



CDC-RFA-OE20 -2001: Enhancing Public Health Laboratory Capabilities and Increasing Capacity

New Focus Area Project Plan Template

SECTION 1: GENERAL INFORMATION

1.	Name of Applicant: Association of Public Health Laboratories (APHL)	2.	Focus Area: Environmental Health
3.	Requested Funding Amount: <i>(Whole Numbers Only)</i> \$900,0000	4.	Funding Source (e.g., BA, COVID, PPHF, OPIOID): BA
5.	Name of Project: LRN-R Surge Capacity Pilot Project		
6.	Name of Technical Monitor(s): Robert Jones	7.	Technical Monitor(s) Email Address: rljones@cdc.gov
		8.	Technical Monitor(s) Phone Number: 770-488-7991
9.	Name of Focus Area Coordinator (FAC): Daniel Mandel	10.	Email Address of FAC: lbt7@cdc.gov
		11.	Phone Number of FAC: 770-488-7967

SECTION 2: PROJECT SUMMARY

2.1 – Project Description

Project Status: *Select whether your project/activity is an entirely new project or an extension of an existing project:*

- ☒ New CIO Project/Activity
☐ CIO Existing Project/Activity (Expansion/Change of Scope)

Project Description: *Provide a description of the project including a justification for the project's bona fide need in the space below:*

CDC's Radiobioassay Laboratory is the one and only laboratory in the U.S. with rapid response capability for assessing population contamination with radionuclides. A major gap in CDC's response to a radiological or nuclear incident is lack of diagnostic laboratory surge capacity. The current CDC Radiobioassay Laboratory has a limited throughput of approximately 300 samples per day with a predicted national need to test tens to hundreds of thousands of people in an actual radiological incident. A comprehensive Laboratory Response Network – Radiological (LRN-R) to conduct surge testing and local response is not currently available.

To address this need, CDC is developing additional surge capacity in two to three selected laboratories that have some existing radiological laboratory infrastructure. Establishing a framework through this pilot project will improve national capacity to detect, respond, and recover from an intentional or accidental radiological or nuclear incident affecting human health. Pilot laboratories require additional funds for the purchase of specialized equipment to support project objectives.

Activities: *Describe activities to be carried out in this project as well as their associated deliverables:*

APHL will support pilot LRN-R laboratories to obtain state-of-the-art instrumentation, equipment, and supplies to rapidly screen people for alpha, beta and gamma emitting radionuclides. Examples of needed equipment may include:

- NaI gamma screening system of 8 NaI gamma detectors to enable rapid screening of gamma emitting radionuclides in people
- Liquid Scintillation Counter (LSC) to be able to rapidly screen for alpha and beta emitting radionuclides as well as the quantification of Strontium-90, tritium, and Phosphorus-32
- Various small equipment, reagents, LSC cocktail, LSC vials, analytical tubes, radionuclide standards, etc. needed to support pilot project activities

Expected outputs:

- Reporting of equipment and supplies procured and installed in pilot laboratories

2.2 – Project Strategy and Outcomes

Project Strategies: <i>Select one or more strategies that the project will contribute towards:</i>	☐ S1. Science, Management and Operations ☐ S2. Policy, Partnership and Communication ☐ S3. Training and Capacity Building ☒ S4. Laboratory Quality, Safety and Informatics for Public Health Testing Services, Surveillance and Response	
For this Project: Select the outcomes that the project will contribute towards		POs and IOs Proposed for this Project
Please check and select responses for all applicable boxes below.		
PO-1. Improved collaboration and communication across public health laboratories and other stakeholders.		☐
PO-2. Improved awareness and understanding of public health laboratory capabilities and needs among public health laboratories and other stakeholders.		☐
PO-4. Improved awareness of new tools and resources for public health laboratories and other stakeholders.		☐
PO-5. Increase in needs met due to improved awareness and understanding of public health laboratory training and professional development needs and opportunities among training and workforce development stakeholders.		☐
PO-6. Improved access to and participation in training and workforce development resources and opportunities among current and potential laboratory professionals.		☐
PO-7. Enhanced knowledge, skills, and abilities among current and potential public health laboratory professionals in diverse settings.		☐
PO-8. Improved awareness of public health laboratory informatics capabilities.		☐
PO-9. Improved implementation of quality and safety systems and model practices in public health laboratories.		☐
PO-10. Improved knowledge of technical assistance needs and priorities in state and local public health laboratories.		☐
PO-11. Improved and ongoing awareness and understanding among stakeholders of emerging methods and processes in public health laboratories.		☐
PO-12. Improved dissemination of evidence-based practices to public health laboratories and other stakeholders.		☐
PO-13. Improved laboratory testing capability and surge capacity for emergency response through equipment procurement, competent staff and partnerships.		☒
NEW S1.PO-14 Implement approaches to ensure efficiency for committee/subcommittee functions		☐
NEW S1.PO-15 Maintain monitoring and evaluation processes across all focus areas		☐

