

Supplemental Guidance for CDC-RFA-CK22-2204 titled Pathogen Genomics Centers of Excellence (Departments of Public Health/Public Health Laboratories and their academic partners).  
Assistance Listing Number 93.085

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## Background and Purpose

Funding is being made available to current CDC-RFA-CK22-2204 award recipients to support activities in budget periods 3-5, through the end of the cooperative agreement performance period (9/29/2027).

The underlying objective of the Pathogen Genomics Centers of Excellence (PGCoE) network NOFO is to foster and improve innovation and technical capacity in pathogen genomics, molecular epidemiology, and bioinformatics to better prevent, control and respond to microbial threats of public health importance. Partnership and collaboration between academia, public health and the private sector is at the core of this objective. A key function of the PGCOE network is to build national capacity to rapidly respond to infectious disease threats.

Funding the entire period of performance for the Pathogen Genomics Centers of Excellence will allow secure funding and planning for health department recipients and the academic partners that are critical to the network's unique advantage in preparing for and responding to infectious disease threats.

Funding is provided to support the strategies and activities of NOFO CDC-RFA-CK22-2204 as described below (Activities, Performance Measures, and Reporting).

## Funding Strategy

This funding will be awarded in the PGCOE Budget Period 2 (BP2) under CDC-RFA-CK22-2204. However, recipients should note that this supplemental funding is for a three (3) year project period and will end on September 29, 2027. The project period coincides with the end of Budget Period 5 (BP5) of the PGCOE Cooperative Agreement (CK22-2204). Therefore, workplans and budgets should reflect activities and associated costs in Budget Periods 3-5, from September 30, 2024 - September 29, 2027.

Approximately \$60,000,000 base funding will be awarded for budget periods 3-5 for Translation Component, Response Implementation Component (situational report), and the Education Lead component. Estimated funding levels are \$10,500,000 to each site and \$3,000,000 in addition to the Education Lead site.

## Budget Submission and Workplan

### Application Package

All applications are due in GrantSolutions as a “**Supplement**” amendment no later than **June 12, 2023, by 11:59 pm EST**.

**Note:** If an applicant does not submit the documents listed below within the above time frame and has not received written approval for an extension from the Office of Grants Services then no Supplemental Funds will be awarded.

The application package *must consist of the following documents:*

#### Application for Federal Assistance 424

- One form for supplemental request - fill out the e-form in GrantSolutions

#### Budget Information 424a

- Total funding request- for supplemental project- provide form as an attachment

## Summary Budget Narrative

Note: The remaining documents of the application package (workplan and narrative for BP3-5, revised budget with justification) are due by the revised date identified in your Notice of Award.

The remaining application package will be due as specified in the NOA:

### Workplan and narrative for BP3-5

### Revised budget with justification

#### Termination

This award may be terminated in whole or in part consistent with 45 CFR 75.372\*

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

#### Activities

Applicants must develop and submit work plan and narrative for BP3-5. The work plan must align with the strategies and activities outlined in the NOFO. Specifically, activities must align to one or more of the following strategies below. Applications should not include proposals for new research projects.

The underlying objective of the Pathogen Genomics Centers of Excellence (PGCoE) network NOFO is to foster and improve innovation and technical capacity in pathogen genomics, molecular epidemiology, and bioinformatics to better prevent, control and respond to microbial threats of public health importance. The Centers of Excellence network is intended to enable the public health system to better respond to infectious disease threats with resilience, flexibility and the latest practical advances in laboratory technology, scientific computing, and applied research.

The PGCoE network has as crosscutting strategies: 1) translation of innovations to public health; 2) education of the public health workforce; 3) preparation for response to infectious disease threats; and 4) response to infectious disease threats.

