

Future of the Nation's Laboratory Systems for Health Emergency Response: A Workshop



Agenda

Day 1: Thursday, March 23, 2023, 9:30 a.m.-5:00 p.m. ET

Day 2: Friday, March 24, 2023, 9:00 a.m.-3:00 p.m. ET

Background:

The National Academies of Sciences, Engineering, and Medicine [Forum on Medical and Public Health Preparedness for Disasters and Emergencies](#) and the [Forum on Microbial Threats](#) is hosting this workshop to explore the United States' laboratory and testing responses to past, present, and potential public health emergencies (e.g., COVID-19; monkeypox; chemical, radiological or nuclear threats), and discuss the future of laboratory capabilities, capacities, and coordination for public health emergencies response across public and private entities nationally. Using past public health emergency examples and current laboratory systems structure, this workshop will discuss a more integrated and coordinated laboratory system—connecting laboratories and stakeholders in a more collaborative manner.

Workshop Objectives:

1. Summarize the nation's various laboratory systems and their perceived roles and responsibilities for public health emergency preparedness and response.
2. Identify the factors that influence how the nation's various laboratory systems and their component parts/players perform.
3. Identify potential strategies for improving the nation's various laboratory systems within the next three to five years.
4. Begin to articulate a model structure, characteristics, components, capabilities, and functions of a more integrated and coordinated national laboratory system that is prepared for current and future public health threats and emergencies.

DAY 1: THURSDAY, MARCH 23, 2023

Day 1 will lay the foundation for the workshop and will examine the current laboratory systems for public health emergency preparedness and responses and begin to understand the performance of the current systems—what is working and what is not working—and why that matters.

SESSION I WELCOME AND OVERVIEW OF THE WORKSHOP

9:30 a.m. Welcome and Opening Remarks from the Chair

Asha M. George, *Workshop Chair*
Executive Director
Bipartisan Commission on Biodefense

9:45 a.m. Welcome and Opening Remarks from the Co-Chairs of the Forum on Medical and Public Health Preparedness for Disasters and Emergencies

Suzet McKinney, *Forum Co-Chair*
Principal, Director of Life Sciences
Sterling Bay

W. Craig Vanderwagen, *Forum Co-Chair*
Co-Founder and Director
East West Protection, LLC

SESSION II THE CURRENT LANDSCAPE OF THE NATION'S LABORATORY SYSTEMS FOR PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

10:00 a.m. Defining the Current Laboratory Systems, Components, and Stakeholders

This panel will lay the foundation of the workshop and will examine:

- *What do the nation's laboratory systems for public health emergencies currently look like now? What are the key laboratory systems, and who are the stakeholders?*
- *What are the key functions, roles, and responsibilities of laboratory systems in preparation and response to different public health emergencies, and how do these change depending on the phase or scale of the emergency?*
- *How are the various laboratory systems linked? What means of coordination and collaboration exist regarding information sharing, surveillance, workforce strengthening, access, testing, research and development?*
- *What partnerships among government, the private sector, and academia exist to bolster or build resilience within the nation's various laboratory systems?*

Moderator: Lee Fleisher, Chief Medical Officer and Director, Centers for Medicare & Medicaid Services (CMS) Center for Clinical Standards and Quality

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Panelists

Andrew Scott

Senior Radiological/ Nuclear Health Advisor
U.S. Department of Homeland Security (DHS)

Susan Van Meter

President
American Clinical Laboratory Association (ACLA)

Scott J. Becker

CEO
Association of Public Health Laboratories (APHL)

Anita Patel

Vice President
Pharmacy Services Development
Walgreens

Timothy Stenzel *virtual*

Director
Office of In Vitro Diagnostics
U.S. Food and Drug Administration (FDA)

11:00 a.m.

Discussion

12:00 p.m.

60-MINUTE LUNCH BREAK

SESSION III

EXAMINATION OF THE FACTORS THAT INFLUENCE THE PERFORMANCE OF THE NATION'S LABORATORY SYSTEMS FOR PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

1:00 p.m.

Understanding Past and Current Performances of the Nation's Laboratory Systems

This panel will present case examples of different public health emergencies to illustrate:

- *How have the nation's various laboratory systems performed during past public health emergencies? What worked well, what did not work well, and what factors influenced performance and operations?*
- *What can different public health emergency responses inform us of past, present, and hopeful capabilities related to functions, operations, equity, surge capacity, etc.? What gaps remain?*

Moderator: Kenra Ford, Vice President of Clinical Services Operations, Laboratory Services and Outbreak Response Testing, New York City Health + Hospitals

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Panelists

Christina Egan

Deputy Director, Division of Infectious Diseases
Chief, Biodefense and Mycology Laboratories Wadsworth Center
New York State Department of Health

Rob Middleberg

Core Laboratory Director
Senior Vice President of Quality Assurance and Regulatory Affairs
NMS Labs

Scott Shone

Director
North Carolina State Laboratory of Public Health

Joe Annelli

Executive Vice President
National Association of Federal Veterinarians

Ewa King *virtual*

Chief Program Officer
Association of Public Health Laboratories (APHL)

1:45 p.m.

