Centers for Disease Control and Prevention

NATIONAL CENTER FOR IMMUNIZATION AND RESPIRATORY DISEASES

US Platform to Measure Effectiveness of Seasonal Influenza, COVID-19 and other Respiratory Virus Vaccines for the Prevention of Acute Illness in Ambulatory Settings

RFA-IP-22-004

05/09/2022

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Overview

Participating Organization(s)

Centers for Disease Control and Prevention

Components of Participating Organizations

Components of Participating Organizations:

National Center for Immunization and Respiratory Diseases

Notice of Funding Opportunity (NOFO) Title

US Platform to Measure Effectiveness of Seasonal Influenza, COVID-19 and other Respiratory Virus Vaccines for the Prevention of Acute Illness in Ambulatory Settings

Activity Code

93.185

Notice of Funding Opportunity Type

New

Agency Notice of Funding Opportunity Number

RFA-IP-22-004

Assistance Listings Number(s)

93.185,93.083

Category of Funding Activity

HL - Health

NOFO Purpose

The goal of this funding announcement is to: 1) support a network of US institutions that can identify laboratory-confirmed cases of acute respiratory illness due to influenza, SARS-CoV-2, and other viruses of major public health concern, among patients seeking healthcare for acute respiratory illness and related symptomology, and 2) provide accurate estimates of the effectiveness of influenza, COVID-19, and other vaccines against respiratory virus-associated illness in that population. Participating institutions should identify illnesses among ambulatory

patients seeking healthcare or diagnostic testing for acute illness. Applicants applying for Component A should: 1) enroll patients meeting standard symptom criteria, 2) confirm viral infection using approved molecular assays, 3) estimate influenza and SARS-CoV-2 vaccine effectiveness (VE) using a test-negative study design, and 4) perform viral genomic characterization of select respiratory specimens from enrolled participants. Applicants applying for Component B should propose performing data coordination activities for the network of Component A awardees. Optional Component C, D or E studies may be proposed only by those applying for Component A. Optional Component C is to conduct a case-ascertained household transmission study; Optional Component D is to conduct an immunologic study of the responses to influenza and COVID-19 virus vaccination; and Optional Component E is to perform complex laboratory assays and analyses of influenza viral genomics. Estimates of vaccine effectiveness against these illnesses will be used to inform vaccine recommendations and assess public health impact of vaccination programs to prevent viral illness-related healthcare encounters and medical visits among persons of all ages.

Key Dates

Publication Date:

To receive notification of any changes to RFA-IP-22-004, return to the synopsis page of this announcement at www.grants.gov and click on the "Send Me Change Notification Emails" link. An email address is needed for this service.

Letter of Intent Due Date:

The LOI date will generate once the Synopsis is published if Days or a Date are entered.
04/08/2022

Application Due Date:

05/09/2022
05/09/2022

On-time submission requires that electronic applications be error-free and made available to CDC for processing from the NIH eRA system on or before the deadline date. Applications must be submitted to and validated successfully by Grants.gov no later than 5:00 PM U.S. Eastern Time.

Applicants will use a system or platform to submit their applications through Grants.gov and eRA Commons to CDC. ASSIST, an institutional system to system (S2S) solution, or Grants.gov Workspace are options. ASSIST is a commonly used platform because it provides a validation of all requirements prior to submission and prevents errors.

For more information on accessing or using ASSIST, you can refer to the ASSIST Online Help Site at: https://era.nih.gov/erahelp/assist. Additional support is available from the NIH eRA Service desk via http://grants.nih.gov/support/index.html.

- E-mail: commons@od.nih.gov
- Phone: 301-402-7469 or (toll-free) 1-866-504-9552.
  Hours: Monday - Friday, 7 a.m. to 8 p.m. Eastern Time, excluding Federal holidays.

Note: HHS/CDC grant submission procedures do not provide a grace period beyond the application due date time to correct any error or warning notices of noncompliance with

application instructions that are identified by Grants.gov or eRA systems (i.e., error correction window).

Scientific Merit Review:
06/30/2022

Secondary Review:
08/09/2022

Estimated Start Date:
09/30/2022

Expiration Date:
05/10/2022

Required Application Instructions

It is critical that applicants follow the instructions in the How to Apply - Application Guide except where instructed to do otherwise in this NOFO. Conformance to all requirements (both in the Application Guide and the NOFO) is required and strictly enforced. Applicants must read and follow all application instructions in the Application Guide as well as any program-specific instructions noted in Section IV. When the program-specific instructions deviate from those in the Application Guide, follow the program-specific instructions.

Note: The Research Strategy component of the Research Plan is limited to 25 pages.

Page Limitations: Pages that exceed the page limits described in this NOFO will be removed and not forwarded for peer review, potentially affecting an application's score.

Applications that do not comply with these instructions may be delayed or may not be accepted for review.

Telecommunications for the Hearing Impaired: TTY 1-888-232-6348

An applicant may apply for **Component A** or **Component B** but not both. In both the **Research Strategy** and **Project Summary/Abstract (Description)** sections of the application, clearly list the proposed component project by name and identify it as either applying for **Component A** or **Component B.** A **Component B** award will not be made if no **Component A** award is made.

If applying for **Component A** plus one or more **Optional Components**, in both the **Research Strategy** and **Project Summary/ Abstract (Description)** sections, the application should clearly list each proposed component project by name (i.e., identify the proposed project as **Component A, C, D or E**).

Applications for **Component A** must address all three objectives under **Component A**; those applying under **Component A** may also apply for one or more of the **Optional Components C, D or E** but must not apply for **Component B**; those applying for **Component B** must not apply for any of the other components. If an applicant applies for both **Component A** and **Component B**, neither application will move forward to peer review and neither will be eligible for award.

Within the total 25-page limit for the **Research Strategy** of the **Research Plan section** of the application, the page limit for EACH Component is limited as follows:

- Component A: 10 pages
- Component C: 5 pages
- Component D: 5 pages
- Component E: 5 pages

The page limits remain the same for each Component whether an applicant applies for only Component A or for Component A plus one or more Optional Components (e.g., if an applicant applies for only Component A, the page limit for the Component A Research Strategy is 10 pages; if an applicant applies for Component A and one or more Optional Components, the page limit for the Component A Research Strategy is 10 pages – the same principle applies to Components C, D, and E – the page limits will always remain at 5 pages each).

- Component B: 25 pages

(Please see Section IV.2 of this NOFO for more detailed information regarding application format).

NOTE: The Research Strategy component of the Research Plan is limited to _25__ pages.

Applications that do not comply with these instructions may be delayed or not accepted for review. Pages that exceed page limits described in this NOFO will be removed and not forwarded for peer review, potentially affecting an application's score.

Executive Summary

- **Purpose:** The goal of this funding announcement is to: 1) support a network of US institutions that can identify laboratory-confirmed cases of acute respiratory illness due to influenza, SARS-CoV-2, and other viruses of major public health concern, among patients seeking healthcare for acute respiratory illness and related symptomology, and 2) provide accurate estimates of the effectiveness of influenza, COVID-19, and other vaccines against respiratory virus-associated illness in that population. Participating institutions should identify illnesses among ambulatory patients seeking healthcare or diagnostic testing for acute illness. Applicants applying for Component A should: 1) enroll patients meeting standard symptom criteria, 2) confirm viral infection using approved molecular assays, 3) estimate influenza and SARS-CoV-2 vaccine effectiveness (VE) using a test-negative study design, and 4) perform viral genomic characterization of select respiratory specimens from enrolled participants. Applicants applying for Component B should propose performing data coordination activities for the network of Component A awardees. Optional Component C, D or E studies may be proposed only by those applying for Component A. Optional Component C is to conduct a case-ascertained household transmission study; Optional Component D is to conduct an immunologic study of the responses to influenza and COVID-19 virus vaccination; and Optional Component E is to perform complex laboratory assays and analyses of influenza viral genomics. Estimates of vaccine effectiveness against these illnesses will be used to inform vaccine recommendations and assess public health impact of vaccination

programs to prevent viral illness-related healthcare encounters and medical visits among persons of all ages.

