Integrating Laboratory Systems

In the wake of the H2N2 virus incident, labs are reminded of the necessity of integrated systems (page 3)
A Message from the President

Setting Goals, Looking Forward

Thank you for choosing me as this year’s president of APHL. Please be assured that I will do my best to continue the association’s progress, especially in expanding its membership and assuring that the public health laboratory perspective is communicated to key decision makers.

Some of you may recall that I was the junior member of the ASTPHLD Executive Committee when the first cooperative agreement was forged with CDC. I have great memories of the risks we assumed and satisfaction in seeing how our efforts contributed to the development of this robust organization. When you elected me to the board a few years ago, I could not help but be impressed by the breadth of APHL’s accomplishments, its national recognition, and the power of the Washington office. Thanks to CDC support, wonderful staff and, most importantly, your work and commitment, we have come a long way.

In this business there is always another challenge ahead (usually unanticipated). I have watched other presidents begin their term with a clear goal and end with something much different dictated by the circumstances at the time. Although I am sure this will also be my fate, I would like to challenge all of us with what I believe is the most serious issue confronting APHL—the lack of competent, qualified candidates for the next generation of laboratory directors. This is a longstanding issue that goes back as far as my first term with ASTPHLD, but it has reached critical proportions recently.

In April 2005, Eva Perlman, senior director for professional development, and I did some quick calculations. At that time, there were 11 states with acting or newly appointed directors and another 16 states whose current director would be eligible for retirement in the next three years. To me this is a leadership crisis! Whose responsibility, if not APHL’s, is it to confront this problem and find solutions? I want to commend those folks who have been working diligently on the bigger issue of laboratory workforce development. It is a complex issue that crosses public and private health care. However, in my view, the need for future public health laboratory leaders is even more pressing, and I will devote my time as your president to developing short- and long-range strategies to resolve this problem.

Please join me in this important effort. If you are a member of an APHL committee, you will probably see a new charge related to this issue. Don’t be surprised to get a request for some quick state-of-the-states information to better define the problem. Also, expect to be asked to participate in a telephone conference, focus group or other activity to identify “out of the box” ideas.

I look forward to working with all of you this year on this critical issue and all the others that will jump out at us.

Dr. Katherine Kelley

The APHL Minute
When the H2N2 influenza virus—the agent responsible for the Asian influenza pandemic that killed at least a million people in 1957–1958—was detected in routine proficiency test (PT) kits in April, public health laboratories nationwide assumed responsibility for locating the virus specimens in their jurisdicons and verifying their destruction. Just two weeks after the incident began, it was over, with all but one specimen disposed of and with no known cases of H2N2 influenza.

But just how well did the laboratory system perform? Paul Kimsey, immediate-past APHL president and head of the California State Public Health Laboratory, said “On one level, I think we did a very good job, an excellent job. On a deeper level, I think we’re behind the curve a little bit in terms of national preparation for these kinds of incidents.”

While an after-action review continues at CDC, the consensus among those state and local public health officials interviewed for this article is that although most laboratory systems worked—or at least worked well enough—there is ample room for improvement. In particular, some officials suggested a need for greater public health outreach to non-traditional laboratory testing sites—including small physician office laboratories and rapid test sites in community settings—and for stricter oversight of PT providers.

The H2N2 incident began when Cincinnati-based Meridian Bioscience, Inc. included the virus in proficiency test kits purchased by four PT distributors: the College of American Pathologists, American Academy of Family Physicians, American Academy of Bioanalysts and the American College of Physicians. Over a period of months beginning in late 2004, the PT providers shipped the kits to more than 3,000 US laboratories (as part of a federally-mandated program to assure the accuracy of human diagnostic testing) and to 17 other countries, ranging from Singapore to Saudi Arabia to Brazil.

Because US public health laboratories do not perform virus strain characterization as part of the PT program, the precise type of the virus (H2N2) was discovered only by accident—the result of apparent cross-contamination between the PT specimen and a patient specimen which occurred at a Canadian hospital. APHL officials were alerted to the situation by Ted Kuschak, manager of the Canadian Public Health Laboratory Network, who happened to be attending an APHL meeting in Washington, DC, when he received the call informing him of the discovery.

APHL Executive Director Scott Becker said, “After immediately consulting with CDC, we sent a heads-up to our members on Friday evening, April 8, before the news hit the press.” From this point on, APHL operated much as it did during the anthrax crisis of 2001, as a coordinating center representing, said Becker, “the voice of public health within the laboratory community.”

The association maintained contact with the assistant secretary of the US Department of Health and Human Services (DHHS)—whose office was compiling various different lists of the thousands of laboratories worldwide that were sent the PT kits—as well as officials at the CDC, Association of State and Territorial Health Officials (ASTHO), World Health Organization (WHO) and the four PT distributors. Importantly, APHL obtained copies of lists of PT customers, which it organized by state and shared with state public health laboratories (PHLs) and state health officers. Becker said the process was “like peeling an onion; each step of the way there was more and sometimes conflicting information coming out.”

By April 22, though, authorities had confirmation that virtually all H2N2 samples had been accounted for and disposed of. Without exception, all of those contacted for this article agree that the incident was resolved quickly and effectively. Yet several PHL officials noted that it also raises questions about PT program administration, biosafety practices in physician office laboratories (POLs) and rapid test sites, and the laboratory systems in place to respond to any emergency involving an infectious agent.

Perhaps the most fundamental question is the role of the PHLs themselves and who defines and communicates that role in the public health community. Although APHL facilitated and managed the flow of information to PHLs, neither APHL nor national health officials initially requested that PHLs do anything. At least one state PHL director indicated that, given the absence of any untypable cases of influenza in the US during the period in which the H2N2 specimens were circulated, and given the largely successful efforts by the PT distributors to communicate directly with recipient laboratories, PHLs were probably over-reacting to the situation. In any case, this director pointed out that few public health laboratories have the authority to require anything of clinical laboratories.

Yet this view was clearly a minority opinion. According to data collected by APHL, at least 46 of 56 state and territorial PHLs actively contacted PT kit recipients within their jurisdictions and a third of these 46 laboratories requested written certification that the H2N2 specimens had been destroyed. In the end, 19 state PHLs made a push to locate 33 elusive specimens and confirmed their destruction. ASTHO Executive Director George Hardy was one of several individuals contacted for this article who expressed the view that “both the work done by APHL getting information to the states and the work that PHLs did within their own states was just absolutely essential to getting the issue resolved.” Said Becker, “Most states immediately recognized the implications of the situation and wanted to double check (on the status of H2N2 specimens).”

In California, Paul Kimsey, immediate-past APHL president and Director of the California State Public Health Laboratory, was directed by his State Health Officer to set up an emergency operation center at the facility in Richmond. His state used the situation as both a real incident to confirm destruction of the panels and as an epidemiological investigation drill. The state laboratory relied on an extensive network of county PHLs and disease investigators to contact the 300 or so commercial medical laboratories (out of 18,500...
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an you imagine how different April 2005 would have been with a true National Laboratory System, one supported by electronic laboratory information systems, consistent outreach to clinical laboratories, well-funded training programs and mechanisms to assure coordinated, cross-sector emergency response?

many POLs don’t have faxes in the lab and may not have received the notice.”

Pete Shult, who oversees the communicable disease division in the Wisconsin State Laboratory of Hygiene, said “Our interactions with local health departments and sentinel laboratories were timely, relevant and, I can attest, very much appreciated.” Before receiving notification of the specific PT kit recipients in Wisconsin, his staff “cast a broad net,” sending information not only to all sentinel laboratories, but to every rapid influenza testing site they had previously identified in the state. “That’s what they look to us for,” said Shult, “just-in-time communication.” The Wisconsin State Laboratory of Hygiene also provided technical assistance to sites lacking an autoclave, the recommended equipment to kill the virus. By April 20, the 69 affected Wisconsin sites had sent signed statements to the PT distributors attesting that the H2N2 specimens had been eliminated and confirmed this fact, either verbally or in writing, to the state health department and the state PHL.

Officials at New York’s state public health laboratory, the Wadsworth Center, sent notices to all laboratories participating in the state’s Clinical Laboratory Evaluation Program, which encompasses all laboratories that test specimens from New York residents, whether the facilities are located within New York or not.

Beyond the role of the public health laboratory—a role that is likely to be unambiguous in future emergencies—the event demonstrated the supreme importance of integrated state laboratory systems. “What a lot of this was about was connectivity to clinical labs,” said Kimsey. In particular, he cited inconsistent data standards among public and private sector laboratory information management systems (LIMS) and other data processing problems as factors that hampered the overall response. (A recent APHL survey found that a majority of local public health laboratories have no dedicated LIMS and that some still rely on paper systems. Many state public health laboratories are only now in the process of modernizing their LIMS.)

In theory, Kimsey said the National Laboratory System (NLS)—an initiative partially funded and otherwise supported by the CDC—should be “a solution to this preparedness issue.” Yet in practice, only about a dozen states have received dedicated funding to develop the coordinated state and national laboratory networks envisioned under the NLS. Kimsey wrote in his last column as APHL president (The Legacy of Laboratory Collaboration, May-June 2005), “Can you imagine how different April 2005 would have been with a true National Laboratory System, one supported by electronic laboratory information systems, consistent outreach to clinical laboratories, well-funded training programs and mechanisms to assure coordinated, cross-sector emergency response?”

Many state PHLs rely on bioterrorism (BT) coordinators to conduct outreach to commercial and local public health laboratories. But Kimsey pointed out that this is not necessarily a solution for all states. “What is it we really want out of the NLS?” he asked. “And is that really sufficient staffing and funding?”

In California, there are roughly 800 moderate- to high-complexity microbiology laboratories that need to be engaged in BT preparedness (a task that has been divided up among 15 local PHLs). But the H2N2 test panels were distributed beyond even this large community to POLs and clinical laboratories with no sophisticated equipment, no trained laboratory technicians, no biosafety cabinet. Kimsey said, “We need to be talking to more than just the moderate- to high-complexity CLIA labs. The BT coordinator probably can’t handle communication with all laboratories.” He recommended that NLS pilot projects be expanded to all 50 states.

