Centers for Disease Control and Prevention

Global Health Center

Advancing Diagnostic Network Optimization, Stepwise Laboratory Accreditation, and Integrated One Health Specimen Transport in Liberia

CDC-RFA-JG-24-0134

05/28/2024

Signature Date

Table of Contents

Part I. Overview

Applicants must go to the synopsis page of this announcement at www.grants.gov and click on the "Subscribe" button link to ensure they receive notifications of any changes to CDC-RFA-JG-24-0134. Applicants also must provide an e-mail address to www.grants.gov to receive notifications of changes.

A. Federal Agency Name:

Centers for Disease Control and Prevention (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR)

B. Notice of Funding Opportunity (NOFO) Title:

Advancing Diagnostic Network Optimization, Stepwise Laboratory Accreditation, and Integrated One Health Specimen Transport in Liberia

C. Announcement Type: New - Type 1:

This announcement is only for non-research activities supported by CDC. If research is proposed, the application will not be considered. For purposes of this NOFO, research is defined as set forth in 45 CFR 75.2 and, for further clarity, as set forth in 42 CFR 52.2 (see eCFR :: 45 CFR 75.2 -- Definitions and *https://www.gpo.gov/fdsys/pkg/CFR-2007-title42-vol1/pdf/CFR-2007-title42-vol1-sec52-2.pdf*. In addition, for purposes of research involving human subjects and available exceptions for public health activities, please see 45 CFR 46.102(l) (*https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-A/part-46/subpart-A/section-46.102#p-46.102(l)*).

New Type 1

D. Agency Notice of Funding Opportunity Number:

CDC-RFA-JG-24-0134

E. Assistance Listings Number:

93.318

F. Dates:

1. Due Date for Letter of Intent (LOI):

2. Due Date for Applications:

05/28/2024

11:59 p.m. U.S. Eastern Standard Time, at www.grants.gov.

3. Due Date for Informational Conference Call:

CDC will host an informational webinar for interested applicants. The intent of the webinar is for potential applicants to learn key NOFO information and timelines. Questions and answers from the session will be compiled and amended in the NOFO. Due to limited space, applicants will need to register for the webinar.

- When: April 4, 2024 09:00am US Eastern Daylight Time (-4 hours GMT).
- Topic: CDC Notice of Funding Opportunity Webinar, CDC-RFA-JG-24-0134: Advancing Diagnostic Network Optimization, Stepwise Laboratory Accreditation, and Integrated One Health Specimen Transport in Liberia
- Register in advance for this webinar: https://cdc.zoomgov.com/webinar/register/WN_krl9JNVpTD2Krqi1bP9SXA

G. Executive Summary:

1. Summary Paragraph

This Notice of Funding Opportunity (NOFO) aims to innovate, implement, and evaluate approaches to One Health laboratory diagnostic network optimization and specimen transport in Liberia. This multi-component NOFO's design will support development of a comprehensive, resource-mapped, accredited national and sub-national laboratory network; facilitate the physical transportation architecture required to transfer network commodities (namely human, animal, and environmental specimens) point-to-point; and optimize digital communication, information, and supply chain systems necessary to sustain the network itself. Recipients will implement the activities at national and sub-national levels throughout Liberia's 15 counties. Additionally, recipients will provide technical assistance, capacity-building, direct services, and/or logistics and procurement support depending on the specified component. Activities and expected outcomes will focus on strengthening Liberia's national and sub-national reference laboratory diagnostic capacity; facilitating Government of Liberia's (GOL), ownership of laboratory networks and its eventual capacity to coordinate a robust specimen transport network beyond the

project period of performance; improving health system capacities to rapidly detect and respond to public health threats.

This NOFO has a required component funding structure. Please refer to Funding Strategy section.

a. Funding Instrument Type:
CA (Cooperative Agreement)

b. Approximate Number of Awards
3

c. Total Period of Performance Funding:
$8,500,000

d. Average One Year Award Amount:
$1,700,000

e. Total Period of Performance Length:
5 year(s)

f. Estimated Award Date:
September 30, 2024

g. Cost Sharing and / or Matching Requirements:
No
N/A

Part II. Full Text

A. Funding Opportunity Description

1. Background

a. Overview
Since 2015, CDC´s support of the Global Health Security Agenda (GHSA), has bolstered Liberia's capacity to prevent, detect, and respond to public health threats. CDC, in coordination with GOL and other partners, supports rapid detection and response to neutralize public health threats at their source. Prior USG investment in Liberia's public health infrastructure has introduced laboratory capacities for Ebola, COVID-19, yellow fever, Lassa fever, cholera and meningitis. However, key vulnerabilities persist. A 2021 retrospective exercise revealed that detection of a hemorrhagic fever takes up to 10 days (World Health Organization [WHO] benchmark is 7 days), with an additional three days needed to mobilize effective response (WHO benchmark is 7 days). Also, neither the National Public Health Institute of Liberia (NPHIL) nor Ministry of Health (MOH) recognized a December 2021 measles outbreak until April 2022, even though the sub-national level officials provided timely notification.

Further, Liberia's fragile health system lacks resources to manage acute events without catastrophic impact on other health sectors. In Fiscal Year (FY) 2023, the health sector accounted for only 9.5% of GOL´s national budget. Additional health system challenges have persisted since the 2014–2016 Ebola outbreak:

- Inadequate municipal service provision, poor quality health care infrastructure, nonexistent roads, and annual rains constrain access to 10 of 15 counties for nearly eight months, impeding timely sample transportation, diagnosis, and response
- Delayed and sometimes absent national-to-subnational coordination

Liberia´s donor and implementing partner landscape is complex. Multi-lateral (Global Fund; Global Financing Facility; World Bank; WHO) and bilateral entities (CDC; USAID US National Institutes of Health; US Department of Defense; Japanese International Cooperation Agency; GIZ; Agency for French Development) invest and manage over 50% of GOL's health sector resources (FY23). Donors and their recipients typically devote significant “hands-on” attention to program implementation because GOL engagement is insufficient or ineffective. For example, in 2023, Global Fund designated Liberia as an “Additional Safety Precautions” country due to audit findings detailing US $6.7M in non-compliant expenditures, existing, persistent systemic risks, insufficient MOH management capacities and grant oversight, and low in-country grant funds absorption rate.

Proposed NOFO activities align with GHS pillars, supporting real-time bio-surveillance and diagnostics. It supports diagnostic technology and workforce laboratory investments, cost-effective diagnostic network optimization and integration, and rapid, reliable, and geographically-balanced direct point-to-point specimen transport. Building upon existing partnerships with MOH, NPHIL [which houses the National Public Health Reference Laboratory (NPHRL)], other USG health agencies, and other NGO partners, successful applicants will advance national and sub-national strategies, by offering mentorship, training, and accountability.

Applicants should delineate approaches to the over-arching strategies described and elaborate on measurable activities (with accompanying evaluation plan) to reach intended outcomes.

In addition to Core Global Health Security Priorities (Components 1-3), this NOFO will support additional activities when funding is made available for a moderate (Component 4) or substantial (Component 5) response to a disease outbreak or other public health emergency. Applicants must apply for all five components.

b. Statutory Authorities

This program is authorized under Section 307 of the Public Health Service Act [42 USC 242*l*] and Section 301(a) [42 USC 241(a)] of the Public Health Service Act.

c. Healthy People 2030

This project supports the following Healthy People 2030 topic areas:

- Global Health
- Public Health Infrastructure
- Health Care Access and Quality
- Infectious Disease
- Emergency Preparedness

d. Other National Public Health Priorities and Strategies

Activities funded through this cooperative agreement must align with the following United States Government (USG) and HHS/CDC strategies and policies:

CDC's strategy for improving global health security (GHS), based on three concepts embedded in the agency's mission to protect public health worldwide: 1) Prevent 2) Detect 3) Respond

CDC and the Global Health Security Agenda | Global Health | CDC

The Department of Health and Human Services' (HHS) Global Health Strategy

HHS Global Strategy | HHS.gov

International Health Regulations (2005)(IHR) and supporting policies and frameworks

International health regulations (who.int)

e. Relevant Work

This NOFO builds on previous funding awards (CDC-RFA-GH19-1962; CDC-RFA-GH19-1961). NOFO activities will optimize capacity and integrate evidence-based cost efficiencies through One Health coordination; tailoring of modalities, resources, and specimen transport to epidemiologic and geographic realities; laboratory accreditation; logistics and supply chain management; digital information systems; and preparation for an anticipated transition to Liberia´s new laboratory site.

The NOFO acknowledges existing investments from Global Fund, World Bank, and other USG entities. The NOFO recipient will join donors and partners who are committed to harmonized, fiscally-responsible, and impactful programs.

2. CDC Project Description

a. Approach

Bold indicates period of performance outcome.

Component 1: Investments in Laboratory Diagnostic Technology, Quality, & Workforce

Strategies and Activities	**Short-Term Outcomes**	**Intermediate Outcomes**	**Long-Term Outcomes**
Strategy 1 Apply qualified and sustained technical expertise to improvement of laboratory and quality management systems at national and sub-national level to achieve and maintain international	**Strengths and gaps in national and sub-national laboratory quality management systems are characterized** **Technical capacity to achieve accreditation is introduced among laboratory workers**	**Timeliness, quality, and credibility of pathogen detection and reporting of disease of public health importance improves**	**National laboratory services consistently adhere to external quality assurance and control measures** **Reliable detection of pathogens of public health importance leads to improved understanding of Liberia's**

laboratory accreditation			**epidemiologic risk profile**
Strategy 2 Establish and support cadres of mid-level and senior One Health Laboratory Managers for effective governance and operations of national and sub-national laboratory network	**Accountable resource utilization at national and sub-national laboratory levels**	**Improved national and sub-national coordination and fidelity to laboratory processes and procedures** **Increased number of laboratories function efficiently due to less staffing or operational disruptions** A skilled public health technical cadre is professionally codified into Liberia's civil service	**Workforce pipeline is established and preserves institutional best practices necessary to achieve and maintain international accreditation**
Strategy 3 Successful preparation and launch of a new integrated One Health central reference laboratory	**Potentially dangerous pathogens are safely and securely managed during physical relocation**	**Enhanced state-of-the-art laboratory diagnostic capacities are available in Liberia and in West Africa sub-region** **Reduced fragmentation between clinical, public health, animal, food and water, and environmental labs**	**Efficiency and speed in identifying causative agent(s) contributing to Liberia's global health security risks improves**

Component 2: Investments in Laboratory Diagnostic and Specimen Transport Network Optimization, Integration & Cost-Effectiveness

Strategies and Activities	**Short-Term Outcomes**	**Intermediate Outcomes**	**Long-Term Outcomes**
Strategy 1 Design and optimize an integrated One Health diagnostic	**Improved coordination between animal,**	**Increased availability and reliability of diagnostic tests that are appropriately**	**Health care services are minimally disrupted during**

and specimen transport network to establish the business and operational environment conducive to a future public-private partnership approach to specimen transport in Liberia	**environmental, and human sectors** **Increased access to definitive diagnosis at point-of-care and through reference laboratory services** **Consensus is established among One Health stakeholders on what constitutes an ideal specimen referral pathway in Liberia**	**applied for known and emerging pathogens of public health importance** **Improved quality, reliability, and safety of transfer of One Health samples from point-of-collection to definitive diagnostic location**	**outbreaks and public health events** Expedited processes and procedures, and administrative and regulatory systems support specimen transfer to regional or global laboratories
<u>Strategy 2</u> Improve logistic and management capacity at national and sub-national Public Health Reference Laboratories to maintain routine operations and prepare surge capacity for outbreak surge capacity	**Consistent procurement and stock-on-hand balances of reagents, media, point-of-care, and reference kits at NPHRL and sub-national laboratories are maintained and tracked**	**Reduced capital and operational expenses**	Cost-savings are reinvested to sustain diagnostic platforms and laboratory workforce
<u>Strategy 3</u> Establish, consolidate, or interoperate digital laboratory information systems used to track tests, results, specimens, and supplies to improve availability and dissemination of diagnostic information	**Persistent, recurrent bottlenecks from point-of-sample collection to results return are identified, quantified, and corrected** **Characterization of the relationships between and the impact of workforce, technology, and supply chain on timely and reliable**	**Direct service clinical providers improve therapeutic algorithms and decision-making** **National policy and decision makers, laboratory leaders, county and district health officers are informed about outbreaks, supply chain gaps, *etc*. at**	Human and animal beneficiaries receive appropriate and timely clinical care or management

necessary for public health response	**diagnostics reduces or eliminates fragmented and redundant information platforms, policies, and procedures**	**earliest possible stage**	

Component 3: Investments in Rapid, Reliable and Geographically-Balanced Specimen Transport

Strategies and Activities	**Short-Term Outcomes**	**Intermediate Outcomes**	**Long-Term Outcomes**
Strategy 1 Transport of One Health specimens from point-of-sample collection to intended destination for definitive diagnosis	**Time required to rule-out priority diseases of public health importance is reduced** **Appropriate clinical management is consistently delivered** **Faster specimen transport time**	**All laboratories with public health relevance participate in detection and response to public health threats**	**Decreased transmission of diseases between humans and animals**

Components 4 and 5: Rapid Response to Small-Scale and Large-Scale Public Health Emergencies

Strategies and Activities	**Short-Term Outcomes**	**Intermediate Outcomes**	**Long-Term Outcomes**
Strategy 1: Intensify active surveillance, case finding, contact tracing, monitoring and other outbreak response measures at local levels Strategy 2: Strengthen capabilities for epidemiologic and	**Improved time to deploy healthcare workers to respond and control the spread of infectious diseases** **Strengthened coordination and robust emergency**	**Reduced time to reinvigorated public health activities that have been interrupted or slowed due to outbreak response** Improved access to health services by individuals in	**Sustained improvements in timeliness of achieving outbreak/epidemic/pandemic control** **Reduced morbidity and mortality attributed to disease outbreaks or other public health threats** Reduced spread of infectious outbreaks into other countries **Improved preparedness for potential future outbreaks**

laboratory analysis and program evaluation Strategy 3: Intensify social mobilization, community and professional education and engagement. Strategy 4: Improve outbreak case management and infection control Strategy 5: Strengthen non-outbreak related public health activities that are impacted by the outbreak Strategy 6: Increase security and logistics for local responders Strategy 7: Strengthen capabilities for preparedness and response to highly infectious diseases	**preparedness and response capacities** **Improved disease outbreak case management and infection control** **Shortened time to detect highly infectious disease outbreaks through active surveillance and case finding** **Reduced transmission of highly infectious diseases in clinical and community settings** **Increased awareness, knowledge, and support for local disease outbreak response and prevention efforts at the community level** **Rapid identification of and containment of highly infectious disease outbreaks**	outbreak affected areas **Increased capacity of countries for early warning, risk reduction and management of national and global health risks**	**and other highly infectious diseases**

i. Purpose

This NOFO presents a Results Framework that represents the ideal for an inter-dependent lab and specimen referral system in Liberia expanded from the current platform: one central lab performs Integrated Disease Surveillance & Response (IDSR); five regional hospitals have varying capacity for reference testing. Because these labs are not well-supported by GOL or

donors, a CDC-funded cost-intensive hub and spoke specimen network was created in 2015 during the Ebola response.

ii. Outcomes

The logic model illustrates key strategies by component and its outcomes at three levels – short-term, immediate, and long-term. The recipient is expected to implement these strategies and demonstrate measurable progress toward achieving the outcomes each year of the award. The recipient will directly work and collaborate with the MOH and NPHIL to: 1) support continuous quality improvement in provision of reference and clinical laboratory services; 2) develop innovative approaches to optimize resource investment and expenditures through the network; 3) physically transport public health, clinical, animal, or environmental specimens to designated laboratories; and 4) to collaboratively propose strategies and solutions. Project activities and outcomes should promote the development of the GOL's long-term capacity to operate and sustain clinical and reference diagnostic laboratories and efficiently coordinate a robust specimen transport network beyond the project period of performance. Specific strategies, activities and outcomes expected of the recipient include the following:

Component 1: Investments in Laboratory Diagnostic Technology, Quality, & Workforce

The principal strategies for this component are: 1) The achievement of international accreditation of the national and sub-national reference laboratories in Liberia; 2) the establishment of mid-level and senior-level One Health laboratory managers; and 3) successful preparation and launch of a new integrated central reference laboratory. Below are expected outcomes by level:

Short-term outcomes

- Strengths and gaps in national and sub-national laboratory quality management systems are characterized
- Technical capacity to achieve accreditation is introduced among laboratory workers
- Accountable resource utilization at national and sub-national laboratory levels
- Potentially dangerous pathogens are safely and securely managed during physical relocation

Intermediate outcomes

- Timeliness, quality, and credibility of pathogen detection and reporting of disease of public health importance improves
- Improved national and sub-national coordination and fidelity to laboratory processes and procedures
- Increased number of laboratories function efficiently due to less staffing or operational disruptions
- Enhanced state-of-the-art laboratory diagnostic capacities are available in Liberia and in West Africa sub-region
- Reduced fragmentation between clinical, public health, animal, food and water, and environmental labs

Long-term outcomes

- National laboratory services consistently adhere to external quality assurance and control measures

- Reliable detection of pathogens of public health importance leads to improved understanding of Liberia's epidemiologic risk profile
- Workforce pipeline is established and preserves institutional best practices necessary to achieve and maintain international accreditation
- Efficiency and speed in identifying causative agent(s) that contribute to Liberia's global health security risks improves

Component 2: Investments in Laboratory Diagnostic and Specimen Transport Network Optimization, Integration & Cost-Effectiveness

The following are key strategies for Component 2 to build disease detection capacity with a special focus on cost-effective network optimization & integration investments: 1) Design One Health diagnostic and specimen transport network; 2) Improve logistic and management capacity at national and sub-national public health reference laboratories; and 3) Establish digital laboratory information system. Below are expected outcomes for this component:

Short-term outcomes

- Improved coordination between animal, environmental, and human sectors
- Increased access to definitive diagnosis at point-of-care and through reference laboratory services
- Consensus is established among One Health stakeholders on what constitutes an ideal specimen referral pathway in Liberia
- Consistent procurement and stock-on-hand balances of reagents, media, point-of-care, and reference kits at NPHRL and sub-national laboratories are maintained and tracked
- Persistent, recurrent bottlenecks from point-of-sample collection to results return are identified, quantified, and corrected
- Characterization of the relationships between and the impact of workforce, technology, and supply chain on timely and reliable diagnostics reduces or eliminates fragmented and redundant information platforms, policies, and procedures