Key activities for the **Translation** strategy (Core Component) are:

- a) Develop networked approaches and support and encourage the use of reproducible methods and open standards. (Overarching activity)
- b) Identify gaps in and opportunities for use of genomic epidemiology in public health. (Overarching activity)
- c) Function as an innovation “incubator.” The PGCoE network is expected to function as a technology and innovation “incubator” for pathogen genomics in public health. To this end, all PGCoEs are expected to establish and maintain a **research and evaluation “platform”** that allows them to readily develop or identify, adapt, pilot, evaluate, and implement technologies and applications within **5 broad areas**:

1. Wet laboratory methods development and validation, proficiency testing, technologies, and applications (wet lab)
2. Bioinformatics technologies and applications, as well as related technologies (bioinformatics)

3. Data standardization/data security/data stewardship/data integration and reporting/data linkage/data science/data analytics/data visualization including of genomic, epidemiologic, clinical, biological, environmental, geospatial, behavioral, social and other types of data together (data)
4. Genomic surveillance, monitoring, analysis, data synthesis, and response (surveillance)
5. Field applications and investigations (field applications)

Key activities for the **Education** strategy include:

Core Component:

- a.) Lead or assist in training activities
- b.) Educate state, local, territorial and other non-Federal public health workforce in pathogen genomics and genomic epidemiology.

Education Lead Component (applicable to PGCoe Lead for Education):

- a) Identify relevant educational needs for the public health workforce, with focus on microbiologists, bioinformaticians, and epidemiologists
- b) Lead education efforts of the network
  - Provide leadership for educational activities of the network.
  - Pilot and evaluate educational materials, including online training.
- c) Develop online training

All centers will be expected, in collaboration with the Lead PGCoe for Education (see Optional Component (Lead PGCoe for Education) described below) and with CDC, to contribute to development of online training resources and other training activities.

Key activities for the **Response Base** strategy (Core Component) are:

Prepare to respond to infectious threats: foundational activities include but are not limited to preparing data use agreements, memoranda of understanding and IRB protocols to allow rapid scale-up of efforts across the network.

Key activities for the **Response Implementation** strategy (Response Implementation Component) are:

Perform sequencing and other applications, analysis, and data synthesis during emergencies from infectious agents. ***The priority activity that should be addressed in supplemental applications is the preparation of situational reports.***

In addition, recipients are expected to participate in network-wide activities and the Coordinating Group, and network-related travel (Coordinating Group Meeting once a year, Network Meeting once a year).

## **Narrative and Work Plan**

**The narrative should be organized using the following structure:**

- I. Mandatory Component: Core
  - a. Translation
    - i. Overarching
    - ii. Wet laboratory methods development and validation, proficiency testing, technologies, and applications (“wet lab”)
    - iii. Bioinformatics technologies and applications, as well as related technologies (“bioinformatics”)
    - iv. Data standardization/data security/data stewardship/data integration and reporting/data linkage/data science/data analytics/data visualization including of genomic, epidemiologic, clinical, biological, environmental, geospatial, behavioral, social and other types of data together (“data”)
    - v. Genomic surveillance, monitoring, analysis, data synthesis, and response (“surveillance”)
    - vi. Field applications and investigations Response Base (“field applications”)
  - b. Education
  - c. Response Base
    - i. Overarching
    - ii. Wet laboratory methods development and validation, proficiency testing, technologies, and applications (“wet lab”)
    - iii. Bioinformatics technologies and applications, as well as related technologies (“bioinformatics”)
    - iv. Data standardization/data security/data stewardship/data integration and reporting/data linkage/data science/data analytics/data visualization including of genomic, epidemiologic, clinical, biological, environmental, geospatial, behavioral, social and other types of data together (“data”)
    - v. Genomic surveillance, monitoring, analysis, data synthesis, and response (“surveillance”)
    - vi. Field applications and investigations Response Base (“field applications”)
- II. Mandatory Component: Response Implementation
  - a. Situational Report
- III. Optional Component: Education Lead (as applicable)

**Logic Model Period of Performance Outcomes**

**Program Short-term Outcomes**

**Strategy: Translation**

- 1) Networked function with established “platform” for collaborative work between and beyond centers
- 2) Improved understanding of current state of genomic epidemiology in public health
- 3) Increased use of new and refined laboratory and bioinformatics tools
- 4) Increased capacity to sequence pathogens and to analyze genomic data
- 5) Increased capacity to link microbial genomic, clinical and epidemiologic data and analyze linked data
- 6) Increased speed of adoption of relevant genomic technologies in US public health