Jan Nicholson, associate director of laboratory sciences at CDC’s National Center for Infectious Diseases, suggested that there might be some “retooling” of the NLS, perhaps with greater focus on electronic transfer of information and/or laboratory certification. But, she said, there is no intent to merge the NLS with the Laboratory Response Network (LRN)—an organized chain of public and private laboratories that employ a standard approach to identify high consequence agents. “The LRN was never intended to be an NLS,” she said. “Nothing is going to replace the LRN.”

Officials elsewhere at CDC indicated in written comments (compiled from staff in the emergency response, LRN and laboratory systems programs) that:

We believe the LRN and the NLS are complementary. That is, working side by side, the nation is better prepared to rapidly and accurately detect and quickly respond to threats to our public health, whether due to acts of terrorism or disease outbreaks. The LRN is a national network comprised of local, state and federal public health, food testing, veterinary diagnostic, and environmental testing laboratories that provide the laboratory infrastructure and capacity to respond to biological and chemical terrorism, and other public health emergencies. The focus of the NLS
is to enhance communication and collaboration among the nation's public health and clinical laboratories thereby facilitating high quality and timely laboratory testing; increased capacities to collect, analyze and distribute data; improved assessment of laboratory practices, equipment and staffing needs; and an effective mechanism for making policy and adopting appropriate guidelines across states and regions.

Officials did not mention any plans to expand the number of pilot sites receiving NLS funding.

A related issue is the link between state laboratory systems and national authorities. Reflecting on the H2N2 incident, Kimsey said, “All in all I think everybody did the right thing, but it’s not necessarily the way it should be done ideally.” Kimsey stressed that his comments should not be taken as criticism of either DHSS or APHL, which he said “did a very good job” and “filled a gap.” But, he added, “The handling of these incidents nationally has to be more institutionalized.” State PHLs, he said “really look to CDC as our parent organization . . . (and) if those connections worked, HHS and APHL wouldn’t have to get involved (in emergency response).” Kimsey suggested that the NLS should be the institutional program to handle incidents like the H2N2 event. “I don’t think APHL is meant to be a crisis management organization,” he said.

Clara Witt, a senior public health advisor in the DHHS Office of Public Health Emergency Preparedness expressed a different view. “I thought the system worked well (to respond to the H2N2 incident),” she said. “There were things that CDC did that only CDC could do—such as looking at the significance of the H2N2 virus strain and working with international partners to control the incident—and there were things that the private sector—APHL, ASTHO—could only do because they’ve got the relationships with the laboratories.” Witt said “In some respects you couldn’t ask for better. The next situation that occurs may not be exactly the same; some partners may change. But the idea of us all working together is certainly a good model.”

Similarly, CDC officials wrote, “CDC along with its public health partners (including APHL, WHO, Public Health Agency of Canada, HHS) and the organizations involved all played ongoing lead roles in the communication, investigation, and follow up recommendations regarding this event. This is typical of a CDC response, to work with all parties that are involved and to provide public health recommendations.”

Said Wisconsin’s Shult, “I think certainly the CDC should be the lead in getting the information out (during a crisis or potential crisis), but the more sources of information I can get the better. I think (information management) is an entirely appropriate role for APHL, a good safety net.”

APHL’s Becker agrees. “Whether we like it or not, it is the role that we play, and by the enormous number of thanks we received, it appears to be beneficial. We are the link between the state and local governmental laboratories and federal authorities, and as such have a role in crisis communications.”

The final set of questions raised by the incident pertain to the operation of the PT program and biosafety practices in small POLs and rapid test sites. Although Meridian did not consider the potential public health impact when selecting this particular strain for PT, all of the state and local laboratory contractors contributing to this article agreed that the incident in no way reflects poorly on the laboratories that received the test kits.

Armour said, “In order to identify something, you have to know what it looks like; that’s part of dealing with unknowns. POLs and clinical labs—they’re the ones who are going to be dealing with people coming in and coughing and spitting, and they’re the ones who are going to have to provide an answer to the physician. Profficiency tests are set up so competent laboratorians can handle them.” The problem, she said was that “no one had oversight over what these contractors put in these test kits. Organizations that do the proficiency testing should have some idea of what’s going into the kits.” Although Armour was hesitant to recommend “more regulation,” she said that better quality assurance and good inventories of pathogen libraries are needed, especially as proficiency testing contractors merge or purchase pathogen libraries.

Kimsey said that any restrictions on sites performing biosafety level 2 testing “would amount to a significant restriction on the health care delivery system” and that this incident “does not point to that need” given the absence of any reported case of H2N2 virus among laboratory workers or the general public. “These rapid test kits are designed and made to be very simple,” he said. However, he advised stricter oversight of PT suppliers and distributors by the US Food and Drug Administration, rather than the CDC.

APHL has recommended that PT providers supply state PHLs with lists of PT customers within their jurisdictions so that state authorities know where testing is taking place. (Historically, these lists have been considered proprietary.)

For its part, the CDC is planning an emergency operations system look-back to come up with recommendations to prevent similar situations in the future. Agency staff indicated that current regulatory language may provide authority for additional government oversight of PT programs. “For example,” official wrote, “under CLIA this may include recommending the PT provider review proposed infectious agent content in its annual program with appropriate CDC experts in infectious disease to ensure that the program’s pathogens are in keeping with Select Agent and biosafety requirements. However, further investigation of this event, when complete, may provide evidence that more specific guidance or other regulatory oversight is needed.” The potential public health impact of PT organisms must be considered as well as the biosafety level of the agent.

In the meantime, Shult pointed out that the incident highlights the role of the PHL as a source of information and technical assistance to both larger sentinel laboratories and smaller test sites that may or may not conduct proficiency testing. “Many sites,” he said “essentially don’t operate under biosafety conditions; tests are conducted on an open bench by non-laboratorian. As a laboratorian I would say it’s not a good thing. But it’s the reality for these point-of-care tests. People using these tests need to be given some basic education in biosafety practices, such as how to minimize aerosol generation, and the use of gloves, gowns and respirators.” Shult said that realistically “no one’s going to be able to require them to do this; there are no biosafety requirements under CLIA waived status and it seems totally unrealistic to change CLIA regulations.” Coming full circle to the issue of outreach and connectivity to private laboratories, he said, “It seems to be a good role for the PHL to begin to educate them to protect themselves.”

APHL
Second National LRN Meeting Addresses Integration, Expansion of Lab Networks

Over 300 participants attended the second national meeting of the Laboratory Response Network (LRN), convened by APHL and CDC in New Orleans in May 2005. The two-and-a-half-day meeting addressed preparedness activities at the international, federal, state and local levels; network expansion; environmental sampling; safety screening and testing of unknown samples; new technologies for the detection of chemical and biological agents; information technology and funding.

**Integrated Consortium of Laboratory Networks**

Dan Sosin, associate director for science at CDC’s Coordinating Office of Terrorism Preparedness discussed the newly formed Integrated Consortium of Laboratory Networks (ICLN).

Ten federal agencies are finalizing an inter-agency memorandum of agreement creating the ICLN, which is envisioned as a structure to facilitate collaboration among federal agencies with laboratory networks responsible for testing samples associated with a weapons of mass destruction event. Such networks have multiplied in the wake of the demonstrated success of the LRN following the 2001 anthrax attacks, and resource and data-sharing across networks is crucial.

The ICLN is made up of the following federal agencies:

- **Department of Agriculture**
- **Department of Commerce**
- **Department of Defense**
- **Department of Energy**
- **Department of Health & Human Services**
- **Department of Homeland Security**
- **Department of Justice**
- **Department of the Interior**
- **Department of State**
- **Environmental Protection Agency**

These agencies will apply the LRN model as a template in developing their laboratory networks and will engage state and local partners in overarching preparedness activities.

**LRN: Growth and Expansion**

Richard Kellogg, CDC’s LRN coordinator, noted that the network has grown significantly since its inception. There are now:

- 147 confirmatory reference laboratories providing identification of 20 biological threat agents in all specimen and sample types.
- 62 laboratories providing access to the identification of 150 chemical threat agents in clinical specimens.
- Over 1700 users at public health, military, veterinary, food, agriculture and environmental laboratories in the US and abroad.

Upcoming LRN activities include a requalification process for all laboratories, an updated LRN database, modeling initiatives for a strategic reagent stockpile, deployment of an electronic laboratory results messenger system to biological laboratories, development of protocols for all-hazards receipt facilities, enhancements to the proficiency test program for reference laboratories and development of new field assays and methods for analysis of bio-threat agents. Perhaps the most serious problem now facing the network is an ongoing shortage of testing reagents. Scott Becker, APHL executive director, noted that APHL is working with policymakers to identify funding to support the growing reagent needs of the LRN and other networks that will rely on LRN reagent supplies, adding that the prospects for immediate funding remain uncertain.

**Food Emergency Response Network (FERN)**

John Marzilli, deputy associate commissioner of the FDA’s Office of Regulatory Affairs, explained that the FERN was formed to integrate the nation's food testing laboratories to expedite detection of threat agents in food items. The network—which is jointly overseen by the FDA Office of Regulatory Affairs and the USDA Food Safety and Inspection Service—has five components:

- Detection of biological, chemical, and radiological agents in food
- Prevention of foodborne illnesses through surveillance programs
- Preparedness through the enhancement of laboratory capabilities and capacities
- Response through an effective network of capable laboratories
- Recovery.

FERN is currently collaborating with the LRN to harmonize methods for the analysis of biological agents in food matrices. Marzilli noted that FERN training exercises and proficiency testing will be conducted on a more frequent basis.

**EPA Update**

EPA’s homeland security initiatives include a proposed laboratory network, the e-LRN, that will be capable of analyzing environmental samples for chemical threat agents. Allan Antley, with the EPA Region IV Science and Ecosystem Support Division, explained that the e-LRN will be built upon both LRN and FERN constructs, and include four pillars:

- Capacity and capability
- Science and technology
- Laboratory network and program coordination
- Planning and management.