Discussion

2:30 p.m.

30-MINUTE BREAK

3:00 p.m.

Exploring the Readiness of the Nation's Laboratory Systems: A Systems Lens

Building on the previous panel and taking a systems-level approach, this roundtable discussion will explore:

- *What assumptions are we making/should we make about the laboratory systems and their ability to prepare for and respond to public health emergencies?*
- *How have the laboratory systems evolved over time, and what are those key factors and drivers?*
- *What are the strengths and opportunities of current laboratory systems and models?*
- *What equity considerations should laboratory system stakeholders keep at the forefront of their efforts?*

Moderator: Andrew Scott, Senior Radiological/ Nuclear Health Advisor, U.S. Department of Homeland Security

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Panelists

Reynolds (Ren) M. Salerno

Director

Division of Laboratory Systems

Office of Laboratory Science and Safety (OLSS)

U.S. Centers for Disease Control and Prevention (CDC)

Beth Marlowe

Senior Scientific Director

Head R&D

Infectious Disease & Immunology

Quest Diagnostic Infectious Disease

Matthew Binnicker

Representing American Society of Microbiology (ASM)

Director of Clinical Virology

Division of Clinical Microbiology

Department of Laboratory Medicine and Pathology

Mayo Clinic

Dan Harms *virtual*

Program Manager, Operational Laboratory Policy & Programs

Executive Secretariat, Department of Defense Laboratory Network

Center for Laboratory Medicine Services

Defense Health Agency

U.S. Department of Defense

John Griggs *virtual*

Lab Director

National Analytical Radiation Environmental Laboratory (NAREL)

U.S. Environmental Protection Agency (EPA)

4:00 p.m.

Discussion

SESSION IV

DAY 1 CLOSING REMARKS

4:30 p.m.

Chair's Reflection and Preview of Day 2

Asha M. George, *Workshop Chair*

Executive Director

Bipartisan Commission on Biodefense

5:00 p.m.

End Day 1

****Networking Reception to Follow****

DAY 2: FRIDAY, MARCH 24, 2023

Day 2 will lay discuss short-term strategies and actions that can be taken now and in the next 3-5 years to enhance the capabilities, capacities, and coordination of the laboratory systems for public health emergency preparedness and response. The workshop will conclude with a roundtable discussion envisioning the ideal structure, characteristics, components, capabilities, and functions of a more coordinated national laboratory system that is prepared to respond to future public health threats and emergencies.

SESSION V

WELCOME TO DAY 2

9:00 a.m.

Welcome and Recap of Day 1

Asha M. George, Workshop Chair
Executive Director
Bipartisan Commission on Biodefense

SESSION VI

SHORT-TERM STRATEGIES TO STRENGTHEN THE NATION'S LABORATORY SYSTEMS FOR PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

9:15 a.m.

Identifying Short-Term Strategies to Enhance Laboratory Capabilities, Capacities, and Coordination: Surveillance and Early Detection

This panel will discuss potential strategies to improve surveillance and early detection capabilities, capacities, and coordination within the next 3-5 years and will consider:

- *What strategies, models, regulatory mechanisms, policies, systems, partnerships, and incentives either exist or should be considered to build additional capabilities and resiliency within the laboratory systems?*
- *What practical, impactful actions can be taken in the near term to address issues related to: supply chain, workforce strengthening, and data and specimen sharing?*
- *What strategies can be implemented to improve the integration of multi-source surveillance systems with national surveillance?*
- *What strategies can be implemented to promote and support health equity during public health emergency response?*

Moderator: Brannon Traxler, Director of Public Health, South Carolina Department of Health and Environmental Control

Panelists

Tracey Goldstein
Division Chief
Emerging Threats Division
Office of Infectious Diseases
Bureau for Global Health
U.S. Agency for International Development (USAID)

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Adi V. Gundlapalli

Chief Public Health Informatics Officer
Office of Public Health Data, Surveillance, and Technology
U.S. Centers for Disease Control and Prevention

Sam Scarpino

Director of AI and Life Sciences
Northeastern University
Former Vice President of Pathogen Surveillance
The Rockefeller Foundation

Lauren Sauer *virtual* (co-presenter with Colleen)

Director, Special Pathogens Research Network
National Emerging Special Pathogens Training and Education Center
Associate Professor
Department of Environmental, Agricultural, and Occupational Health
College of Public Health
Global Center for Health Security
University of Nebraska Medical Center

Colleen Kraft *virtual* (co-presenter with Lauren)

Professor
Department of Pathology and Laboratory Medicine
Division of Infectious Diseases
Associate Chief Medical Officer
Emory University Hospital

10:00 a.m.