Intermediate outcomes

- Increased availability and reliability of diagnostic tests that are appropriately applied for known and emerging pathogens of public health importance
- Improved quality, reliability, and safety of transfer of One Health samples from point-of-collection to definitive diagnostic location
- Reduced capital and operational expenses
- Direct service clinical providers improve therapeutic algorithms and decision-making
- National policy and decision makers, laboratory leaders, county and district health officers are informed about outbreaks, supply chain gaps, *etc*. at earliest possible stage

Long-term outcomes

- Health care services are minimally disrupted during outbreaks and public health events

Component 3: Investments in Rapid, Reliable, and Geographically-Balanced Specimen Transport

Component 3 focuses on strengthening the capacity to detect and respond to disease outbreaks rapidly through reliable and geographically focused specimen transport. The key strategy is to transport One Health specimens from point-of-sample collection to intended destination for definitive diagnosis. Expected outcomes by level for this component include:

Short-term outcomes

- Time required to rule-out priority diseases of public health importance is reduced
- Appropriate clinical management is consistently delivered
- Faster specimen transport times

Intermediate outcomes

- All laboratories with public health relevance participate in detection and response to public health threats

Long-term outcomes

- Decreased disease transmission between humans and animals

Components 4 and 5: Rapid Response to Small-Scale and Large-Scale Public Health Emergencies

Short-Term Outcomes:

- Improved time to deploy healthcare workers to respond and control the spread of infectious diseases
- Strengthened coordination and robust emergency preparedness and response capacities
- Improved disease outbreak case management and infection control
- Shortened time to detect highly infectious disease outbreaks through active surveillance and case finding
- Reduced transmission of highly infectious diseases in clinical and community settings
- Increased awareness, knowledge, and support for local disease outbreak response and prevention efforts at the community level
- Rapid identification of and containment of highly infectious disease outbreaks

Intermediate Outcomes:

- Reduced time to reinvigorate public health activities that have been interrupted or slowed due to outbreak response
- Increased capacity of countries for early warning, risk reduction and management of national and global health risks

Long-Term Outcomes:

- Sustained improvements in timeliness of achieving outbreak/epidemic/pandemic control

- Reduced morbidity and mortality attributed to disease outbreaks or other public health threats
- Improved preparedness for potential future outbreaks and other highly infectious diseases

iii. Strategies and Activities

Component 1: Investments in Laboratory Diagnostic Technology, Quality, and Workforce

- **Strategy 1:** Apply qualified and sustained technical expertise to improvement of laboratory and quality management systems at national and sub-national level to achieve and maintain international laboratory accreditation
- **Activities:**
    - Provide technical oversight on management, maintenance, and biosafety certification of national and sub-national diagnostic equipment
    - Promote biosafety and bio-security best practices of sample collection, packaging, specimen transport and diagnostic testing through supportive supervision and monitoring
    - Consistent with the benchmarks and metrics established for ISO accreditation, support development of quality management Standard Operating Procedures (SOPs), and when necessary, establish international agreements with regional or global laboratories to perform diagnostic and confirmatory testing when local capacity is unavailable
    - Design external quality assessment approaches that achieve national goals for stepwise reference laboratory accreditation
    - Apply continuous quality improvement methodology to document, review, and systematically address diagnostic network successes and challenges, data quality gaps, and staff performance
    - Conduct regular supportive supervision of and provide technical assistance to public health diagnostic officers across all geographic regions within Liberia's fifteen counties
    - Provide relocation and initialization technical assistance for the anticipated USG-constructed NPHRL, including its specimen bio-repository, equipment, and materials

- **Strategy 2:** Establish and support cadres of mid-level and senior One Health Laboratory Managers for effective governance and operations of national and sub-national laboratory network
- **Activities:**
    - Review career progression and competency retention of Liberia laboratory managers who previously participated in laboratory leadership programs
    - Design and pilot an in-service laboratory mentorship program for newly-graduated public health laboratories employed in public health or reference laboratory contexts
    - Develop a mid-term and long-term laboratory workforce staffing plan for the anticipated new NPHRL site

- **Strategy 3:** Successful preparation and launch of a new integrated One Health central reference laboratory
- **Activities:**
    - Provide pathogen specific, subject matter expert (SME) input on biosafety related topics in the form of curriculum development, trainings, and competency monitoring
    - Provide technical assistance and logistics support for transfer of designated, non-obsolete NPHRL equipment from Charlesville to new reference laboratory location
    - Installation, validation, and re-certification of transferred equipment
    - Provide technical expertise to procedures for archiving public health (*i.e.,* IDSR-related) specimens prior to physical transfer
    - Provide technical assistance and logistics support for physical transfer of IDSR-related NPHRL specimens from previous central laboratory to newly-constructed NPHRL
    - Provide technical assistance and guidance on international and USG endorsed standards for specimen transport and storage

Component 2: Investments in Laboratory Diagnostic and Specimen Transport Network Optimization, Integration and Cost-Effectiveness

- **Strategy 1:** Design and optimize an integrated One Health diagnostic and specimen transport network to establish the business and operational environment conducive to a future public-private partnership approach to specimen transport in Liberia
- **Activities:**
    - Develop a roadmap and costed implementation plan for clinical, public, animal, and environmental laboratory diagnostic network optimization at national and sub-national levels
    - Lead or support retrospective cost-effectiveness evaluation of existing diagnostic and specimen transport platform
    - Use modeling methodology to propose and simulate scenarios for diagnostic and specimen network optimization
    - Based upon modeling scenarios, design, pilot, evaluate, validate, and launch cost-effective and sustainable business model(s) for integrated One Health specimen transport network through existing One Health and Laboratory Working Groups, increase technical coordination between and within host government, partners, and donors (including but not limited to: National Diagnostic Division, NPHRL, and other human, animal, and environmental actors)
    - Support comprehensive resource mapping that leverages bilateral, multi-lateral, and private sector resources as part of development of an optimized roadmap for future host government network management
    - In coordination with other relevant specimen transport stakeholders, apply industrial flow mapping and analysis techniques to reestablish optimal specimen collection modalities and pick-up sites based upon an optimized and resourced One Health roadmap

    - As part of network optimization activities, provide technical assistance to assessments, reviews, and field validations of point-of-care and rapid diagnostic tests for priority diseases of public health importance
    - As part of network optimization activities, examine historical outbreak trends and known seasonal geographical access constraints to inform quantification, procurement, and pre-positioning of diagnostic sample collection and specimen transportation kits

- **Strategy 2:** Improve logistic and management capacity at national and sub-national public health reference laboratories to maintain routine operations and develop surge capacity for outbreaks
- **Activities:**
    - Design, pilot, evaluate, validate, and launch open-source, digital, and bi-directional transfer of diagnostic results and supply chain information between points-of-sample collection, transfer, processing, and definitive testing
    - Support local and/or international market research to identify and establish competitive service agreements for diagnostic kit, reagent, and equipment maintenance, procurement, and distribution

- **Strategy 3:** Establish, consolidate, or interoperate digital laboratory information systems used to track tests, results, specimens, and supplies to improve availability and dissemination of diagnostic information necessary for public health response
- Activities:
    - Provide technical leadership to establish consensus requirements and best practices for digital public health platforms in Liberia
    - Provide guidance and technical assistance to characterize, track, and report commonly observed challenges in specimen transfer and results return
    - Design, pilot, evaluate, validate, and launch open-source, digital, and bi-directional transfer of diagnostic results and supply chain information between points-of-sample collection, transfer, processing, and definitive testing
    - Support electronic linkage and routine reconciliation of sub-national and national epidemiologic and laboratory case data

Component 3: Investments in Rapid, Reliable and Geographically-Balanced Specimen Transport

- **Strategy 1:** Transport of One Health specimens from point-of-sample collection to intended destination for definitive diagnosis
- **Activities**
    - Identify, recruit, train, supervise, and retain qualified specimen transport workforce
    - Establish a workforce and operational fleet necessary to reach diverse terrains and hard-to-access geographies during all climates and seasons

- Establish necessary policies, procedures, and oversight to ensure safe specimen handling and transport
- Maintain quick and reliable communication and coordination mechanisms between health care facilities, district and county diagnostic officers, and district and county surveillance officers; mechanisms should convey location of specimens awaiting transport and courier availability to collect and move the specimens
- Provide continuous maintenance, refurbishment, or replacement of vehicles, supplies, and equipment allocated for specimens of public health importance transport
- Maintain operational fleet, resources, contracts, and mechanisms to increase or surge specimen collection and transfer capacity during public health events or other identified emergencies
- Participate as key stakeholder in Laboratory and One Health Technical Working Groups
- In coordination with relevant Technical Working Groups, develop and adopt policies and procedures to minimize turnaround time, reduce specimen rejection rates, and ensure regular and reliable customer service

Components 4 and 5: Rapid Response to Small-Scale and Large-Scale Public Health Emergencies

Strategy 1: Intensify active surveillance, case finding, contact tracing, monitoring, and other critical response efforts at local levels

- Conduct and improve ongoing active surveillance, with laboratory confirmation to ensure rapid identification of missed, new or newly imported outbreak cases
- Strengthen capacity for general surveillance including support for personnel required for surveillance and epidemiology activities
- Strengthen surveillance at entry points (border posts, airports and maritime ports) from countries with ongoing transmission

Strategy 2: Strengthen capabilities for epidemiologic and laboratory analysis and program evaluation

- Improve operational and technical analysis, coordination and monitoring of interventions
- Assess the impact of the epidemic on health care seeking and health care provision

Strategy 3: Intensify social mobilization, community and professional education and engagement, and psychosocial care for infected persons and their families, where applicable

- Conduct intensified social mobilization and community engagement to enhance awareness and gather community support, acceptance and participation in implementation of containment measures
- Provide psychosocial first aid training for community agents and their supervisors so they can provide direct psychosocial support to contact cases and their families.

- Develop and conduct communications to contain the outbreaks and enforce the theme of "Staying at Zero Cases"
- Develop and disseminate key health risk communication messages.

Strategy 4: Improve outbreak case management and infection control

- Develop plans for patient management as community and clinical settings
- Improve infection control practices, particularly in facilities that might receive outbreak cases (e.g., on a border with a country with ongoing transmission)

Strategy 5: Strengthen non-outbreak related public health activities that are impacted by the outbreak

- Restore priority aspects of the health/public health system such as surveillance and assessment of vaccination coverage for epidemic-prone disease (e.g., measles), that are negatively impacted or stalled due to the outbreak

Strategy 6: Increase security and logistics for local responders

- Strengthen field security to ensure operational security, and protect national and international staff involved in the response

Strategy 7: Strengthen capabilities for preparedness and response to highly infectious diseases

- Develop/implement partnership mechanisms for a more robust and responsive global health emergency workforce
- Train frontline responders on emerging infectious diseases
- Strengthen critical International Health Regulations (IHR) and health systems capacities in affected region and elsewhere

1. Collaborations

a. With other CDC projects and CDC-funded organizations:

Recipient(s) are required to work with other CDC implementing partners, including non-governmental organizations, universities, Ministry of Health and other host governmental bodies and multi-lateral organizations that receive CDC funds. Recipient(s) should ensure their proposed activities are not duplicating activities already implemented by other CDC-funded organizations.

Due to CDC Liberia´s long and trusted partnership with key GOL health entities (MOH and NPHIL), CDC benefits from strong, successful implementing partners who provide technical expertise and direct service delivery in several GHS pillars. As such, funded components will need close activity coordination to realize stated goals and advance GHS in Liberia. This support includes but is not limited to surveillance, workforce development, emergency preparedness & response, laboratory diagnostics, and specimen transport.

- **Components 1, 2, and 3:** To reach the desired outcomes and impact, recipient(s) will be required to exhibit flexibility and innovative approaches to engage and coordinate with existing CDC partners and other non-governmental actors who have an established track record in a given technical pillar

- **Components 2 and 3:** Recipient(s) who lead network optimization strategies and activities will closely coordinate with the entity(ies) that provide direct services
- **Component 3:** Relationships and experiences with national government entities, such as MOH or NPHIL, should be documented in the application

b. With organizations not funded by CDC:
The recipient(s) will work primarily and directly with partner governments specifically with the Ministries of Health and other government entities who are working towards the objectives of this NOFO. In addition, the recipient(s) will be expected to work with other in-country and global stakeholders, including but not limited to government entities, non-governmental organizations, universities, civil society, the private sector, and other USG agencies.

Liberia has significant health system investments from other multilateral and bilateral government donors. Due to Liberia's service delivery and geographic landscape complexity, program proposals which foster duplication or fragmented implementation are particularly costly and ultimately have limited impact. CDC works closely with other donors, governments, and health working groups to leverage resources from a variety of sources, particularly in the specimen transport domain. Recipients will be required to consider stakeholder inputs, One Health approaches, and new or existing health sector mapping analyses. These should indicate how both USG and non-USG actors can best address Liberia's GHS diagnostic and specimen transport gaps.

2. Population(s) of Focus
The target populations for this NOFO include but are not limited to those individuals infected or at risk for becoming infected by an infectious disease. The target population for this NOFO may also include at-risk populations for non-communicable diseases, humanitarian crises, and/or other public health emergencies.

The work under this NOFO will also target increased capacity at the national and sub-national level to implement and achieve outbreak/epidemic/pandemic control in line with USG and CDC strategy.

The public and clinical health workforce in Liberia should be uniquely considered as a target population. Currently, they have limited pre-service education, inadequate occupational safety training and vaccine prophylaxis, and on-the-job mentorship is limited or unavailable. Recipients should consider how best to assess current workforce capacity levels and focus efforts towards in-service, on-the-job mentorship.

In addition to the above variables:

- Liberia, based on recent census figures, has a predominantly adolescent and young adult population. Because of limited educational and employment opportunities, particularly in urban communities, these individuals are predisposed to marginal or no housing environments, incarceration in crowded, poorly-resourced prisons, and high-risk migratory patterns.
- Liberians also have diverse religious preferences. Where applicable, applicants should consider identifying religious communities disproportionally affected by infectious diseases or non-communicable diseases and how to appropriately work with each identified population.

This NOFO, including funding and eligibility, is not limited based on, and does not discriminate on the basis of race, color, national origin, disability, age, sex (including gender identity, sexual orientation, and pregnancy) or other constitutionally protected statuses.

a. Health Disparities

The goal of health equity is for everyone to have a fair and just opportunity to attain their highest level of health. Achieving this requires focused and ongoing societal efforts to address historical and contemporary injustices; overcome economic, social, and other obstacles to health and healthcare; and eliminate preventable health disparities.

Broadly defined, social determinants of health are non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces (e.g., racism, climate) and systems include economic policies and systems, development agendas, social norms, social policies, and political systems. See content below and in other sections (e.g., Approach, Collaborations, Populations of Focus) for information on how this specific NOFO affects social determinants of health.

A health disparity is a preventable difference in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by populations that have been socially, economically, geographically, and environmentally disadvantaged. Health disparities are inextricably linked to a complex blend of social determinants that influence which populations are most disproportionately affected by these diseases and conditions.

Recipients are expected to use epidemiologic, social determinants, and linked laboratory, epidemiological, and surveillance data to identify communities disproportionately affected by infectious diseases or non-communicable diseases in the target areas to ensure that program activities appropriately cover these populations. Recipients should ensure that supported services are accessible and available to all populations regardless of age, sex, race/ethnicity, sexual orientation, gender identity, or socio-economic status in order to achieve the outcomes of this NOFO.

iv. Funding Strategy

The core funding for this NOFO will be obtained from Centers for Disease Control and Prevention (CDC) Global Health Security (GHS) funding allocations. Occasionally, depending on the strategy and activities, opportunities may emerge to leverage additional funding streams from other United States Government (USG) agencies. Funding allocation or emphasis should be placed on resources expended directly on program activities that have high likelihood of GHS impact within Liberia´s borders (preferably at the sub-national level where outbreaks or public health events can be controlled at the source).

This NOFO is divided into five components, three core components and two emergency components. The applicant is required to apply to at least one of three core components. For Components 1–3, applicants are encouraged to apply for the component(s) that best match their areas of expertise. Applicants are not required to apply to all three core components – however, if an applicant has expertise in all three core components, they are welcome to apply to all three core components.

In addition, applicants are required to apply for components 4 and 5 and include a separate budget and work plan for each component applied. The applicant’s application package should

be inclusive of all component work plans and budgets; multiple applications will not be reviewed. Applicants are encouraged to submit component budgets toward the year one award ceiling for each component, detailed below. However, budget proposals for year one may not exceed the year one award ceiling. Please note, these amounts are subject to the approval and availability of funds.

The emergency components (Components 4 – 5) follow the same logic model with identical overarching strategies and activities. However, Component 4 should support activities when funding is made available for a moderate response to a disease outbreak or other public health emergency. Component 5 should support activities when funding is made available for a substantial response to a disease outbreak or other public health emergency. Applicants are encouraged to consider the following in the development of their budgets and budget narratives:

- **Component 1 – Investments in Laboratory Diagnostic Technology, Quality, & Workforce**
    - The estimated year one ceiling is $500,000. Future years' funding levels will be dependent on funding availability.
- **Component 2 – Investments in Laboratory Diagnostic and Specimen Transport Network Optimization, Integration, & Cost-Effectiveness**
    - The estimated year one ceiling is $600,000. Future years' funding levels will be dependent on funding availability.
- **Component 3 – Investments in Rapid, Reliable and Geographically-Balanced Specimen Transport**
    - The estimated year one ceiling is $600,000. Future years' funding levels will be dependent on funding availability.
- **Component 4: Rapid small-scale response to infectious disease outbreaks or other public health emergencies**
    - This component is intended to be approved but unfunded (ABU) as a baseline practice. This component would be funded to support additional activities needed within a budget period when funding is made available for a moderate response to a disease outbreak or other public health emergency. Estimated year one ceiling is $10,000,000.
- **Component 5: Rapid large-scale response to infectious disease outbreaks or other public health emergencies**
    - This component is intended to be ABU as a baseline practice. This component would be funded to support additional activities needed within a budget period when funding is made available for a substantial response to a disease outbreak or other public health emergency. Estimated year one ceiling is $15,000,000.

Applicants must specify a descriptive title for each corresponding column shown on the SF-424A, followed by the total (cumulative) in the column to the far right of the SF-424A.

<u>Additional Information</u>

Emergency Management and Response: The ability to respond rapidly and effectively to public health emergencies is a key component of global health security. International public health emergencies, including humanitarian crises, are by nature unpredictable, requiring fulfillment of changing and often unpredictable needs that vary widely according to context. Consequently, funding for public health emergencies is also unpredictable and based on external factors. In recent years, there has been a sharp rise in the number of people living in regions of the world affected by public health emergencies, including humanitarian emergencies, which has often led to additional funding resources from the USG to respond to these threats. Given this unpredictability and the resulting need for a rapid, flexible, and efficient process to award funding under an emergency situation, recipients that are selected for funding under this NOFO will be eligible to receive additional expedited supplemental funding when a public health emergency occurs to scale-up activities included within the scope of work of this NOFO.

