



DEPARTMENT OF HEALTH AND HUMAN SERVICES

CDC

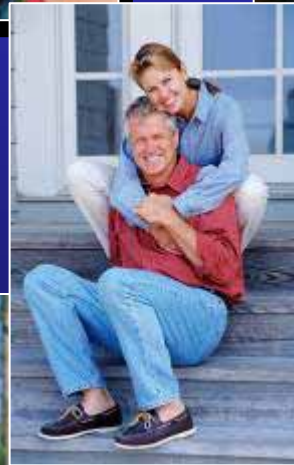
**CENTERS FOR DISEASE™
CONTROL AND PREVENTION**

SAFER • HEALTHIER • PEOPLE™

The Future

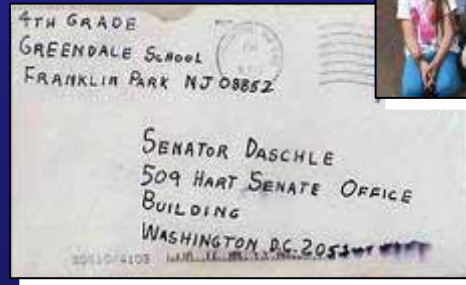


The Futures Initiative: Achieving Health Impact



Why Change Now?

- Aging population
- Emerging global infectious diseases
- Obesity
- Development of public health workforce and infrastructure
- Health disparities



CDC's Strategic Imperatives

1. **Health impact focus:** Align CDC's people, strategies, goals, investments & performance to maximize our impact on people's health & safety.
2. **Customer-centricity:** Market what people want & need to choose health.
3. **Public health research:** Create & disseminate the knowledge & innovations people need to protect their health now & in the future.
4. **Leadership:** Leverage our unique expertise, partnerships, & networks to improve the health system.
5. **Global health impact:** Extend our knowledge & tools to promote health protection around the world.
6. **Accountability:** Sustain people's trust & confidence by making the most efficient & effective use of their investments in us.



What are CDC's Goals?

Healthy People in Every Stage of Life - All people, and especially those at greater risk of health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life.

- **“Start Strong”**: Increase the number of infants and toddlers that have a strong start for healthy and safe lives. (Infants and Toddlers, ages 0-3 years).
- **“Grow Safe and Strong”**: Increase the number of children who grow up healthy, safe, and ready to learn. (Children, ages 4-11 years).
- **“Achieve Healthy Independence”**: Increase the number of adolescents who are prepared to be healthy, safe, independent, and productive members of society. (Adolescents, ages 12-19 years).
- **“Live a Healthy, Productive, and Satisfying Life”**: Increase the number of adults who are healthy and able to participate fully in life activities and enter their later years with optimum health. (Adults)
- **“Live, Better, Longer”**: Increase the number of older adults who live longer, high-quality, productive, and independent lives. (Older Adults)



Healthy People in Healthy Places: The places where people live, work, learn, and play will protect and promote their health and safety.

- **“Healthy Communities”**: Increase the number of communities that protect, and promote health and safety and prevent illness and injury in all their members
- **“Healthy Homes”**: Protect and promote health through safe and healthy home environments.
- **“Healthy Schools”**: Increase the number of schools that protect and promote the development, health, and safety of all students and staff.
- **“Healthy Workplaces”**: Promote and protect the health and safety of people who work by preventing workplace-related fatalities, illnesses, injuries, and personal health risks.
- **“Healthy Healthcare Settings”**: Increase the number of healthcare settings that provide safe, effective, and satisfying patient care.
- **“Healthy Institutions”**: Increase the number of institutions that provide safe, healthy, and equitable environments for their residents, clients or inmates.
- **“Healthy Travel and Recreation”**: Ensure that environments enhance health and prevent illness and injury during travel and recreation.

Global Health: Healthy People in a Healthy World

- **“Health Promotion”**: Global health will improve by sharing knowledge, tools, and other resources with people and partners around the world
- **“Health Protection”**: Americans at home and abroad will be protected from health threats through a transnational prevention, detection and response network
- **“Health Diplomacy”**: CDC and the United States Government will be a trusted and effective resource for health development and health protection around the globe.