- **Mechanism of Support:** U01 – Research Project - Cooperative Agreement
- **Funds Available and Anticipated Number of Awards:** The estimated total funding available, including direct and indirect costs, for the entire five (5)-year period of performance is $107,500,000. The anticipated number of awards will be up to eight (8): seven (7) for Component A and one (1) for Component B. It is anticipated that up to five (5) Component C awards will be made, up to four (4) Component D awards will be made and one (1) Component E award will be made. Awards issued under this NOFO are contingent upon availability of funds and a sufficient number of meritorious applications. Because the nature and scope of the proposed research will vary from application to application, it is also anticipated that the size and duration of each award may also vary. The total amount awarded, and the number of awards will depend upon the number, quality, duration, and cost of the applications received.
- **Budget and Project Period:** The estimated total funding (direct and indirect) for the first year (12-month budget period) ranges from $15,000,000 (for Component A [$14,000,000] and B [$1,000,000] only) to $21,500,000 (for Components A, B, C, D and E) with individual awards ranging from $2,000,000 (Component A only) to $4,200,000 (Components A [$2,000,000], C [$700,000], D [$500,000], and E [$1,000,000]). A Component B award will not be made if no Component A award is made. The estimated total funding (direct and indirect) for the entire project period for all components is $107,500,000. The project period is anticipated to run from 09/01/2022 to 08/31/2027.
- **Application Research Strategy Length:** Page limits for the Research Strategy are clearly specified in Section IV. "Application and Submission Information" of this announcement.
- **Eligible Institutions/Organizations.** Institutions/organizations listed in Section III. of this announcement are eligible to apply.
- **Eligible Project Directors/Principal Investigators (PDs/PIs).** Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. NOTE: CDC does not make awards to individuals directly. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply.
- **Number of PDs/PIs.** There will only be one PD/PI for each application.
- **Number of Applications.** Only one application per institution (normally identified by having a unique entity identifier [UEI]) is allowed.
- **Application Type.** New, Type I
- **Application Materials.** See Section IV.1 for application materials. Please note that Form G is to be used when completing the application package.

Section I. Funding Opportunity Description

Statutory Authority

- Public Health Service Act, Section 301 [42 U.S.C. 241], as amended.
- Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020, Public Law 116-123.

- Coronavirus Aid, Relief, and Economic Security (CARES) Act, Public Law 116-136.
- Paycheck Protection Program and Health Care Enhancement Act, Public Law 116-139.
- American Rescue Plan Act of 2021, Public Law 117-2.

1. Background and Purpose

Since the 2004-2005 influenza season, CDC has worked with collaborating institutions to evaluate the effectiveness of seasonal influenza vaccines for the prevention of medically attended acute respiratory infection in populations targeted for annual vaccination. Because influenza viruses are constantly evolving, and vaccines are reformulated every year, annual estimates of the effectiveness of influenza vaccines in preventing influenza and its associated complications are needed to evaluate the protection provided by vaccination programs and to inform future vaccine virus selection. Each year in the United States, influenza viruses infect up to 20% of the population, cause hundreds of thousands to millions of medically attended illnesses, and thousands of hospitalizations and deaths. Annual influenza vaccination is the primary influenza prevention strategy and is recommended for all people ≥ 6 months of age in the U.S. Many studies have described the vaccine effectiveness (VE) of seasonal and 2009 pandemic influenza vaccine formulations against laboratory-confirmed symptomatic and medically attended outpatient influenza illness. In recent seasons, effectiveness of influenza vaccines has varied by influenza virus type and subtype or lineage, antigenic match between vaccine and circulating viruses, patient characteristics including age and prior vaccination history, and vaccine type. This NOFO seeks to support a network of research institutions to estimate the annual effectiveness of influenza and COVID-19 vaccination to prevent laboratory-confirmed, acute respiratory illness and to provide additional information on factors associated with vaccine effectiveness.

Since early 2020, COVID-19 has caused dramatically increased morbidity, mortality, and healthcare burden associated with viral infections across all age groups. The first COVID-19 vaccines were approved under Emergency Use Authorization by the FDA in December 2020 and additional COVID-19 vaccines are under development. In November 2021, COVID-19 vaccination was recommended for all persons aged ≥5 years, and expanded recommendations for vaccination of younger children are expected following authorization or approval of COVID-19 vaccines in children aged <5 years. The COVID-19 pandemic has also changed the nature of healthcare encounters, including increased use of telemedicine for evaluation of individuals with mild illness, decreased in-person health facility consultations, and use of testing centers not directly linked to health facilities or healthcare systems. These changes will affect the ability of research institutions to evaluate the effectiveness of both COVID-19 and seasonal influenza vaccines against medically attended acute respiratory illness.

With widespread use of COVID-19 vaccines in the general population, observational studies of authorized and licensed vaccines will be needed to evaluate vaccine effectiveness in “real world” populations, settings, and age groups which are not generally included in clinical trials. Comparable data from multiple sites are required to accurately assess and estimate effectiveness of vaccines against COVID-19, influenza, and potentially other respiratory viruses of major public health concern. Consented research studies may add to understanding of vaccine effectiveness estimates and potential biases arising from the use of large databases of electronic medical record and immunization data that do not require patient contact. Respiratory virus vaccine effectiveness networks provide an opportunity to conduct studies of effectiveness of

multiple vaccines administered in the same population for prevention of acute respiratory illness. The network of research institutions established under this NOFO should contribute to studies of the effectiveness of seasonal and pandemic influenza vaccines and COVID-19 vaccines for the prevention of medically attended acute respiratory illnesses in ambulatory settings.

Most current research to assess VE against medically attended outpatient illness uses a test-negative study design. Patients seeking care for acute respiratory illness (ARI), or other syndromes, are recruited for study enrollment and systematically tested for infection using sensitive molecular-based diagnostic assays (e.g., RT-PCR). Test-positive patients are identified as study cases and test-negative patients as controls. The use of sensitive diagnostic testing reduces biases that can affect VE estimates. During periods of viral circulation, influenza and SARS-CoV-2 viruses may attribute 10-40% of persons with healthcare consultations for potential influenza- or COVID-19-associated illness, depending upon the influenza season and SARS-CoV-2 transmission. Also, infected patients seeking healthcare within 10 days of symptom onset are likely to test positive by molecular assays for influenza or SARS-CoV-2, so that test-negative, symptomatic patients are likely not to be infected with these pathogens and can be used as a comparison group to estimate vaccine effectiveness.

Health Equity

CDC supports efforts to improve the health of populations disproportionately affected by infectious diseases by maximizing the health impact of public health services, reducing disease incidence, and advancing health equity.

A health disparity occurs when a health outcome is seen to a greater or lesser extent between populations. Health disparities in infectious diseases are inextricably linked to a complex blend of social determinants that influence which populations are most disproportionately affected by these infections and diseases.

Social determinants are conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of life-risks and outcomes (https://www.cdc.gov/socialdeterminants/index.htm). These include conditions for early childhood development; education, employment, and work; food security, health services, housing, income, and social exclusion. Health equity is a desirable goal that entails special efforts to improve the health of those who have experienced social or economic challenges. It requires:

- Continuous efforts focused on elimination of health disparities, including disparities in health and in the living and working conditions that influence health, and
- Continuous efforts to maintain a desired state of equity after health disparities are eliminated.

Applicants should use data, including social determinants data, to identify communities within their jurisdictions that are disproportionately affected by infectious diseases and related diseases and conditions, and plan activities to help eliminate health disparities. In collaboration with partners and appropriate sectors of the community, applicants should consider social determinants of health in the development, implementation, and evaluation of program specific efforts and use culturally appropriate interventions and strategies that are tailored for the communities for which they are intended.

Healthy People 2030 and other National Strategic Priorities
The CDC NCIRD within HHS is committed to achieving the health promotion and disease prevention objectives of "Healthy People 2030" (https://www.cdc.gov/nchs/healthy_people/hp2030/hp2030.htm) and to measuring program performance as stipulated by the Government Performance and Review Act (GPRA).

This Notice of Funding Opportunity (NOFO) is in alignment with the "Healthy People 2030" priority focus areas, Immunization and Infectious Diseases and HHS Strategic Plan Goals and Objectives: Strategic Goal 2: Protect the Health of Americans Where They Live, Learn, Work, and Play: (https://www.hhs.gov/about/strategic-plan/strategic-goal-2/index.html).

Public Health Impact
Vaccination plays a critical role in reducing illness due to influenza and SARS-CoV-2 and in preventing disease transmission. Identification of factors associated with vaccine-induced protection, and reasons for lack of effectiveness, should increase understanding of how different vaccines work against circulating viruses and virus variants in different age groups and among people with underlying medical conditions, and inform the development of new vaccine or vaccine formulations and improved vaccination strategies. Several types of vaccines may be available, and the proposed network will help evaluate effectiveness of multiple vaccine types in different populations and across age groups for which vaccination is recommended. In addition, proposed study activities should contribute to the validation of vaccination status, assess potential limitations with electronic medical records and immunization registries, and aid in the interpretation of vaccine effectiveness estimates from different study designs. Finally, the proposed network will contribute data to describe the epidemiology and burden of respiratory illness due to influenza and SARS-CoV-2 viruses among patients seeking healthcare. Results from research conducted under this NOFO should yield high impact public health findings and/or strategies that should contribute to a reduction in overall burden to healthcare and improve the health of the US population.