Definition of Public Health Emergency:

In order to qualify for supplemental emergency funding, one of the following situations must apply:

1. When the UN or the WHO classifies the emergency as a Level 3 (L3)
2. When the U.S. Congress appropriates funding for an international response related to humanitarian or public health crisis with the words containing "emergency" in the program title. The appropriated funding could be for CDC directly or is transferred to CDC through an Interagency Agreement (IAA) by HHS or another USG entity.
3. When the U.S. government (Congress, White House, National Security Council, etc.) declares a public health emergency as national security priority
4. When the CDC Director activates the Emergency Operation Center (EOC) in response to an international public health threat
5. When the U.S. Department of State (DOS) or the U.S. Agency for International Development (USAID) transfer funds to CDC to respond to an international disaster or humanitarian assistance under 2 FAM 060 (International Disaster and Humanitarian Assistance)

If a public health emergency situation meets one or more of the criteria listed above, then selected recipients under this NOFO will be eligible to receive supplemental emergency funding to scale up public health activities included in the scope of work of this NOFO on a single-source basis (i.e. without additional competition, within a 12-month budget period and throughout the 60-month period of performance). There is no limit on the amount of emergency supplemental funding that a recipient may receive within a 12-month budget period or the 60-month period of performance under a public health emergency. Recipients receiving funds under a public health emergency will be eligible to receive emergency funding without constraint to the period of performance funding ceiling, annual budget period ceiling, or lack of component funding. In addition, applications for funding under a public health emergency will not need a merit review and will only require approval from the CDC Project Officer and Grants Management Officer (GMO) in order to be funded.

All reporting requirements listed under this NOFO still apply to any emergency supplemental funding.

Component Funding: It is required that all GHS-funded cooperative agreements be formulated for component funding. A component is a discrete set of activities with an associated budget. CDC will use component funding to provide funding for activities proposed in an application that received merit review but were not selected for funding in the initial award (i.e., at the onset of budget period 1) but may be funded at a later point in the budget period as programmatically necessary and as funding becomes available. Please review the following key points about component funding:

Component funding must be setup at the time of the application. While preparing the application, applicants should review the expectations listed in the NOFO for Year 1 activities and group them under the anticipated components listed above. Only activities planned for Year 1 should be grouped into components; applicants do not need to group activities in the high-level plan for the subsequent years 2-5 of the award into components. Funding amounts and components for years 2-5 will be determined at continuation.

- Each component must be a discrete set of activities with an associated budget. Distinguishable component budget narratives are required.
- Applicants should submit the anticipated components on an SF-424A form as part of their application which shows all components for the budget period. The amounts should exactly match what is being requested for funding. Each component has its own approved amount and cannot be funded above the established amount. The combined total of all components must total the requested amount.
- Any component that is not funded at the time of a new award may be deemed "ABU". There is no guarantee that all components will be funded in a budget period as ABU components are subject to the availability of funds and the underlying legal authority for the work.
    - Components may not be awarded in order. All ABU components are eligible to receive funding once (and if) funds become available.
    - If funding becomes available, multiple components can be funded through the same funding action (single NOA).
    - If funding is awarded for an amount less than the ABU component approved amount, it is not possible to fund the difference at a later time. Components can only be funded once.
- If, during the funding confirmation, the Program Office approves a budget that differs from what was submitted at the time of application (reflected in the budget markup), a revised budget may be required in addition to the technical review responses. If required, the revised budget is due within fifteen (15) to thirty (30) days of the start of the budget period. If required, technical review responses will also be due within fifteen (15) to thirty (30) days of the start of the budget period and must be submitted separately from revised budget applications. Future funding for ABU components will not be awarded until a revised budget, if required, is submitted and approved by CDC.
- Once components are awarded, funds cannot be redirected between components. However, funds may be redirected within a component between object class categories.

It is critical to ensure accountability, transparency, and programmatic performance of all U.S. taxpayer dollars.

b. Evaluation and Performance Measurement

i. CDC Evaluation and Performance Measurement Strategy

The applicant should select indicators from the menu that best measure the strategies, activities, and bolded outcomes identified in the logic model. There is no minimum or maximum number of indicators that should be selected. The purpose of collecting and reporting on indicators is to measure progress toward achieving the NOFO activities and outcomes. Results will also be used for program planning, improvement, accountability, and reporting. Results will be shared with recipients and other key parties. CDC will work with the recipient throughout the life of this award to ensure that all activities and expected outcomes are in alignment with current USG and the recipient's strategies and goals. The recipient should dedicate funds made available under this NOFO for evaluation and performance monitoring within each project. The final funding amount will be agreed upon by both CDC and the recipient; however, it should be expected that approximately 3% (of a given project's funding) will be dedicated to monitoring, reporting, and evaluation activities. CDC and the recipient will agree upon the specific funding amounts within review of each project's work plan and budget.

Monitoring
CDC expects that the work conducted under this NOFO will be structured as a series of discrete projects oriented at achieving elements of the NOFO's strategic objectives. CDC and the recipient will jointly select performance measures (indicators) from the menu shortly after award based on activities within each project. For each project, these performance measures must include CDC's Division of Global Health Protection's program implementation indicators (included in the Notice of Award), as well as other CDC or recipient's standard indicators relevant to the intended outcomes of the project. Recipients will identify which indicators they will report on in their Evaluation and Performance Measurement Plan (EPMP). Recipients will be required to report on program implementation indicators selected from the below list through reporting mechanisms that will be specified by CDC after award (e.g. APR).

While recipients will be responsible for reporting on program implementation indicators relevant to proposed strategies and activities, they are not limited to only program implementation indicators. Applicants can, and are encouraged to, propose additional relevant indicators that, combined with program implementation indicators, will be monitored over the life of the NOFO. Recipients will also be encouraged to consider additional measures from relevant USG GHSA Interagency Metrics, WHO Joint External Evaluation (JEE), and/or Healthy People 2030 standardized metrics and WHO benchmarks.

Additionally, recipients are only required to report on indicators relevant to their funded scope of work. Recipients should denote identified indicators relevant to their funded activities in their EPMP and should report annually against selected indicators in their APR.

Below is a menu of DGHP M&E Program Implementation Indicators that span eight technical areas: (1) Infection Prevention and Control, (2) Border Health, (3) Community Mitigation, (4)

Emergency Operations and Response, (5) Laboratory Diagnostics, (6) Surveillance and Epidemiology, (7) Vaccines, and (8) Field Epidemiology Training Programs. A comprehensive indicator menu inclusive of detailed descriptions of each indicator will be provided at time of award. DGHP program implementation indicators should be incorporated into the recipient's EPMP.

DGHP Monitoring and Evaluation – Program Implementation Indicators

1. Infection Prevention and Control (IPC) Indicators

1.1. Cross-cutting IPC

1.1.1. Proportion of facilities that have an IPC focal person in place
1.1.2. Proportion of healthcare facilities providing essential services that implemented guideline-based IPC improvements
1.1.3. Number of healthcare facilities participating in CDC-supported healthcare detection and response networks

2. Border Health Indicators

2.1. POE General Capacity

2.1.1. Proportion of POE with multisectoral SOPs in place for identification (signs and symptoms), notification, and illness response, including for COVID-19, among travelers
2.1.2. Among those with SOPs above: Proportion of POE with health- and non-health staff trained on SOPs for identification (signs and symptoms), notification, and illness response, including for COVID-19, among travelers in the last six months
2.1.3. Number of POE that can demonstrate capacity for coordinated response in identification, notification, assessment, and referral of an ill traveler to health care through response to simulated or real-life events in the last year
2.1.4. Number of POE that have conducted AARs following a simulated or real-life event and implemented corrective actions to address gaps identified
2.1.5. Proportion of non-health POE personnel who have been trained on approved procedures and guidance in enforcing public health regulations applicable to points of entry, travel, and the transport of goods across international borders
2.1.6. Proportion of POE where staff have been trained on approved procedures in enforcing public health regulations applicable to points of entry, travel, and the transport of goods across international borders
2.1.7. Proportion of POE that can demonstrate capacity for identification, notification, assessment, and referral of an ill traveler to health care through response to simulated or real-life events in the last year
2.1.8. Proportion of POE health staff trained on SOPs for identification (signs and symptoms), notification, and illness response, including for COVID-19, among travelers in the last six months
2.1.9. Proportion of POE non-health staff trained on SOPs for identification (signs and symptoms), notification, and illness response, including for COVID-19, among travelers in the last six months

2.2. POE Infrastructure

2.2.1. Proportion of POE that have identified areas to isolate ill travelers for assessment and while waiting for transfer to a healthcare facility
2.2.2. Proportion of POE with sufficient equipment (e.g., PPE, thermometers, forms, job-aids, handwashing stations, decontamination and disinfection supplies) or the supply chain to receive sufficient equipment to identify, notify, and respond to communicable disease illness among travelers for one month

2.3. POE IPC

2.3.1. Proportion of POE that implement personal protective measures (e.g., handwashing, wearing face coverings, social distancing) for staff and travelers according to developed SOPs

2.4. POE Risk Communication

2.4.1. Proportion of POE disseminating risk communication materials tailored for travelers in appropriate languages
2.4.2. Proportion of POE with staff trained on providing risk communication to travelers within the last six months
2.4.3. Proportion of POE staff trained on providing risk communication to travelers within the last six months

2.5. Data and Surveillance Systems for Mobile Populations

2.5.1. Number of staff trained on collecting data on population mobility patterns in the last six months
2.5.2. Number of staff trained on analyzing and summarizing data collected on population mobility patterns in the last six months
2.5.3. Number of priority geographic areas in which data on population mobility patterns has been collected in the last six months
2.5.4. Proportion of public health emergency responses that utilized population mobility pattern data to inform public health interventions and/or public health emergency responses (i.e., identified POE for capacity building, identified HCF for strengthened surveillance) within the last six months
2.5.5. There are protocols and/or standard operating procedures that govern use of border health data and information systems
2.5.6. Proportion of POEs with border health personnel trained on the use of established border health data and information systems according to established SOPs
2.5.7. Proportion of POEs with border health personnel who demonstrate use of established border health data and information systems according to established SOPs

2.7. Cross-border Coordination

2.6.1. Proportion of neighboring countries included in formalized agreements and procedures for public health information sharing with neighboring countries
2.6.2. Proportion of subnational administrative levels that have shared contact information with neighboring countries within the last six months
2.6.3. Proportion of subnational administrative levels routinely sharing public health information with neighboring countries within the last six months

2.6.4. Number of cross-border meetings at subnational administrative level to support operationalization of agreements and procedures within the last six months

2.8. BH Operational and Legal Frameworks

2.7.1. Support was provided to develop an operational plan that defines the roles and responsibilities of the country's border health authority
2.7.2. Proportion of identified border health staff roles with finalized position descriptions at national, subnational, and POE level
2.7.3. Does the country have an established plan for their border health personnel training program to ensure that all border health officers can competently conduct public health operations within their jurisdiction?
2.7.4. National authorities have developed procedures and guidance describing how public health regulations applicable to points of entry, travel, and the transport of goods across international borders will be enforced and have disseminated them to all applicable agencies, including at subnational- and point of entry-levels
2.7.5. Proportion of border health personnel who have been trained on approved procedures in enforcing public health regulations applicable to points of entry, travel, and the transport of goods across international borders

3. Community Mitigation Indicators

3.1. Country Operations Support

3.1.1. Number of risk mitigation strategies that have been implemented that are tailored to the needs of specific populations
3.1.2. Proportion of frontline workers that had an increase in awareness and knowledge to plan and implement Risk Communications and Community Engagement (RCCE) interventions at various levels as determined by pre- and post- test assessment

3.2. Community Mitigation

3.2.1. Percent of staff trained that are active in case investigation or contact tracing during reporting period

4. Emergency Operations and Response Indicators

4.1. Strengthening of International Emergency Response Capacity

4.1.1. Number of workshops/trainings on EMSI, RRT management and responder readiness, RCCE, and/or PHEM
4.1.2. Number of participants trained in emergency management systems integration
4.1.3. Number of participants trained in RCCE
4.1.4. Number of CDC trained PHEM fellows currently being utilized in country
4.1.5. Number of policies, plans, processes, and SOPs established for EMSI, RRT, RCCE, and/or PHEM
4.1.6. Country has capacity for EOC activation within 48 hours of detection of a public health event
4.1.7. Country has capacity for RRT deployment within 48 hours of detection of a public health event
4.1.8. A national RCCE strategy and operations plan has been established or updated and

approved
4.1.9. A national RCCE training package has been established and approved in the last 6 months
4.1.10. A national RCCE training package has been implemented within 6 months of approval
4.1.11. Number of public health leaders, government officials, or media spokespersons trained in RCCE
4.1.12. Percent change in awareness and knowledge of public health leaders and community, government officials, or spokespersons to plan and implement RCCE interventions as determined by pre-and post-test assessment
4.1.13. Number of strategic behavior change/risk communication messages and/or products developed for target population(s)
4.1.14. Number of trained RRT responders who served as responders in the field or in response coordination roles that were trained/supported by the country's emergency coordination entity (e.g., NPHI, PHEOC, or country equivalent) and served in this function for the COVID-19 response
4.1.15. Number of workforce development trainings the NPHI conducted with neighboring countries to support public health implementation efforts
4.1.16. Proportion of rapid response team (RRT) staff/members trained on One Health specific principles and practices
4.1.17. The country's PHEOC has a formal, multi-sectoral advisory group or steering committee

4.2. Strengthening of International Emergency Operations

4.2.1. Number of emergency operation centers (EOCs) established and/or strengthened with the associated systems within national public health institutes and at subnational levels
4.2.2. Does the partner provide support for recovery operations planning and implementation?
4.2.3. COVID-19 strategic response and recovery plan has been implemented at the country level with support of the country's emergency coordination entity (e.g., NPHI, PHEOC, or country equivalent)
4.2.4. A national RCCE strategy and operations plan has been used and/or tested in an exercise or response with key response stakeholders within the first year after being approved
4.2.5. Extent to which the national public health institute (NPHI) has a legal framework establishing its operations
4.2.6. Extent to which the NPHI has developed a strategic plan

4.3. Multilateral Emergency Response Support

4.3.1. Number of information sharing systems or mechanisms established within national public health institutes/Ministry of Health and among key stakeholders
4.3.2. Number of platforms developed for integrated data sharing at the national and subnational levels
4.3.3. Number of activities the NPHI has implemented with neighboring countries to support public health implementation efforts

4.3.4. Number of joint outbreak responses implemented using a One Health approach during the reporting period

5. Laboratory Diagnostics Indicators

5.1. Laboratory Training and Technical Assistance

5.1.1. Number of training tools developed for testing, biosafety, laboratory quality, and biosecurity
5.1.2. Number of training of trainer (TOT) sessions held by training for testing, biosafety, laboratory quality, biosecurity
5.1.3. Number of participants trained by training area for testing, biosafety, laboratory quality, biosecurity
5.1.4. Number of supported sites that received non-training related technical assistance
5.1.5. Number of staff documented as receiving laboratory training with certificate of completion for testing, biosafety, laboratory quality, biosecurity
5.1.6. Number of staff certified as competent in testing, biosafety, laboratory quality, biosecurity
5.1.7. Number of animal health laboratory staff trained in the latest diagnostic methods (e.g., serology, molecular, WGS)

5.2. Laboratory Quality Control/Quality Assurance

5.2.1. Number of rounds of proficiency testing performed for supported sites conducting COVID-19 testing in any of three areas: molecular, antibody, and/or antigen
5.2.2. Number of supported sites participating in External Quality Assurance Programs (EQAP)
5.2.3. Number of supported sites with laboratory staff participating in approved PT programs
5.2.4. Number of supported sites requesting QA/QC technical assistance
5.2.5. Number of supported sites participating in EQAP that achieved successful/passing score
5.2.6. Number of supported sites participating in EQAP that achieved a score of 100%
5.2.7. Number of supported sites that participated in EQAP and did not achieve a successful result for every sample in the panel (qualitative) or scored less than 100% (quantitative)
5.2.8. Number of supported sites participating in EQAP and/or approved PT programs and did not achieve a successful result that documented what corrective action would be, or was, taken to address unsuccessful results
5.2.9. Number of supported sites participating in EQAP that achieved less than 100% score in more than one consecutive round
5.2.10. Number of supported sites participating in approved PT programs that achieved a score of 100%
5.2.11. Number of supported sites that participated in approved PT and did not achieve a successful result for every sample in the PT panel (qualitative) or scored less than 100% (quantitative) that documented what corrective action would be, or was, taken to address unsuccessful results
5.2.12. Number of supported sites using protocols authorized for US FDA Emergency Use Authorization (EUA) and/or WHO EUL

5.2.13. Number of supported sites using protocols not authorized for US FDA EUA and/or WHO EUL
5.2.14. Have you supported laboratories in the supported country to implement routine specimen referral systems and transport networks with defined and tracked turnaround time targets?
5.2.15. Number of data or digital systems developed or maintained
5.2.16. Number of laboratory staff participating in approved PT programs that achieved successful/passing score
5.2.17. Number of laboratory staff that participated in approved PT programs and did not achieve a successful/passing score

5.3. Laboratory Procurement

5.3.1. Number of last-mile (in-country) deliveries of laboratory goods for [insert order type] financially supported and completed
5.3.2. Number of last-mile (in-country) deliveries of laboratory goods for [insert order type] financially supported and completed under appropriate storage and transport conditions
5.3.3. Number of consignees that received financial and/or logistics support for procurement of laboratory reagents and/or other supplies necessary to conduct laboratory testing

6. Surveillance and Epidemiology Indicators

6.1. Data to ILI/SARI Platforms

6.1.1. Extent to which technical assistance has been provided to country for weekly surveillance reporting on the weekly number of new confirmed cases, deaths, and hospitalizations, including in HCWs, disaggregated by age, sex, and geographic region
6.1.2. Country is planning or implementing seroprevalence studies

6.2. Surveillance-related Trainings

6.2.1. Number of trainings held on data management and epidemiologic analysis for integrated respiratory disease surveillance
6.2.2. Number of staff (MOH and other organizations) at local and national level dedicated to supporting and analyzing surveillance data and activities

6.3. Surveillance-related Activities

6.3.1. Was surveillance, laboratory, and outbreak data/information shared at least once in country during the reporting period?
6.3.2. Is surveillance, laboratory, and outbreak data/information shared between sectors through routine channels at regular intervals in the country?