NEW S1.PO-16 Maintain and ensure process and system of effective knowledge management and commitment to rigorous scientific integrity, quality, and professional standards of practice in development of APHL products	☐
NEW S4.PO-1 Better informatics solutions available for public health laboratory system-wide adoption	☐
NEW S4.PO-2 Improved, timely public health laboratory access to and awareness of needed resources	☐
NEW FLS.C.PO-1 Improved dissemination of clear, compelling, targeted, and timely messages using appropriate communication channels for relevant audiences	☐
NEW FLS.C.PO-2 Increased production of communications materials, websites or other digital platforms, or any other resources with APHL-CDC logo use (i.e., co-branding and logo licensing)	☐
NEW FLS.C.PO-3 Improved dissemination of APHL-CDC co-branded materials or resources for public health laboratories and other stakeholders	☐
NEW Ph2.ID.PO-1 Improve testing capability/capacity to conduct and report low-volume or highly-specialized testing efficiently.	☐
NEW Ph2.PHPR.PO-1 Ensure compliance and access to essential, centralized resources for laboratory testing capability and surge capacity for coordinated emergency response.	☐
NEW QSS-S4.2-PO1. Increased public health laboratory and system partner participation/commitment to L-SIP assessment/reassessment process.	☐
NEW QSS-S4.2-PO3. Improved implementation of quality and safety system model practices across participating public health laboratory system (state/local level).	☐
NEW QSS-S4.2-PO2. Increased participating public health laboratory, system partner knowledge of quality needs and model practices.	☐
IO-1. Expanded Communities of Practice and other collaborative relationships among public health laboratories and other stakeholders.	☐
IO-2. Strengthened information sharing across public health laboratory networks and other stakeholders.	☐
IO-3. Improved engagement and participation of current and potential public health laboratory workforce through application of best practices.	☐
IO-4. Enhanced practices, methods, and infrastructure within the public health laboratory system.	☒
IO-5. Improved data exchange and interoperability among public health laboratories and their partners.	☐
IO-6. Improved public health laboratory detection, surveillance, and response.	☒
IO-7. Improved quality and safety in public health laboratories.	☐
NEW S1.IO-8 Ensured effective leadership and management system for committees/subcommittees	☐
NEW S1.IO-9 An effective monitoring and evaluation system across the organization	☐
NEW S2.IO-3 (Old PO-3) Improved support for public health laboratories among policy makers	☐
NEW S3.IO-1 Leadership development participants granted increased leadership roles and/or responsibilities	☐
NEW S4.IO-1 System-wide adoption of informatics and data management solutions among public health laboratories and their partners	☐
NEW S4.IO-2 Increased use of resources/outputs created and shared via technical assistance responses	☐
NEW S4.IO-3 Improved technical capability among recipients as a result of fulfilled requests	☐
NEW FLS.C.IO-1 Improved reach of clear, compelling, targeted, and timely messages among relevant audiences	☐
NEW FLS.C.IO-2 Enhanced adoption or use of APHL-CDC co-branded materials or resources among public health laboratories and other stakeholders	☐

SECTION 3: PROPOSED BUDGET

Instructions for Use of funds: *Provide any restrictions or instructions for applicant use of funds, as applicable:*

Funds should be used by 2-3 LRN-R pilot laboratories to build sufficient testing capabilities. Funds may be used to purchase supplies, equipment, or other requirements. Examples of anticipated laboratory needs are included below (with expected costs) but do not represent the only allowable costs.

Liquid Scintillation Counter (LSC) for alpha beta screening (\$160,000 per lab)

Nal gamma screening system for gamma emitters (\$100,000 per lab)
Liquid Scintillation cocktail for LSC instrument (\$20,000 per lab)
Radionuclide isotope standards (\$40,000 per lab)
General Lab supplies (\$50,000 per lab)
Information technology support (\$10,000 per lab)
Lab renovations to support new instruments (\$20,000 per lab--due to the weight of the Nal screening system)
FTE support (\$100,000 per lab)
Travel to CDC for Technology transfer and training (\$5,000 per lab)

SECTION 4: ADDITIONAL CONSIDERATIONS

Reviewers' feedback on additional considerations (if any):

Click or tap here to enter text.

3/1/2021

X Daniel Mandel

Technical Monitor/Submitter
Signed by: Daniel A. Mandel -S