Relevant Work

1. RFA-IP16-002: Annual Estimates of Influenza Vaccine Effectiveness for Preventing Laboratory-Confirmed Influenza in the United States (http://www.grants.gov/web/grants/search-grants.html, Keyword: RFA-IP16-002; Opportunity Status: Archived)

2. Guidance for Clinicians on the Use of RT-PCR and Other Molecular Assays for Diagnosis of Influenza Virus Infection (http://www.cdc.gov/flu/professionals/diagnosis/molecular-assays.htm)

3. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2020-2021. MMWR. Recommendations and Reports / August 21, 2020 / 69(8);1–24 (http://dx.doi.org/10.15585/mmwr.rr6908a1)

References:

1. Belongia EA, Kieke BA, Donahue JG, *et al*. *Effectiveness of inactivated influenza vaccines varied substantially with antigenic match from the 2004-2005 season to the 2006-2007 season.* J Infect Dis. 2009;199(2):159-67. doi: 10.1086/595861.

2. Chung JR, Rolfes MA, Flannery B, *et al*. *Effects of Influenza Vaccination in the United States during the 2018-2019 Influenza Season.* Clin Infect Dis. 2020. doi: 10.1093/cid/ciz1244.
3. Dawood FS, Chung JR, Kim SS, *et al*. *Interim Estimates of 2019-20 Seasonal Influenza Vaccine Effectiveness - United States, February 2020.* MMWR Morb Mortal Wkly Rep. 2020 Feb 21;69(7):177-182.
4. De Serres, G., *et al. The test-negative design: validity, accuracy and precision of vaccine efficacy estimates compared to the gold standard of randomised placebo-controlled clinical trials.* Euro Surveill, 2013. 18(37).
5. Ferdinands, J.M. and D.K. Shay. *Magnitude of potential biases in a simulated case-control study of the effectiveness of influenza vaccination.* Clin Infect Dis, 2012. 54(1): p. 25-32.
6. Ferdinands JM, Gaglani M, Martin ET, *et al*. *Prevention of Influenza Hospitalization Among Adults in the United States, 2015-2016: Results from the US Hospitalized Adult Influenza Vaccine Effectiveness Network (HAIVEN).* J Infect Dis. 2019;220(8):1265-1275.
7. Flannery B, Kondor RJG, Chung JR, *et al*. *Spread of Antigenically Drifted Influenza A(H3N2) Viruses and Vaccine Effectiveness in the United States During the 2018-2019 Season.* J Infect Dis. 2020 Jan 1;221(1):8-15.
8. Foppa, I.M., *et al. The case test-negative design for studies of the effectiveness of influenza vaccine.* Vaccine, 2013. 31(30): p. 3104-9.
9. Griffin, M.R., *et al., Effectiveness of non-adjuvanted pandemic influenza A vaccines for preventing pandemic influenza acute respiratory illness visits in 4 U.S. communities.* PLoS One, 2011. 6(8): p. e23085.
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11. Jackson, M.L. and K.J. Rothman. *Effects of imperfect test sensitivity and specificity on observational studies of influenza vaccine effectiveness.* Vaccine, 2015. 33(11): p. 1313-6.
12. Jackson ML, Chung JR, Jackson LA, *et al*. *Influenza Vaccine Effectiveness in the United States during the 2015-2016 Season*. N Engl J Med. 2017;377(6):534-543.
13. Kim SS, Flannery B, Foppa IM, et al. *Effects of prior season vaccination on current season vaccine effectiveness in the US Flu VE Network, 2012-13 through 2017-18*. Clin Infect Dis. 2020:ciaa706.
14. McLean, H.Q., *et al*. *Influenza vaccine effectiveness in the United States during 2012-2013: variable protection by age and virus type*. J Infect Dis, 2015. 211(10): p. 1529-40.
15. Ohmit, S.E., *et al*. *Influenza vaccine effectiveness in the 2011-2012 season: protection against each circulating virus and the effect of prior vaccination on estimates*. Clin Infect Dis, 2014. 58(3): p. 319-27.
16. Orenstein, E.W., *et al. Methodologic issues regarding the use of three observational study designs to assess influenza vaccine effectiveness.* Int J Epidemiol, 2007. 36(3): p. 623-31.
17. Rolfes MA, Flannery B, Chung JR, *et al*. *Effects of Influenza Vaccination in the United States During the 2017-2018 Influenza Season.* Clin Infect Dis. 2019;69(11):1845-1853.

18. Sullivan, S.G., S. Feng, and B.J. Cowling. *Potential of the test-negative design for measuring influenza vaccine effectiveness: a systematic review.* Expert Rev Vaccines, 2014. **13**(12): p. 1571-91.
19. Tenforde MW, Chung J, Smith ER, *et al*. *Influenza vaccine effectiveness in inpatient and outpatient settings in the United States, 2015 - 2018.* Clin Infect Dis. 2020. doi: 10.1093/cid/ciaa407.
20. Treanor, J.J., *et al*. *Effectiveness of seasonal influenza vaccines in the United States during a season with circulation of all three vaccine strains*. Clin Infect Dis, 2012. 55(7): p. 951-9.

2. Approach

Whenever possible, applications should include objectives written in the SMART format (e.g., Specific, Measurable, Achievable, Realistic and Time-bound).

Each application MUST address either **Component A** or **Component B** (but not both). If an applicant applies for **both Component A and Component B**, neither application will move forward to peer review and neither will be eligible for award. If no **Component A** award is made, no **Component B** award will be made.

- Component A applications may include Optional Components C, D or E.
- Component B applications may NOT include Optional Components C, D or E.

Each component and its accompanying budget and budget justification must be clearly identified in the application using clear headings/identifiers (please see Section IV.2 of this NOFO for more detailed information regarding application format). Components will be scored and rank ordered separately but only one Component A application is needed, regardless of the number of Optional Components (C, D, or E) included.

Objectives/Outcomes
A. Component A, up to $2,000,000 per year (direct and indirect costs) per award for all three objectives. All three Objectives below must be addressed as part of Component A. Up to seven (7) awards.

Objective 1: Vaccine Effectiveness of Influenza and COVID-19 Vaccines in Children and Adults from Ambulatory Settings

Establish a platform to estimate effectiveness (VE) of seasonal influenza and COVID-19 vaccines against respiratory viral illnesses in preventing laboratory-confirmed illness among children and adults with mild or moderate illness seeking care in ambulatory settings. The application should address all the following objectives and include, at a minimum, the following information in the submission:

1. Describe research study activities and operations as outlined below. Applications must include, at a minimum, details of study activities to:
    a. Document study resources, capabilities, and proposed activities to achieve acceptable study sample size enrollments using conservative assumptions of

influenza and COVID-19 incidence activity during periods of viral circulation among populations targeted for vaccination in the source population (e.g., at least 1000 total enrollees in targeted populations to represent the distribution of cases across the age spectrum, i.e., young children, adolescents, working age adults and older adults).

b. Describe procedures for enrollment in a research study of symptomatic individuals from the source population seeking healthcare or diagnostic testing for clinical syndromes compatible with influenza, SARS-CoV-2, or other respiratory virus infection. Describe possible approaches to increase proportion of enrollment (up to 25% of total enrollment) from priority groups, such as children aged 6 months to 8 years and adults aged 65 years and older.
c. Describe procedures for collection of respiratory specimens from enrolled patients.
d. Describe approaches to collection of acute- and convalescent-phase blood specimens from a subset of enrollees to conduct serologic studies.
e. Describe study patient identification and enrollment protocols to achieve a goal of >60% participation among screened and eligible participants who are invited to participate in the research study.
f. Describe methods to identify and correct possible problems with study enrollment, including participation of <50% of eligible persons and failure to meet sample size.
g. Obtain detailed patient data from enrolled patients including information on age, co-morbidities, and vaccination history for current and prior seasons.
h. Describe methods for validation of vaccination status and vaccine type with medical records, state immunization registries and records from vaccine providers.