**National Animal Health Laboratory Network (NAHLN)**

Randall Levings of the National Veterinary Services Laboratory discussed the National Animal Health Laboratory Network and called for greater collaboration among federal and state partners. The NAHLN comprises 14 federal- and state-funded veterinary diagnostic laboratories that deal with an assortment of animal diseases, including exotic and emerging diseases. NAHLN receives limited funding from the USDA and is building testing capability for foot and mouth disease, classic swine fever and avian influenza. Levings
said the NAHLN will be part of the ICLN to better integrate the detection of threat agents and emerging zoonotic infections in human and animal specimens.

Environmental Sampling, Safety Screening and Testing
A half-day was set aside to address the concerns of state and local public health laboratories related to testing of environmental samples. Meeting participants discussed the lack of standard methods and guidance for first responders and urged Department of Homeland Security representatives Dennis Reutter and Robert Zimmerman to work with partners to validate equipment and develop standard guidance for first responders charged with collecting environmental samples.

Dennis Reutter from the Edgewood Chemical Biological Center described two pilot all-hazards receipt facilities (AHRFs) that were funded by DHS and EPA and will be placed at New York’s Wadsworth Center and EPA’s Region I Laboratory in Massachusetts. These facilities are designed to enable the safe intake and screening of unknown, potentially hazardous samples for radiation and volatile chemicals prior to their transport into the fixed LRN reference laboratory for further biologic and chemical analysis.

Examples of State Preparedness Activities
Surge Capacity – Sally Beatrice, associate commissioner of the New York City Public Health Laboratory, noted that her laboratory has taken many steps to address surge capacity needs, such as shift rotation, cross training, and prioritizing sample analyses. Beatrice updated meeting attendees on the efforts of the APHL Emergency Preparedness & Response Committee to assess LRN surge capacity. A survey was developed and piloted in late 2004; however, preliminary results indicate that the survey tool failed to capture the complexity of intake and testing issues that each laboratory must consider. The survey will be reworked in the coming months with input and support from APHL members and CDC.

Hand-held Devices – Beatrice noted that New York City prohibited the use of hand-held devices for detection of biological agents in clinical or environmental samples following several high-profile incidents in which the devices yielded false results. APHL’s Emergency Preparedness and Response Committee is working on a position statement, emphasizing the need for a lead federal agency to validate rapid test kits and devices for analysis of chemical and biological agents in the field.

Protocols for Biological Agent Testing in New York State – Christina Egan of the New York State Department of Health said a lack of adequate triage of white powder samples in the field results in unnecessary analysis of low risk samples, potentially overwhelming public health laboratories and delaying the testing of high-priority samples. The New York public health laboratory’s biodefense laboratory has tried to minimize this problem with the publication of CODE RED, a pocket tri-fold that establishes criteria for bioterror risk assessment by first responders.

Chemical Terrorism Preparedness Outreach in Florida – France explained that the Florida Bureau of Laboratories has been involved in training exercises with sentinel laboratories. The laboratories in the sentinel facilities and first responders have been trained on appropriate sample collection and packaging methods.

Minnesota’s Tiered Approach to All-Hazards Laboratory Testing of Unknown Environmental Samples – Paul Moyer and Maureen Sullivan of the Minnesota Department of Health discussed the state laboratory’s efforts to expedite and standardize analysis of environmental samples.

One of the highlights on the LRN National Meeting was a Grantee Luncheon, where Alison Johnson, Director, Division of State and Local Readiness, CDC’s Coordinating Office for Terrorism Preparedness and Emergency Response, addressed questions about the new CDC Preparedness Cooperative Agreement.

Break-out sessions provided expert technical assistance and guidance on chemical and biological terrorism laboratory activities, which included updates on proficiency testing, new technologies, law enforcement requirements, quality assurance and control. Additional plenary sessions addressed new advances in information management and epidemiology-laboratory linkages. Charles Brokopp, Director of CDC’s Select Agents and Toxins program, and LeeAnn Thomas, Director of the USDA’s Select Agent Program and Veterinary Services, spoke about regulatory issues, including the recently released Select Agent Final Rule and the USDA/Animal and Plant Health Inspection Service requirements for the importation of animal pathogens. Attendees expressed numerous concerns about the ambiguity in USDA/APHIS regulation 9 CFR part 122.

This meeting provided an excellent forum to engage both the chemical and biological terrorism coordinators from LRN member laboratories in discussions with the growing number of federal agency partners involved in detection of threat agents, as well as numerous opportunities for technical and operational questions to be answered by various experts.

APHL thanks the LRN National Meeting Planning Committee for its invaluable work developing the meeting program. Special thanks to Terry Reamer, CMP, meeting manager, APHL, Linette Granen, marketing manager, APHL, and Linda Lawrence, administrative operations assistant, Bioterrorism Preparedness & Response Program, CDC. Presentations approved for distribution will be shared with meeting participants. For more information, contact Chris Mangal, emergency preparedness and response program manager, at cmangal@aphl.org or 202.822.5227 x244.

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Shortage of LRN Reagents Compromises Nation’s BT Preparedness
APHL Members, Staff Meet With Congressional Leaders In Effort to Boost Funding

In an effort to gain federal funding to boost the supply of reagents maintained by CDC, several APHL members met with their states’ congressional staff to explain the urgency of the situation during APHL’s Hill Day in April. Since then, association staff have been working with others in the community that share an interest in an adequate reagent supply. This joint effort has resulted in a series of meetings with the staff for the leadership of the House and Senate Labor, Health and Human Services, and Education appropriations subcommittees, and with staff for senators representing CA, IL, MD, OH, PA, TN, TX and WI. APHL will continue to explore avenues to underscore the importance of a sufficient LRN reagent supply, without which the nation’s response to a major outbreak will be severely compromised.

Conferences

Chinese Symposium on National Lab Response Cites LRN as ‘Model for Collaboration’

China’s public health system was thrust into the international limelight during the SARS outbreak in 2003. Its rapid response to this outbreak was crucial to containing the disease both locally and globally. Since then, China has been working to strengthen laboratory capacity for disease detection and management and, with support from the World Bank, begun building a public health laboratory network for emergency response.

In May international experts convened in Beijing to contribute to this effort at a meeting sponsored by the Chinese Ministry of Health and the WHO. The meeting—Symposium of National Laboratory Response Network for Biological Agents Associated with Public Health—drew representatives from the China Centers for Disease Control and Prevention, UK Health Protection Agency, Canadian Public Health Laboratory Network, WHO Lyon and other groups. Representing APHL were Eric Blank, director of the Missouri State Public Health Laboratory and chair of APHL’s Global Health Committee, and Yvette Benjamin, director of global health.

Blank led a discussion of US laboratory networks, emergency response and surge capacity, during which he emphasized the importance of maintaining a sound and efficient public health laboratory system as the foundation for a laboratory emergency response network. Blank and Benjamin highlighted the success of the Laboratory Response Network (LRN) in responding to the anthrax attacks of 2001 and other biological threats.

Other topics included designing a comprehensive public health laboratory network, core network competencies, disease surveillance in China and quality assurance.

APHL staff are working with partners to identify priorities for establishing a public health laboratory network for emergency response and convey their recommendations to the Chinese Ministry of Health. For more information, contact global health staff at globalhealth@aphl.org.

APHL Members Contribute Abstracts to 3rd Annual PHIN Meeting

Five APHL members contributed abstracts to the third annual Public Health Information Network (PHIN) stakeholders’ meeting, convened in Atlanta in May: Wanda Andrews, assistant director of the Virginia state laboratory; Bob Bostrom, an executive with Kansas public health laboratory; Jack Krueger, chief of the Maine Health and Environmental Testing Laboratory; Gary Jones, information systems manager at the Minnesota public health laboratory; and Dari Shirazi; information technology manager at the University of Iowa Hygienic Laboratory.

APHL and CDC jointly planned the conference’s Laboratory and Information Management track, which featured sessions on LIMS integration, data standards and implementation of electronic laboratory reporting.

The roughly 1,100 conference participants represented a wide range of local, state and federal public health professionals from the public health commissioner level to the laboratory bench scientist to the seasoned information technologist, giving life to the conference theme, “Convergence and Partnerships in Health Information.” CDC Director Julie Gerberding and David Brailer, the national health information coordinator, were among the keynote panelists.

All conference presentations are posted at www.cdc.gov/phin. For further information on the conference or APHL informatics initiatives, contact Patina Zarcone, director of strategic initiatives and research, at pzarcone@aphl.org or 617.569.9612.
Enviromental Public Health Tracking Conference

CDC’s second annual National Environmental Public Health Tracking (EPHT) Conference highlighted the role of the public health laboratory as the common thread connecting various EPHT stakeholders, including epidemiologists, environmental health professionals, academics and others. The conference, held in Atlanta in April, boasted a theme of “Vision to Reality,” underscoring recent EPHT advances.

State public health laboratory biomonitoring programs and EPHT efforts are, in many ways, mutually dependent activities. Laboratory-based biomonitoring is the most accurate method available to obtain human exposure data. This data, in turn, supports multi-partner EPHT initiatives to promote environmental health surveillance and the development of policies and plans to address adverse health effects associated with environmental exposures. Laboratory integration into EPHT efforts will become increasingly important as the CDC’s EPHT program progresses.

At the conference, information-sharing was highly encouraged among meeting participants to foster integration and the sharing of successful tactics to merge environmental and health information to better guide public health practice and policy. Participants had ample opportunities to share notable EPHT project findings, and in so doing, to strengthen the relationships needed to build EPHT networks at the local, state and national levels.

Keynote speakers included Julie Gerberding, CDC director and administrator of the Agency for Toxic Substances and Disease Registry; Irva Hertz-Picciotto of the University of California at Davis Department of Health Sciences; and Jeanne Rizzo, executive director of the Breast Cancer Fund. Breakout sessions were organized around the five EPHT program goals:
- Build a sustainable national EPHT network.
- Enhance EPHT infrastructure.
- Disseminate credible information to guide policy and practice to improve health.
- Advance environmental public health science and research.
- Foster collaboration among health and environmental professionals.

Specific topics discussed included air and water contaminants, network issues, data-linking tools, state and local partnerships, environmental justice, traffic, policy, data sharing/transfer, lead poisoning and risk communication.

For more information contact Lauren DiSano at ldisano@aphl.org, or 202.822.5227, x204.