6.4. One Health

6.4.1. Proportion of One Health case results reported to relevant One Health sectors
6.4.2. Number of people per sector attending One Health trainings

7. Vaccine Indicators

7.1. Program Evaluation

7.1.1. Technical assistance was provided to conduct evaluations of essential immunization programs and immunization campaigns (not specific to COVID-19 vaccines)

8. Field Epidemiology Training Programs (FETP) Indicators

8.1. Program Implementation Indicators

8.1.1. Number of FETP trainees and graduates accessing curriculum that is adapted to integrate emergency management competencies
8.1.2. National Public Health Institutes (NPHIs) are engaged in Emergency Operations Center (EOC) strengthening and systems integrated activities including FETPs
8.1.3. Proportion of FETP trainees at each level [frontline, intermediate, and advanced] who were trained on One Health specific principles and practices

Performance reports will be based on which NOFO activities and outcomes are identified in the logic model. Performance reports will be submitted to CDC in accordance with the requirements listed under this NOFO and overall performance will be reviewed on regular technical calls as well as through joint strategic review meetings.

Evaluation
The potential evaluation questions and/or topics below are examples of what the applicant may be expected to answer through evaluation(s). Applicants should include at least 1, but no more than 3 potential evaluation questions, or evaluation topics if specific questions are unknown. It is acceptable to provide only evaluation questions, only evaluation topics, or a combination of both evaluation questions and topic, as needed. Applicants should consider but are not limited to the following areas when developing evaluation questions and/or topics.

Sample Evaluation Topics:

- Program evaluations to measure the differences in outbreak responses, or other public health responses, in a country, before and after public health investments (in terms of days of outbreak start, days to outbreak detection, laboratory confirmation of outbreak, days to control outbreak, etc.).
- Extent to which enhancements in public health surveillance in a country improved outbreak response (in terms of outbreak(s) controlled, cases averted, and time lags from specimen detection to collection).
- Extent to which enhancements of the public laboratory systems, such as addition of a specific laboratory capacity in a country, improved outbreak response (in terms of outbreaks detected controlled, cases averted, and time lags from specimen collection to detection).
- Program evaluations to measure if the coverage and capacity of the specimen referral network increased

Final evaluation questions and data sources will be determined together with CDC within six months after the award and will be included in the submission of the EPMP. Evaluations are expected to align with national, USG, and agency priorities and programmatic gaps, and maybe be reviewed by global action committees. As such, the evaluation topics listed in this

announcement may be amended.

Dissemination of Evaluation and Performance Measures: By the end of the period of performance, evaluation and performance measures will yield findings to demonstrate the value of the NOFO. The findings should be disseminated through the Annual Performance Report (APR) and the recipient is expected to pursue additional dissemination in public domains, including in public health journals, including global health journals, conferences and through informal channels (e.g., website, newsletters) where applicable.

ii. Applicant Evaluation and Performance Measurement Plan

Applicants must provide an evaluation and performance measurement plan that demonstrates how the recipient will fulfill the requirements described in the CDC Evaluation and Performance Measurement and Project Description sections of this NOFO. At a minimum, the plan must describe:

- How applicant will collect the performance measures, respond to the evaluation questions, and use evaluation findings for continuous program quality improvement, including, as applicable to the award, how findings will contribute to reducing or eliminating health disparities and inequities.
- How key program partners will participate in the evaluation and performance measurement planning processes.
- Available data sources, feasibility of collecting appropriate evaluation and performance data, and other relevant data information (e.g., performance measures proposed by the applicant).
- How evaluation findings will be disseminated to communities and populations of interest in a manner that is suitable to their needs.
- Plans for updating the Data Management Plan (DMP) as new pertinent information becomes available. If applicable, throughout the lifecycle of the project. Updates to DMP should be provided in annual progress reports. The DMP should provide a description of the data that will be produced using these NOFO funds; access to data; data standards ensuring released data have documentation describing methods of collection, what the data represent, and data limitations; and archival and long-term data preservation plans. For more information about CDC's policy on the DMP, see https://www.cdc.gov/grants/additional-requirements/ar-25.html.

Where the applicant chooses to, or is expected to, take on specific evaluation studies, the applicant should be directed to:

- Describe the type of evaluations (i.e., process, outcome, or both).
- Describe key evaluation questions to be addressed by these evaluations.
- Describe other information (e.g., measures, data sources).

Recipients will be required to submit a more detailed Evaluation and Performance Measurement plan, including a DMP, if applicable, within the first 6 months of award, as described in the Reporting Section of this NOFO.

c. Organizational Capacity of Recipients to Implement the Approach

The applicant should succinctly describe their capacity (skills, expertise, experience) to implement the activities proposed under this NOFO. For components 2 and 3, the applicant should detail their ability to carry out emergency operations/coordination. Applicants are encouraged to describe their experience working with the target population, ability to implement project strategies/activities, and their physical infrastructure as it applies to the NOFO.

The applicant should provide as part of their appendix the following documents:

1. Curricula vitae (CVs)/Resumes for positions related to Principal Investigator, Project Director, Business Official, and other key staff related to program planning and implementation, finance, and monitoring and evaluation.
2. Job descriptions (maximum 1 page per job description) for key positions including: Principal Investigator, Project Director, Business Official, and other key staff related to program planning and implementation, finance, and monitoring and evaluation.
3. Organizational chart (maximum 1 page)
4. Financial management statement that demonstrates experience in managing USG or CDC funds that are similar in size and scope of this NOFO (maximum 1 page).

The applicant should submit the above referenced documents in the appendix. Additionally, the above referenced documents should demonstrate the organization's capacity to address the requirements of the NOFO.

The applicant must title these documents in their appendix as follows: "CVs/Resumes," "Job Descriptions," "Organizational Chart," and "Financial Statement" and upload as a pdf at www.grants.gov.

d. Work Plan

The applicant’s application package should be inclusive of all component work plans and budgets; multiple applications will not be reviewed. Each component must have a separate work plan and budget.

The applicant must include a work plan that demonstrates how the outcomes, strategies, activities, timelines, and staffing will take place over the course of the award. The applicant must submit a detailed work plan for the first year of the project, and a high-level work plan for subsequent years. An example work plan is shown below. In this format, the table would be completed for each period of performance outcome. If a particular activity leads to multiple outcomes, it should be described under each outcome measure. Applicants are not required to use this format if the information above is demonstrated.

This NOFO has a required component funding structure. Applicants are required to apply for all relevant components and include a separate budget and work plan for each relevant component.

e. CDC Monitoring and Accountability Approach

Monitoring activities include routine and ongoing communication between CDC and recipients, site visits, and recipient reporting (including work plans, performance, and financial reporting). Consistent with applicable grants regulations and policies, CDC expects the following to be included in post-award monitoring for grants and cooperative agreements:

- Tracking recipient progress in achieving the desired outcomes.
- Ensuring the adequacy of recipient systems that underlie and generate data reports.

- Creating an environment that fosters integrity in program performance and results.

Monitoring may also include the following activities deemed necessary to monitor the award:

- Ensuring that work plans are feasible based on the budget and consistent with the intent of the award.
- Ensuring that recipients are performing at a sufficient level to achieve outcomes within stated timeframes.
- Working with recipients on adjusting the work plan based on achievement of outcomes, evaluation results and changing budgets.
- Monitoring performance measures (both programmatic and financial) to assure satisfactory performance levels.

Monitoring and reporting activities that assist grants management staff (e.g., grants management officers and specialists, and project officers) in the identification, notification, and management of high-risk recipients.

The recipient(s) will be required to collaborate with CDC in-country offices for technical oversight of project activities to be implemented under this NOFO. In addition to the CDC Project Officer, the recipient will collaborate with in-country or HQ contacts, Subject Matter Experts (SMEs), and technical leads. The Project Officer for this award will provide relevant contacts of CDC staff and coordinate discussions with the award recipients.

f. CDC Program Support to Recipients

In a cooperative agreement, CDC staff is substantially involved in the program activities, above and beyond routine grant monitoring. CDC activities for this program include, but are not limited to, the following:

1. Organize an orientation meeting with the recipient for a briefing on applicable U.S. Government and HHS/CDC expectations, regulations, and key management requirements, as well as report formats and contents. The orientation could include meetings with staff from HHS agencies and/or other parts of the USG.
2. Review and make recommendations as necessary to the process used by the recipient to select key personnel and/or post-award subcontractors and/or sub recipients to be involved in the activities performed under this agreement.
3. Provide technical assistance, as mutually agreed upon. This could include expert technical assistance and targeted training activities in specialized areas, such as surveillance, use of data for program planning purposes, lab programs etc.
4. Provide technical assistance, where applicable, to help the recipient meet U.S. Government financial and reporting requirements approved by the Office of Management and Budget (OMB).
5. Collaborate with the recipient on designing and implementing the activities listed above, including, but not limited to: the provision of technical assistance to develop program activities, data management and analysis, quality assurance, surveillance program, the presentation and possibly publication of program results and findings, and the management and tracking of finances.

6. CDC offices in-country, where applicable, may assist the recipient in identifying and connecting with other partners working towards the objective of this NOFO and the recipient shall ensure work is not duplicative but complementary and supportive to existing efforts funded by CDC and the rest of the USG.
7. CDC, via project officer, will provide contact for in-country staff, Subject Matter Experts (SMEs) and technical leads from CDC where applicable for the recipient to coordinate activities at the country level.
8. Provide technical assistance or advice on any data collections on 10 or more people that are planned or conducted by the recipient. All such data collections-- where CDC staff will be or are approving, directing, conducting, managing, or owning data-- must undergo OMB project determinations by CDC and may require OMB Paperwork Reduction Act (PRA) clearance prior to the start of the project.
9. Provide consultation and scientific and technical assistance based on appropriate HHS/CDC documents to promote the use of best practices known at the time.
10. Assist the recipient in developing and implementing quality-assurance criteria and procedures.
11. Serve as co-authors on manuscripts and dissemination products developed as part of this project.
12. Facilitate in-country planning and review meetings for technical assistance activities.
13. Provide technical oversight for all activities under this award.
14. Ensure the recipient's Evaluation and Performance Measurement Plan is aligned with the strategic information guidance established by HHS/CDC and USG.
15. Provide ethical reviews, as necessary, for evaluation activities, including from HHS/CDC headquarters. Evaluations can be process, outcome or impact:
    - Process Evaluation: measures how the intervention was delivered, what worked/did not, differences between the intended population and the population served, and access to the intervention
    - Outcome Evaluation: determines effects of intervention in target population(s) (e.g., change in knowledge, attitudes, behavior, capacity, etc.)
    - Impact Evaluation: measures net effects of program and prove of causality
16. Supply the recipient with protocols for related evaluations and/or assessment.

B. Award Information

1. Funding Instrument Type:
CA (Cooperative Agreement)
CDC's substantial involvement in this program appears in the CDC Program Support to Recipients Section.

2. Award Mechanism:
NU2HJG

3. Fiscal Year:
2024

4. Approximate Total Fiscal Year Funding:
$1,700,000

5. Total Period of Performance Funding:
$8,500,000
This amount is subject to the availability of funds.

Estimated Total Funding:
$8,500,000

6. Total Period of Performance Length:
5 year(s)

year(s)

7. Expected Number of Awards:
3

8. Approximate Average Award:

$1,700,000
Per Budget Period

9. Award Ceiling:
$0
Per Budget Period

This amount is subject to the availability of funds.

There is no award ceiling for this NOFO.

10. Award Floor:
$0
Per Budget Period

There is no award floor for this NOFO.

11. Estimated Award Date:
September 30, 2024

12. Budget Period Length:
12 month(s)

Throughout the period of performance, CDC will continue the award based on the availability of funds, the evidence of satisfactory progress by the recipient (as documented in required reports), and the determination that continued funding is in the best interest of the federal government. The total number of years for which federal support has been approved (period of performance) will be shown in the "Notice of Award." This information does not constitute a commitment by the federal government to fund the entire period. The total period of performance comprises the initial competitive segment and any subsequent non-competitive continuation award(s).

13. Direct Assistance
Direct Assistance (DA) is available through this NOFO.

If you are successful and receive a Notice of Award, in accepting the award, you agree that the award and any activities thereunder are subject to all provisions of 45 CFR part 75, currently in effect or implemented during the period of the award, other Department regulations and policies in effect at the time of the award, and applicable statutory provisions.

C. Eligibility Information

1. Eligible Applicants

Eligibility Category:
99 (Unrestricted (i.e., open to any type of entity above), subject to any clarification in text field entitled "Additional Information on Eligibility")

2. Additional Information on Eligibility

3. Justification for Less than Maximum Competition

N/A

4. Cost Sharing or Matching

Cost Sharing / Matching Requirement:
No
N/A

5. Maintenance of Effort

D. Application and Submission Information

1. Required Registrations

An organization must be registered at the three following locations before it can submit an application for funding at www.grants.gov.

PLEASE NOTE: Effective April 4, 2022, applicants must have a Unique Entity Identifier (UEI) at the time of application submission (SF-424, field 8c). The UEI is generated as part of SAM.gov registration. Current SAM.gov registrants have already been assigned their UEI and can view it in SAM.gov and Grants.gov. Additional information is available on the GSA website, SAM.gov, and Grants.gov- Finding the UEI.

a. Unique Entity Identifier (UEI):

All applicant organizations must obtain a Unique Entity Identifier (UEI) number associated with your organization's physical location prior to submitting an application. A UEI number is a unique twelve-digit identification number assigned through SAM.gov registration. Some organizations may have multiple UEI numbers. Use the UEI number associated with the

location of the organization receiving the federal funds.

b. System for Award Management (SAM):

The SAM is the primary registrant database for the federal government and the repository into which an entity must submit information required to conduct business as a recipient. All applicant organizations must register with SAM, and will be assigned a SAM number and a Unique Entity Identifier (UEI). All information relevant to the SAM number must be current at all times during which the applicant has an application under consideration for funding by CDC. If an award is made, the SAM information must be maintained until a final financial report is submitted or the final payment is received, whichever is later. The SAM registration process can require 10 or more business days, and registration must be renewed annually. Additional information about registration procedures may be found at SAM.gov and the SAM.gov Knowledge Base.

c. Grants.gov:

The first step in submitting an application online is registering your organization at www.grants.gov, the official HHS E-grant Web site. Registration information is located at the "Applicant Registration" option at www.grants.gov.

All applicant organizations must register at www.grants.gov. The one-time registration process usually takes not more than five days to complete. Applicants should start the registration process as early as possible.

Step	System	Requirements	Duration	Follow Up
1	System for Award Management (SAM)	1. Go to SAM.gov and create an Electronic Business Point of Contact (EBiz POC). You will need to have an active SAM account before you can register on grants.gov). The UEI is generated as part of your registration.	7-10 Business Days but may take longer and must be renewed once a year	For SAM Customer Service Contact https://fsd.gov/fsd-gov/home.do Calls: 866-606-8220
2	Grants.gov	1. Set up an account in Grants.gov, then add a profile by adding the organization's new UEI number. 2. The EBiz POC can designate user roles, including Authorized Organization Representative (AOR). 3. AOR is authorized to submit applications on behalf of the organization in their workspace.	Allow at least one business day (after you enter the EBiz POC name and EBiz POC email in SAM) to receive a UEI (SAM) which will allow you to register with Grants.gov and apply for federal funding.	Register early! Applicants can register within minutes.

2. Request Application Package

Applicants may access the application package at www.grants.gov. Additional information about applying for CDC grants and cooperative agreements can be found here: https://www.cdc.gov/grants/applying/pre-award.html

3. Application Package

Applicants must download the SF-424, Application for Federal Assistance, package associated with this notice of funding opportunity at www.grants.gov.

4. Submission Dates and Times

If the application is not submitted by the deadline published in the NOFO, it will not be processed. Office of Grants Services (OGS) personnel will notify the applicant that their application did not meet the deadline. The applicant must receive pre-approval to submit a paper application (see Other Submission Requirements section for additional details). If the applicant is authorized to submit a paper application, it must be received by the deadline provided by OGS.

a. Letter of Intent Deadline (must be emailed)

b. Application Deadline

Number Of Days from Publication 60

05/28/2024
11:59 pm U.S. Eastern Time, at www.grants.gov. If Grants.gov is inoperable and cannot receive applications, and circumstances preclude advance notification of an extension, then applications must be submitted by the first business day on which Grants.gov operations resume.

Due Date for Information Conference Call

CDC will host an informational webinar for interested applicants. The intent of the webinar is for potential applicants to learn key NOFO information and timelines. Questions and answers from the session will be compiled and amended in the NOFO. Due to limited space, applicants will need to register for the webinar.

- When: April 4, 2024 09:00am US Eastern Daylight Time (-4 hours GMT).
- Topic: CDC Notice of Funding Opportunity Webinar, CDC-RFA-JG-24-0134: Advancing Diagnostic Network Optimization, Stepwise Laboratory Accreditation, and Integrated One Health Specimen Transport in Liberia
- Register in advance for this webinar: https://cdc.zoomgov.com/webinar/register/WN_krl9JNVpTD2Krqi1bP9SXA

5. Pre-Award Assessments

Duplication of Efforts

Applicants are responsible for reporting if this application will result in programmatic, budgetary, or commitment overlap with another application or award (i.e. grant, cooperative agreement, or contract) submitted to another funding source in the same fiscal year. Programmatic overlap occurs when (1) substantially the same project is proposed in more than one application or is submitted to two or more funding sources for review and funding consideration or (2) a specific objective and the project design for accomplishing the objective are the same or closely related in two or more applications or awards, regardless of the funding source. Budgetary overlap occurs when duplicate or equivalent budgetary items (e.g., equipment, salaries) are requested in an application but already are provided by another source. Commitment overlap occurs when an individual's time commitment exceeds 100 percent, whether or not salary support is requested in the application. Overlap, whether programmatic, budgetary, or commitment of an individual's effort greater than 100 percent, is not permitted. Any overlap will be resolved by the CDC with the applicant and the PD/PI prior to award.

Report Submission: The applicant must upload the report in Grants.gov under "Other Attachment Forms." The document should be labeled: "Report on Programmatic, Budgetary, and Commitment Overlap."

6. Content and Form of Application Submission

Applicants are required to include all of the following documents with their application package at www.grants.gov.

7. Letter of Intent

LOI is not requested or required as part of the application for this NOFO.

8. Table of Contents

(There is no page limit. The table of contents is not included in the project narrative page limit.): The applicant must provide, as a separate attachment, the "Table of Contents" for the entire submission package.

Provide a detailed table of contents for the entire submission package that includes all of the documents in the application and headings in the "Project Narrative" section. Name the file "Table of Contents" and upload it as a PDF, Word, or Excel file format under "Other Attachment Forms" at www.grants.gov.

9. Project Abstract Summary

A project abstract is included on the mandatory documents list and must be submitted at www.grants.gov. The project abstract must be a self-contained, brief summary of the proposed project including the purpose and outcomes. This summary must not include any proprietary or confidential information. Applicants must enter the summary in the "Project Abstract Summary" text box at www.grants.gov.

