

The Role of Public Health Laboratories

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Kati Kelley, DrPH
Presentation to CLIAC

Public Health Laboratories

- Customers
- Scope of Services
- Performance Standards & Accreditation

Customer = the Community

- Federal, State Agencies
- Public Health Partners
- Clinical Laboratories

West Nile Virus: Case Study of Laboratory Roles



Scope of Services

- Perform expansive range of testing
- Support public health programs
- Each laboratory is unique
 - Environmental
 - Newborn Screening
 - Emerging Infectious Disease
 - Terrorism Response
 - Food Safety

New Demands



Disease Prevention, Control and Surveillance

- Center of expertise for the detection and identification of biologic agents
- Specialized tests for low-incidence, high-risk diseases

Integrated Data Management

- Hub of scientific information in support of public health programs

Reference and Specialized Testing

- Confirmatory testing
- Diagnosis of unusual pathogens
- Toxicology testing
- Epidemiologically-significant specimens
- Esoteric assays

Environmental Health and Protection

- Safe drinking water
- Water quality
- Air quality
- Radiation control
- Lead surveillance and abatement
- Occupational health
- Environmental monitoring

Food Safety

- Identify causes and sources of foodborne illness
- Evaluate quality of foods, beverages and dairy products
- Detect foodborne outbreaks
- Evaluate bacterial, radioactive, pesticide, herbicide and drug contamination of foods

Laboratory Improvement and Regulation

- Quality assurance programs
- Licensure, certification and accreditation
- Environmental laboratory oversight
- Analytical support of federal, state, local regulations

Policy Development

- Scientific leadership in developing state and federal public health policy
- Standards for all health-related laboratories

Emergency Preparedness

- Terrorism response
- Environmental hazards
- Natural disasters
- Radiation releases
- Emergency foodborne outbreaks
- Infectious disease emergencies

Public Health Related Research

- New technologies and analytical methods
- Research to improve laboratory testing
- Applied studies
- Public health research

Training and Education



- Scientific and technical training for clinical and environmental laboratorians
- Preparing scientists for careers in public health laboratories
- Education in management and leadership
- Training of international laboratory scientists

Partnerships and Communication

- Partnerships among public health leaders, managed care, academia, private industry
- State strategic planning and development meetings
- Communications with public health officers and directors, legislators, state health budget personnel

Performance Standards

- Voluntary
- Gold Standard Level
- Based on 10 Essential Health Services
- Uses 11 Core Functions of a PHL
- Systems Level

APHL Performance Standards Project

Phase I | Completed February 2005

- Method for developing standards and assessment of acceptability

Phase II | Begun July 2005

- Development of the standards

Phase III

- Implementation of performance standards nationwide

The Future = Collaboration Across Labs

Clinical + Public Health Labs →

Real-time Information →

Positive Health Outcomes