public health laboratory.



From left to right: Linda Popels, Clover Carlisle, Greg Hovan, Yaohong Zhang, Pat Scott, and Lt. Governor Matt Denn.

The DPHL holds an open house for the public and school groups during lab week, featuring lab tours and displays by DPH programs and our partner agencies, to demonstrate and explain the testing done in our public health laboratory. For the first time, this year's open house was co-sponsored by the Emergency Medical Services and Preparedness section (EMSPS). Their offices are located across the field from the laboratory in Smyrna, on the campus of the Delaware Hospital for the Chronically Ill. This year we highlighted our emergency and preparedness efforts along with our many partner collaborations. We had an outstanding turnout with many of our partners who showcased their services and equipment. Over 120 people toured the lab sections throughout the day including students from the Delaware Academy of Public Safety and Security who attended to learn about science and public safety careers. The public had a gorgeous day to see the emergency and preparedness testing, planning and activities that occur each day to protect and enhance the health of the people of Delaware.

The open house also included a welcoming ceremony featuring comments and remarks highlighting the importance of the services provided by DPHL and EMSPS, and reviewing the impact on public health over the preceding year. Speakers included; William W. Ward, Ph.D., MT (ASCP) SBB, DPHL Director, Steven Blessing, Chief, EMSPS, Karyl T. Rattay, MD, MS, FAAP, FACPM, Director, Delaware Division of Public Health, and The Honorable Bethany Hall-Long and the Honorable Bruce Ennis, Delaware State Senators.

**Vendors Displays**

- Agilent
- Fisher Scientific
- Gen-Probe
- On Assignment
- Perkin Elmer
- Trinity Biotech
- VWR

This year's open house was a tremendous success. It was a great collaboration with EMSPS group. We want to thank everyone involved in the planning of this event from both sections and the lab week committee members who volunteered their time in making this a fun week. We appreciate all of our vendors, program staff and partners for their continued participation in this event. A special thank you goes out to all the staff who gave the tours and those who did the testing while others were pulled away for other duties. And of course, a huge overall thank you to laboratory professionals in general for all that you do to improve the healthcare and safety of others.

## National Medical Laboratory Professionals Week



# EMPLOYEE NEWS WELCOME TO THE LAB!



Mike Grovola recently joined the molecular virology section as a contract microbiologist II. Previously, he worked in the Emergency Medicine Department at Christiana Hospital conducting research on MRSA and cardiac arrest. He graduated with his B.A in psychology/neuroscience from the University of Richmond and is finishing his M.S. in biomedical science from Drexel College of Medicine. In his spare time, he enjoys playing tennis, reading, and watching baseball.

The DPH Lab is happy to welcome Kevin Birch who was hired as a Supply Storage Distribution Tech I. Originally from Johnstown, PA, he recently retired from the Air Force at Dover AFB after serving our country for 22 years. He worked in Medical Logistics for 13 years in three different hospitals encompassing all aspects, from warehouse duties to management. After 9-11 he cross trained to become a C-5 Loadmaster and for the last 9 years accrued over 3000 flight hours, traveling wherever needed. He participated in a wide variety of missions including presidential support and transporting needed supplies, equipment, and personnel into war zones. He is currently working to complete his Bachelor's degree in Transportation and Logistics Management.



## DELAWARE'S DIVISION OF PUBLIC HEALTH LABORATORY

Delaware Public Health Laboratory  
30 Sunnyside Road

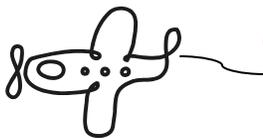
Smyrna, DE 19977  
302.223.1520  
Fax: 302.653.2877

**Built: 1990**

**Business Hours: 8:00 a.m. – 4:30 p.m.**

**Purpose:** The Division of Public Health Laboratory currently offers consultation and laboratory services to state agencies, Delaware Health and Social Services and Division of Public Health programs including:

- HIV surveillance and prevention
- Immunization
- Epidemiology
- Newborn Screening
- STD prevention
- TB Elimination
- Drinking water
- Preparedness



## CONGRATS to Jordan Estes!



**Jordan Estes** recently joined the molecular virology section as a Microbiologist. She will be concentrating on influenza, and testing related to foodborne illnesses; including PFGE, Serotyping, MLVA, and CaliciNet. She has been a contractor with Molecular Virology since last summer. Before coming to Delaware, she was a CDC/ APHL Emerging Infectious Diseases Training Fellow at the University of Iowa State Hygienic Laboratory. Jordan earned a B.S. in biology and a B.A. in anthropology

from Salisbury University in 2010. She is very excited to be officially joining her colleagues at DPHL as a state employee!

Karyl Rattay, MD, MS  
Director, Delaware's Division of Public Health

William W. Ward, PhD, Director,  
Delaware Public Health Laboratory

If you have questions regarding these articles or would like to receive a hard copy of this newsletter, contact the Delaware Public Health Laboratory at 302.223.1520. To receive this newsletter by email, contact Pat Selg, Editor, at pat.selg@state.de.us

*"To Protect and Enhance the Health of the People of Delaware"*