Preparedness: People in all communities will be protected from infectious, occupational, environmental, and terrorist threats.

Pre-event	Event	Post-event
1) Increase the use and development of interventions known to prevent human illness from chemical, biological, radiological agents and naturally occurring health threats.	5) Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.	7) Decrease the time needed to restore health services and environmental safety to pre-event levels.
2) Decrease the time needed to classify health events as terrorism or naturally occurring in partnership with other agencies	6) Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health	8) Increase the long-term follow-up provided to those affected by threats to the public's health.
3) Decrease the time needed to detect chemical, biological, radiological agents in tissue, food or environmental sample that cause threats to the public's health.	<p><u>Round One Scenarios:</u></p> <ul style="list-style-type: none">• Influenza• anthrax• plague• emerging infections• toxic chemical exposure• radiation exposure	9) Decrease the time needed to implement recommendations from after-action reports following threats to the public's health.
4) Improve the timeliness and accuracy of information regarding threats to the public's health		



For more information about the goals:
www.cdc.gov/about/goals

To provide comments and/or input go to
cdcgoals@cdc.gov

We appreciate your interest and input.

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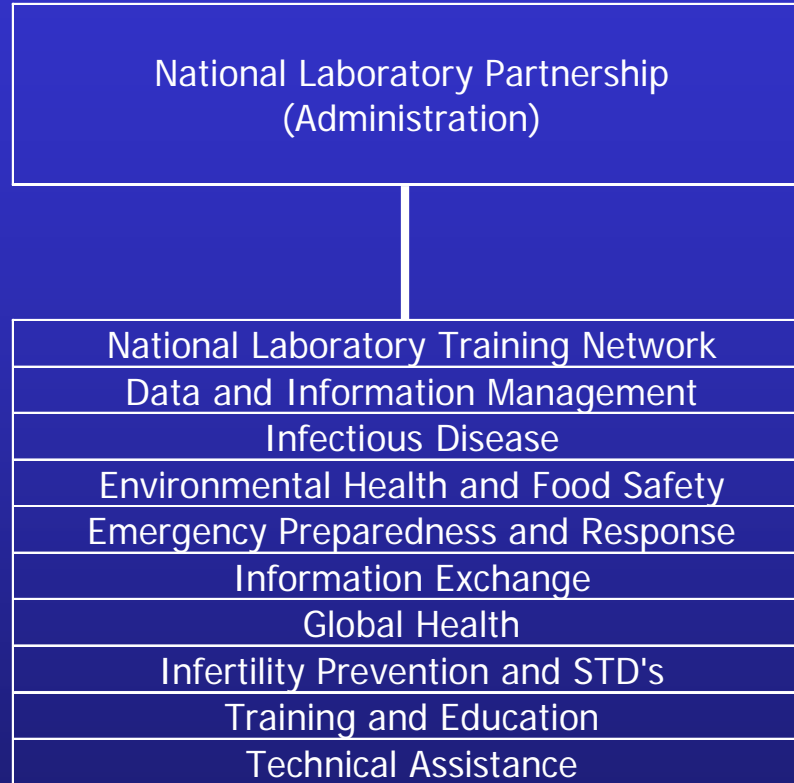
A non-profit association dedicated to working with members to actively promote the interests of public health laboratories. APHL plans, coordinates and integrates global expertise of members to help promote improvement in laboratory practice worldwide.

Vision: A healthier world through quality laboratory practice

Mission: To promote the role of public health laboratories in support of national and global objectives, and to promote policies and programs that assure continuous improvement in the quality of laboratory practice.



APHL/CDC Cooperative Agreement



The Old Paradigm

- A loose association of public health (state, county and city), hospital, and independent laboratories throughout the country.



