

# Board of Scientific Counselors

## National Center for Preparedness, Detection, and Control of Infectious Diseases Subcommittee



## Report to the Clinical Laboratory Improvement Advisory Committee: NCPDCID Investments for Assuring Public Health Laboratory System Capacity

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# NCPDCID BSC Subcommittee Members

## October 31, 2007

- Corrie Brown, DVM, PhD
- Frances Pouch Downes, DrPH, MPH
- Lou Turner, DrPH, HCLD, CPM
- Nalini Singh, MD, MPH
- Jesse Goodman, MD, MPH
- Regina Rabinovitch, MD, MPH

# Update: Animal Importation

BSC Meeting March 2007

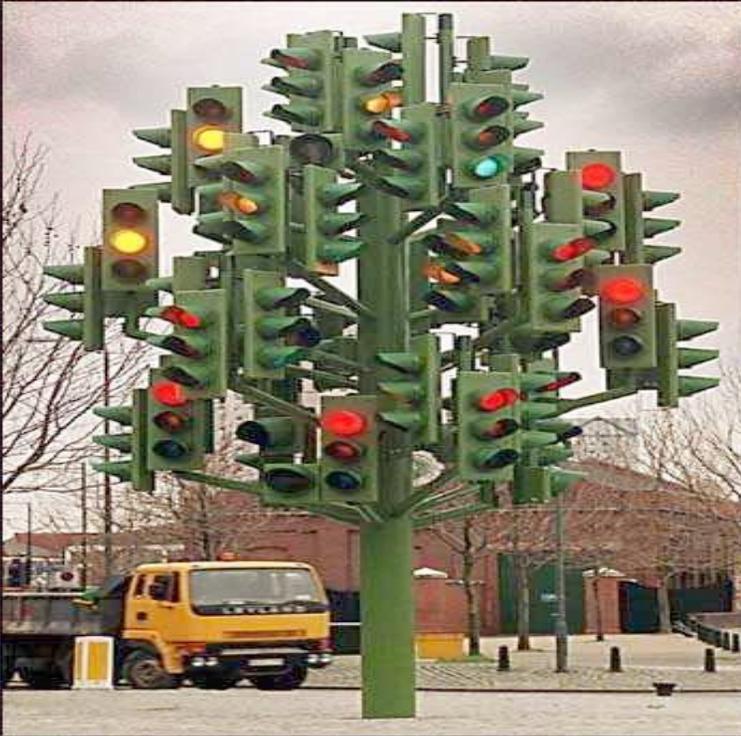
- Current animal importation in USA is poorly regulated, posing a serious public health risk. Per BSC advice at March meeting, DGMQ has taken several key actions.
- Advance Notice of Public Rulemaking (public comment by 12/01/07 via CDC website  
(<http://www.cdc.gov/ncidod/dq/anprm/index.htm>)
- Increased multi-agency dialogue with state, federal, and industry partners
- Interagency meeting on animal importation to be held in conjunction with ICEID March 16-19, 2008

# Update: Infection Control

BSC Meeting March 2007

- Research to address scientific gaps in understanding of inhalation infection transmission:
  - Aerobiology: Rhinovirus and live vaccine studies
  - Respiratory protection: seed money for textile solution
- Consultation on HAI; new paradigm of “elimination”
- Pending IOM Report on PPE for HCWs during a flu pandemic. Includes CDC advice on respiratory protection for HCWs (e.g., mask comfort)
- HCW vaccination (adherence, risk perception)
- New approach to infection control guidelines: shorter, easier to use (e.g., norovirus in health care settings).

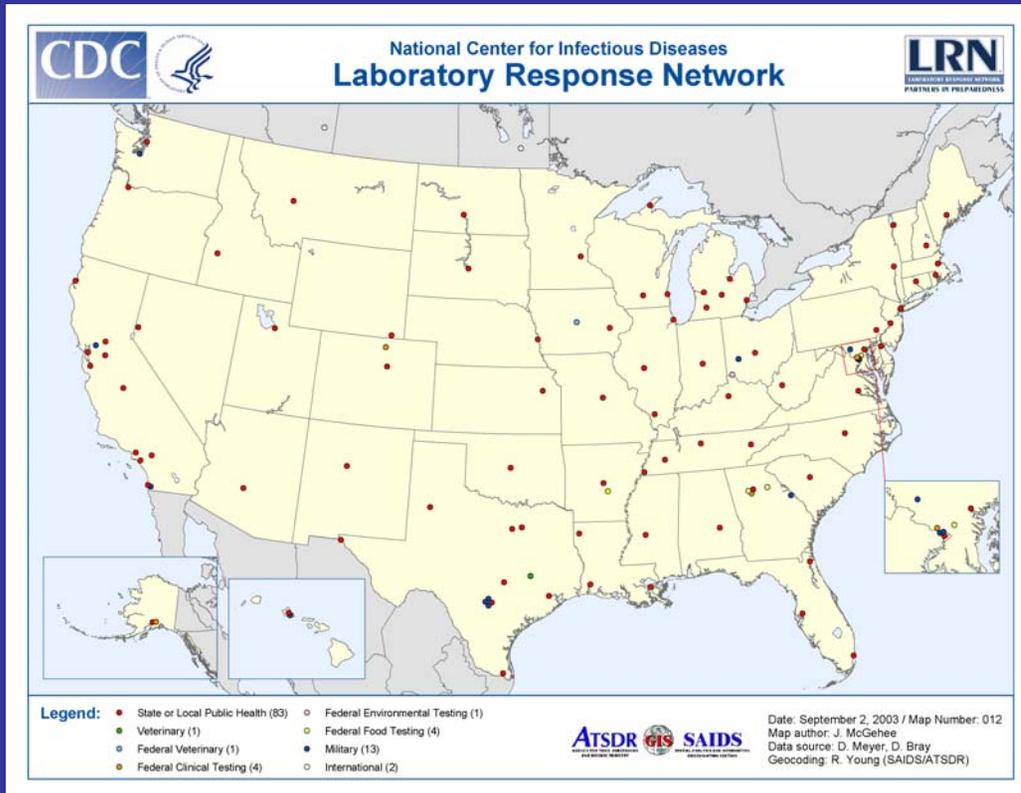
# NCDPCID Investments for Assuring Public Health Laboratory System Capacity



- What are the strengths of NCDPCID's investments?
- How can the investments be leveraged / magnified / improved?
- What will be most needed and helpful in the future?