2. Describe how symptomatic individuals seeking care for possible influenza- or COVID-19-associated illness will be identified and enrolled during periods of viral circulation during influenza seasons covered by the five-year project period. Provide diagrams and/or algorithms demonstrating how patients will be screened for eligibility and describe the participant enrollment forms that will be used to monitor study participation.

    a. Provide a detailed description of source populations from which eligible individuals will be screened for eligibility and how they will be contacted and invited to participate. Include information for each research institution that indicates compliance with human subjects research protections, including Federal Wide Assurance numbers (FWAs). Institutions that will establish a reliance on an external organization's FWA or IRB should provide information on the appropriate authority for that organization and provide a statement of intent to establish a written agreement between the study institution and the other institution/organization, outlining adherence to requirements of the U.S. Federal Policy for the Protection of Human Subjects.
    b. Provide plans and IRB considerations for pathogen testing in research or clinical laboratories that meet requirements for providing test results to patients when

results are of public health importance, including information for isolating persons with COVID-19 and reporting to public health authorities for contact tracing and isolation of contacts.

c. Describe facility policies on patient enrollment in clinical research (e.g., are research staff able to obtain lists of potentially eligible individuals to contact). Inability to screen for eligibility and obtain patient identifiers would be a major obstacle for study enrollment.
d. Describe proposed partnerships and the methods of local surveillance that will be used to identify periods of influenza and SARS-CoV-2 virus circulation during which enrollment should take place. Define the specific study enrollment period and duration of enrollment envisioned under this award.
e. Descriptions of previous experience enrolling patients in research studies conducted in ambulatory settings are useful and encouraged, including strategies to achieve high rates of participation among approached patients and information from previous studies comparing target enrollment to actual number enrolled by enrollment type (i.e., in-person and remotely by telephone or other method).

3. Describe how the following proposed total study sample enrollment populations will be achieved.

    a. For each influenza season: Enrollment of a minimum of 1000 symptomatic individuals seeking care for acute respiratory illness (defined according to standard criteria) within 10 days of illness onset.

    For planning purposes, the following conservative assumptions were used to estimate sample size populations:

    - Influenza virus or SARS-CoV-2 detection in 14% of patients meeting inclusion criteria.
    - VE estimate = 50%.
    - Vaccine coverage = 50%, with 10% of enrollees with indeterminate vaccination status.
    - Seven network sites.
    - Possible stratification by age group, targeted population, virus genetic group.
    - Alpha=0.05, Power= 0.80.

    The application should demonstrate the capacity to enroll a minimum of 1000 participants during periods of viral circulation (7000 total for all seven awardees) to identify approximately 1000 laboratory-confirmed cases of influenza and COVID-19 viral illnesses to estimate vaccine effectiveness by virus, target population or age group. It is expected that during periods of increased influenza or SARS-CoV-2 circulation in the source population, higher numbers of laboratory-confirmed cases would be enrolled, allowing additional VE estimates by age-group and virus genetic group or variant.

4. Identify laboratory-confirmed cases of influenza and COVID-19 illnesses by virus type/subtype or variant using standardized, validated molecular assays (with assays and reagents approved by CDC). The application should:

    a. Provide evidence of competency in the use of the approved molecular assay or evidence that the contracting laboratory performing the testing has expertise with the assay (e.g., number of these assays run/year; comparisons to other assays or results from validation studies, other measures of proficiency; letters of support; and publications).

    b. Provide a statement of agreement to participate in CDC-sponsored proficiency testing throughout the term of the project. Proficiency testing may include testing a small panel of specimens sent by CDC and reporting results back to CDC within a specified timeframe (generally 1 month).

    c. Describe capacity to obtain residual clinical or diagnostic specimens, collect research specimens, aliquot specimens and prepare shipments of aliquots (0.5-1.0 ml) for viral characterization, sequencing, special research studies and for other WHO Influenza Collaborating Center or COVID-19 surveillance purposes and contract laboratories or similar research. For planning purposes, assume specimen shipments will occur every 2 to 4 weeks during periods of enrollment and will include completed specimen submission forms (supplied by CDC). Include a description of how respiratory specimens will be stored and whether additional specimen aliquots will be available.

5. Describe methods to document current and prior season vaccination status, including vaccination date(s), number of doses, vaccine type, and manufacturer. Participant self-report or parent report of child vaccination may be needed to determine the completeness of electronic data sources. The application should describe procedures for verification of self-reported vaccination status, including procedures to obtain documentation of vaccination from providers not captured by electronic medical records or immunization registries.

    a. Evidence of experience and competence with methods to document and verify vaccination status is helpful.

    b. Describe recent evaluations of self-reported and documented vaccination status (validation of vaccine verification methods) or describe methods that will be used to evaluate vaccine verification in the first year of the project.

6. Describe methods to collect information from enrolled patients about onset of illness, symptoms, self-reported health status, self-reported illness severity and household characteristics (including number of occupants and cigarette smoking or vaping) by patient interview. Describe methods to collect additional information to investigate differences in healthcare utilization among vaccinated and unvaccinated individuals (such as number of outpatient visits for any reason in the preceding 12-month period), and the

local practice norms of the medical settings and their health care providers (including any diagnostic testing for influenza and COVID-19 illnesses).

7. Describe methods to collect post-enrollment information on date of resolution of symptoms, date of return to normal activities and impact of illness on daily activities by electronic survey or telephone interview.

8. Describe methods to collect information from enrolled patients about high-risk medical conditions, antiviral and antibiotic use (date and drugs), complications of illness (hospitalization, subsequent medical encounters, and procedures during the 90-day period following enrollment) and diagnostic codes associated with medical encounters (ICD-10 codes [ICD: International Classification of Diseases]) using electronic medical records.

9. Describe a plan to:
    a. Provide periodic updates (every 2 weeks) on enrollment of cases and controls, test results and status of data collection; and
    b. Provide data for VE estimates according to established timelines, normally 4 to 6 weeks after the beginning of enrollment for interim estimates.

10. Propose methods to evaluate accuracy of vaccine effective estimates among enrolled participants, including collection of demographic, clinical COVID-19 and influenza testing and vaccination data from persons with medically attended acute respiratory illnesses in the health system, or source population, from which participants were enrolled but who were not approached or screened for study eligibility.

11. Propose methods to routinely collect health system data on patients with medically attended acute respiratory illness, including demographic, clinical COVID-19 and influenza testing and vaccination data, to contribute to biweekly estimates of rates of healthcare encounters for influenza- and COVID-19-associated illness in ambulatory settings and numbers of healthcare visits averted through vaccination, as well as to annual estimates of influenza- and COVID-19-related disease burden. Applications should indicate how data on source populations and participants will be shared with other sites to provide a combined estimate of incidence.

Objective 2: Influenza and SARS-CoV-2 Viral Genomic Sequencing

Establish a protocol to obtain influenza and SARS-CoV-2 viral sequences from specimens collected among infected participants in the proposed outpatient network. Anticipated activities and analyses may include:

1. Routine collection of influenza and SARS-CoV-2 samples by network sites.
2. Performance of influenza and SARS-CoV-2 sequencing using approved protocols and platforms.
3. Annotation of influenza subtype/lineage/clades/subclades and SARS-CoV-2 lineage.
4. Delivery of results including Global Initiative on Sharing Avian Influenza Data (GISAID) identifiers.

Objective 3: SARS-CoV-2 Surveillance and COVID-19 Vaccine Effectiveness among Ambulatory Patients During Periods when Influenza Viruses are not Circulating (potentially year-round)

If SARS-CoV-2 virus circulates during periods when influenza viruses are not detected at network sites, a goal would be to directly measure VE for licensed COVID-19 vaccines against acute respiratory illness among patients seeking healthcare within this network. Applications should address plans to test for SARS-CoV-2 among eligible patients enrolled before or after the influenza season. In addition, sites should contribute to multi-site evaluations of COVID-19 vaccine effectiveness comparing COVID-19 test-positive patients to patients who test negative for SARS-CoV-2. All applications should address the following:

1. Describe the current capacity and diagnostic test methods available in the healthcare system serving the source population for the core component for the detection of COVID-19 viruses, including molecular assays, rapid diagnostics, specimen collection, availability of residual specimens, eligible populations for testing.
2. Describe the methods (see above) that would be used to obtain COVID-19 vaccination data (vaccine type, date(s) and number of doses received).

B. Component B: Network Coordination Center, $1,000,000 per year (direct and indirect costs). Up to one (1) award.

This NOFO intends to fund a single Network Coordinating Center (NCC – Component B) to formalize operational standards and provide comprehensive support to all institutions receiving funding under the Component A and Optional Component C, D or E awards described in this NOFO; however, the NCC will not enroll or collect data from participants. The NCC will provide support under four key functional areas: 1) Coordination and Logistics; 2) Development of Protocols and Standard Operating Procedures (SOPs); 3) Operations and Data Management; and 4) Statistical Analysis and Dissemination of Findings. Listed below are examples of support that the NCC should provide:

Coordination and Logistics

- Provide logistical support for video conferencing and in-person meetings that include US Flu VE Network collaborators and CDC investigators.
- Provide regular updates and reports.