10. Project Narrative

(Unless specified in the "H. Other Information" section, maximum of 20 pages, single spaced, 12 point font, 1-inch margins, number all pages. This includes the work plan. Content beyond the specified page number will not be reviewed.)

Applicants must submit a Project Narrative with the application forms. Applicants must name this file "Project Narrative" and upload it at www.grants.gov. The Project Narrative must include **all** of the following headings (including subheadings): Background, Approach, Applicant Evaluation and Performance Measurement Plan, Organizational Capacity of Applicants to Implement the Approach, and Work Plan. The Project Narrative must be succinct, self-explanatory, and in the order outlined in this section. It must address outcomes and activities to be conducted over the entire period of performance as identified in the CDC Project Description section. Applicants should use the federal plain language guidelines and Clear Communication Index to respond to this Notice of Funding Opportunity. Note that recipients should also use these tools when creating public communication materials supported by this NOFO. Failure to follow the guidance and format may negatively impact scoring of the application.

a. Background

Applicants must provide a description of relevant background information that includes the context of the problem (See CDC Background).

b. Approach

i. Purpose

Applicants must describe in 2-3 sentences specifically how their application will address the public health problem as described in the CDC Background section.

ii. Outcomes

Applicants must clearly identify the outcomes they expect to achieve by the end of the period of performance, as identified in the logic model in the Approach section of the CDC Project Description. Outcomes are the results that the program intends to achieve and usually indicate the intended direction of change (e.g., increase, decrease).

iii. Strategies and Activities

Applicants must provide a clear and concise description of the strategies and activities they will use to achieve the period of performance outcomes. Applicants must select existing evidence-based strategies that meet their needs, or describe in the Applicant Evaluation and Performance Measurement Plan how these strategies will be evaluated over the course of the period of performance. See the Strategies and Activities section of the CDC Project Description.

1. Collaborations

Applicants must describe how they will collaborate with programs and organizations either internal or external to CDC. Applicants must address the Collaboration requirements as described in the CDC Project Description.

2. Population(s) of Focus and Health Disparities

Applicants must describe the specific population(s) of focus in their jurisdiction and explain how to achieve the goals of the award and/or alleviate health disparities. The applicants must also address how they will include specific populations that can benefit from the program that is

described in the Approach section. Applicants must address the Population(s) of Focus and Health Disparities requirements as described in the CDC Project Description, including (as applicable to this award) how to address health disparities in the design and implementation of the proposed program activities.

c. Applicant Evaluation and Performance Measurement Plan

Applicants must provide an evaluation and performance measurement plan that demonstrates how the recipient will fulfill the requirements described in the CDC Evaluation and Performance Measurement and Project Description sections of this NOFO. At a minimum, the plan must describe:

- How applicant will collect the performance measures, respond to the evaluation questions, and use evaluation findings for continuous program quality improvement. The Paperwork Reduction Act of 1995 (PRA): Applicants are advised that any activities involving information collections (e.g., surveys, questionnaires, applications, audits, data requests, reporting, recordkeeping and disclosure requirements) from 10 or more individuals or non-Federal entities, including State and local governmental agencies, and funded or sponsored by the Federal Government are subject to review and approval by the Office of Management and Budget. For further information about CDC's requirements under PRA see https://www.cdc.gov/os/integrity/reducepublicburden/index.htm.
- How key program partners will participate in the evaluation and performance measurement planning processes.
- Available data sources, feasibility of collecting appropriate evaluation and performance data, data management plan (DMP), and other relevant data information (e.g., performance measures proposed by the applicant).

Where the applicant chooses to, or is expected to, take on specific evaluation studies, they should be directed to:

- Describe the type of evaluations (i.e., process, outcome, or both).
- Describe key evaluation questions to be addressed by these evaluations.
- Describe other information (e.g., measures, data sources).

Recipients will be required to submit a more detailed Evaluation and Performance Measurement plan (including the DMP elements) within the first 6 months of award, as described in the Reporting Section of this NOFO.

d. Organizational Capacity of Applicants to Implement the Approach

Applicants must address the organizational capacity requirements as described in the CDC Project Description.

11. Work Plan

(Included in the Project Narrative's page limit)

Applicants must prepare a work plan consistent with the CDC Project Description Work Plan section. The work plan integrates and delineates more specifically how the recipient plans to carry out achieving the period of performance outcomes, strategies and activities, evaluation and performance measurement.

12. Budget Narrative

Applicants must submit an itemized budget narrative. When developing the budget narrative, applicants must consider whether the proposed budget is reasonable and consistent with the purpose, outcomes, and program strategy outlined in the project narrative. The budget must include:

- Salaries and wages
- Fringe benefits
- Consultant costs
- Equipment
- Supplies
- Travel
- Other categories
- Contractual costs
- Total Direct costs
- Total Indirect costs

Indirect costs could include the cost of collecting, managing, sharing and preserving data.

Indirect costs on grants awarded to foreign organizations and foreign public entities and performed fully outside of the territorial limits of the U.S. may be paid to support the costs of compliance with federal requirements at a fixed rate of eight percent of MTDC exclusive of tuition and related fees, direct expenditures for equipment, and subawards in excess of $25,000. Negotiated indirect costs may be paid to the American University, Beirut, and the World Health Organization.

If applicable and consistent with the cited statutory authority for this announcement, applicant entities may use funds for activities as they relate to the intent of this NOFO to meet national standards or seek health department accreditation or reaccreditation through the Public Health Accreditation Board (see: http://www.phaboard.org). Applicant entities to whom this provision applies include state, local, territorial governments (including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, the Commonwealth of the Northern Marianna Islands, American Samoa, Guam, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau), or their bona fide agents, political subdivisions of

states (in consultation with states), federally recognized or state-recognized American Indian or Alaska Native tribal governments, and American Indian or Alaska Native tribally designated organizations. Activities include those that enable a public health organization to deliver essential public health services and ensure foundational capabilities are in place, such as activities that ensure a capable and qualified workforce, strengthen information systems and organizational competencies, build attention to equity, and advance the capability to assess and respond to public health needs. Use of these funds must focus on achieving a minimum of one national standard that supports the intent of the NOFO. Proposed activities must be included in the budget narrative and must indicate which standards will be addressed.

Vital records data, including births and deaths, are used to inform public health program and policy decisions. If applicable and consistent with the cited statutory authority for this NOFO, applicant entities are encouraged to collaborate with and support their jurisdiction's vital records office (VRO) to improve vital records data timeliness, quality and access, and to advance public health goals. These goals may include supporting vital records offices participating in the Vital Records and Health Statistics Accreditation Program, certifying vital records offices to meet industry standards. Recipients may, for example, use funds to support efforts to build VRO capacity through partnerships; provide technical and/or financial assistance to improve vital records timeliness, quality or access; provide financial assistance to support accreditation related fees and/or support staff time to coordinate accreditation activities; or support vital records improvement efforts, as approved by CDC.

Applicants must name this file "Budget Narrative" and can upload it as a PDF, Word, or Excel file format at www.grants.gov. If requesting indirect costs in the budget, a copy of the indirect cost-rate agreement is required. If the indirect costs are requested, include a copy of the current negotiated federal indirect cost rate agreement or a cost allocation plan approval letter for those Recipients under such a plan. Applicants must name this file "Indirect Cost Rate" and upload it at www.grants.gov.

This NOFO has a required component funding structure. Applicants are required to apply for all components and include a separate budget and work plan for each component.

13. Funds Tracking

Proper fiscal oversight is critical to maintaining public trust in the stewardship of federal funds. Effective October 1, 2013, a new HHS policy on subaccounts requires the CDC to set up payment subaccounts within the Payment Management System (PMS) for all new grant awards. Funds awarded in support of approved activities and drawdown instructions will be identified on the Notice of Award in a newly established PMS subaccount (P subaccount). Recipients will be required to draw down funds from award-specific accounts in the PMS. Ultimately, the subaccounts will provide recipients and CDC a more detailed and precise understanding of financial transactions. The successful applicant will be required to track funds by P-accounts/sub accounts for each project/cooperative agreement awarded. Applicants are encouraged to demonstrate a record of fiscal responsibility and the ability to provide sufficient and effective oversight. Financial management systems must meet the requirements as described 45 CFR 75 which include, but are not limited to, the following:

- Records that identify adequately the source and application of funds for federally-funded activities.

- Effective control over, and accountability for, all funds, property, and other assets.
- Comparison of expenditures with budget amounts for each Federal award.
- Written procedures to implement payment requirements.
- Written procedures for determining cost allowability.
- Written procedures for financial reporting and monitoring.

14. Employee Whistleblower Rights and Protections

Employee Whistleblower Rights and Protections: All recipients of an award under this NOFO will be subject to a term and condition that applies the requirements set out in 41 U.S.C. § 4712, "Enhancement of contractor protection from reprisal for disclosure of certain information" and 48 Code of Federal Regulations (CFR) section 3.9 to the award, which includes a requirement that recipients and subrecipients inform employees in writing (in the predominant native language of the workforce) of employee whistleblower rights and protections under 41 U.S.C. § 4712. For more information see: https://oig.hhs.gov/fraud/whistleblower/.

15. Copyright Interests Provisions

This provision is intended to ensure that the public has access to the results and accomplishments of public health activities funded by CDC. Pursuant to applicable grant regulations and CDC's Public Access Policy, Recipient agrees to submit into the National Institutes of Health (NIH) Manuscript Submission (NIHMS) system an electronic version of the final, peer-reviewed manuscript of any such work developed under this award upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication. Also at the time of submission, Recipient and/or the Recipient's submitting author must specify the date the final manuscript will be publicly accessible through PubMed Central (PMC). Recipient and/or Recipient's submitting author must also post the manuscript through PMC within twelve (12) months of the publisher's official date of final publication; however the author is strongly encouraged to make the subject manuscript available as soon as possible. The recipient must obtain prior approval from the CDC for any exception to this provision.

The author's final, peer-reviewed manuscript is defined as the final version accepted for journal publication, and includes all modifications from the publishing peer review process, and all graphics and supplemental material associated with the article. Recipient and its submitting authors working under this award are responsible for ensuring that any publishing or copyright agreements concerning submitted articles reserve adequate right to fully comply with this provision and the license reserved by CDC. The manuscript will be hosted in both PMC and the CDC Stacks institutional repository system. In progress reports for this award, recipient must identify publications subject to the CDC Public Access Policy by using the applicable NIHMS identification number for up to three (3) months after the publication date and the PubMed Central identification number (PMCID) thereafter.

16. Funding Restrictions

Restrictions that must be considered while planning the programs and writing the budget are:

- Recipients may not use funds for research.
- Recipients may not use funds for clinical care except as allowed by law.
- Recipients may use funds only for reasonable program purposes, including personnel, travel, supplies, and services.
- Generally, recipients may not use funds to purchase furniture or equipment. Any such proposed spending must be clearly identified in the budget.
- Reimbursement of pre-award costs generally is not allowed, unless the CDC provides written approval to the recipient.
- Other than for normal and recognized executive-legislative relationships, no funds may be used for:
    - publicity or propaganda purposes, for the preparation, distribution, or use of any material designed to support or defeat the enactment of legislation before any legislative body
    - the salary or expenses of any grant or contract recipient, or agent acting for such recipient, related to any activity designed to influence the enactment of legislation, appropriations, regulation, administrative action, or Executive order proposed or pending before any legislative body
- See Additional Requirement (AR) 12 for detailed guidance on this prohibition and additional guidance on anti-lobbying restrictions for CDC recipients.
- The direct and primary recipient in a cooperative agreement program must perform a substantial role in carrying out project outcomes and not merely serve as a conduit for an award to another party or provider who is ineligible.

Indirect Cost for Foreign Organization

Indirect costs on grants awarded to foreign organizations and foreign public entities, and performed fully outside of the territorial limits of the U.S. may be paid to support the costs of compliance with federal requirements at a fixed rate of eight percent of MTDC exclusive of tuition and related fees, direct expenditures for equipment, and subawards in excess of $25,000. Negotiated indirect costs may be paid to the American University, Beirut, and the World Health Organization. Indirect costs will not be reimbursed under grants to foreign organizations, international organizations, and foreign components of grants to domestic organizations (does not affect indirect cost reimbursement to the domestic entity for domestic activities). All requests for funds contained in the budget shall be stated in U.S. dollars. Once an award is made, CDC will not compensate foreign recipients for currency exchange fluctuations through the issuance of supplemental awards.

Public Financial Management Clause

The Parties acknowledge that HHS/CDC has the authority to assess the recipient's systems required to manage the activities supported with U.S. Government funds under this Agreement and that this NOFO is expressly conditioned upon that assessment, as well as any measures, mitigation or means by which the recipient has or will address the vulnerabilities or weaknesses,

if any, found in that assessment. The recipient agrees to take the necessary action(s) to address the recommendations or requirements of the assessment as agreed separately in writing with HHS/CDC in accordance with an action plan to be jointly developed to address such recommendations or as otherwise contained in this agreement.

Conference Costs and Fees

U.S. Government funds under this award must not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a multilateral organization, as defined below, unless approved by CDC in writing.

- Definitions:
    - A foreign government delegation is appointed by the national government (including ministries and agencies but excluding local, state and provincial entities) to act on behalf of the appointing authority at the international conference. A conference participant is a delegate for the purposes of this provision, only when there is an appointment or designation that the individual is authorized to officially represent the government or agency. A delegate may be a private citizen.
    - An international conference is a meeting where there is an agenda, an organizational structure, and delegations from countries other than the conference location, in which country delegations participate through discussion, votes, etc.
    - A multilateral organization is an organization established by international agreement and whose governing body is composed principally of foreign governments or other multilateral organizations.

Prostitution and Sex Trafficking

A standard term and condition of award will be included in the final notice of award; all recipients will be subject to a term and condition that none of the funds made available under this award may be used to promote or advocate the legalization or practice of prostitution or sex trafficking. In addition, non-U.S. nongovernmental organizations will also be subject to an additional term and condition requiring the organization's opposition to the practices of prostitution and sex trafficking.

Trafficking in Persons Provision

- No contractor or sub-recipient under this Agreement that is a private entity may, during the period of time that the award is in effect:
    - engage in trafficking in persons, as defined in the Protocol to Prevent, Suppress, and Punish Trafficking in Persons, especially Women and Children, supplementing the UN Convention against Transnational Organized Crime;
    - procure any sex act on account of which anything of value is given to or received by any person; or
    - use forced labor in the performance of this award.
- If HHS/CDC determines that there is a reasonable basis to believe that any private party contractor or subrecipient has violated paragraph 1 of this section or that an employee of the contractor or subrecipient has violated such a prohibition where that the employee's

conduct is associated with the performance of this award or may be imputed to the contractor or subrecipient, HHS/CDC may, without penalty, (i) require the Recipient to terminate immediately the contract or subaward in question or (ii) unilaterally terminate this Agreement in accordance with the termination provision.

- For purposes of this provision, "employee" means an individual who is engaged in the performance in any part of the Project as a direct employee, consultant, or volunteer of any private party contractor or subrecipient.
- The recipient must include in all sub-agreements, including subawards and contracts, a provision prohibiting the conduct described in subsection a by private party subrecipients, contractors, or any of their employees.

Prohibition on Assistance to Drug Traffickers

- HHS/CDC reserves the right to terminate assistance to, or take other appropriate measures with respect to, any participant approved by HHS/CDC who is found to have been convicted of a narcotics offense or to have been engaged in drug trafficking as defined in 22 CFR Part 140.
- The recipient agrees not to disburse, or sign documents committing the recipient to disburse funds to a sub-recipient designated by HHS/CDC ("Designated Sub-recipient") until advised by HHS/CDC that: (1) any USG review of the Designated Sub-recipient and its key individuals has been completed; (2) any related certifications have been obtained; and (3) the assistance to the Designated Sub-recipient has been approved.
- The recipient shall insert the following clause, or its substance, in its agreement with the Designated Sub-recipient:
    - The recipient reserves the right to terminate this Agreement or take other appropriate measures if the [Sub-recipient] or a key individual of the [Sub-recipient] is found to have been convicted of a narcotic offense or to have been engaged in drug trafficking as defined in 22 CFR Part 140.

Financing of Terrorism

Consistent with numerous United Nations Security Council resolutions, including UNSCR 1267 (1999) (http://www.undemocracy.com/S-RES-1269(1999).pdf), UNSCR 1368 (2001) (http://www.undemocracy.com/S-RES-1368(2001).pdf), UNSCR 1373 (2001) (http://www.undemocracy.com/S-RES-1373(2001).pdf), and UNSCR 1989 (2011), both HHS/CDC and the recipient are firmly committed to the international fight against terrorism, and in particular, against the financing of terrorism. It is the policy of HHS/CDC to seek to ensure that none of its funds are used, directly or indirectly, to provide support to individuals or entities associated with terrorism. In accordance with this policy, the recipient agrees to use reasonable efforts to ensure that none of the HHS/CDC funds provided under this Agreement are used to provide support to individuals or entities associated with terrorism, including those identified on the U.S. Department of Treasury Office of Foreign Assets Control Specially Designated Nationals List. This provision must be included in all sub-agreements, including contracts and subawards, issued under this award.

Restriction on Assistance for Military or Paramilitary Purposes or for Police and Prisons

No funds or other support provided under the award may be used for support to any military or paramilitary force or activity, or for support to any police, prison authority, or other security or law enforcement forces without the prior written consent of HHS/CDC.

UN Security Council Sanctions List

It is the policy of HHS/CDC to seek to ensure that none of its funds are used, directly or indirectly, to provide support to individuals or entities designated for United Nations Security Council sanctions. In accordance with this policy, the recipient agrees to use reasonable efforts to ensure that none of the funds provided under this grant are used to provide support of individuals or entities designated for UN Security Council sanctions (compendium of Security Council Targeted Sanctions Lists at: http://www.un.org/sc/committees/list_compend.shtml). This provision must be included in all sub-agreements, including contracts and sub-awards, issued under this award.

Worker's Rights

No funds or other support provided hereunder may be used for any activity that contributes to the violation of internationally recognized workers' rights of workers in the recipient country.

In the event the recipient is requested or wishes to provide assistance in areas that involve workers' rights or the recipient requires clarification from HHS/CDC as to whether the activity would be consistent with the limitation set forth above, the recipient must notify HHS/CDC and provide a detailed description of the proposed activity. The recipient must not proceed with the activity until advised by HHS/CDC that it may do so. The recipient must ensure that all employees and subcontractors and sub-recipients providing employment-related services hereunder are made aware of the restrictions set forth in this clause and must include this clause in all subcontracts and other sub-agreements entered into hereunder.