Discussion

10:30 a.m.

Identifying Short-Term Strategies to Enhance Laboratory Capabilities, Capacities, and Coordination: Acceleration, Surge, and Long-Term Response

This panel will discuss potential strategies to improve acceleration, surge, and long-term response capabilities, capacities, and coordination within the next 3-5 years and will consider:

- *What strategies, models, regulatory mechanisms, policies, systems, partnerships, and incentives either exist or should be considered to enhance surge capabilities within laboratory systems?*
- *What practical, impactful actions can be taken in the near term to address issues related to: maintaining standing excess test capacity, rapid expansion of test capacity, and rapid development of new test methods?*
- *What strategies can be implemented to resolve unmet needs during response?*
- *What strategies can be implemented to ensure that laboratory testing is made available in an equitable manner during response?*

Moderator: Susan Van Meter, President, American Clinical Laboratory Association

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Panelists

Matthew Binnicker

Director of Clinical Virology
Division of Clinical Microbiology
Department of Laboratory Medicine and Pathology
Mayo Clinic

Gigi Kwik Gronvall

Senior Scholar
Johns Hopkins Center for Health Security
Associate Professor
Department of Environmental Health and Engineering
Johns Hopkins Bloomberg School of Public Health

Eric Konnick

Associate Professor
Associate Director – Genetics and Solid Tumors Laboratory
Director – Genetics Preanalytical Services
Department of Laboratory Medicine and Pathology
University of Washington School of Medicine

Grace Kubin

Director
Texas Department of State Health Services Laboratory

Mara Aspinall *virtual*

Professor of Practice FSC
College of Health Solutions
Arizona State University

Timothy Stenzel *virtual*

Director
Office of In Vitro Diagnostics and Radiological Health
U.S. Food and Drug Administration (FDA)

11:15 a.m.

Discussion

12:00 p.m.

60-MINUTE LUNCH BREAK

SESSION VII

**A FUTURE MODEL NATIONAL LABORATORY SYSTEM FOR PUBLIC HEALTH
EMERGENCY PREPAREDNESS AND RESPONSE**

1:00 p.m.

Articulating the Elements of a Model National Laboratory System

Reflecting on the entirety of the workshop discussions, this concluding roundtable discussion will articulate the ideal structure, characteristics, components, capabilities, and functions of a more coordinated national laboratory system that is prepared to respond to future public health threats and emergencies, and will examine:

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- *What are the structures, characteristics, components, capabilities, and functions of model national laboratory systems?*
- *What models exist that current or future systems can benchmark or adapt?*
- *How can we achieve a flexible, adaptable, coordinated and equitable laboratory system prepared to respond to the evolving threat environment and future uncertainties?*
- *Who are key stakeholders that can advance solutions?*
- *How can we ensure that our laboratory preparedness and response capabilities are utilized in an equitable manner to support less resources areas/underserved populations?*

Moderator: Joanne Andreadis, Associate Director for Science, Center for Preparedness and Response, U.S. Centers for Disease Control and Prevention (CDC)

Panelists

Jill Taylor

Senior Advisor for Scientific Affairs
Association of Public Health Laboratories (APHL)

Jaime Yassif

Vice President
Global Biological Policy and Programs
NTI | Bio

D. Christian Hassell

Deputy Assistant Secretary
Senior Science Advisor
Administration for Strategic Preparedness and Response (ASPR)

Jonathan Genzen

Chief Medical Officer
ARUP

2:00 p.m.

Discussion

SESSION VIII

WORKSHOP CLOSING REMARKS

2:30 p.m.

Final Words from the Co-Chairs of the Forum on Medical and Public Health Preparedness for Disasters and Emergencies

Suzet McKinney, *Forum Co-Chair*
Principal, Director of Life Sciences
Sterling Bay

W. Craig Vanderwagen, *Forum Co-Chair*
Co-Founder and Director
East West Protection, LLC

2:45 p.m.

Closing Remarks

Asha M. George, *Workshop Chair*
Executive Director
Bipartisan Commission on Biodefense

3:00 p.m.

Adjourn Workshop

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