FBI Sponsors Agroterrorism Symposium

In May 2005, the FBI sponsored the first International Symposium on Agriculture, in Kansas City, MO. The conference was an unexpected success, even to its organizers, bringing in a contingent of over seven hundred participants from academia, law enforcement, agriculture and food processing industries, scientific community, health and medical, and government, as well as representatives from seven countries. As laboratories would play an important role in detection and analysis during an agroterrorist event, APHL will take pains to continue to be informed and provide a strong laboratory voice on agroterrorism issues. Representing APHL at the conference were Duane Boline, director of the Division of Health and Environmental Laboratories, Kansas Department of Health and Environment, and Jeremy Gillissen, APHL food safety program manager.

The most telling and consistent feature of the conference's speakers was astonishment at the number of participants mingled with relief at the significant interest the topic of agroterrorism had clearly garnered. Such relief was understandable, as the speakers were clearly aware of the devastating potential for economic harm that could be caused by a successful attack against agriculture or the US food supply.

In the US, agriculture is particularly dense, with high concentrations of food and livestock representing not only specific targets, but carriers of the most likely sources of contamination: biological or chemical agents. Tightly-packed feedlots and animal transportation routes, and the ease of transportation, as well as highly-centralized distribution of food could make the spread of disease difficult to contain. Should the contagion be biological, there is relatively low risk to the person introducing or carrying the agent – many of the diseases that could be extremely damaging to livestock are not zoonotic, the potential for spread is great, and the agents themselves are relatively easy to obtain and deliver (being endemic in other parts of the world). With food items representing roughly 20% of all imports, and with over 2 million farms averaging 500 acres, there are simply no widespread effective security measures. The strongest security tools available, in addition to traditional law enforcement
methods, are industry and farmer awareness, and early detection and fast response.

However, governmental response may serve to multiply the damage, or, at the very least, the perception of damage. A notable example at the conference came from a case study of the 2001 outbreak of Foot and Mouth Disease in Britain. During a frank and compelling presentation, Ann Waters, Head of Contingency Planning in the State Veterinary Service, Department for Environment, Food and Rural Affairs, UK, described the culling and slaughter of infected and exposed cattle which characterized the UK response to the outbreak. In addition to the problems inherent in disposing of thousands of animal carcasses, the UK also had problems identifying what constituted fair market value for the cattle it slaughtered. Given that the beef market had been routed by the outbreak, farmers whose livestock escaped unscathed found no way to sell, leaving many with the belief that they had fared poorly compared to those who received government payments for their slaughtered cattle.

Slaughter of infected or exposed animals, which was widely unpopular with British farmers, remains the primary response strategy in the UK, due to concerns about the economic impact of the disease. Nonetheless, the disease is rarely fatal, and in the US, where agriculture is estimated to make up 18% of domestic employment and account for a significant portion of the national economy, a slaughter response may do more harm than good.

Regardless of how the US chooses to respond to attacks against agriculture or the food supply, early detection of outbreaks or chemical contamination, rapid confirmation from laboratories, and smooth and coordinated response are critically important. The very features that make the US food and agriculture sectors vulnerable to attack (labeled centralized food supply, concentrations of livestock and produce, and highly efficient and fluid movement of livestock and produce) also make help to ensure low-cost, high-quality food is available to the nation, and the sectors themselves are too vast to effectively police. With rapid detection and coordinated response, attacks against agriculture or food can be limited and contained.

For more on the International Symposium on Agroterrorism, see www.fbi-isa.org.

**PulseNet**

**Ninth PulseNet Update Meeting Successful**

The 2005 PulseNet Update Meeting provided an important opportunity for laboratorians to build relationships with foodborne epidemiologists at the local, state and national levels; relay up-to-the-minute technical information on PulseNet laboratory methods and software; and discuss real-world applications of molecular subtyping of foodborne pathogens.

The agenda included small group break out sessions and encompassed such topics as selection and prioritization of subtyping activities, communication technologies, PFGE and next-generation protocol validations, QA/QC initiatives, CLIA issues for PulseNet laboratories and PulseNet interactions with other public health networks.

This year’s meeting theme, PulseNet: Molecular Epidemiology in Action, reflected the co-location of the First National Foodborne Epidemiologists Meeting (NFEM). A joint plenary session addressed epidemiologic standards for national food safety, legal implications of foodborne outbreaks, timelines for enteric disease investigations, and outcomes of cluster investigations in 2004. The plenary was followed by a breakout session on issues pertaining to laboratory practice, foodborne epidemiology practice and data management.

Over 180 laboratorians representing the United States, Canada and 12 other nations participated in the PulseNet Update Meeting, while 130 epidemiologists attended the NFEM.

APHL expresses its thanks to meeting hosts from the Washington State Department of Health, including State Health Officer Maxine Hayes, State Laboratory Director Romesh Gautom, and Laboratory Supervisor David Boyle, all of whom shared their perspectives on the history of PulseNet and the importance of foodborne disease investigations and assisted with meeting planning.

The proceedings of both meetings are at www.aphl.org/conferences/proceedings.cfm, along with information about the 10th Annual PulseNet Update Meeting, to be held in Miami April 4-6, 2006.

**Next Generation of E. coli, Salmonella, and Listeria Test Methods**

Building on research completed by Sandy Smole of the Massachusetts State Laboratory Institute, CDC’s Eija Trees is leading the validation of next-generation PulseNet methods for *E. coli* O157:H7. The method being validated is Multi-Locus VNTR Analysis (MLVA), and 9 VNTR loci are included in the final CDC protocol for *E. coli*. Current *E. coli* outbreaks and clusters are being investigated using both PFGE and MLVA to determine the relative discriminatory power of the methods.

Development of MLVA protocols for *Salmonella typhimurium* and *Salmonella enteritidis* continues at the Minnesota Department of Health under Kristin Pederson Gulrud and Joanne Bartkus. Additional work on a MLVA protocol for *Listeria monocytogenes* is being done by Leslie Wolf at the North Carolina State Laboratory of Public Health.

The CDC implementation strategy for next-generation methods includes internal and external validation of the *E. coli* protocol in 2005 (including collaborative studies with four public health laboratories), deployment of the *E. coli* protocol to a small number of public health laboratories in 2006, internal and external validation of the Salmonella protocols in 2006, continued deployment of the *E. coli* and Salmonella protocols in 2007 and internal and external validation of the *Listeria* protocol in 2007. APHL will share information on collaborative validation study opportunities as it becomes available.

**Regional Meetings Continue to Foster Partnership**

Ongoing PulseNet regional meetings improve foodborne disease surveillance and response by uncovering state and regional PulseNet issues, strategically addressing these issues and increasing communication among and within state health departments. Since January, two additional PulseNet areas held regional meetings involving PulseNet laboratorians, laboratory managers and foodborne disease epidemiologists.

Over 50 PulseNet participants from the nine southeast area PulseNet laboratories (including Puerto Rico and Hawaii) met...
Federal Funding Formula for TB Control Sidesteps PHLs

Direct funding for public health laboratory activities to support the prevention, treatment and control of tuberculosis (TB) has been steadily eroded over the past decade, threatening the nation’s progress in containing the disease, especially the newer strains of multidrug-resistant TB. Funding dedicated to TB programs in FY 2005—a separate line item from direct laboratory funding—was not directly appropriated for health department TB programs to laboratories. Yet several state public health laboratories, including some with high case numbers, are slated to receive additional reductions ranging from 1% to 13%. Alarmed by these cuts, APHL sent a letter to CDC’s chief operating officer, William Gimson, outlining its concerns, and delineating the vital role of the laboratory in supporting TB diagnosis and treatment through confirmatory and drug-susceptibility testing. (Despite fluctuating case numbers, laboratories must maintain a base level of staff, training and equipment/supplies to guarantee accurate and reliable TB test capabilities.) Several state laboratory directors have also written letters expressing concerns. As of July, APHL is still awaiting Gimson’s response.

During CDC’s Division of TB Elimination (DTBE) funding Web conference in May, officials informed state TB control programs about congressional appropriations for health department TB programs in FY 2005—a separate line item from direct laboratory TB funding. A modest increase of $2.644 million (prior to overhead and rescission) is meant to ensure that no state receives less funding than it received in FY 2004. Unfortunately, “TB control” is not clearly defined in the appropriations language and, despite efforts by APHL to include the public health laboratory as an essential part of core TB control; CDC interpreted the language as referring only to TB programs. While the redistribution of funds from health department TB programs to laboratories was not directly discussed, agency officials implied that all of the increased funding provided by Congress will be funneled into the TB programs to offset funding reductions from FY 2004 to FY 2005. The conference is available at www.mymeetings.com/nc/join.php?i=PR7027723&t=r.

A possible result of communications from APHL, DTBE officials have stated that they will attempt to include the laboratory in all future appropriations language to avoid misinterpretations. APHL will continue to advocate the role of the public health laboratory in TB control to Congress and CDC, and will continue efforts to partner with the National TB Controllers Association (NTCA) and CDC to develop better mechanisms for equitable funding distribution. APHL’s recently established TB Steering Committee, which includes representatives from CDC, NTCA and the private sector, will discuss strategies to address the current laboratory funding formula.
More Problems with bioMérieux Vironostika HIV-1 Oral Fluid EIA Addressed

In the last issue of the Minute, APHL indicated that bioMérieux was experiencing problems with supply of the serum Vironostika HIV-1 EIA. Shortly after this article went to press, APHL discovered that many public health laboratories were unable to obtain oral fluid Vironostika HIV-1 EIA test kits as well. BioMérieux representatives organized a conference call in April with staff from CDC, the National Alliance of State and Territorial AIDS Directors, OraSure Technologies, and APHL to discuss supply and performance problems of the oral fluid kit.

Company representatives noted that shipping delays for the oral fluid kits were caused by a change in the manufacturing protocol implemented as a result of an FDA audit in March 2005 and problems with raw materials. The company assured APHL that the raw materials problems have been addressed and all public health laboratory backorders should have been filled.