The term "internationally recognized worker rights" includes-- the right of association; the right to organize and bargain collectively; a prohibition on the use of any form of forced or compulsory labor; a minimum age for the employment of children, and a prohibition on the worst forms of child labor; and acceptable conditions of work with respect to minimum wages, hours of work, and occupational safety and health.

The term "worst forms of child labor" means-- all forms of slavery or practices similar to slavery, such as the sale or trafficking of children, debt bondage and serfdom, or forced or compulsory labor, including forced or compulsory recruitment of children for use in armed conflict; the use, procuring, or offering of a child for prostitution, for the production of pornography or for pornographic purposes; the use, procuring, or offering of a child for illicit activities in particular for the production and trafficking of drugs; and work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety, or morals of children, as determined by the laws, regulations, or competent authority of the country.

Investment Promotion

No funds or other support provided hereunder may be used to provide a financial incentive to a business enterprise currently located in the United States for the purpose of inducing such an enterprise to relocate outside the United States if such incentive or inducement is likely to reduce the number of employees of such business enterprise in the United States because United States production is being replaced by such enterprise outside the United States.

In the event the recipient requires clarification from HHS/CDC as to whether the activity would be consistent with the limitation set forth above, the recipient must notify HHS/CDC and provide a detailed description of the proposed activity. The recipient must not proceed with the activity until advised by HHS/CDC that it may do so.

The recipient must ensure that its employees and subcontractors and sub-recipients providing investment promotion services hereunder are made aware of the restrictions set forth in this clause and must include this clause in all subcontracts and other sub-agreements entered into hereunder.

Contract Insurance Requirement

To the extent that a host government partner enters into contracts expressly approved by the U.S. government, the host country government partner shall ensure that its contractors or subcontractors (a) provide, before commencing performance under any contracts or subcontracts funded under this agreement, such workers' compensation insurance or security as required by HHS/CDC and (b) continue to maintain such insurance until performance is completed. The host country government partner shall insert, in all contracts and subcontracts under this agreement, a clause similar to this clause (including this sentence) imposing upon those contractors and subcontractors the obligation to obtain workers' compensation insurance or security as required by HHS/CDC.

Source and Nationality and Other Procurement Restrictions

Disbursements will be used exclusively to finance the costs of goods and services required for this Agreement in accordance with 22 CFR 228, and having their source and nationality in countries included in Geographic Code 937 or 935 or as HHS/CDC may otherwise agree in writing.

Environmental Impact Statement

HHS/CDC and the Recipient agree to implement the Project in conformance with the regulatory and legal requirements of the Partner Country's environmental legislation and HHS/CDC's environmental policies. The Recipient is required to create and follow an environmental mitigation plan and report (EMPR) for each thematic area covered by this agreement. The EMPR will capture potential environmental impacts and also inform whether a supplemental Initial Environmental Examination (IEE) is required and should be completed and submitted to the HHS/CDC. The Recipient will need to discuss this requirement with the Grants Management Officer/Grants Management Specialist.

Monitoring and Evaluation Section

HHS/CDC or its designee will also undertake monitoring and evaluation of the defined activities within the agreement. The recipient must ensure reasonable access by HHS/CDC or its designee to all necessary sites, documentation, individuals and information to monitor, evaluate and verify the appropriate implementation of the activities. Use of HHS/CDC funding under this Agreement must require a provision to this effect in all sub-awards or contracts financed by funds under this Agreement.

Monitoring, Reporting and Evaluation

CDC programs must ensure that recipient's Evaluation and Performance Measurement Plan is aligned with the guidance established by HHS/CDC and CDC's Data for Partner Monitoring Program (DFPM). All evaluations conducted must submit an evaluation report using a format agreed upon by HHS/CDC.

Human/Animal Subjects Restriction

All plans for data collection from persons, animals or personal records and for laboratory specimen collection and testing that are expected to result in public reports will require protocols for technical review and review of institutional human or animal subjects protection considerations by CDC. Funds for implementing these activities will be restricted until all necessary institutional protocol approvals have been obtained. Funds for preparatory activities (e.g., protocol development, training, equipment, reagents, and site preparation) may be provided prior to protocol approval. To facilitate the early availability of funding, the budget and narrative should clarify which activities are preparatory.

Data collection protocols required for release of human/animal subjects funding restrictions must be submitted to the CDC Center for Global Health, Division of Global Health Protection Science Office within 6 months of notification of such restrictions, but no later than the end of the first budget year. Requests for exceptions to these deadlines will need to be submitted in writing to the Grants Management Officer.

All protocol approvals should be obtained no later than the end of the subsequent budget period after the award or continuation has been made, provided that the Recipient has not been granted an exception to the deadlines specified above.

Please note that other funding restrictions may apply at time of award and may vary depending on funding appropriation. Specific guidance will be provided in the NOA, as necessary

17. Data Management Plan

As identified in the Evaluation and Performance Measurement section, applications involving data collection or generation must include a Data Management Plan (DMP) as part of their evaluation and performance measurement plan unless CDC has stated that CDC will take on the responsibility of creating the DMP. The DMP describes plans for assurance of the quality of the public health data through the data's lifecycle and plans to deposit the data in a repository to preserve and to make the data accessible in a timely manner. See web link for additional information:
https://www.cdc.gov/grants/additional-requirements/ar-25.html.

18. Intergovernmental Review

This NOFO is not subject to executive order 12372, Intergovernmental Review of Federal Programs. No action is needed.

19. Other Submission Requirements

a. Electronic Submission:

Applications must be submitted electronically by using the forms and instructions posted for this notice of funding opportunity at www.grants.gov. Applicants can complete the application package using Workspace, which allows forms to be filled out online or offline. Application attachments can be submitted using PDF, Word, or Excel file formats. Instructions and training for using Workspace can be found at www.grants.gov under the "Workspace Overview" option.

b. Tracking Number: Applications submitted through www.grants.gov are time/date stamped electronically and assigned a tracking number. The applicant's Authorized Organization Representative (AOR) will be sent an e-mail notice of receipt when www.grants.gov receives the application. The tracking number documents that the application has been submitted and initiates the required electronic validation process before the application is made available to CDC.

c. Validation Process: Application submission is not concluded until the validation process is completed successfully. After the application package is submitted, the applicant will receive a "submission receipt" e-mail generated by www.grants.gov. A second e-mail message to applicants will then be generated by www.grants.gov that will either validate or reject the submitted application package. This validation process may take as long as two business days. Applicants are strongly encouraged to check the status of their application to ensure that submission of their package has been completed and no submission errors have occurred. Applicants also are strongly encouraged to allocate ample time for filing to guarantee that their application can be submitted and validated by the deadline published in the NOFO. Non-validated applications will not be accepted after the published application deadline date.

If you do not receive a "validation" e-mail within two business days of application submission, please contact www.grants.gov. For instructions on how to track your application, refer to the e-mail message generated at the time of application submission or review the Applicants section on www.grants.gov.

d. Technical Difficulties: If technical difficulties are encountered at www.grants.gov, applicants should contact Customer Service at www.grants.gov. The www.grants.gov Contact Center is available 24 hours a day, 7 days a week, except federal holidays. The Contact Center is available by phone at 1-800-518-4726 or by e-mail at support@grants.gov. Application submissions sent by e-mail or fax, or on CDs or thumb drives will not be accepted. Please note that www.grants.gov is managed by HHS.

e. Paper Submission: If technical difficulties are encountered at www.grants.gov, applicants should call the www.grants.gov Contact Center at 1-800-518-4726 or e-mail them at support@grants.gov for assistance. After consulting with the Contact Center, if the technical difficulties remain unresolved and electronic submission is not possible, applicants may e-mail CDC GMO/GMS, before the deadline, and request permission to submit a paper application. Such requests are handled on a case-by-case basis.

An applicant's request for permission to submit a paper application must:

1. Include the www.grants.gov case number assigned to the inquiry
2. Describe the difficulties that prevent electronic submission and the efforts taken with the www.grants.gov Contact Center to submit electronically; and

3. Be received via e-mail to the GMS/GMO listed below at least three calendar days before the application deadline. Paper applications submitted without prior approval will not be considered.

   If a paper application is authorized, OGS will advise the applicant of specific instructions for submitting the application via email.

E. Review and Selection Process

1. Review and Selection Process: Applications will be reviewed in three phases

a. Phase 1 Review

All applications will be initially reviewed for eligibility and completeness by CDC Office of Grants Services. Complete applications will be reviewed for responsiveness by the Grants Management Officials and Program Officials. Non-responsive applications will not advance to Phase II review. Applicants will be notified that their applications did not meet eligibility and/or published submission requirements.

b. Phase II Review

NOFO reviewers will follow CDC's merit review process by evaluating eligible and responsive applications in accordance with the criteria below. Reviewers may be external to the federal government (non-federal personnel), federal personnel, or a mix of federal and non-federal personnel.

i. Approach

ii. Evaluation and Performance Measurement

iii. Applicant's Organizational Capacity to Implement the Approach

Not more than thirty days after the Phase II review is completed, applicants will be notified electronically if their application does not meet eligibility or published submission requirements

i. Approach **Maximum Points:** 35

Applicants will be assessed only on the component(s) for which they are applying. Each component will be graded on an individual basis for merit.

Component 1

- **Approach (35)**
  - To what extent does the applicant´s approach meet overall NOFO strategy and activities described through specific, measurable, achievable, realistic, technically-sound (SMART), evidence-based, and culturally appropriate approaches that account for the complex geographic, sociodemographic, and resource challenges in Liberia? (15)

- To what extent does the applicant distinguish between national and sub-national programmatic activities and modifies approaches as necessary to achieve objectives? (10)
- To what extent does the application present a cogent and well-designed programmatic approach based on a past record of using international best practices to successfully achieve ISO stepwise accreditation? (5)
- How well does applicant describe its approach to partnering with MOH and/or NPHIL to progressively strengthen the host government and target population's capacity to respond to Liberia's GHS gaps? (5)

Component 2

- **Approach (35)**
  - To what extent does the applicant present a cogent, well-designed approach that systematically characterizes diagnostic network optimization requirements and offers an evidence-based implementation plan once those requirements are established? (10)
  - To what extent does applicant achieve the component's requirements by describing innovative scientific design or alternative methodologies, such as non-public health domains? (15)
  - How likely is the applicant´s track record and proposed project plan to result in successful collaborations with host government, other donors, and other stakeholders, partners, and beneficiaries?? (10)

Component 3

- **Approach (35)**
  - To what extent does the applicant present historical or recent experience developing and implementing point-to-point specimen transport as part of a national or sub-national diagnostic network? (20)
  - How well does the applicant describe their approach and track record for partnering with MOH, NPHIL, multi-lateral or non-governmental organizations? (10)
  - To what extent is the applicant's work plan aligned with the funding opportunity's description and logic model's strategies, activities, outcomes, and performance indicators? (5)

ii. Evaluation and Performance Measurement **Maximum Points:** 35

Applicants will be assessed only on the component(s) for which they are applying. Each component will be graded on an individual basis for merit.

Component 1

- **Evaluation and Performance Measurement (35)**
  - To what extent does the applicant describe an effective continuous quality improvement approach for tracking, reviewing, and adjusting the program's activities based on performance monitoring and evaluation data? (15)

- To what extent are performance measures (*i.e.*, indicators) developed for each program activity by period of performance outcome and incorporated into both financial and programmatic reports? (10)
- To what extent does the applicant include, for each performance measure, reasonable outputs or targets that are incorporated into financial and programmatic reports in a manner consistent with HHS/CDC requirements and globally-endorsed benchmarks? (10)

Component 2

- **Evaluation and Performance Measurement (35)**
  - To what extent has the applicant successfully applied the Consolidated Framework for Implementation Research (https://cfirguide.org/evaluation-design/overview/) to this component's technical requirements? (15)
  - To what extent does the applicant describe effectively tracking, reviewing, and adjusting program approach or activities based on real-time performance monitoring and evaluation data? (10)
  - To what extent are performance measures (*i.e.*, indicators) and benchmarks developed for each program activity and its outcomes over the period of performance? (5)
  - How much scientific rigor or merit is evident in the evaluation methodology or study approach described? Does the applicant describe with sufficient detail key evaluation questions, data sources, analysis approaches, *etc*.? (5)

Component 3

- **Evaluation and Performance Measurement (35)**
  - To what extent does the applicant demonstrate an ability to collect data on the process and outcome performance measures specified in the Logic Model at the physical or contextual point nearest the proposed activity's geographic location? (20)
  - To what extent does the applicant describe clear monitoring and evaluation procedures and the way those procedures will be incorporated into planning, implementation, and reporting of project activities? (15)

iii. Applicant's Organizational Capacity to Implement the Approach **Maximum Points:** 30

Applicants will be assessed only on the component(s) for which they are applying. Each component will be graded on an individual basis for merit.

Component 1

- **Organizational capacity to implement the approach (30)**
  - To what extent does the applicant demonstrate specialized and Liberia-based scientific and methodologic subject matter? Liberia-based may be defined as Liberian nationals or expatriates residing in Liberia for most of the calendar year. (15)
  - To what extent is key project staff qualified to provide leadership, technical, managerial, and financial expertise? (10)

- To what extent does the applicant's overall project management structure support speedy and accountable project implementation? (5)

Component 2

- **Organizational Capacity to Implement the Approach (30)**
  - To what extent does the applicant demonstrate specific and durable scientific and professional expertise in: (a) workflow analysis, (b) process and quality improvement, (c) health economic modeling, (d) cost-effective business platforms in resource-limited settings, (e) public-private sector partnerships, or (f) logistics/supply chain management? At a minimum, evidence of qualifications and successful track record should be clearly documented for four of six criteria with higher scores awarded to the applicant with expertise in (b), (c), (d), or (e). (15)
  - To what extent does the applicant demonstrate historic or existing participation in consortiums and/or collaborations with other qualified partners to achieve project strategies, activities, and outcomes? Acceptable forms of documentation could include letters of understanding, joint annual reports, research products, or websites which showcase the type and impact of the consortium. (5)
  - To what extent does applicant demonstrate capacity to lead and guide change management processes? (5)
  - To what extent does applicant describe a plan to ensure Liberia-based nationals or expatriates remain available (i.e., "level of effort" that can be sustained throughout the project period) to lead, guide, and monitor project activities, outputs, and outcomes throughout the project period? Liberia-based may be defined as Liberian nationals or expatriates residing in Liberia for most of the calendar year. (5)

Component 3

- **Applicant's Organizational Capacity to Implement the Approach (30)**
  - To what extent does applicant have previous experience developing, implementing, and expanding a specimen transport and referral network that can safely and securely transport multiple types of priority specimens, including but not limited to human, animal, or environmental specimens in an African context? (10)
  - Does the applicant have at least five years of experience working with and maintaining relationships with the GOL (MOH and/or NPHIL, *etc.*), donors, and its specimen transport network activity partners? (5)
  - To what extent does the applicant demonstrate their work plan and funding approach emphasizes reliance on local, Liberia-based staff for project design, oversight, implementation, and monitoring? Liberia-based may be defined as Liberian nationals or expatriates residing in Liberia for most of the calendar year. (5)
  - To what extent does the applicant articulate a minimized reliance on non-Liberia based staff, and if not immediately feasible, how robust and explicit is its plan to pursue a stepwise and complete transfer of project oversight and operations to Liberia-based staff by the project period's end? (5)

- To what extent does applicant demonstrate existing capacity to establish new and/or leverage existing relationships with other qualified partners to achieve project strategies, activities, and outcomes? (5)

Budget **Maximum Points:** 0

The budget will not be scored but will be reviewed. To what extent is the proposed budget adequately justified and consistent with the overall strategy and activities of the NOFO and the applicant's proposed activities? Is the itemized budget reasonable and consistent with the stated purpose of the NOFO? Did the applicant submit a separate work plan and budget for each component?

c. Phase III Review

This application will be reviewed and scored by objective review.

Fund Out of Rank Order

Final decision on which partner and activities to be funded will be made at the time of award. CDC can fund out of rank order in order: 1) to respond to an unforeseen public health emergency in Liberia; 2) to align with USG and/or agency prioritized technical areas and activities; 3) to align with funding availability for Liberia at the time of the award; 4) to ensure maximum coverage of GHS activities; and 5) to avoid duplication of activities in other CDC funding mechanisms.

In addition, legally registered organizations in-country and/or local/indigenous partner organizations may receive funding preference.

Funding Preferences

Total Points Available: 10

Funding Preference 1: Preference for Legally Registered Organizations *(5 points)*

Deliverable 1: Proof of legal documentation (certificate of incorporation or registration) from the applicant to operate in Liberia.

Label for Deliverable 1: Funding Preference for Legally Registered Organizations

Funding Preference 2: Preference for Letter of Support from Government of Liberia *(5 points)*

Deliverable 2: Letter of Support from either the Liberian Ministry of Health (Liberian MOH) and the National Public Health Institute of Liberia (NPHIL). Applicants do not need to obtain a letter from both entities.

Label for Deliverable 2: Funding Preference for Host Government Letter of Support

All deliverables supporting funding preference must be submitted in English.

Review of risk posed by applicants.

Prior to making a Federal award, CDC is required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide

eligibility qualification or financial integrity information as appropriate. See also suspension and debarment requirements at 2 CFR parts 180 and 376.

In accordance 41 U.S.C. 2313, CDC is required to review the non-public segment of the OMB-designated integrity and performance system accessible through SAM prior to making a Federal award where the Federal share is expected to exceed the simplified acquisition threshold, defined in 41 U.S.C. 134, over the period of performance. At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards; and integrity and business ethics. CDC may make a Federal award to a recipient who does not fully meet these standards, if it is determined that the information is not relevant to the current Federal award under consideration or there are specific conditions that can appropriately mitigate the effects of the non-Federal entity's risk in accordance with 45 CFR §75.207. CDC's review of risk may impact reward eligibility.

In evaluating risks posed by applicants, CDC will use a risk-based approach and may consider any items such as the following:

(1) Financial stability;

(2) Quality of management systems and ability to meet the management standards prescribed in this part;

(3) History of performance. The applicant's record in managing Federal awards, if it is a prior recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards;

(4) Reports and findings from audits performed under subpart F 45 CFR 75 or the reports and findings of any other available audits; and

(5) The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

Additionally, we may ask for additional information prior to the award based on the results of the CDC's risk review.

CDC must comply with the guidelines on government-wide suspension and debarment in 2 CFR part 180, and require non-Federal entities to comply with these provisions. These provisions restrict Federal awards, subawards and contracts with certain parties that are debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

2. Announcement and Anticipated Award Dates

09/30/2024

F. Award Administration Information

1. Award Notices

Recipients will receive an electronic copy of the Notice of Award (NOA) from CDC OGS. The NOA shall be the only binding, authorizing document between the recipient and CDC. The NOA will be signed by an authorized GMO and emailed to the Recipient Business Officer listed in application and the Program Director.