Characteristics of Paradigms

- Definition from “Paradigms” by Joel Barker
“A paradigm is a set of rules and regulations (written or unwritten) that does two things:
(1) it establishes or defines boundaries; and
(2) it tells you how to behave inside the boundaries in order to be successful.”
- Risk of “Paradigm Paralysis”



Banda Aceh, Indonesia



Hurricane Katrina



Pandemic Influenza

Avian Influenza

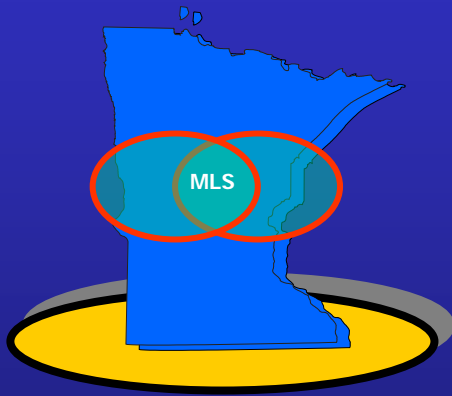


Public Health Grand Rounds

Disease, Disaster and Detection



Leveraging What Works



MINNESOTA LABORATORY SYSTEM
A PUBLIC AND PRIVATE COLLABORATION

- Surveying Clinical Labs
- Establishing linkages
- Education
- Proficiency Testing

Educational Tools

anthrax

Bacillus anthracis

- Large, gram positive, spore forming bacilli
- Non-hemolytic
- Non-motile
- Catalase positive

tularemia

Francisella tularensis

- Pearly staining, non gram negative coccobacilli
- Slow growing, requires cysteine
- Oxidase negative
- Urea negative
- Nitrate negative

plague

Yersinia pestis

- Bipolar gram negative bacilli
- Lactose negative
- Urea negative

brucellosis

Brucella species

- Pearly staining, tiny gram negative coccobacilli
- Slow growing
- Catalase positive
- Urea positive

BIOTERRORISM

Recognize the agents of bioterrorism.
You are the first line of defense.

612-676-5253
AFTER REGULAR HOURS CALL 612-676-5414

Educational Tools



blood

*Hydrogen Cyanide
Dimethylmercury
Carbon Monoxide
Cyanogen Chloride*

Hydrogen Cyanide
SYMPTOMS INCLUDE:

- Nausea
- Tachycardia
- Tachypnea
- Cyanosis
- Flu-like symptoms
- Nonspecific neurological symptoms

INDICATIVE TESTS*

- Increased anion gap
- Metabolic acidosis
- Narrow pO₂ difference between arterial and venous samples



nerve

*Sarin
VX
Tabun
Zoman*

Sarin
SYMPTOMS INCLUDE:

- Diarrhea, dysphagia
- Drooling
- Miosis
- Bradycardia, brontocardia, tachycardia
- Eyes
- Lacrimation
- Salivation

INDICATIVE TESTS*

- Decreased cholinesterase
- Increased anion gap
- Metabolic acidosis



blister

*Sulfur Mustard
Phosgene Chloride
Singer Mustard*

Sulfur Mustard
SYMPTOMS INCLUDE:

- Itching
- Erythema
- Tenderness/blister
- Flu-like symptoms
- Delayed eye irritation

INDICATIVE TESTS*

- Thiolipidyl present in urine



choking

*Phosgene
Sulfur Mustard
Chlorine*

Phosgene
SYMPTOMS INCLUDE:

- Upper respiratory tract irritation
- Rhinorrhea
- Coughing
- Choking
- Delayed pulmonary edema

INDICATIVE TESTS*

- Decreased pO₂
- Decreased pCO₂



metal

*Dimethylmercury
Lead
Copper
Mercury
Arsenic
Cadmium*

Dimethylmercury
SYMPTOMS INCLUDE:

- Cough
- Metallic taste
- CNS effects
- Shortness of breath
- Flu-like symptoms
- Visual disturbances

INDICATIVE TESTS*

- Proteinuria
- Blood mercury
- Urine mercury

CHEMICAL TERRORISM

Call Poison Control 24/7 For Treatment Information
1-800-222-1222

* Call the MDH Clinical Chemistry for appropriate specimen collection, packaging and shipping information at 612-676-5763
 AFTER HOURS PLEASE CALL MEXAT 612-676-5414








Evaluation of the Process Required to Expand the NLS to All States

CDC Evaluation Using a Contract
with Battelle Memorial Institute

Robert Martin, DrPH
Eunice Rosner, EdD

Method – Formative Evaluation

- Case studies of NLS demonstration sites
- Survey of State Public Health Laboratory Directors (SPHLDs)
- Survey of a sample of clinical laboratories (CL)

Questions

- What practices were employed by the demonstration sites?
- How interested are SPHLDs and clinical laboratory managers in collaborating?
- What is the clinical laboratory's perception of SPHLs?
 - Demo vs non-demonstration sites differ?
- Do background and activities of the SPHL affect CL perceptions of the state lab and/or their interest in working together?