The representatives also addressed some of the performance problems of the oral fluid kit that have been brought to light in the past several months. APHL reported that many state public health laboratories were obtaining results with the oral fluid kit negative controls that were higher than expected, occasionally even exceeding manufacturer's upper limits, resulting in failed test runs. BioMérieux stated that it was able to reproduce the negative control problems that were apparent in the field and is now aligning its testing instrumentation to better monitor such problems in the future. APHL also voiced concerns of the stability of the kits. The company reported that it is implementing additional internal measures to better monitor the stability of the kits.

If you are still experiencing shortages in the supply of Vironostika HIV-1 kits or have continued problems with serum/plasma and/or oral fluid kit performance, immediately contact Anthony Tran, HIV, STD, TB program manager, at atran@aphl.org or 202.822.5227 x229, and your bioMérieux technical support representative.

Newborn Screening & Genetics

APHL Commends National Guidelines, Argues Against Federal Enforcement

In March, HHS released draft national guidelines detailing a minimum recommended set of newborn screening (NBS) tests for inclusion in all state newborn screening programs. These guidelines represent the first federal guidance to help states decide which conditions are most appropriate for newborn screening. They recommend that state NBS screening programs mandate screening for 29 core panel conditions, mandate reporting of 25 secondary target conditions (and of any abnormal results that may be associated with them) and maximize the use of multiplex technologies.

The guidelines are part of a comprehensive report, Newborn Screening: Toward A Uniform Screening Panel and System (http://mchb.hrsa.gov/screening), that relies heavily on work performed by the American College of Medical Genetics (ACMG) under contract to the Health Resources and Services Administration (HRSA). Screening recommendations are based on analysis of the scientific literature on the effectiveness of newborn screening, as well as expert opinion on the best evidence for screening for specific conditions.

When the Secretary’s Advisory Committee on Heritable Disorders and Genetic Diseases in Newborns and Children met this past April, APHL board member Frances Downes presented the association’s statement to the committee. Downes commended HRSA, ACMG and the advisory committee for their respective efforts to help produce and finalize the new guidelines, she emphasized the under-utilization of information technology—a problem that APHL has been working to address—and offered the association’s assistance in this area.

Downes reviewed the origin of newborn screening programs, which were established by each state to serve its own population, and cited the HRSA report’s assertion that “States also must retain their significant roles and responsibilities. They have clear authority with regard to oversight and evaluation, as well as enforcement.” She pointed out that current discussions regarding accreditation of public health agencies and licensure of laboratorians could result in federal legislation that would change federal-state relationships, paving the way for national oversight of newborn screening. Said Downes, “While APHL appreciates the need for national leadership, it remains unconvinced that such leadership can be achieved by oversight and enforcement.”

Instead, she suggested that federal guidance—such as that provided by CDC’s NBS quality assurance program—come in the form of tools for self-assessment, evaluation of disorders to be added to screening panels, and integration of systems.

Downes’ statement to the Advisory Committee and APHL’s comments to HRSA on the report, are posted at www.aphl.org/programs/newborn_screening_and_genetics/. For more, contact Jelili Ojodu, newborn screening and genetics program manager at 202.822.5227x235 or jojodu@aphl.org.
From mid-April through early June, nearly 30 public health laboratory leaders representing 20 states, several counties and the District of Columbia participated in three regional leadership forums sponsored by the National Center for Public Health Laboratory Leadership (NCPHLL). Public health leaders converged in Phoenix, Washington, DC, and Chicago to participate in the two-day forums, which included a media training workshop and dialogue on pressing issues including recruiting and retaining staff in the midst of serious workforce shortages, development of a core curriculum for public health laboratory (PHL) leaders, creation of a mentoring process and identification of an APHL research agenda.

Merrick Communications guided PHL leaders in all three venues through media exercises to equip participants with the skills to effectively communicate key messages to the public, decision makers and other audiences. Videotaping allowed faculty and participants to critique participant performance in simulated interview sessions. Each leader received one-on-one coaching to build confidence, hone message development and enhance on-camera poise.

In each forum, day two served as a “think-tank” on leadership-building through development of a core curriculum for PHL leaders, the utility of A Practical Guide for Public Health Laboratory Leaders and development of a research agenda to promote the roles and value of PHLs.

The Phoenix meeting included a guided tour of the new AZ PHL, its state-of-the-art construction and instrumentation, modern architectural style and spacious conference and training areas. The Washington, DC, and Chicago forums attracted state and county laboratorians and reaffirmed the similarity in the challenges faced by public health laboratories on both levels: funding shortfalls, workforce shortages and management of competing mandates and priorities.

The Chicago forum featured a presentation by APHL’s informatics/knowledge management and strategic initiatives/research staff. The group discussed challenges and successes of implementing LIMS, strategies for harvesting compiled data and ways to articulate APHL positions and identify a research agenda. Thanks to Patina Zarcone, Jim Ford and Jim Hidalgo for crafting a compelling and thought-provoking session.

Participants said they found the opportunity to engage in focused discussions to promote strategic thinking and long-range visioning invaluable.

Kati Kelley, incoming APHL president, attended the DC forum where she outlined her goal to devise strategies to “fast track” laboratory scientists into the leadership positions soon to be vacated by large numbers of retiring laboratory scientists.

Mike Kimberly, director of the TN PHL, stressed a need to promote the PHL beyond “our own circle” in order to gain recognition and funding and to interest future scientists in a public health career. Said Kimberly, “We need to quit preaching to ourselves and deliver our message effectively to key external stakeholders who can add their considerable support and voice. Take a lesson from the nurses!”

Thanks to the NLTN Chicago Office for participating and recording the forum.
Public Health Labs Celebrate National Lab Week

National Medical Laboratory Week (NMLW) was celebrated April 24-30 with the theme *Laboratory Professionals: The Heart of the Medical Investigation Team*. Each year, the last week of April is set aside to recognize the roughly 270,000 medical laboratory scientists in the US. As one of the nine organizational sponsors of NMLW, APHL received buttons, posters and T-shirts, which it forwarded to all of the laboratory state training coordinators (STCs). APHL is proud to be a sponsor of NMLW and will continue to support the professionalism and dedication of public health laboratory professionals. Following are examples of celebrations.

**Iowa**
Festivities included a potluck luncheon and awards ceremony for laboratory employees, reports STC Beth Hochstedler.

**Kansas**
PHL staff celebrated with a laboratory gathering, a speech by the laboratory director and games and goodie bags for everyone. Stacey Sandstrom reports that, although the laboratory is like the man behind the curtain in the Wizard of Oz, she works there “knowing Kansans are healthier because of our laboratory.”

**Massachusetts**
The State Laboratory Institute began the week with a teleconference for clinical laboratory scientists, entitled “What Every Lab Should Know about Chemical Terrorism.” STC Garry Greer writes that activities included raffles, theme days, abundant food and technical presentations on topics ranging from “The Captain of All These Men of Death” (from the TB laboratory supervisor) to “Developing an Integrated Zoonotic Disease Surveillance System” (from the state public health veterinarian).

**Mississippi**
The Mississippi Health Department advertised NMLW via posters and an article in the agency newsletter, reports Regina Marshall, STC. The state’s annual Lab Week luncheon, provided by laboratory supervisors, featured speeches by both the state health officer and laboratory director.

**New Mexico**
In-service presentations and a reception with prizes highlighted the week for laboratory workers at the New Mexico Department of Health. In addition, Melissa Bell, bioterrorism coordinator, notes that the laboratory hosted a BSL-3 open house and tour (since testing has not yet begun in the new facility).

**North Carolina**
NMLW was dubbed Public Health Laboratory Week by the staff of North Carolina State Laboratory of Public Health. Contests and activities included random prize drawings and posters created by staff in each section of the laboratory to describe what they do. Jennifer Johnson, laboratory improvement consultant, noted that organized activities included a disaster preparedness seminar by the American Red Cross.

**North Dakota**
The North Dakota Public Health Laboratory celebrated NMLW with food, fun and games, including an employee contest in which the goal was to match people with pictures of their feet, writes Jan Trythall, the laboratory’s bioterrorism coordinator. Employees were awarded jump drives during the week in appreciation for all their hard work.

**Oklahoma**
The Oklahoma celebration began with the sanction of the state’s highest official: Governor Brad Henry, who signed a proclamation for NMLW. The state laboratory hosted an employee luncheon and John Murry, Oklahoma bioterrorism program advisor, reports that the state media department shot stock footage of the laboratory for use in later promotions.

**Oregon**
The Lab Week celebration was highlighted by the unveiling of the Oregon Laboratory Response Network to the 200 Oregon biological and chemical terrorism preparedness contacts statewide. Teresa McGivern, the state bioterrorism coordinator, notes that the first ten laboratory workers in the clinical community to access the secure state LRN Web site won Lab Week t-shirts, buttons and posters. Laboratory managers provided a pizza party for all laboratory employees.

**Utah**
The Utah state laboratory sponsored a kick-off social for the week, with display tables for each laboratory section and guests from other areas of the health department. STC Rebecca Christiansen notes that among the displays for bioterrorism, HIV testing, microbiology, parasitology, virology and mycobacteriology, the hit of the show was the toxicology program’s blood alcohol collection kit and poster of illegal drug plants. Roughly 71 people attended the social.

**West Virginia**
Sharon Cibrik, STC, reports that the West Virginia public health laboratory distributed posters to 100 middle and high schools for display in science classes. A letter accompanying the posters touted the profession of laboratory scientist and offered speakers for career days.
NLTN's Chicago Office presented an audio-conference series with Janet Hindler on antimicrobial susceptibility testing in cooperation with the Minnesota Department of Health, the North Dakota Public Health Laboratory, the University of Iowa Hygienic Laboratory, the Nebraska Public Health Laboratory, the Michigan Department of Community Health and the Wisconsin State Laboratory of Hygiene. The audio-conference series, consisting of four 90-minute sessions, was a substitute for the day-long workshop usually held. This flexible format illustrates how state public health laboratories and NLTN are responsive to consumer training needs.

With the increased shortage of personnel, increased workload and decreased funding for continuing education programs, it has become difficult for laboratory personnel to attend all-day workshops. The audio-conference series, reaching scientists in six states, provided a way for laboratorians to listen to the program at their workplace, minimizing time away from the job. Participants were able to download presentation handouts from the Internet and listen to the conference over the telephone. Also, by providing the information in an audio-conference format, registration fees were eliminated.