Any applicant awarded funds in response to this Notice of Funding Opportunity will be subject to annual SAM Registration and Federal Funding Accountability And Transparency Act Of 2006 (FFATA) requirements.

Unsuccessful applicants will receive notification of these results by e-mail with delivery receipt.

2. Administrative and National Policy Requirements

AR-9: Paperwork Reduction Act Requirements

AR-10: Smoke-Free Workplace Requirements

AR-11: Healthy People 2020

AR-12: Lobbying Restrictions (June 2012)

AR-14: Accounting System Requirements

AR-35: Protecting Life in Global Health Assistance

AR-37: Prohibition on certain telecommunications and video surveillance services or equipment for all awards issued on or after August 13, 2020

If you receive an award, you must follow all applicable nondiscrimination laws. You agree to this when you register in SAM.gov. You must also submit an Assurance of Compliance (HHS-690). To learn more, see the HHS Office for Civil Rights website.

3. Reporting

Reporting provides continuous program monitoring and identifies successes and challenges that recipients encounter throughout the period of performance. Also, reporting is a requirement for recipients who want to apply for yearly continuation of funding. Reporting helps CDC and recipients because it:

- Helps target support to recipients;
- Provides CDC with periodic data to monitor recipient progress toward meeting the Notice of Funding Opportunity outcomes and overall performance;
- Allows CDC to track performance measures and evaluation findings for continuous quality and program improvement throughout the period of performance and to determine applicability of evidence-based approaches to different populations, settings, and contexts; and
- Enables CDC to assess the overall effectiveness and influence of the NOFO.

The table below summarizes required and optional reports. All required reports must be sent electronically to GMS listed in the "Agency Contacts" section of the NOFO copying the CDC Project Officer.

Report	**When?**	**Required?**
Recipient Evaluation and Performance Measurement Plan, including Data Management Plan	6 months into award	Yes
Annual Performance Report (APR)	No later than 120 days before end of budget period. Serves as yearly continuation application.	Yes
Performance Measure Reporting	Annual reports due 90 calendar days after the award year; and quarterly reports due 30 days after the reporting period	Yes
Audit, Books, and Records	When applicable, within 30 days of completion of the audit and no later than nine months after the end of the period under audit	Yes, as applicable
Reporting of Foreign Taxes	Quarterly reports due April 15, July 15, October 15, and Jan 15	Yes
Expenditure Report	Quarterly financial reports due to CDC for each country and program area funded under this NOFO	Yes
Federal Financial Reporting Forms	90 days after the end of the budget period	Yes
Final Performance and Financial Report	90 days after end of period of performance	Yes
Payment Management System (PMS) Reporting	Quarterly reports due January 30; April 30; July	Yes

	30; and October 30	

a. Recipient Evaluation and Performance Measurement Plan (required)
With support from CDC, recipients must elaborate on their initial applicant evaluation and performance measurement plan. This plan must be no more than 20 pages; recipients must submit the plan 6 months into the award. HHS/CDC will review and approve the recipient's monitoring and evaluation plan to ensure that it is appropriate for the activities to be undertaken as part of the agreement, for compliance with the monitoring and evaluation guidance established by HHS/CDC, or other guidance otherwise applicable to this Agreement.

Recipient Evaluation and Performance Measurement Plan (required): This plan should provide additional detail on the following:

Performance Measurement

• Performance measures and targets
• The frequency that performance data are to be collected.
• How performance data will be reported.
• How quality of performance data will be assured.
• How performance measurement will yield findings to demonstrate progress towards achieving NOFO goals (e.g., reaching specific populations or achieving expected outcomes).
• Dissemination channels and audiences.
• Other information requested as determined by the CDC program.

Evaluation

• The types of evaluations to be conducted (e.g. process or outcome evaluations).
• The frequency that evaluations will be conducted.
• How evaluation reports will be published on a publicly available website.
• How evaluation findings will be used to ensure continuous quality and program improvement.
• How evaluation will yield findings to demonstrate the value of the NOFO (e.g., effect on improving public health outcomes, effectiveness of NOFO, cost-effectiveness or cost-benefit).
• Dissemination channels and audiences.

HHS/CDC or its designee will also undertake monitoring and evaluation of the defined activities within the agreement. The recipient must ensure reasonable access by HHS/CDC or its designee to all necessary sites, documentation, individuals and information to monitor, evaluate and verify the appropriate implementation the activities and use of HHS/CDC funding under this Agreement.

b. Annual Performance Report (APR) (required)
The recipient must submit the APR via www.Grantsolutions.gov no later than 120 days prior to the end of the budget period. This report must not exceed 45 pages excluding administrative reporting. Attachments are not allowed, but web links are allowed.

This report must include the following:

- **Performance Measures:** Recipients must report on performance measures for each budget period and update measures, if needed.
- **Evaluation Results:** Recipients must report evaluation results for the work completed to date (including findings from process or outcome evaluations).
- **Work Plan:** Recipients must update work plan each budget period to reflect any changes in period of performance outcomes, activities, timeline, etc.
- **Successes**
    - Recipients must report progress on completing activities and progress towards achieving the period of performance outcomes described in the logic model and work plan.
    - Recipients must describe any additional successes (e.g. identified through evaluation results or lessons learned) achieved in the past year.
    - Recipients must describe success stories.
- **Challenges**
    - Recipients must describe any challenges that hindered or might hinder their ability to complete the work plan activities and achieve the period of performance outcomes.
    - Recipients must describe any additional challenges (e.g., identified through evaluation results or lessons learned) encountered in the past year.
- **CDC Program Support to Recipients**
    - Recipients must describe how CDC could help them overcome challenges to complete activities in the work plan and achieving period of performance outcomes.
- **Administrative Reporting** (No page limit)
    - SF-424A Budget Information-Non-Construction Programs.
    - Budget Narrative – Must use the format outlined in "Content and Form of Application Submission, Budget Narrative" section.
    - Indirect Cost Rate Agreement.

The recipients must submit the Annual Performance Report via www.Grantsolutions.gov no later than 120 days prior to the end of the budget period.

The recipients must submit the Annual Performance Report via www.Grantsolutions.gov no later than 120 days prior to the end of the budget period.

c. Performance Measure Reporting (optional)

CDC programs may require more frequent reporting of performance measures than annually in the APR. If this is the case, CDC programs must specify reporting frequency, data fields, and format for recipients at the beginning of the award period.

The recipient is responsible for managing and monitoring each project, program, sub award, function or activity supported through this Agreement. Recipients must monitor sub awards to ensure that sub recipients have met the programmatic impact requirements as set forth in the sub recipient's agreement.

Performance reports must contain, for each award, brief information on each of the following:

- A comparison of actual accomplishments with the goals and objectives previously established for the period, including metrics outlined in the monitoring and evaluation plan any findings of an external entity, or both.
- Reasons why established goals for the performance period were not met, if appropriate.
- Other pertinent information including, when appropriate, statutory or Congressional reporting requirements, analysis and explanation of cost overruns or high unit costs reported in financial reports.
- The recipient must immediately notify the awarding agency of developments that have a significant impact on or adverse conditions which materially impair the award-supported activities.
- The Quarterly Pipeline Analysis report must contain expenditures (by country and program) versus budget as identified in work plan, description of challenges, and explanation of unexpected pipeline (high or low). The Pipeline Analysis report must contain the period of performance, award amount to date, outlay or liquidated amount to date, and the balance of the pipeline, or the award amount to date less the outlay.
- The recipient must submit the original and two copies of annual and quarterly Performance reports and quarterly pipeline analysis. Annual reports must be due 90 calendar days after the award year and quarterly reports must be due 30 days after the reporting period. The final performance reports are due 90 calendar days after the expiration or termination of this Agreement.

Additionally, the following terms apply to all performance measure and evaluation plans and reports:

- CDC programs must ensure that recipient's Evaluation and Performance Measurement Plan is aligned with the guidance established by HHS/CDC.
- The recipient must ensure reasonable access by HHS/CDC or its designee to all necessary sites, documentation, individuals and information to monitor, evaluate and verify the appropriate implementation of the Activities and use of HHS/CDC funding under this Agreement, must require a provision to this effect in all sub-awards or contracts financed by funds under this Agreement.
- The recipient is required to submit in a timely manner all program results for all relevant programmatic indicators in accordance with U.S. government guidance. All evaluation reports (with or without CDC authors) must adhere to HHS/CDC evaluation standard of practice and must be published on a publicly available Internet website, upon approval from CDC offices.

Audit, Books, and Records Clause (required):

A. Reports and Information. The recipient must furnish HHS/CDC accounting records and such other information and reports relating to the Agreement as HHS/CDC may reasonably request.

B. The Recipient Agreement Books and Records. The recipient must maintain accounting books, records, documents and other evidence relating to the Agreement, adequate to show, without limitation, all costs incurred by the recipient, the receipt and use of goods and services acquired by the recipient, agreed-upon cost sharing requirements, the nature and extent of solicitations of prospective suppliers of goods and services acquired by the recipient, the basis of award of recipient contracts and orders, and the overall progress of the Agreement toward completion ("Agreement books and records"). The recipient must maintain Agreement books and records in accordance with generally accepted accounting principles prevailing in the United States, or at the recipient's option, with approval by HHS/CDC, other accounting principles, such as those (1) prescribed by the International Accounting Standards Committee (an affiliate of the International Federation of Accountants), or (2) prevailing in the country of the recipient. Agreement books and records must be maintained for at least three years after the date of last disbursement by HHS/CDC or for such longer period, if any, required to resolve any litigation, claims or audit findings.

C. Partner Government Audit. If $300,000 or more of USG funds are expended by the recipient in its fiscal year under the Agreement, the recipient must have financial audits made of the expenditures in accordance with the following terms, except as the Parties may otherwise agree in writing:

    i. The recipient must use its Supreme Audit Institution (SAI), if the SAI is approved by HHS/CDC, or select an independent auditor to perform the audit in accordance with the guidelines issued by HHS/CDC.

    ii. The audit must determine whether the receipt and expenditure of the funds provided under the Agreement are presented in accordance with generally accepted accounting principles agreed to in Section 2 above and whether the recipient has complied with the terms of the Agreement. Each audit must be submitted to HHS/CDC no later than nine months after the close of the recipient's year under audit.

D. Sub-recipient Audits. The recipient, except as the Parties may otherwise agree in writing, must ensure that "covered" sub-recipients, as defined below, are audited, and submit to HHS/CDC, no later than the end of the recipient's year under audit, in form and substance satisfactory to HHS/CDC, a plan for the audit of the expenditures of "covered" sub-recipients, as defined below, that receive funds under this Agreement pursuant to a direct contract or agreement with the recipient.

    i. "Covered" sub-recipient is one who expends $300,000 or more in its fiscal year in "US Government awards" (i.e. as recipients of US Government cost reimbursable contracts, grants or cooperative agreements).

    ii. The plan must describe the methodology to be used by the recipient to satisfy its audit responsibilities for covered sub-recipients. The recipient may satisfy such audit responsibilities by relying on independent audits of the sub-recipients; expanding the scope of the independent financial audit of the recipient to

encompass testing of sub-recipients' accounts; or a combination of these procedures.

iii. The plan must identify the funds made available to sub-recipients that will be covered by audits conducted in accordance with audit provisions that satisfy the recipient's audit responsibilities.

iv. The recipient must ensure that covered sub-recipients under direct contracts or agreements with the recipient take appropriate and timely corrective actions; consider whether sub-recipients' audits necessitate adjustment of its own records; and require each such sub-recipient to permit independent auditors to have access to records and financial statements as necessary.

E. Audit Reports. The recipient must furnish or cause to be furnished to HHS/CDC an audit report for each audit arranged for by the recipient in accordance with this Section within 30 days after completion of the audit and no later than nine months after the end of the period under audit.

F. Cost of Audits. Subject to HHS/CDC approval in writing, costs of audits performed in accordance with the terms of this Section may be budgeted for, and charged to, the Agreement so long as such costs are allowable, allocable, and reasonable as defined in the Cost Allowability section of this Agreement.

G. Audit by HHS/CDC. HHS/CDC retains the right to perform the audits required under this Agreement on behalf of the recipient conduct a financial review, or otherwise ensure accountability of organizations expending U.S. Government funds regardless of the audit requirement.

H. Opportunity to Audit or Inspect. The recipient must afford authorized representatives of HHS/CDC the opportunity at all reasonable times to audit or inspect activities financed under the Agreement, the utilization of goods and services financed by HHS/CDC, and books, records and other documents relating to the Agreement.

I. Sub-recipient Books and Records. The recipient will incorporate paragraphs (A), (B), (D), (E), (F), (G) and (H) of this provision into all sub-agreements with non-U.S. organizations which meet the $300,000 threshold of paragraph (C) of this provision. Sub-agreements with non-U.S. organizations, which do not meet the $300,000 threshold, must, at a minimum, incorporate paragraphs (G) and (H) of this provision. Sub-agreements with U.S. organizations must state that the U.S. organization is subject to the audit requirements contained in 2 CFR 200 and 45 CFR 75.

Expenditure Report (required):

Recipients are required to report quarterly on program expenditures. The quarterly report must report on funds expended by the recipient at the country and program/activity-level

d. Federal Financial Reporting (FFR) (required)

The annual FFR form (SF-425) is required and must be submitted 90 days after the end of the budget period through the Payment Management System (PMS). The report must include only those funds authorized and disbursed during the timeframe covered by the report. The final FFR must indicate the exact balance of unobligated funds, and may not reflect any unliquidated obligations. There must be no discrepancies between the final FFR expenditure data and the Payment Management System's (PMS) cash transaction data. Failure to submit the required information by the due date may adversely affect the future funding of the project. If the

information cannot be provided by the due date, recipients are required to submit a letter of explanation to OGS and include the date by which the Grants Officer will receive information.

e. Final Performance and Financial Report (required)

The Final Performance Report is due 120 days after the end of the period of performance. The Final FFR is due 120 days after the end of the period of performance and must be submitted through the Payment Management System (PMS). CDC programs must indicate that this report should not exceed 40 pages. This report covers the entire period of performance and can include information previously reported in APRs. At a minimum, this report must include the following:

- Performance Measures – Recipients must report final performance data for all process and outcome performance measures.
- Evaluation Results – Recipients must report final evaluation results for the period of performance for any evaluations conducted.
- Impact/Results/Success Stories – Recipients must use their performance measure results and their evaluation findings to describe the effects or results of the work completed over the period of performance, and can include some success stories.
- A final Data Management Plan that includes the location of the data collected during the funded period, for example, repository name and link data set(s)
- Additional forms as described in the Notice of Award (e.g., Equipment Inventory Report, Final Invention Statement).

4. Federal Funding Accountability and Transparency Act of 2006 (FFATA)

Federal Funding Accountability and Transparency Act of 2006 (FFATA), P.L. 109–282, as amended by section 6202 of P.L. 110–252 requires full disclosure of all entities and organizations receiving Federal funds including awards, contracts, loans, other assistance, and payments through a single publicly accessible Web site, http://www.USASpending.gov.

Compliance with this law is primarily the responsibility of the Federal agency. However, two elements of the law require information to be collected and reported by applicants: 1) information on executive compensation when not already reported through the SAM, and 2) similar information on all sub-awards/subcontracts/consortiums over $30,000.

For the full text of the requirements under the FFATA and HHS guidelines, go to:

- https://www.gpo.gov/fdsys/pkg/PLAW-109publ282/pdf/PLAW-109publ282.pdf,
- https://www. fsrs.gov/documents /ffata_legislation_ 110_252.pdf
- http://www.hhs.gov/grants/grants/grants-policies-regulations/index.html#FFATA.

5. Reporting of Foreign Taxes (International/Foreign projects only)

A. Valued Added Tax (VAT) and Customs Duties – Customs and import duties, consular fees, customs surtax, valued added taxes, and other related charges are hereby authorized as an allowable cost for costs incurred for non-host governmental entities operating where no applicable tax exemption exists. This waiver does not apply to countries where a bilateral agreement (or similar legal document) is already in place providing applicable tax exemptions and it is not applicable to Ministries of Health. Successful applicants will receive information on VAT requirements via their Notice of Award.

B. The U.S. Department of State requires that agencies collect and report information on the amount of taxes assessed, reimbursed and not reimbursed by a foreign government against commodities financed with funds appropriated by the U.S. Department of State, Foreign Operations and Related Programs Appropriations Act (SFOAA) ("United States foreign assistance funds"). Outlined below are the specifics of this requirement:

1) Annual Report: The recipient must submit a report on or before November 16 for each foreign country on the amount of foreign taxes charged, as of September 30 of the same year, by a foreign government on commodity purchase transactions valued at 500 USD or more financed with United States foreign assistance funds under this grant during the prior United States fiscal year (October 1 – September 30), and the amount reimbursed and unreimbursed by the foreign government. [Reports are required even if the recipient did not pay any taxes during the reporting period.]

2) Quarterly Report: The recipient must quarterly submit a report on the amount of foreign taxes charged by a foreign government on commodity purchase transactions valued at 500 USD or more financed with United States foreign assistance funds under this grant. This report shall be submitted no later than two weeks following the end of each quarter: April 15, July 15, October 15 and January 15.

3) Terms: For purposes of this clause:
"Commodity" means any material, article, supplies, goods, or equipment;
"Foreign government" includes any foreign government entity;
"Foreign taxes" means value-added taxes and custom duties assessed by a foreign government on a commodity. It does not include foreign sales taxes.

4) Where: Submit the reports to the Director and Deputy Director of the CDC office in the country(ies) in which you are carrying out the activities associated with this cooperative agreement. In countries where there is no CDC office, send reports to VATreporting@cdc.gov.

5) Contents of Reports: The reports must contain:

a. recipient name;
b. contact name with phone, fax, and e-mail;
c. agreement number(s) if reporting by agreement(s);
d. reporting period;

e. amount of foreign taxes assessed by each foreign government;
f. amount of any foreign taxes reimbursed by each foreign government;
g. amount of foreign taxes unreimbursed by each foreign government.

6) Subagreements. The recipient must include this reporting requirement in all applicable subgrants and other subagreements.

6. Termination

CDC may impose other enforcement actions in accordance with 45 CFR 75.371- Remedies for Noncompliance, as appropriate.