**Strategy: Education**

- 7) Increased availability of educational materials and approaches

**Strategy: Response (Response Base, Response Implementation)**

- 8) Networked activity supported by established systems for data sharing, analysis, review, and reporting

**Program Intermediate Outcomes**

**Strategy: Translation**

- 9) Greater use of genomic technologies to address infectious public health threats
- 10) Improved interoperability of microbial genomic and other surveillance, clinical and public health relevant information
- 11) Increased use of common tools and applications across network sites and beyond
- 12) Improved discovery of transmission, risk factors, and outcomes of pathogens of public health importance
- 13) Greater alignment of US and global microbial genomics and genomic epidemiology efforts

**Strategy: Education**

- 12) Increase in US public health personnel with proficiency and expertise in use of genomics and genomic epidemiology

**Strategy: Response (Response Base, Response Implementation)**

- 14) Rapid scale-up of genomic epidemiology capabilities in emergencies from infectious agents

**Sample Workplan Template: BP3-BP5** (may add additional rows as needed)

**Mandatory Component: Core**

<b>Program Strategy Translation (Translate Innovation to Public Health)</b>					
Key Activities: -Develop networked approaches and support and encourage use of reproducible methods and open standards -Identify gaps in use of genomic epidemiology -Develop, identify, adapt, pilot, and implement technologies and applications for public health -Assist in implementing technologies broadly in the US and aligning with global efforts					
<b>Outcomes (What are the desired results)  (from logic model or activity-specific outcomes)</b>	<b>Activities (How are you going to accomplish the objective)</b>	<b>Performance Measures (What is/are the quantifiable indicator(s))</b>	<b>Process Measures (Specific steps that lead to a particular outcome)</b>	<b>Responsible Party (Who is responsible for the steps to the outcome)</b>	<b>Completion Date (When will outcome be completed)</b>
Wet Laboratory					
Bioinformatics					
Data					
Surveillance					
Field Studies					

<b>Program Strategy Education</b>					
Key Activities: Lead or assist in training activities					
<b>Program Strategy/Key activities: Response Base</b>					
Key Activities: Prepare to respond to infectious disease threats					
Wet Laboratory					
Bioinformatics					
Data					
Surveillance					
Field Studies					

**Mandatory Component: Response Implementation**

<b>Program Strategy: Response Implementation</b>					
Key Activities: Perform sequencing and other applications, analysis, and data synthesis during emergencies from infectious agents					
<b>Outcomes</b> <i>(What are the desired results)</i>	<b>Activities</b> <i>(How are you going to accomplish the objective)</i>	<b>Performance Measures</b> <i>(What is/are the quantifiable indicator(s))</i>	<b>Process Measures</b> <i>(Specific steps that lead to a particular outcome)</i>	<b>Responsible Party</b> <i>(Who is responsible for the steps to the outcome)</i>	<b>Completion Date</b> <i>(When will outcome be completed)</i>
From logic model (indicate number(s))					
Activity-specific outcomes					
<b>Situational Reports</b>					

**Optional Component: Education Lead (As Applicable)**

<b>Program Strategy/Key Activities: Education Lead (As Applicable)</b>
Identify relevant educational needs, lead education efforts of the network and develop online training

<b>Outcomes</b> <i>(What are the desired results)</i>	<b>Activities</b> <i>(How are you going to accomplish the objective)</i>	<b>Performance Measures</b> <i>(What is/are the quantifiable indicator(s))</i>	<b>Process Measures</b> <i>(Specific steps that lead to a particular outcome)</i>	<b>Responsible Party</b> <i>(Who is responsible for the steps to the outcome)</i>	<b>Completion Date</b> <i>(When will outcome be completed)</i>
<b>From logic model</b> (indicate number(s))  <b>Activity-specific outcomes</b>					

**Performance Measures**

Performance monitoring and evaluation plans will be refined each year as needed. Additional guidance on the development of evaluation and performance measurement plans may be provided by CDC, as needed.

**Reporting**

**Annual reporting is still required including an annual FFR and Progress Report. Final reports will be due 90 days after the end of the period of performance.**