Attendance at these programs validated our selection of delivery format. There were approximately 620 participants for each of the four audio-conferences. Participants approved of the new format:

"Thank you for broadcasting these seminars. Our administration has trimmed us to the bones. No continuing education budget, no resources for continuing education, and hardly enough staffing to listen to seminars. You are providing a service that is really a lifeline to those of us drowning under budgetary, staffing and time constraints."

The format of this audio-conference series proved to be a useful, desired and appreciated means of delivering information to the laboratorians and collaboration between state public health laboratories and NLTN to provide training for laboratorians.

Not Afraid of Change: Responding to Evolving Training Needs

As of April 2005, laboratorians representing 48 state public health laboratories and the District of Columbia have received intensive, hands-on training in “Modern Methods for Influenza Detection and Subtyping,” a collaborative initiative of APHL, the NLTN and the CDC Influenza Branch. Curiously, courses presented in May 2004, October 2004 and April 2005 all coincided with a high-profile influenza event—the emergence of H5N1 as a human pathogen, the influenza vaccine shortage and the call for destruction of H2N2 proficiency test survey samples.

Instructors from CDC’s Influenza Branch included Dr. Nancy Cox, Ann Moen, Dr. Alexander Klimov, Dr. Stephen Lindstrom, Amanda Balish, Henrietta Hall, Lynnette Brammer, Dr. Niranjan Bhat and Alicia Postema. Dr. Peter Shult of the Wisconsin State Laboratory of Hygiene, Sandy Jirsa of the University of Iowa Hygienic Laboratory and Richard Green of CDC’s Office of Health and Safety also served as instructors. The Georgia Public Health Laboratory graciously provided training space.

The training equipped attendees in use of traditional and molecular laboratory testing methods, with the anticipated result of improved influenza surveillance and greater capacity to respond to a pandemic. State laboratories are encouraged to use the materials from the course to train laboratory practitioners from local public health, clinical laboratory and medical communities.

APHL Collecting Member Notes for The APHL Minute

APHL is seeking news from our members to share with the APHL community in our bi-monthly newsletter, The APHL Minute. If you have, or know of a fellow APHL member who has recently experienced a career milestone, been in the news, or been the recipient of an award or other special recognition, please let us know. Send brief notices, 2-3 sentences, to Anna Dillingham at adillingham@aphl.org. We will include member notes in upcoming Minute issues, as space is available.
EID Fellows Contributing in State Laboratories Across the Country

APHL fellowship staff visited five state-based EID fellows at their host laboratories in Delaware, Massachusetts and Washington. Laboratory tours and meetings with fellows and mentors provided first-hand evidence of the kinds of fellowship experiences afforded in the various states. Site no longer unseen, fellowship staff confirms that EID fellows are thriving at state laboratories across the country.

Kimberly Cook, a training fellow at the Delaware Public Health Laboratory (DPHL), recently completed a rotation in the influenza section. Cook also worked with the laboratory’s bioterrorism coordinator on select agents Francisella and Brucella. She has published abstracts in the Labator, a local publication serving laboratory and health professionals in the state, and presented an abstract and poster entitled, “Brucella melitensis in the Age of Select Agents” at the March APHL Infections Disease conference in Orlando. Cook expressed enthusiasm about the quality of training and attention she has received at the DPHL. The lab has hosted two EID fellows to date.

At the Massachusetts Department of Public Health, State Laboratory Institute (MSLI), training fellow Cate Speake has had the opportunity to participate in a WHO-funded TB project with her mentor Alex Sloutsky. WHO has designated the Massachusetts State TB Laboratory as one of 20 supranational laboratories worldwide, allowing the lab to conduct a variety of international activities such as collection and reporting on the incidence and prevalence of drug resistance for its Global TB Surveillance Program. Speake spent a week at the TB laboratory in the Peruvian National Institute of Health in Lima, where she validated the laboratory’s performance of the APP method of drug sensitivity and worked with technicians to improve laboratory techniques and reporting. Speake’s involvement with the WHO project has enabled her to participate in novel research along with traditional diagnostic testing rotations at the state laboratory. She is working on abstracts to be submitted to the International Union Against TB and Lung Disease Meeting in Paris in October and the International Conference on Antimicrobial Agents and Chemotherapy in September. Speake will begin a doctorate program in pathobiology at the University of Washington in the fall.

The Washington State Department of Health is host to three EID fellows this year. In addition to their respective laboratory research projects, training fellows Christina Conrardy and Patrick Sutton have taken advantage of the numerous conference and training opportunities. Conrardy recently submitted posters to both the International Union of Microbiological Societies Conference and the 7th International Meeting of Microbial Epidemiological Markers. Sutton received training at the Harborview Medical Center and attended the Arctic Science Conference in Anchorage. Both Conrardy and Sutton attended the Northwest Coastal Medical Microbiology Conference in Vancouver as well as various seminars at the University of Washington. International EID fellow Seonghan Kim began his fellowship in February, studying antibiotic resistance in bacterial gastrointestinal pathogens. He plans to use his new skills when he returns to his native Korea following the fellowship.

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EID Fellow Assists in Multi-Village Pneumonic Plague Outbreak Investigation in Madagascar

Research fellow Jennifer Bracher recently spent a month in Madagascar as a CDC supervisory clinician/epidemiologist. The ongoing project has aims to 1) compare the efficacy of streptomycin versus gentamicin in the treatment of plague and 2) evaluate a rapid dipstick test to diagnose plague in patients with suspected illness. Upon arrival in Madagascar, Bracher assisted an epidemic intelligence service officer with a pneumonic plague outbreak. Her background as a medical doctor proved valuable during the study. Said Bracher, “My stay in Madagascar was invaluable for the knowledge I obtained not only in epidemiology but in observations of the health care system in a resource-poor country, interactions with native clinicians and participation in the treatment of several patients with bubonic plague. I now have a better appreciation of the complexities involved in defining and validating an outbreak of an infectious disease and treating patients with bubonic plague. This is an experience that I have wanted since my first days as a young student in freshman microbiology class.”

Addition to Delaware Lab Provides CT, Expanded Bioterrorism Capabilities

On April 28, 2005, the state of Delaware upgraded its readiness to respond to health emergencies with the opening of new facilities at the state public health laboratory. A chemical terrorism laboratory provides unprecedented capability to detect metals, cyanide and nerve agents in clinical samples; a redesigned biosafety level 3 lab offers 100-square-feet of additional, reconfigured work space and new testing equipment.

In remarks at the dedication ceremony, Scott Becker, APHL executive director, commended the Delaware lab for its role in the state’s collaborative newborn screening program, which combines the resources and expertise of public health laboratorians, state maternal and child health professionals, physicians and parents to ensure continuity between testing and treatment. Despite such advances, cautioned Becker, state laboratories, including Delaware’s, continue to struggle to support basic infrastructure, new technologies and collaboration across laboratory systems. None can test chemical agents in environmental samples, a capability critical in a high consequence event.

Save the Date

2006 APHL Annual Meeting

June 4-June 6, 2006
Long Beach, CA

More details to come. Check the weekly APHL E-Update or go to www.aphl.org/conferences/.
2005 APHL Annual Meeting

Compounding the Elements of Laboratory Preparedness
Salt Lake City, UT June 26-28, 2005

APHL Service Recognition
Outgoing Board Member
Michael Loeffelhoz, PhD
Member-At-Large, 2004-2005
Laboratory Director, AR Department of Health

Outgoing Committee Chairs
Bernard Jilly, PhD
Workforce (2003-2005)
Director, Division of Public Health Laboratory
AK Department of Health & Social Services

Kenneth Pass, PhD
Newborn Screening & Genetics in Public Health (2002-2005)
Deputy Director, Division of Genetics Disorders
NY State of Department of Health

Scott Zimmerman, DrPH
Membership & Recognition (2000-2005)
Director, Erie County Regional Public Health Laboratories

Recent Board Actions
The board met on June 25 in Salt Lake City. They had a discussion with Bob Martin about the cooperative agreement status and how to address shortages.

Business Meeting Update
APHL membership met June 26 in Salt Lake City. The gavel was passed from Paul Kimsey to Kati Kelley, and committee chairs reported on the year’s activities. The membership passed three position statements: newborn screening follow-up; newborn screening residual specimens; and HIV rapid test statements. Susan Neill reviewed APHL’s finances. Members entertained a dues increase.

Presidential Awards
Michele Lloyd-Puryear, MD, PhD
Chief, Genetic Services Branch, Division of Services for Children with Special Health Needs, HRSA/MCHB

Dr. Michele Lloyd-Puryear is recognized for her leadership and dedicated service to improving the lives of newborns and children across the nation. Lloyd-Puryear is chief of the Genetic Services Branch, Division of Services for Children with Special Health Needs, in the US Department of Health and Human Services, Health Resources and Services Administration. She has held academic appointments and has worked in pediatric clinics at local and international levels. In her present position, Lloyd-Puryear has administrative responsibilities for the Genetic Services Program at HRSA and is responsible for policy and public affairs concerning the use of genetic medicine and technology. She has served in an advisory capacity for genetics and newborn screening to her bureau, her agency and other HHS agencies.

Charles Schable, MS
Captain, US Public Health Service (Ret.)
Director, Coordinating Office for Terrorism Preparedness and Emergency Response, CDC

Capt. Charles Schable is recognized for his dedicated service to public health laboratories and exceptional leadership in the areas of infectious disease and preparedness. Schable is the director of the Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER) at the Centers for Disease Control and Prevention. He is responsible for all of CDC’s public health emergency preparedness and emergency response activities. Schable also coordinates, manages and directs the Select Agent Program, the Emergency Operations Center and the Strategic National Stockpile Program. Schable has previously served in numerous positions at CDC including director of the Bioterrorism Preparedness & Response Program, National Center for Infectious Diseases and deputy director of the Division of AIDS, STD & TB Laboratory Research.

Members vote on APHL policy at the business meeting.

Charles Schable, CDC, speaks after receiving the Presidential Award.

Michele Puryear, HRSA, and Paul Kelley, CA, share a laugh at the awards luncheon.