The Federal award may be terminated in whole or in part as follows:

(1) By the HHS awarding agency or pass-through entity, if the non-Federal entity fails to comply with the terms and conditions of the award;

(2) By the HHS awarding agency or pass-through entity for cause;

(3) By the HHS awarding agency or pass-through entity with the consent of the non-Federal entity, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated; or

(4) By the non-Federal entity upon sending to the HHS awarding agency or pass-through entity written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if the HHS awarding agency or pass-through entity determines in the case of partial termination that the reduced or modified portion of the Federal award or subaward will not accomplish the purposes for which the Federal award was made, the HHS awarding agency or pass-through entity may terminate the Federal award in its entirety.

G. Agency Contacts

CDC encourages inquiries concerning this notice of funding opportunity.

Program Office Contact

For programmatic technical assistance, contact:

First Name:
Claudette

Last Name:
Grant
Project Officer
Department of Health and Human Services
Centers for Disease Control and Prevention

Address:

Telephone:
+231 (0) 770 421 324

Email:
cag4@cdc.gov

Grants Staff Contact

For **financial, awards management, or budget assistance,** contact:

First Name:
Lakita

Last Name:
Reid
Grants Management Specialist
Department of Health and Human Services
Office of Grants Services

Address:

Telephone:
+1 770 488 2742

Email:
ito1@cdc.gov
For assistance with **submission difficulties related to** www.grants.gov, contact the Contact Center by phone at 1-800-518-4726.

Hours of Operation: 24 hours a day, 7 days a week, except on federal holidays.

CDC Telecommunications for persons with hearing loss is available at: TTY 1-888-232-6348

H. Other Information

Following is a list of acceptable application attachments that can be submitted using PDF, Word, or Excel file formats as part of their application at www.grants.gov. Applicants may not attach documents other than those listed; if other documents are attached, applications will not be reviewed.

- Project Abstract
- Project Narrative
- Budget Narrative
- Report on Programmatic, Budgetary and Commitment Overlap
- Table of Contents for Entire Submission

For international NOFOs:

- SF424
- SF424A
- Funding Preference Deliverables

Optional attachments, as determined by CDC programs:

Resumes / CVs

Position descriptions

Letters of Support

Organization Charts

Due to multiple components for multiple countries and/or regions, the **Project Narrative will allow a maximum of 60 pages,** single spaced, 12-point font, 1-inch margins, and should have all pages numbered. The appendices will not be counted toward the project narrative page limit. **The total amount of appendices must not exceed 50 pages.** Any pages after page 50 of the appendix will not be considered for review. The following documents must be included in the application appendices:

Applicants must submit the following documents in the appendix and title them as follows: "CVs/Resumes," "Job Descriptions," "Organizational Chart," as found in the "Organizational Capacity of Recipients to Implement the Approach" section, and upload it at www.grants.gov.

All documents must be in English. Any information submitted via www.grants.gov must be uploaded in a PDF file format, and should be clearly labeled (i.e.,: Organizational Chart should be named "Organizational Chart").

Page Limitations

- Applicants must abide by the project narrative page number limitation listed in this section (60 pages). This is different than Section D, #10 Project Narrative (20 pages). Any pages submitted beyond the number of pages listed for the project narrative will not be reviewed.
- Applicants must abide by the submission requirements for the project narrative and appendix. Materials required in the project narrative submitted in the appendix will not be reviewed. Materials submitted in the appendix that are not requested in the NOFO will not be reviewed. Letters of support are not requested and will not be referred to reviewers.
- If the total amount of appendices includes more than 50 pages, any pages after page 50 of the appendix will not be considered for review. For this purpose, all appendices must have page numbers and must be clearly identified in the Table of Contents as appendices. All applications will be initially reviewed for completeness by CDC OGS staff.

Amendments and Questions and Answers (Q&As)

Applicants must submit their Q&As via email to **DGHPNOFOs@cdc.gov** no later than 15 days after the publication date in www.grants.gov. Questions received more than 15 days after the NOFO is published on www.grants.gov will not be considered and a response will not be provided.

All changes, updates, and amendments to the NOFO will be posted to www.grants.gov following the approval of CDC.

For additional information on reporting requirements, visit the CDC website at: http://www.cdc.gov/od/pgo/funding/grants/additional_req.shtm.

I. Glossary

Activities: The actual events or actions that take place as a part of the program.

Administrative and National Policy Requirements, Additional Requirements (ARs): Administrative requirements found in 45 CFR Part 75 and other requirements mandated by statute or CDC policy. All ARs are listed in the Template for CDC programs. CDC programs must indicate which ARs are relevant to the NOFO; recipients must comply with the ARs listed in the NOFO. To view brief descriptions of relevant provisions, see https://www.cdc.gov/grants/additional-requirements/index.html. Note that 2 CFR 200 supersedes the administrative requirements (A-110 & A-102), cost principles (A-21, A-87 & A-122) and audit requirements (A-50, A-89 & A-133).

Approved but Unfunded: Approved but unfunded refers to applications recommended for approval during the objective review process; however, they were not recommended for funding by the program office and/or the grants management office.

Assistance Listings: A government-wide collection of federal programs, projects, services, and activities that provide assistance or benefits to the American public.

Assistance Listings Number: A unique number assigned to each program and NOFO throughout its lifecycle that enables data and funding tracking and transparency

Award: Financial assistance that provides support or stimulation to accomplish a public purpose. Awards include grants and other agreements (e.g., cooperative agreements) in the form of money, or property in lieu of money, by the federal government to an eligible applicant.

Budget Period or Budget Year: The duration of each individual funding period within the period of performance. Traditionally, budget periods are 12 months or 1 year.

Carryover: Unobligated federal funds remaining at the end of any budget period that, with the approval of the GMO or under an automatic authority, may be carried over to another budget period to cover allowable costs of that budget period either as an offset or additional authorization. Obligated but liquidated funds are not considered carryover.

Community engagement: The process of working collaboratively with and through groups of people to improve the health of the community and its members. Community engagement often involves partnerships and coalitions that help mobilize resources and influence systems, improve relationships among partners, and serve as catalysts for changing policies, programs, and practices.

Competing Continuation Award: A financial assistance mechanism that adds funds to a grant and adds one or more budget periods to the previously established period of performance (i.e., extends the “life” of the award).

Continuous Quality Improvement: A system that seeks to improve the provision of services with an emphasis on future results.

Contracts: An award instrument used to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the Federal Government.

Cooperative Agreement: A financial assistance award with the same kind of interagency relationship as a grant except that it provides for substantial involvement by the federal agency funding the award. Substantial involvement means that the recipient can expect federal programmatic collaboration or participation in carrying out the effort under the award.

Cost Sharing or Matching: Refers to program costs not borne by the Federal Government but by the recipients. It may include the value of allowable third-party, in-kind contributions, as well as expenditures by the recipient.

Direct Assistance: A financial assistance mechanism, which must be specifically authorized by statute, whereby goods or services are provided to recipients in lieu of cash. DA generally involves the assignment of federal personnel or the provision of equipment or supplies, such as vaccines. DA is primarily used to support payroll and travel expenses of CDC employees assigned to state, tribal, local, and territorial (STLT) health agencies that are recipients of grants and cooperative agreements. Most legislative authorities that provide financial assistance to STLT health agencies allow for the use of DA. https://www.cdc.gov/grants/additional-requirements/index.html.

Equity: The consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment (from Executive Order 13985).

Evaluation (program evaluation): The systematic collection of information about the activities, characteristics, and outcomes of programs (which may include interventions, policies, and specific projects) to make judgments about that program, improve program effectiveness, and/or inform decisions about future program development.

Evaluation Plan: A written document describing the overall approach that will be used to guide an evaluation, including why the evaluation is being conducted, how the findings will likely be used, and the design and data collection sources and methods. The plan specifies what will be done, how it will be done, who will do it, and when it will be done. The NOFO evaluation plan is used to describe how the recipient and/or CDC will determine whether activities are implemented appropriately and outcomes are achieved.

Federal Funding Accountability and Transparency Act of 2006 (FFATA): Requires that information about federal awards, including awards, contracts, loans, and other assistance and payments, be available to the public on a single website at www.USAspending.gov.

Fiscal Year: The year for which budget dollars are allocated annually. The federal fiscal year starts October 1 and ends September 30.

Grant: A legal instrument used by the federal government to transfer anything of value to a recipient for public support or stimulation authorized by statute. Financial assistance may be money or property. The definition does not include a federal procurement subject to the Federal Acquisition Regulation; technical assistance (which provides services instead of money); or assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct payments of any kind to a person or persons. The main difference between a grant and a cooperative agreement is that in a grant there is no anticipated substantial programmatic involvement by the federal government under the award.

Grants.gov: A "storefront" web portal for electronic data collection (forms and reports) for federal grant-making agencies at www.grants.gov.

Grants Management Officer (GMO): The individual designated to serve as the HHS official responsible for the business management aspects of a particular grant(s) or cooperative agreement(s). The GMO serves as the counterpart to the business officer of the recipient organization. In this capacity, the GMO is responsible for all business management matters associated with the review, negotiation, award, and administration of grants and interprets grants administration policies and provisions. The GMO works closely with the program or project officer who is responsible for the scientific, technical, and programmatic aspects of the grant.

Grants Management Specialist (GMS): A federal staff member who oversees the business and other non-programmatic aspects of one or more grants and/or cooperative agreements. These activities include, but are not limited to, evaluating grant applications for administrative content and compliance with regulations and guidelines, negotiating grants, providing consultation and technical assistance to recipients, post-award administration and closing out grants.

Health Disparities: Preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by populations that have been socially, economically, geographically, and environmentally disadvantaged.

Health Equity: The state in which everyone has a fair and just opportunity to attain their highest level of health. Achieving this requires focused and ongoing societal efforts to address historical and contemporary injustices; overcome economic, social, and other obstacles to health and healthcare; and eliminate preventable health disparities.

Health Inequities: Particular types of health disparities that stem from unfair and unjust systems, policies, and practices and limit access to the opportunities and resources needed to live the healthiest life possible.

Healthy People 2030: National health objectives aimed at improving the health of all Americans by encouraging collaboration across sectors, guiding people toward making informed health decisions, and measuring the effects of prevention activities.

Inclusion: The act of creating environments in which any individual or group can be and feel welcomed, respected, supported, and valued to fully participate. An inclusive and welcoming climate embraces differences and offers respect in words and actions for all people.

Indirect Costs: Costs that are incurred for common or joint objectives and not readily and specifically identifiable with a particular sponsored project, program, or activity; nevertheless, these costs are necessary to the operations of the organization. For example, the costs of operating and maintaining facilities, depreciation, and administrative salaries generally are considered indirect costs.

Letter of Intent (LOI): A preliminary, non-binding indication of an organization’s intent to submit an application.

Lobbying: Direct lobbying includes any attempt to influence legislation, appropriations, regulations, administrative actions, executive orders (legislation or other orders), or other similar deliberations at any level of government through communication that directly expresses a view on proposed or pending legislation or other orders, and which is directed to staff members or

other employees of a legislative body, government officials, or employees who participate in formulating legislation or other orders. Grass roots lobbying includes efforts directed at inducing or encouraging members of the public to contact their elected representatives at the federal, state, or local levels to urge support of, or opposition to, proposed or pending legislative proposals.

Logic Model: A visual representation showing the sequence of related events connecting the activities of a program with the programs' desired outcomes and results.

Maintenance of Effort: A requirement contained in authorizing legislation, or applicable regulations that a recipient must agree to contribute and maintain a specified level of financial effort from its own resources or other non-government sources to be eligible to receive federal grant funds. This requirement is typically given in terms of meeting a previous base-year dollar amount.

Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA): Document that describes a bilateral or multilateral agreement between parties expressing a convergence of will between the parties, indicating an intended common line of action. It is often used in cases where the parties either do not imply a legal commitment or cannot create a legally enforceable agreement.

Nonprofit Organization: Any corporation, trust, association, cooperative, or other organization that is operated primarily for scientific, educational, service, charitable, or similar purposes in the public interest; is not organized for profit; and uses net proceeds to maintain, improve, or expand the operations of the organization. Nonprofit organizations include institutions of higher educations, hospitals, and tribal organizations (that is, Indian entities other than federally recognized Indian tribal governments).

Notice of Award (NoA): The official document, signed (or the electronic equivalent of signature) by a Grants Management Officer that: (1) notifies the recipient of the award of a grant; (2) contains or references all the terms and conditions of the grant and Federal funding limits and obligations; and (3) provides the documentary basis for recording the obligation of Federal funds in the HHS accounting system.

Objective Review: A process that involves the thorough and consistent examination of applications based on an unbiased evaluation of scientific or technical merit or other relevant aspects of the proposal. The review is intended to provide advice to the persons responsible for making award decisions.

Outcome: The results of program operations or activities; the effects triggered by the program. For example, increased knowledge, changed attitudes or beliefs, reduced tobacco use, reduced morbidity and mortality.

Performance Measurement: The ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals, typically conducted by program or agency management. Performance measurement may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), or the results of those products and services (outcomes). A "program" may be any activity, project, function, or policy that has an identifiable purpose or set of objectives.

Period of performance –formerly known as the project period - : The time during which the recipient may incur obligations to carry out the work authorized under the Federal award. The start and end dates of the period of performance must be included in the Federal award.

Period of Performance Outcome: An outcome that will occur by the end of the NOFO's funding period

Plain Writing Act of 2010: The Plain Writing Act of 2010 requires that federal agencies use clear communication that the public can understand and use. NOFOs must be written in clear, consistent language so that any reader can understand expectations and intended outcomes of the funded program. CDC programs should use NOFO plain writing tips when writing NOFOs.

Program Official: Person responsible for developing the NOFO; can be either a project officer, program manager, branch chief, division leader, policy official, center leader, or similar staff member.

Program Strategies: Strategies are groupings of related activities, usually expressed as general headers (e.g., Partnerships, Assessment, Policy) or as brief statements (e.g., Form partnerships, Conduct assessments, Formulate policies).

Public Health Accreditation Board (PHAB): A nonprofit organization that works to promote and protect the health of the public by advancing the quality and performance of public health departments in the U.S. through national public health department accreditation http://www.phaboard.org.

Social Determinants of Health: The non-medical factors that influence health outcomes. The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces (e.g., racism, climate) and systems include economic policies and systems, development agendas, social norms, social policies, and political systems. https://www.cdc.gov/about/sdoh/index.html

Statute: An act of the legislature; a particular law enacted and established by the will of the legislative department of government, expressed with the requisite formalities. In foreign or civil law any particular municipal law or usage, though resting for its authority on judicial decisions, or the practice of nations.

Statutory Authority: Authority provided by legal statute that establishes a federal financial assistance program or award.

System for Award Management (SAM): The primary vendor database for the U.S. federal government. SAM validates applicant information and electronically shares secure and encrypted data with federal agencies' finance offices to facilitate paperless payments through Electronic Funds Transfer (EFT). SAM stores organizational information, allowing www.grants.gov to verify identity and pre-fill organizational information on grant applications.

Technical Assistance: Advice, assistance, or training pertaining to program development, implementation, maintenance, or evaluation that is provided by the funding agency.

UEI: The Unique Entity Identifier (UEI) number is a twelve-digit number assigned by SAM.gov. When applying for Federal awards or cooperative agreements, all applicant organizations must obtain a UEI number as the Universal Identifier. UEI number assignment is

free. If an organization does not know its UEI number or needs to register for one, visit www.sam.gov.

Work Plan: The summary of period of performance outcomes, strategies and activities, personnel and/or partners who will complete the activities, and the timeline for completion. The work plan will outline the details of all necessary activities that will be supported through the approved budget.

NOFO-specific Glossary and Acronyms

ABU	Approved but Unfunded
AMP	Assessment, Migration and Performance
BHS	Border Health Security
CDC	U.S. Centers for Disease Control and Prevention
CIO	CDC Center, Institute, and Offices
CoAg	Cooperative Agreement
DARRT	Detecting and Responding to Respiratory Disease Threats
DGHP	Division of Global Health Protection
DOD	U.S. Department of Defense
DoS	U.S. Department of State
EBS	Event-based Surveillance
EM	Emergency Management
EMR	Electronic Medical Records
EMRO	Regional Office for Eastern Mediterranean WHO
EMT	Emergency medical team
EOC	Emergency Operations Center
EPT	Emerging Pandemic Threats
EQA	External Quality Assessment
ESC	Executive Steering Committee
EVD	Ebola Viral Disease
FAO	Food and Agriculture Organization of the United Nations
FOSS	Free and Open-Source Software
FY	Fiscal Year
GHC	Global Health Center

GHS	Global Health Security
GHSA	Global Health Security Agenda
GHS-IS	Global Health Security Information Systems
GISRS	Global Influenza Surveillance and Response System
GMO/GMS	Grants Management Officer/Specialist
GOARN	Global Outbreak Alert and Response Network
GOL	Government of Liberia
GPHIN	Global Public Health Intelligence Network
HAI	Healthcare Associated Infection
HIS	Health Information Systems
HIV	Human Immunodeficiency Virus
HHS	Health and Human Services
IAA	Interagency Agreement
IDP	Internally Displaced Person
IDSR	Integrated Disease Surveillance and Response
IHR	International Health Regulations
IOM	International Organization for Migration
IPC	Infection Prevention and Control
IPCAT	Infection prevention and control (IPC) assessment tool
IQC	Internal Quality Control
IS	Information Systems
IT	Information Technology
JEE	Joint External Evaluation
LIMS	Laboratory Information Management System
M&E	Monitoring and Evaluation
MCV	Measles-containing Vaccine
MedISys	Medical Information System
MoH	Ministry of Health
MVP	Meningitis Vaccine Project
NAPHS	National Action Plan for Health Security
NCC	National Coordinating Centre

NFP	IHR national focal point
NGO	Non-Governmental Organization
NICs	National Influenza Centers
NPHIL	National Public Health Institute of Liberia
NPHRL	National Public Health Reference Laboratory
NOFO	Notice of Funding Opportunity
PHEM	Public Health Emergency Management
POC	Point-of-Care
POE	Points of Entry/Exit
PON	Point-of-Need
PPE	Personal Protective Equipment
ProMED	Program for Monitoring Emerging Diseases
QA	Quality Assurance
QSP	Quarterly Spend Plan
RA	Resident Advisor
SMART	Specific, Measurable, Achievable, Realistic and Time-bound
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SPAR	IHR self-assessment annual reporting tool
TAL	Technical Area Lead
TDY	Temporary Duty
TEPHINET	Training Programs in Epidemiology and Public Health Interventions Network'
TST	Technical Support Team
UNICEF	United Nations Children’s Fund
USG	United States Government
VPD	Vaccine-Preventable Disease
VTC	Video Teleconference
WASH	Water, Sanitation and Hygiene
WASH FIT	Water and sanitation for health facility improvement tool
WHA	World Health Assembly

WHO	World Health Organization
WHO CC	World Health Organization Collaborating Center
WHO-AFRO	World Health Organization Regional Office for Africa