- Establish and maintain an external network SharePoint site (e.g., IRB approvals, study protocols, Standard Operating Procedures (SOPs), publications, staffing contacts) for network coordination.
- Establish and implement a communications plan for the network that includes regular updates to public-facing websites with links to publicly available network data, documents, and publications.

Development of Protocols and Standard Operating Procedures (SOPs)

- Coordinate review and updates to protocols, consent forms and translations, data collection instruments, SOPs and training materials to assist with standardization of research methods across the network.
- Standardize SOPs for enrollment and data collection, processing, completeness, quality, management, analysis, security, storage, and sharing.

Operations and Data Management

- Build a database in REDCap, housed and managed at the NCC site.
- Develop and implement Quality Assurance and Quality Control plans.
- Provide dashboard monitoring and reporting to the networks and committees.
- Coordinate IRB approvals for network sites.
- Coordinate responses and maintain documentation from network sites related to CDC-sponsored proficiency testing.
- Provide statistical support, as needed, for data analysis and sample size calculations and input.
- Centralize data management, quality assurance, and data cleaning operations for network sites.
- Develop weekly dashboard reports.
- Assist network sites with technical instruction, data standards, quality control and assurance.

Statistical Analysis and Dissemination of Findings

- Support development of manuscripts and presentations, including tracking. Provide support to sites to report results through publications in peer-reviewed journals.
- Create reports and summaries for sites and network-specific committees.

C. Optional Component C: Household Transmission of Respiratory Viruses, $700,000 per year (direct and indirect costs). Up to five (5) awards.

Understanding household transmission of respiratory viruses and whether vaccination reduces transmission is important for informing public health activities and new vaccine technologies. Applications should propose a case-ascertained household transmission design to capture secondary infections within a household to estimate the effectiveness of vaccination against transmission. The proposed design should collect information on the clinical spectrum of associated illness among household contacts, measure pathogen transmission dynamics, and understand individual-level and household-level factors that modify transmission.

- The design should address how index cases would be identified (from activities in the core component that identify laboratory-confirmed viral infection or other sources of laboratory-confirmed cases) and the approximate number of people and households that could be recruited.
- The application should describe how the recipient will identify and approach sufficient numbers of index cases with laboratory-confirmed infection to reach enrollment targets of 150 index cases/households for a given pathogen, allowing for refusals or low participation rates.
- The design should address how quickly the index and household patient could be enrolled. Ideally, laboratory confirmation of infection in the index case would occur within 2-3 days after illness onset (maximum 5 days after onset). Eligible households would have at least one susceptible individual besides the index case and would exclude congregate living settings.
- Document the ability to identify a mix of index patients from across all age groups, but with enrollment of roughly 50% pediatric index patients (aged <18 years). At a minimum, sites should be able to conduct two (2) home visits: the first visit occurring no more than 2 days after identifying the index case and a second, follow-up visit occurring 7-10 days later.

- Describe the systematic collection of information and specimens from household members (including the index case), as well as the methods of laboratory testing to confirm infection in household contacts. Method and frequency of respiratory or blood specimen collection and plans for those specimens are required elements.
    - All participating household contacts, regardless of symptoms, should have respiratory specimens collected at the first and follow-up visits and, ideally, daily during follow-up. This will facilitate identification of contacts with detectable respiratory virus infection, including those with asymptomatic infection, and follow-up specimens will also enable some assessment of the duration of viral shedding.
    - Designs should address the types of specimens that will be collected, which may include respiratory specimens, saliva, or blood specimens to characterize transmission or susceptibility to infection.
    - Potential co-variates of interest to collect from index and household participants may include factors such as: age, relationship to index case, underlying health conditions, vaccination status, socio-economic status, contact patterns between household members, level of exposure/contact outside the home (i.e., social network / contact surveys), infecting virus, antiviral treatment, vaccine history of individuals, and household characteristics.
    - Designs should plan to collect information on non-pharmaceutical interventions and adherence to public health recommendations to reduce transmission of influenza, SARS-CoV-2 and other respiratory viruses investigated.

- Awarded site partners are expected to collaborate to create a common protocol and research methods across sites.

D. Optional Component D: Immunologic Study of Response to Influenza and COVID-19 Virus Vaccination, $500,000 per year (direct and indirect costs). **Up to four (4) awards.**

The recipient of this Component should recruit and enroll 150 to 200 subjects who are eligible to receive specific influenza and COVID-19 vaccines and for whom the vaccines are recommended, to study the immune responses to vaccination. The application should describe the vaccination strategy and how the investigators will collect, process, store, and ship paired serum specimens to a designated laboratory for testing. The application should describe the investigators' willingness to participate in cross-site decisions on specific influenza and COVID-19 vaccines and populations to be examined (for example, live-attenuated influenza vaccine in children and adolescents, or high dose inactivated vaccine in persons aged ≥65 years) and interpretation of influenza vaccine response. Applications should:

- Describe a process to enroll 150 to 200 subjects for collection of serum specimens on or before the date of vaccination and 4 weeks after receipt of vaccine. Specimens will be processed and shipped for laboratory testing. Paired sera will be tested using standard, validated procedures.
- Identify priority groups for investigation of cell-mediated immune responses; describe experience or provide evidence that the grantee has experience with collection, processing, and storage of peripheral blood mononuclear cells (PBMC), including measures of cell count and viability; provide letters of support or publications.
- Describe how participants will be enrolled and followed during the study period, including steps to minimize and measure potential selection bias and loss to follow up.
- Describe how prior vaccination and laboratory-confirmed influenza infection, other medical and health information about the participants gathered from interview, medical record extraction, or chart abstraction can be used to examine the potential modifiers of vaccine response.

E. Optional Component E: Performance of Complex Laboratory Assays and Analyses of influenza Viral Genomics, $1,000,000 per year (direct and indirect costs). Up to one (1) award.

The recipient of Component E should apply standard and innovative laboratory methods to describe and explain individual and population differences in immune response to influenza vaccination and natural influenza virus infections. The application should address understanding the mechanisms underlying heterogeneity in immunogenicity to seasonal influenza vaccines for some populations (e.g., older adults; repeated influenza vaccinees; immune compromised). Innovative methods are also needed to identify and compare the immune advantages offered by alternative vaccine types and strategies. Applications should describe how recipients will:

- Identify and create collaborations with laboratory centers and scientists with expertise and capacity to:
    - Conduct standard hemagglutination inhibition (HAI) assays along with more advanced (and labor-intensive) serologic methods such as microneutralization (MN) assay, neuraminidase (NA) inhibition (NAI) assay by enzyme-linked lectin

assay (ELLA), mapping anti-HA response to multiple virus strains (antibody landscape), and/or assessing antibody focusing by testing HI binding to site-specific monoclonal antibodies (mAbs) by ELISA.

- Apply cell mediated immunity (CMI) assays, including specific T-cell and B-cell responses. CMI assays involve phenotypic and functional characterization of T-cells and B-cells by Flow Cytometry, ELISA, and ELISPOT.
- Develop and validate innovative methods to understand the heterogeneity in immunogenicity to seasonal influenza vaccines and describe the differential impact of alternative influenza vaccine types and strategies.

- Utilize sera and PBMCs (including pre-season, post-season, post-vaccination and acute- and convalescent-phase specimens from study participants with laboratory-confirmed infection) from the US Flu VE Network or other studies to address their primary and secondary objectives.

Target Population
Children (from 6 months of age) to adult (≥18 years) and older adults >65 years of age populations seeking healthcare for respiratory virus-associated illness.

Collaboration/Partnerships
This NOFO seeks to support a network of US institutions that can obtain reliable vaccination information for a population and provide accurate estimates of vaccine effectiveness (VE) to prevent medically attended acute respiratory illness in the population for whom vaccination is recommended. The recipients should work cooperatively with other network site partners to collectively enroll sufficient numbers of the target population to provide interim and end-of-season VE estimates for population subgroups and factors of interest.

Evaluation/Performance Measurement
The application should include measurable goals and aims based on a five (5)-year research period of performance. The application should describe specific, measurable, achievable, realistic, and time-phased (SMART) project objectives for each activity described in the application's project plan and describe the development and implementation of project performance measures based on specific programmatic objectives.

Also, funded recipients must submit an annual progress report showing their activities and outcomes based on each research objective approved for funding. For more information on required Reporting, please see Section VI. of this NOFO.