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James Pearson, DrPH, BCLD, MPH  
Deputy Director for Laboratories, Department of General Services  
Director, Virginia Division of Consolidated Laboratory Services  

Dr. James Pearson is recognized for his significant contributions to laboratory science and practice. Pearson uses his public health experience of over 30 years, including 5 years as state epidemiologist in North Dakota and 13 as the state public health laboratory director at the Virginia Division of Consolidated Laboratory Services (DCLS). He has served as an expert consultant for many programs and is actively affiliated with many professional organizations, including APHL where he acted as president in 1999 and is currently the APHL terrorism preparedness liaison. Dr. Pearson played an integral role in the development of the National Environmental Laboratory Accreditation Program (NELAP), the national standard for accreditation of public and commercial environmental laboratories. Dr. Pearson is a strong and committed advocate for strengthening state public health laboratory preparedness and response.

Phillip T. Amuso, PhD  
Assistant Bureau Chief and Laboratory Director, Florida Department of Health, Bureau of Laboratories  

Dr. Phillip Amuso is recognized for his leadership and dedication to the advancement of public health laboratory science. He has served the state of Florida for nearly 30 years and has shown exemplary leadership skills as assistant bureau chief and laboratory director. Examples of his outstanding work include being the key architect in designing the public health laboratories’ response capability, resulting in significant upgrades in state health labs; implementing the Biowatch program in Florida; and establishing the USF Center for Biological Defense—a unique partnership between a state public health lab and a university. Amuso is at the forefront when it comes to leading his staff, working with the media, and allaying public fears during critical periods.

2005 Gold Standard For Public Health Laboratory Excellence  
This award goes to an APHL member who makes or has made significant contributions to the advancement of public health laboratory science and/or practice.

Ted Kuschak, of the Canadian Public Health Lab Network, speaks on data reporting and info sharing.

2005 APHL On the Front Line Award  
This award honors an individual or organization outside of the association’s membership who makes significant contributions to APHL, its membership and mission.

Paul Duffey, PhD  
Chief of Immunoserology and Biologics Section, Microbial Diseases Laboratory  

Dr. Paul Duffey is recognized for his significant achievements working in public health for the Microbial Diseases Laboratory (MDL), California Department of Health Services for over 25 years. Over the past 8 years, Duffey has led a formidable effort to develop and produce polyclonal and monoclonal antibodies for the serologic detection and typing of Salmonella. Currently all state public health laboratories receive CDC Salmonella antisera produced by the MDL. Duffey has also been in the forefront in California’s bioterrorism preparedness efforts. For the past 5 years he has been the lead in setting up and establishing the Laboratory Response Network in California and he played an important role in the establishment of 13 Reference LRN PHLs in the state.

Neil Buiist, MB, ChB  
Professor Emeritus, Oregon Health and Science University  

Dr. Neil Buiist’s leadership and vision have greatly contributed to the success of newborn screening programs. Over his fifty-year career, Buiist has been instrumental in promoting universal newborn screening and continues to be a voice for expanded screening. Trained in Scotland, Buiist went on to direct the Pediatric Metabolic Laboratory and the Metabolic Birth Defects Center at the Oregon Health and Science University where he now serves as emeritus professor. A strong supporter of public health laboratories, Buiist has served on numerous work groups and committees to promote newborn screening as a public health activity. Buiist played a significant role in the 1970s in developing the first regional newborn screening program in the US, and was a leader in the early work on maternal PKU prevention and approaches to the dietary management of PKU. Dr. Buiist has been a tireless advocate whose enthusiasm and persistence have greatly contributed to the health of infants around the world.
The state of Maine invariably brings to mind thoughts of lobster, rocky coastlines and the gold and scarlet hues of elms, maples, poplars, oaks and birch trees in the fall. Such thoughts are largely on-track given the state’s 57 million pound annual lobster harvest, 3,500 miles of coastline and 17 million acres of forest, including Acadia National Park—the second most visited national park in the US.

John (Jack) Krueger, chief of Maine’s Health and Environmental Testing Laboratory (HETL) and a New Hampshireite by birth, appreciates both the beauty and rigors of the state. “Where else,” he asked, “can you live on a 150-acre tree farm on a hill within sight of the ocean?” Krueger not only lives in such a place—in a rural town of about 900 people—but also chops all his own wood for heating fuel and last summer grew a 13-foot sunflower in his garden.

Yet Krueger, who holds two MIT degrees in chemical engineering, is well aware that the bucolic environment is not always benign. One example is groundwater. He noted that about 1 in 3 of the state’s many private wells has a high level of radon (often seeping into the water from granite deposits); 1 in 10 has elevated arsenic; and 1 in 25 has elevated uranium.

Since 1991, when the state legislature merged the Department of Environmental Protection Laboratory with the Public Health Laboratory to form the HETL, his shop has steadily increased its focus on testing for toxics in the environment and in people. In addition to traditional public health testing for infectious diseases, the HETL is a state resource for a) monitoring public and private water supplies for chemical and microbiological contaminants; b) environmental testing for radiation, pesticides and industrial pollutants; c) detecting and preventing childhood lead poisoning; d) forensic testing for the state drug enforcement and highway safety agencies; and e) providing health alert data as part of the state’s chemical and biological preparedness programs. Of 69 full time equivalents, 32.5 are devoted to environmental testing/biomonitoring or chemistry/forensics. “Because we do both environmental and public health testing,” said Krueger, “we have been in a good position to bring public health partners into environmental studies. It’s advantageous for us to promote corrective actions.”

Krueger’s chemists performed all of the testing for a study of methyl tertiary butyl ether (MTBE) initiated by the state governor. Findings showed a significant concentration of MTBE—a water-soluble gasoline additive—in groundwater and in drinking water (likely resulting from seepage into water reserves in the wake of oil spills). Krueger said “We were one of the first states to start noticing it in drinking water.” The study influenced the decision to lower allowable amounts of MTBE in gasoline formulations in Maine and nationally.

In the future, Krueger hopes the laboratory will become more involved in biomonitoring—the measurement of toxic substances in human blood, urine or other specimens. “We’re well-placed for that because we have a lot of chemists and many years of experience working with chemical tests,” he said. “There’s not a great deal of training needed to move to testing human specimens for the same things we test for in environmental samples.” Moreover, the HETL, like many state public health laboratories, has federal funding to develop chemical terrorism (CT) response capabilities. Biomonitoring studies, said Krueger, can be developed in concert with the laboratory’s CT efforts. “It’s not a giant stretch in capability to expand from testing nerve agents in blood to test for other peace time contaminants in the Maine population.”

Maine scenery. Photo Courtesy of Maine’s Health and Environmental Testing Laboratory.
For example, explained Krueger, “We know we have metals in our water. We’d like to examine the concentration of these metals in people.” (The laboratory has some funding through an Environmental Public Health Tracking Grant for toxicologists to actually begin such testing and would like to expand the effort.) Similarly, he noted a history of pesticide use in Maine’s agriculture industry, including orchards and blueberries. The Maine blueberry industry, for example, produces the nation’s largest crop of the fruit at about 75 million pounds per year. The laboratory wishes to document any bioaccumulation of contaminants in laborers and consumers to provide data on the lack of bioaccumulation, if this is the case. Other studies on his wish list include an examination of polybrominated diphenyl ethers or PBDEs that are present in flame retardant clothing and of the chemicals in human breast milk.

But despite a strong interest in chemical testing, there are some tests that the HETL no longer provides. One is testing of industrial effluents. “There is no industrial testing of outflows into rivers by government at all; it’s all done by the private sector,” said Krueger. He noted a strong push in the past by the EPA to privatize all drinking and waste water testing in the country. “We believe that a percentage of the tests should not be performed by a laboratory that does not have profits as a motive,” he said. Increased interest in government testing is being revived as water security is taking a higher profile nationally.

Overall, the HETL receives about a quarter of its $7 million annual budget from federal grants, about 13% from state revenues and the remaining 62% from laboratory fees. Basically, said Krueger, “The money I have is the money I make.” He reserves a portion of his budget to subsidize testing of public health significance—such as rabies testing—when there is no other payer.

Currently, a shortage of laboratory funds is keeping him from filling two vacancies, and a shortage of state funds is keeping him from replacing his 38-year-old, 22,000-square-foot facility. Maine’s textile, leather and paper industries are suffering from international competition, and three local federal military bases have been tentatively slated for closure. “There is not the mood in our legislature right now to tackle any large projects,” explained Krueger.

Fortunately, federal grant money has been available to provide much-needed safety upgrades to the facility, which sits alongside the scenic Kennebec River on State Street in the state capitol. Upgrades include a new entranceway, installation of key card equipment in locations throughout the laboratory, a new triage room, a remodeled HVAC system, new BSL-3 hoods and associated anterooms, and additional alarms and monitors. A basement renovation was completed when the laboratory absorbed the former Department of Environmental Protection Laboratory.

Perhaps the HETL’s biggest ongoing challenge is its data management system. “A public health laboratory is all about data,” said Krueger. “This is what we produce, and little can compare to the struggle to change the way we manage our lab data.” Maine currently uses three systems: a home-grown spin-off system (with much code contributed by Krueger in the late 1980s and early 90s), LITS-Plus and StarLims Sunrise. The plan is to eventually integrate all functions into StarLims. In the meantime, said Krueger, the transition “affects everybody everyday.” Moreover, “since we bill for so much of our work, it’s not a trivial matter; the bills have to go out on time.”

Krueger’s ultimate goal for the laboratory is deceptively simple. Recognizing that his budget and his 69 employees are a “tiny blip” on the radar screen of the state health department (with 4,000 employees overall), he said:

“I look for some stability and I look for a place at the table. I want to make sure the work of the laboratory is being integrated well with the work of other divisions. Unfortunately, I think we’re often measured by our response to individual incidents. We’d like to be looked at as part of the whole, as a partner in a balanced plan within the public health system.”