# LRN

LABORATORY RESPONSE NETWORK  
PARTNERS IN PREPAREDNESS

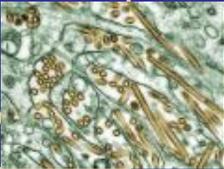


Currently 163 Confirmatory labs providing identification of 20 biological threat agents in all specimen and sample types.

Currently 62 labs providing access to identification of 150 chemical threat agents in clinical specimens.

Currently 2160 users at state and local public health, federal, military, veterinary, food, agriculture, environmental and international laboratories.

# Epidemiology and Laboratory Capacity (ELC)

Component	Key Lab Activities
<b>West Nile Virus</b>	<ul style="list-style-type: none"><li>•WNV testing in humans, vectors, and other animal species: IgM and IgG ELISA, RT-PCR, NASBA, virus isolation, and virus identification</li></ul> 
<b>Food Safety</b>	<ul style="list-style-type: none"><li>•PulseNet</li><li>•STEC testing</li><li>•Diagnosis of parasitic diseases (DPDx)</li><li>•Molecular identification of viruses</li></ul> 
<b>Core Epi and Lab Capacity</b>	<ul style="list-style-type: none"><li>•Rabies testing</li><li>•Pertussis testing</li></ul> 
<b>Influenza</b>	<ul style="list-style-type: none"><li>•Virologic isolation and typing and subtyping of influenza viruses</li><li>•Molecular testing for influenza virus</li></ul> 

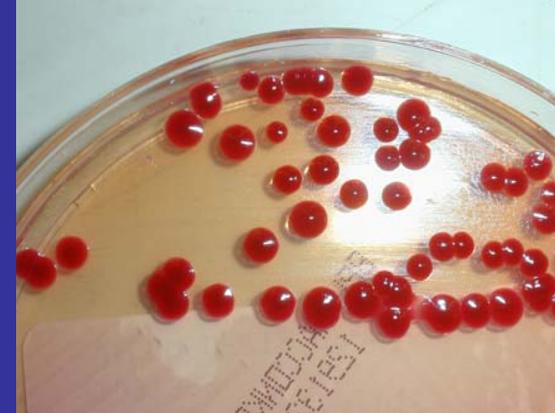
# A National Laboratory System

Linking public health, clinical, veterinary, food safety, and environmental laboratories to create seamless systems for public health surveillance and laboratory support and improvement is the urgent mission of the National Laboratory System Initiative



# Division of Healthcare Quality Promotion - Reference Laboratory

- National Reference Laboratory
  - Staphylococci
  - Anaerobic bacteria
  - Enteric gram negative rods
  - Antimicrobial susceptibility testing
- Laboratory support for the epidemiologic investigations of outbreaks
- Liaison to CLSI to establish and validate standardized guidelines



# Program integration approach for CDC laboratory programs, activities, services

- Strategy for future expansion and resources to apply existing model architecture and program services (e.g. LRN) to all public health testing programs
- Identify components of different laboratory programs that could share use shared funding mechanisms (e.g. ELC)
- Better coordination and alignment of performance indicators
- Assure that different categorical disease program funds share indirect/infrastructure (operating) costs
- Assure that categorical disease cooperative agreements have review and approval by state laboratory directors (currently only TB)

# Strategic Plan for CDC and SPHL reference testing

- Develop a strategic plan encompassing all PH reference testing and determine whether this is best performed as core (SPHL), regional center of excellence, or CDC
- All states should have core testing capabilities
- CDC reference laboratories should be able to focus on diagnostics, technology transfer, and applied research (not routine service)
- Regional centers of excellence in state laboratories would reduce “routine” reference services performed by CDC

# Quality Management System (QMS) approach to all of CDC's reference testing services

- Examine timeliness of testing and reporting
- Develop an up to date, web accessible comprehensive catalog of CDC testing services and contact information
- Work with SPHLs/APHL to develop a template of state reference testing services and contact information
- Improve communication and customer service to SPHL and their submitters for tracking

# Information Technology (IT) – PHIN compliant, integrated, interoperability, bidirectional communication

- CDC – Develop integrated IT platforms. StarLIMs should function across all CDC laboratories and have remote accessioning and reporting capabilities between CDC and SPHLs
- SPHLs – Support the Public Health Laboratory Interoperability Project (PHLIP) that is focused on bidirectional information systems between CDC, SPHL, and clinical laboratories with PHIN compliance

# Sustainable funding streams and infrastructure

- Promote priority of core funding in addition to categorical disease funding
- Allow flexibility to address infrastructure necessary for responsiveness to emerging/changing disease focus
- Economic analyses of financial drivers (e.g. fee for service) that may affect support for core functions

# Workforce Crisis

- Stabilize and sustain EID fellowship support and other training programs
- Outline technical requirements and core competencies for testing services to allow states to establish and recruit appropriately qualified staff
- Develop and support marketing strategy to assist states and CDC to recruit and retain staff
- Succession planning, including sustained funding in categorical programs