For all components, the application should include an evaluation/performance measurement plan. Progress should be identified by achievement of relevant milestones which may include, but are not limited to:

- The type of evaluations (i.e., process, outcome, or both) to be conducted.
- Key evaluation questions.
- Other information (e.g., performance measures to be developed by the applicant).
- Potentially available data sources and feasibility of collecting appropriate evaluation and performance data.

Translation Plan
For all components, the application should describe how the findings of this work will inform and evaluate vaccination policy and recommendations, including providing annual estimates of vaccine effectiveness against viral respiratory diseases of public health importance and estimates of influenza, COVID-19, and other viral vaccine effectiveness in the target population. This section should be understandable to a variety of audiences, including policy makers, practitioners, public health programs, healthcare institutions, professional organizations, community groups, researchers, and other potential end users.

3. Funding Strategy

Coronavirus Disease 2019 (COVID-19) Funds: A recipient of a grant or cooperative agreement awarded by the Department of Health and Human Services (HHS) with funds made available under the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 (P.L. 116-123); the Coronavirus Aid, Relief, and Economic Security Act, 2020 (the "CARES Act") (P.L. 116-136); the Paycheck Protection Program and Health Care Enhancement Act (P.L. 116-139); the Consolidated Appropriations Act and the Coronavirus Response and Relief Supplement Appropriations Act, 2021 (P.L. 116-260) and/or the American Rescue Plan of 2021 [P.L. 117-2] agrees, as applicable to the award, to: 1) comply with existing and/or future directives and guidance from the Secretary regarding control of the spread of COVID-19; 2) in consultation and coordination with HHS, provide, commensurate with the condition of the individual, COVID-19 patient care regardless of the individual's home jurisdiction and/or appropriate public health measures (e.g., social distancing, home isolation); and 3) assist the United States Government in the implementation and enforcement of federal orders related to quarantine and isolation.

In addition, to the extent applicable, Recipient will comply with Section 18115 of the CARES Act, with respect to the reporting to the HHS Secretary of results of tests intended to detect SARS–CoV–2 or to diagnose a possible case of COVID–19. Such reporting shall be in accordance with guidance and direction from HHS and/or CDC. HHS laboratory reporting guidance is posted at: https://www.hhs.gov/sites/default/files/covid-19-laboratory-data-reporting-guidance.pdf.

Further, consistent with the full scope of applicable grant regulations (45 C.F.R. 75.322), the purpose of this award, and the underlying funding, the recipient is expected to provide to CDC copies of and/or access to COVID-19 data collected with these funds, including but not limited to data related to COVID-19 testing. CDC will specify in further guidance and directives what is encompassed by this requirement.

This award is contingent upon agreement by the recipient to comply with existing and future guidance from the HHS Secretary regarding control of the spread of COVID-19. In addition, recipient is expected to flow down these terms to any subaward, to the extent applicable to activities set out in such subaward.

Section II. Award Information

Funding Instrument Type:
CA (Cooperative Agreement)

A support mechanism used when there will be substantial Federal scientific or programmatic involvement. Substantial involvement means that, after award, scientific or program staff will assist, guide, coordinate, or participate in project activities.

Application Types Allowed:
New - An application that is submitted for funding for the first time. Includes multiple submission attempts within the same round.

Estimated Total Funding:
$107,500,000

Estimated Total Annual Budget Period Funding if all components AND all estimated number of awards are funded*
Year 1: $21,500,000
Year 2: $21,500,000
Year 3: $21,500,000
Year 4: $21,500,000
Year 5: $21,500,000

*Estimated annual budget period funding per award by component: Component A: $2,000,000; Component B: $1,000,000; Component C: $700,000; Component D: $500,000; Component E: $1,000,000.

Maximum annual budget per award for Component A plus C, D, and E: $4,200,000.
Maximum annual budget per award for Component B: $1,000,000.

Anticipated Number of Awards:
8
Estimated total funding available for first year (first 12 months), including direct and indirect costs: $21,500,000 (if all components are funded)

Estimated total funding available for entire project period, including direct and indirect costs: $107,500,000 (if all components are funded)

Ceiling and floor amounts for each component are as follows:
Component A: Ceiling: $2,000,000; Floor: $1,500,000.
Component B: Ceiling: $1,000,000; Floor: $750,000.
Component C: Ceiling: $700,000; Floor: $525,000.
Component D: Ceiling: $500,000; Floor: $375,000.
Component E: Ceiling: $1,000,000; Floor: $750,000.

Ceiling and floor amounts listed below are for <u>Component A</u> only.
All other Component ceilings and floors are listed above.

***Anticipated number of awards are up to seven (7) Component A and one (1) Component**

B award. Anticipated number of other component awards is: Five (5) Component C; four (4) Component D; and one (1) Component E.

Awards issued under this NOFO are contingent on the availability of funds and submission of a sufficient number of meritorious applications.

Award Ceiling:
$9,100,000
Per Budget Period

Award Floor:
$1,500,000
Per Budget Period

Total Period of Performance Length:
5 year(s)

Throughout the Period of Performance, CDC's commitment to continuation of awards will depend on the availability of funds, evidence of satisfactory progress by the recipient (as documented in required reports), and CDC's determination that continued funding is in the best interest of the Federal government.

HHS/CDC grants policies as described in the HHS Grants Policy Statement (https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf) will apply to the applications submitted and awards made in response to 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.

Section III. Eligibility Information

1. Eligible Applicants

Eligibility Category:
00 (State governments)

01 (County governments)

02 (City or township governments)

04 (Special district governments)

05 (Independent school districts)

06 (Public and State controlled institutions of higher education)

07 (Native American tribal governments (Federally recognized))

08 (Public housing authorities/Indian housing authorities)

11 (Native American tribal organizations (other than Federally recognized tribal governments))

12 (Nonprofits having a 501(c)(3) status with the IRS, other than institutions of higher education)

13 (Nonprofits without 501(c)(3) status with the IRS, other than institutions of higher education)

20 (Private institutions of higher education)

22 (For profit organizations other than small businesses)

23 (Small businesses)

25 (Others (see text field entitled "Additional Information on Eligibility" for clarification))

Additional Eligibility Category:

The following types of Higher Education Institutions are always encouraged to apply for CDC support as Public or Private Institutions of Higher Education:

Hispanic-serving Institutions

Historically Black Colleges and Universities (HBCUs)

Tribally Controlled Colleges and Universities (TCCUs)

Alaska Native and Native Hawaiian Serving Institutions

Nonprofits (Other than Institutions of Higher Education):

Nonprofits (Other than Institutions of Higher Education)

Governments:

Eligible Agencies of the Federal Government

U.S. Territory or Possession

Other:

Faith-based or Community-based Organizations

Regional Organizations

Bona Fide Agents: A Bona Fide Agent is an agency/organization identified by the state as eligible to submit an application under the state eligibility in lieu of a state application. If applying as a bona fide agent of a state or local government, a legal, binding agreement from the state or local government as documentation of the status is required. Attach with "Other Attachment Forms."

Federally Funded Research and Development Centers (FFRDCs): FFRDCs are operated, managed, and/or administered by a university or consortium of universities, other not-for-profit or nonprofit organization, or an industrial firm, as an autonomous organization or as an identifiable separate operating unit of a parent organization. A FFRDC meets some special long-term research or development need which cannot be met as effectively by an agency's existing in-house or contractor resources. FFRDC's enable agencies to use private sector resources to

accomplish tasks that are integral to the mission and operation of the sponsoring agency. For more information on FFRDCs, go to https://gov.ecfr.io/cgi-bin/searchECFR.

2. Foreign Organizations

Foreign Organizations **are not** eligible to apply.

Foreign components of U.S. Organizations are not eligible to apply.

For this announcement, applicants may not include collaborators or consultants from foreign institutions. All applicable federal laws and policies apply.

3. Additional Information on Eligibility

N/A

4. Justification for Less than Maximum Competition

N/A

5. Responsiveness

- Each application MUST address either **Component A** or **Component B** (but not both). If an applicant applies for **both Component A and Component B**, neither application will move forward to peer review, and neither will be eligible for award.
- If an applicant requests a funding amount greater than the ceiling for the first budget period as indicated in Section II. of this NOFO, HHS/CDC will consider the application non-responsive and it will not enter into the review process. HHS/CDC will notify the applicant that the application did not meet the submission requirements. First year (12-month) ceiling amounts for each component are as follows: Component A: $2,000,000; Component B: $1,000,000; Component C: $700,000; Component D: $500,000; Component E: $1,000,000.
- The application will be considered to be non-responsive if more than one application per institution (normally identified by having a unique entity identifier [UEI]) is submitted.