Because we do both environmental and public health testing, said Krueger, we have been in a good position to bring public health partners into environmental studies. It’s advantageous for us to promote corrective actions.
Southern Nevada Public Health Laboratory: Starting From Square One

Manager
Pat Armour became the first person employed by the Southern Nevada Public Health Laboratory (SNPHL) when she accepted the job as manager in 2003. Armour, a medical technologist with over 30 years of experience, moved to Nevada to escape the -60°F winter temperatures of her native Wisconsin. She did clinical testing at two local hospitals, worked in the Lockheed Engineering quality assurance department and then managed a physician’s office laboratory before responding to an advertisement for a two-year grant-funded position in an unnamed laboratory that turned out to be a branch facility of the Nevada State Laboratory. “It was a leap of faith,” she said.

Location
In a medical complex on the campus of the Clark County Health District, Nevada’s population is clustered in the northern and southern parts of the states, said Armour, with a huge swath of federally-owned land in between. The idea of a state laboratory facility to serve the Las Vegas area, she said, came about after 9/11 “with the realization that 70% of our population is in the southern part of the state and we needed a closer facility to decrease response time.” Although Armour noted upon questioning that the laboratory is “maybe 15 minutes from the nearest casino,” she said, “just remember that Las Vegas is a community and our main focus is community public health.” In addition to Las Vegas, the Clark County Health District encompasses several other cities, including Henderson—one of the fastest growing cities in the nation.

Facility
The 5,000-square-foot laboratory occupies the top floor of a one-time warehouse, renovated with federal bioterrorism (BT) grant money. “We do have windows,” said Armour, “you just can’t see out of them; they’re more like skylights.”

# Staff
10. In addition to Armour, there are 5 microbiologists, 1 laboratory assistant, 2 couriers/clerks and 2 security guards.

Revenue
The laboratory gets a portion of its revenue from the federal government and a portion from Clark County Health District, which has administrative responsibility for the laboratory building and staff under an inter-local agreement with the University of Nevada School of Medicine in Reno (home of the main state public health laboratory). Although the main state public health laboratory has programmatic responsibility for the SNPHL testing program, it has no funding available to support SNPHL laboratory operations. The SNPHL is just beginning a fee-for-service program and hopes to serve Medicaid clients in the not-too-distant future.

Distinguishing Characteristics
- Only in existence for one year (so far).
- The only BSL-3 laboratory in southern Nevada and one of only six microbiology laboratories in Clark County.
- An LRN reference laboratory.

Highest Volume Testing
Thus far, laboratory staff have focused on BT-related testing and analyzers. “We are now moving toward other high volume public health testing. We anticipate running about 800 HIV tests per month by late summer.” Armour explained that since the laboratory does not yet have an information management system (LIMS) or an automated HIV testing system, all testing and record-keeping is done by hand. “You can only start doing large volumes of testing with a small staff if you automate,” said Armour.

Notable Success Stories
- Building the laboratory. “We started from square one in June 2003 when the laboratory construction was not completely finished. I didn’t realize I was gonna be climbing up on step ladders and telling the contractor that they had put things in wrong. Between June and August 2003, I purchased the biosafety cabinets and over $400,000 of equipment. I had no staff; had to hire everybody.” The first few staff members—mostly microbiologists—wrote all the standard-operating-procedures, obtained CLIA certification and LRN registration and conducted safety training.
- Developing a training program for HAZMAT first responders. The laboratory created a sample collection kit using jumbo zip lock bags, culture swabs, plastic spoons and knives, a laminated 8.5” X 11” index card scooper and a “poor man’s bleach solution.”
- Developing a close working relationship with the Clark County epidemiology department. “We work with our epidemiologists to look at patient symptomology and to try to identify organisms and do follow-up testing. We had ten investigations of unusual deaths or illness between January and May 2005, including toxic shock syndrome, Norovirus and food-borne illness investigations. These team investigations are an important step in our BT response strategy; BT preparedness includes the capability to perform surveillance for unusual instances of illness and death which could be caused by intentional use of a biological organism.”

Biggest Challenges
- “Because we were never here, just getting up and running has been a challenge.”
- Implementing a LIMS—PowerLab from SysWare. “That system is going to be a life-saver for us.”
- Maintaining surveillance of illnesses associated with Clark County’s large tourist population. “Visitors come from all over the world year-round.”

# Vacancies
The laboratory will be adding three new positions within the next six months: an expert in pulse field gel electrophoresis, an immunologist and a microbiologist. Because Nevada requires state licensure for clinical laboratory scientists, the new hires will likely be practicing medical technologists—who easily meet state criteria. In addition, the Clark County Health District is moving all of its STD testing to the laboratory and will be transferring some of its staff for this purpose. “We’ll be happy to have them,” said Armour.

Goals
“I have a wonderful staff, dedicated to the community and to public health. We want to do the job well. Right now our main focus is to validate all allowable LRN Continued on page 24
Back in May I was given an opportunity to speak at the hooding ceremony for the 2005 graduates of the Arnold School of Public Health at the University of South Carolina. When the request came, I was, well, speechless! I panicked: “oh no,” I thought, “What could I possibly tell these graduates that won't put them to sleep?” I'd never delivered so important an address. Was I up to it? And did I mention that I never “walked” at my own graduation from graduate school?

When the long-anticipated day arrived, I flew to Columbia and toured the campus with the newly appointed dean, Donna Richter. She pointed out the location of the hooding ceremony. It was enormous. I thought, “Oh, at least there will be a lot of ceremonies going on there at the same time.” When I arrived the next morning, I learned that the entire Center was given over to the Arnold School’s ceremony.

After all my worries, I have to admit that I enjoyed myself once I stepped up to the podium. Below is an excerpt from my talk, which I believe is of value, not only for newly minted public health professionals, but also for those of us in public health laboratory practice. The topic is visibility.

The most valuable advice I can give you is this: Make yourself visible. For too long, the field of public health has been under-valued and under-funded, it has been called “the Rodney Dangerfield of health specialties.” After 9/11 public health has earned new recognition and additional, albeit limited, resources. We must stand for our programs in both the literal and metaphoric sense. After all, public health represents the legs that the personal health care field stands on, and that position demands respect!

First, dare to take issue with the nostrums that plague public health. There are many of them. The one that galls me the most is, “When public health does its job, nothing happens.” This is NOT TRUE! When public health does its job, newborns are screened for genetic disorders, children vaccinated and adults treated for debilitating chronic diseases. Communities are safer, people live longer and have better lives, and we as a country save money. Ultimately, the result is improved quality of life and life itself.

Second, be strategic. Size up the culture of your organization. Find out who makes the decisions that impact your area. Weigh your options before you speak and set your strategy based on what will be most effective in the short and the long-term. Know when to be squeaky wheel and when to work behind-the-scenes. Over time, you will learn when and how to tack. You don't always want to sail straight into the wind. On the other hand, sometimes it's necessary. I learned firsthand in the fall of 2001, when my members in public health laboratories were testing anthrax specimens 24/7, labs gained by taking a prominent role in national decision making circles and making their experts accessible to the media. The public gained too.

Third, be clear. When you speak or write, don't assume that the lexicon of public health is intelligible to all. “Surveillance” does not have a positive connotation on Main Street. Surveillance means something very different to my new best friends in the FBI and law enforcement than it does to those epidemiologists in our midst. Adapt your language to your audience. Use metaphors to explain scientific processes and by all means avoid jargon.

Dr. Bill Foege, a leader in our field, now a fellow at the Bill and Melinda Gates Foundation and emeritus professor at Emory University, was asked what he considered to be the philosophy of PUBLIC
**Staff News**

**Crystal Jones, MBA.** joined APHL on May 24 as the human resources manager. Crystal has nine years of experience in the human resources field including a human resource management degree from George Washington University and an MBA from the University of the District of Columbia.

**Wilma Brooks** came on board as APHL’s first director of development. Wilma has over 10 years of development experience in major gifts, special initiatives and grant writing, all of which will serve the association well as it continues to grow its development efforts.

**Sasha Mital** joined the association on June 6 as the first communications intern. A senior at the University of Maryland, Sasha is majoring in public health and already has had a lot of hands-on experience while studying and working in community health in Argentina.

**Ellen Frances Mumford**
Ellen Frances was born to Emily and Dan Mumford on June 19 at 6:41 am. She weighed 9 lbs., 1 ounce and was 21.25 inches long.

**Joseph Benjamin Liebreich**
Jennifer and Rob Liebreich welcomed Joseph Benjamin at 11:57 pm on June 24. He weighed 8 lbs and 7 oz. and was 20.25 inches long.

**Jeanine K. Valrie** began on May 25 as the new global health program coordinator. Jeanine comes to APHL with an impressive public health background. She is a bilingual graduate of Fisk University, has extensive international experience, has worked on a variety of health and human rights issues, and is working toward her MPH at George Washington University’s School of Public Health and Health Services.

**Rick Steece, PhD, D(ABMM),** who served as the national laboratory chlamydia program manager for 9 years, resigned on July 1. Steece’s technical assistance to the laboratories was instrumental in diagnostic testing for GC/chlamydia. Steece will continue his activities in support of CDC’s Infertility Prevention Program through a CDC cooperative agreement with the JSI Research & Training Institute. APHL wishes him the best in his future endeavours.

**APHL Welcomes Two New Members to its Family**

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**The Association of Public Health Laboratories (APHL) is a national non-profit dedicated to working with its members to strengthen public health laboratories. By promoting effective programs and public policy, APHL strives to provide public health laboratories with the resources and infrastructure needed to protect the health of US residents and to prevent and control disease globally.**

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**Other goals are to:**
- Hire additional qualified staff.
- Implement additional clinical testing, including amplified gonorrhea and chlamydia testing.
- Continue to interface with the medical community and clinical labs. “Some of the outlying areas do not have a hospital and most of the hospitals do not have a microbiology department. We need to be able to be a resource.”
- Continue to work with first responders and fine-tune sample collection protocols.

HEALTH. His response was this: “… the philosophy of science is to find truth. The philosophy of medicine is to use that truth for your patient. The philosophy of public health is to use that science for everyone or social justice in health.” To live this philosophy, those of us in public health must be bold and yes, even conspicuous.

So as we begin a new fiscal and program year, I think the same message holds true for each of us: be bold, be visible. (The hooding ceremony speech is at www.sph.sc.edu/hooding_address/hooding_address.htm)