Today's Focus:

**Survey of Clinical Laboratory
Directors/Managers**

Sampling Frame

- Clinical Laboratories that perform “comprehensive microbiology”
 - National Laboratory Data Base
 - Microbiology PT – advanced
 - Population - 3,991
 - Sample - 738 laboratories, randomly stratified to include all states

Responses

- Final number of usable surveys - 503
 - 519/727 responded (71%)*
 - 16 were eliminated by self-identification as HMO, or other ineligible status

* 11 public health labs were removed from data analysis

Public Health-Related Activities Reported*

- 93% - Notify SPHL or state EPI of results of potential health threats
- 71% - Hold briefings for staff about PH threats*
- 60% - Have someone on staff responsible for PH matters*
- 66% - Notify physicians about PH threats**
- 25% - Participate in CDC/SPHL program such as Foodnet, EIs programs

* Number of responses varies from 465 - 492

** More likely if CL director/supervisor has some PH background (p<.005).

Reasons CL Does Not Consult with SPHL

- 61% - Inability to quickly locate a point of contact
- 44% - Different hours of operation
- 19% - Not an appropriate source for some information
- 13% - Lack of confidence in SPHL expertise
- 10% - Concern about regulatory intervention
- 8% - Concern about interference in testing methods

Availability of and Satisfaction with SPHL Contacts

- **97%** - Always or frequently available and responds in a timely manner (N=336)
- **90%** - Responses are good to excellent (N=391)

Factors that would increase reliance on the SPHL as a course of information.

- 85% – Better understanding of the SPHL's capabilities and roles (N=445)
- 75% – Better understanding of our laboratory's role in PH (N=413)
- 67% – Expanded service of SPHL (N= 373)
- 48% – Improved responsiveness of SPHL to our inquiries (N= 361)

Expected Benefits of Increased Interaction

- 90% – Being part of a laboratory network or community (N=417)
- 89% – Additional resource about PH issues (N=435)
- 84% – Better information about new tests and procedures (N=432)
- 78% – Better access to new tests and procedures (N=422)

New State Activities

■ Information Technology

- Connecticut
- Iowa
- Nebraska
- Rhode Island

■ Communication

- Arkansas
- North Dakota
- Michigan

■ Environmental Issues

- Minnesota
- Wisconsin

Lessons Learned – Michigan Integration Program

Clinical laboratory added or modified an existing procedure due to state laboratory intervention

	Added N (%)	Changed N (%)
GBS Screening of pregnant women	7 (9%)	20 (26%)
GBS AST	9 (12%)	8 (11%)
Vancomycin screening agar for VRSA	45 (59%)	21 (28%)
D-zone test for inducible clindamycin resistance in Staphylococcus	29 (38%)	12 (16%)
Diseases/isolate/test results that are reportable to the state health department	17 (22%)	15 (19%)



Laboratory Outreach Communication System



SAFER • HEALTHIER • PEOPLE™

Need for LOCS

To address gaps in laboratory-related communication with the broad clinical community

LOCS Project Statement

To build a volunteer communications infrastructure for the exchange of laboratory-related information between CDC and others in the laboratory community

Initial Program

Provide up-to-date information in a dynamic or urgent public health situation

Updates

- Audience
 - Public health, clinical, physician office, independent laboratory staff
- Timing
 - Scheduled and unscheduled
- Route of communication
 - Teleconference, web conference
 - Mailing lists, email, phone/ FAX
- Topics
 - Needs of laboratorians that are not being met
 - Emergent issues, changes in regulations, standards, recommended practices, disaster relief

The Future is Bright