6. Required Registrations

Applicant organizations must complete the following registrations as described in the SF 424 (R&R) Application Guide to be eligible to apply for or receive an award. Applicants must have a valid Dun and Bradstreet Universal Numbering System (DUNS) number in order to begin each of the following registrations.

PLEASE NOTE: For applications due on or after April 4, 2022, applicants must have a unique entity identifier (UEI) at the time of application submission. In preparation for the federal government's April 4, 2022, transition from the Data Universal Numbering System (DUNS) to the Unique Entity Identifier (UEI), applicants must obtain a UEI. 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.

- (Foreign entities only): Special Instructions for acquiring a Commercial and Governmental Entity (NCAGE) Code: https://eportal.nspa.nato.int/AC135Public/Docs/US Instructions for NSPA NCAGE.pdf
- System for Award Management (SAM) – must maintain current registration in SAM (the replacement system for the Central Contractor Registration) to be renewed annually, SAM.gov.
- Grants.gov
- eRA Commons

All applicant organizations must register with Grants.gov. Please visit www.Grants.gov at least 30 days prior to submitting your application to familiarize yourself with the registration and submission processes. The one-time registration process will take three to five days to complete. However, it is best to start the registration process at least two weeks prior to application submission.

All Senior/Key Personnel (including Program Directors/Principal Investigators (PD/PIs) must also work with their institutional officials to register with the eRA Commons or ensure their existing Principal Investigator (PD/PI) eRA Commons account is affiliated with the eRA commons account of the applicant organization. All registrations must be successfully completed and active before the application due date. Applicant organizations are strongly encouraged to start the eRA Commons registration process at least four (4) weeks prior to the application due date. ASSIST requires that applicant users have an active eRA Commons account in order to prepare an application. It also requires that the applicant organization's Signing Official have an active eRA Commons Signing Official account in order to initiate the submission process. During the submission process, ASSIST will prompt the Signing Official to enter their Grants.gov Authorized Organizational Representative (AOR) credentials in order to complete the submission, therefore the applicant organization must ensure that their Grants.gov AOR credentials are active.

7. Universal Identifier Requirements and System for Award Management (SAM)

All applicant organizations **must obtain** a DUN and Bradstreet (D&B) Data Universal Numbering System (DUNS) number as the Universal Identifier when applying for Federal grants or cooperative agreements. The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services. An AOR should be consulted to determine the appropriate number. If the organization does not have a DUNS number, an AOR should complete the US D&B D-U-N-S Number Request Web Form or contact Dun and Bradstreet by telephone directly at 1-866-705-5711 (toll-free) to obtain one. A DUNS number will be provided immediately by telephone at no charge. Note this is an organizational number. Individual Program Directors/Principal Investigators do not need to register for a DUNS number.

PLEASE NOTE: For applications due on or after April 4, 2022, applicants must have a unique entity identifier (UEI) at the time of application submission. In preparation for the federal government's April 4, 2022, transition from the Data Universal Numbering System (DUNS) to the Unique Entity Identifier (UEI), applicants must obtain a UEI. 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.

Additionally, all applicant organizations must register in the **System for Award Management (SAM)**. Organizations must maintain the registration with current information at all times during which it has an application under consideration for funding by CDC and, if an award is made, until a final financial report is submitted or the final payment is received, whichever is later. SAM is the primary registrant database for the Federal government and is the repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM internet site at SAM.gov and the SAM.gov Knowledge Base.

If an award is granted, the recipient organization **must** notify potential sub-recipients that no organization may receive a subaward under the grant unless the organization has provided its DUNS number to the recipient organization.

8. Eligible Individuals (Project Director/Principal Investigator) in Organizations/Institutions

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Project Director/Principal Investigator (PD/PI) is invited to work with his/her organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for HHS/CDC support.

9. Cost Sharing

This NOFO does not require cost sharing as defined in the HHS Grants Policy Statement (http://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf).

10. Number of Applications

As defined in the HHS Grants Policy Statement,(https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf), applications received in response to the same Notice of Funding Opportunity generally are scored individually and then ranked with other applications under peer review in their order of relative programmatic, technical, or scientific merit. HHS/CDC will not accept any application in response to this NOFO that is essentially the same as one currently pending initial peer review unless the applicant withdraws the pending application.

Only one application per institution (normally identified by having a unique entity identifier [UEI]) is allowed.

Section IV. Application and Submission Information

1. Address to Request Application Package

Applicants will use a system or platform to submit their applications through Grants.gov and eRA Commons to CDC. ASSIST, an institutional system to system (S2S) solution, or Grants.gov Workspace are options. ASSIST is a commonly used platform because, unlike other platforms, it provides a validation of all requirements prior to submission and prevents errors.

To use ASSIST, applicants must visit https://public.era.nih.gov where you can login using your eRA Commons credentials, and enter the Notice of Funding Opportunity Number to initiate the application, and begin the application preparation process.

If you experience problems accessing or using ASSIST, you can refer to the ASSIST Online Help Site at: https://era.nih.gov/erahelp/assist. Additional support is available from the NIH eRA Service desk via: http://grants.nih.gov/support/index.html

- Email: commons@od.nih.gov
- Phone: 301-402-7469 or (toll-free) 1-866-504-9552.
  Hours: Monday - Friday, 7 a.m. to 8 p.m. Eastern Time, excluding Federal holidays.

2. Content and Form of Application Submission

Applicants must use FORMS-G application packages for due dates on or after April 4, 2022 and must use FORMS-F application packages until April 3, 2022.

Application guides for FORMS-F and FORMS-G application packages are posted to the How to Apply - Application Guide page.

It is critical that applicants follow the instructions in the SF-424 (R&R) Application Guide How to Apply - Application Guide except where instructed in this Notice of Funding Opportunity to do otherwise. Conformance to the requirements in the Application Guide is required and strictly enforced. Applications that are out of compliance with these instructions may be delayed or not accepted for review. The package associated with this NOFO includes all applicable mandatory and optional forms. Please note that some forms marked optional in the application package are required for submission of applications for this NOFO. Follow the instructions in the SF-424 (R&R) Application Guide to ensure you complete all appropriate "optional" components.

When using ASSIST, all mandatory forms will appear as separate tabs at the top of the Application Information screen; applicants may add optional forms available for the NOFO by selecting the Add Optional Form button in the left navigation panel.

Please use the form and instructions for SF424 (R&R) FORMS-G. Applicants must use FORMS-G application packages for due dates on or after April 4, 2022.

Applications must be submitted as Type I, New.

*****IMPORTANT NOTE*****

- The applicant may apply for **Component A** or **Component B** but not both; if an applicant applies for **both Component A and Component B**, neither application will move forward to peer review and neither will be eligible for award.
- If applying for **Component A** and for one or more **Optional Components**, the applicant only needs to submit one SF424R&R application that contains **all Components applied for** (e.g., **Component A** plus one, two or three **Optional Components C, D, and E**); however, the budget and the budget justification needs to be listed separately for each **Component (A, C, D and E)** (i.e., up to four budgets and four budget justifications in one SF424R&R application). Please see below for additional requirements.

In both the **Research Strategy** and **Project Summary/ Abstract (Description)** sections, the application should clearly list each proposed component project by name (i.e., identify the proposed project as **Component A, C, D or E**).

Applications for **Component A** must address all three objectives under **Component A**; those applying under **Component A** may also apply for one or more of the **Optional Components C, D or E** but must not apply for **Component B**; those applying for **Component B** must not apply for any of the other components and should clearly identify in the **Research Strategy** and **Project Summary/Abstract (Description)** sections that the application is for **Component B**.

Within the total 25-page limit for the **Research Strategy** of the **Research Plan section** of the application, the page limit for EACH Component is limited as follows:

- Component A: 10 pages
- Component C: 5 pages
- Component D: 5 pages
- Component E: 5 pages

The page limits remain the same for each component whether an applicant applies for only **Component A** or for **Component A** plus one or more **Optional Components** (e.g., if an applicant applies for only **Component A**, the page limit for the **Component A** Research Strategy is 10 pages; if an applicant applies for **Component A** and one or more **Optional Components**, the page limit for the **Component A** Research Strategy is 10 pages; the same principle applies for each component, regardless of the number of components applied for – i.e., the page limit for **Components C, D and E** will always remain at 5 pages each).

- Component B: 25 pages

- Supporting materials for the **Research Plan** narrative included as appendices may not exceed 10 PDF files (for all components combined) with a maximum of 50 pages for all appendices (for all components combined).

- Throughout the **Research Strategy** and other application sections, text pertaining to a given component should be titled to begin with the words **"Component A"** or **"Component C"** or **"Component D"** or **"Component E"** to distinguish components from one another.

- For each component applied for, applicants must submit a separate PHS398 Research Plan (which includes the Research Strategy that is limited to 10 pages for **Component A** and to 5 pages each for **Optional Component C, D, and E**), Senior/Key Person Profiles and Budget pages (Sections A-K) using the SF424 (R&R) forms. Guidance for completing the SF424 (R&R) and PHS398 forms can be found at: https://grants.nih.gov/grants/how-to-apply-application-guide.html

- The Research Plan, Senior/Key Person Profiles and the Budget pages for **Components C, D, and E**, if applied for, will need to be submitted as attachments under Item #12 [Other Attachments] using the SF424(R&R) "Research and Related Other Project Information Form" within the **Component A** SF424 (R&R) application. The project lead for

Components C, D and E should be identified as a Co-Investigator rather than as the PI unless the project lead is the PI for **Component A**. **Components C, D and E** must be titled to begin with the words **"Component C"** and **"Component D"** and **"Component E"**, respectively, to distinguish them from **"Component A"** and from each other. In addition, the combined total direct costs for **Components C, D and E** must be listed in the SF424 (R&R) budget as item #8 under "Other Direct Costs" in Section F of the **Component A** budget for budget periods 1 through 5. A detailed budget justification for **Components C, D and E** must be included in the application for budget years 1 through 5 and should be included in Section K after the **Component A** budget justification for each respective budget period. Start a new page for each component narrative.

- Applications applying for **Components C, D, and E** that do not have the Research Plan, Senior/Key Person Profiles and the Budget pages as separate attachments for **Components C, D, and E,** respectively, may not be forwarded for review or funded. Sections of the application must be titled accurately for **Components A, C, D, and E** so that they may be differentiated. Budgets for **Components C, D and E,** if applied for, must be included in the **Component A** budget for each respective budget period or **Components C, D, and E** may not be forwarded for review or funded.

As part of the initial scientific merit review, **Components A through E** will each receive an overall impact score and will be rank ordered separately by this score. Only applications receiving a **Component A** award will be eligible to receive a **Component C, D, or E** award. Please see Section V.4 of this NOFO for additional review information.

Letters of Support from partners or other organizations should be placed in the PHS 398 Research Plan "Other Research Plan Section" of the application under "9. Letters of Support".

Please include all of the eight (8) mandatory forms listed below in the application package:

Mandatory
1. SF424(R&R);
2. PHS 398 Cover Page Supplement;
3. Research and Related Other Project Information;
4. Project/Performance Site Location(s);
5. Research and Related Senior/Key Person Profile (Expanded);
6. Research and Related Budget;
7. PHS 398 Research Plan;
8. PHS Human Subjects and Clinical Trials Information.

If multiple collaborating institutions will be involved, please include in this section of the application your single IRB (sIRB) Plan:

- Describe how you will comply with the single IRB review requirement under the Revised Common Rule at 45 CFR 46.114 (b) (cooperative research). If available, provide the name of the IRB that you anticipate will serve as the sIRB of record.

- Indicate that all identified engaged institutions or participating sites will agree to rely on the proposed sIRB and that any institutions or sites added after award will rely on the sIRB.
- Briefly describe how communication between institutions and the sIRB will be handled.
- Indicate that all engaged institutions or participating sites will, prior to initiating the study, sign an authorization/reliance agreement that will clarify the roles and responsibilities of the sIRB and participating sites.
- Indicate which institution or entity will maintain records of the authorization/reliance agreements and of the communication plan.
- Note: Do not include the authorization/reliance agreement(s) or the communication plan(s) documents in your application.
- Note: If you anticipate research involving human subjects but cannot describe the study at the time of application, include information regarding how the study will comply with the single Institutional Review Board (sIRB) requirement prior to initiating any multi-site study in the delayed onset study justification.

Please include the one (1) optional form listed below, if applicable, in the application package:

Optional
1. R&R Subaward Budget Attachment(s) Form 5 YR 30 ATT.

3. Letter of Intent

Due Date for Letter Of Intent 04/08/2022

04/08/2022
Although a letter of intent is not required, is not binding, and does not enter into the review of a subsequent application, the information that it contains allows CDC staff to estimate the potential review workload and plan the review.

By the date listed in Part 1. "Overview Information", prospective applicants are asked to submit a letter of intent that includes the following information:

Name of the applicant institution
Descriptive title of proposed research
Name, address, and telephone number of the PD(s)/PI(s)
Names of other key personnel
Participating institutions
Number and title of this notice of funding opportunity

The letter of intent should be sent to:
Gregory Anderson, MPH, MS
Extramural Research Program Office
Office of the Associate Director of Science
National Center for HIV, Viral Hepatitis, STD and TB Prevention

Centers for Disease Control and Prevention
U.S. Department of Health and Human Services
1600 Clifton Road, MS US8-1
Atlanta, GA 30329
Telephone: 404-718-8833
Email: GAnderson@cdc.gov

4. Required and Optional Components

A complete application has many components, both required and optional. The forms package associated with this NOFO in Grants.gov includes all applicable components for this NOFO, required and optional. In ASSIST, all required and optional forms will appear as separate tabs at the top of the Application Information screen.

5. PHS 398 Research Plan Component

The SF424 (R&R) Application Guide includes instructions for applicants to complete a PHS 398 Research Plan that consists of components. Not all components of the Research Plan apply to all Notices of Funding Opportunities (NOFOs). Specifically, some of the following components are for Resubmissions or Revisions only. See the SF 424 (R&R) Application Guide at How to Apply - Application Guide for additional information. Please attach applicable sections of the following Research Plan components as directed in Part 2, Section 1 (Notice of Funding Opportunity Description).

Follow the page limits stated in the SF 424 unless otherwise specified in the NOFO. As applicable to and specified in the NOFO, the application should include the bolded headers in this section and should address activities to be conducted over the course of the entire project, including but not limited to:

1. **Introduction to Application** (for Resubmission and Revision ONLY) - provide a clear description about the purpose of the proposed research and how it addresses the specific requirements of the NOFO.
2. **Specific Aims** – state the problem the proposed research addresses and how it will result in public health impact and improvements in population health.
3. **Research Strategy** – the research strategy should be organized under 3 headings: Significance, Innovation and Approach. Describe the proposed research plan, including staffing and time line.
4. **Progress Report Publication List** (for Continuation ONLY)

Other Research Plan Sections

5. **Vertebrate Animals**
6. **Select Agent Research**
7. **Multiple PD/PI Leadership Plan.**
8. **Consortium/Contractual Arrangements**
9. **Letters of Support**
10. **Resource Sharing Plan(s)**
11. **Authentication of Key Biological and/or Chemical Resources**

12. **Appendix**

All instructions in the SF424 (R&R) Application Guide at How to Apply - Application Guide must be followed along with any additional instructions provided in the NOFO.

Applicants that plan to collect public health data must submit a Data Management Plan (DMP) in the Resource Sharing Plan section of the PHS 398 Research Plan Component of the application. A DMP is required for each collection of public health data proposed. Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds.

The DMP may be outlined in a narrative format or as a checklist but, at a minimum, should include:

- A description of the data to be collected or generated in the proposed project;
- Standards to be used for the collected or generated data;
- Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);
- Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and
- Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and deidentified data).

CDC OMB approved templates may be used (e.g. NCCDPHP template https://www.cdc.gov/chronicdisease/pdf/nofo/DMP-Template-508.docx)

Other examples of DMPs may be found here: USGS, http://www.usgs.gov//products/data-and-tools/data-management/data-management-plans

Applicants must use FORMS-G application packages for due dates on or after April 4, 2022 and must use FORMS-F application packages until April 3, 2022.

Application guides for FORMS-F and FORMS-G application packages are posted to the How to Apply - Application Guide page.

Please use the form and instructions for SF424 (R&R) FORMS-G. Applicants must use FORMS-G application packages for due dates on or after April 4, 2022.

6. Appendix

Do not use the appendix to circumvent page limits. A maximum of 10 PDF documents are allowed in the appendix. Additionally, up to 3 publications may be included that are not publicly

available. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide.

Letters of Support from partners or other organizations should be placed in the PHS 398 Research Plan "Other Research Plan Section" of the application under "9. Letters of Support".

If applications go beyond the page limit designated for a given section, excess pages will be removed from the application prior to peer review and may negatively affect the scoring.
The **Research Strategy** section of the Research Plan for **Component A** is limited to 10 pages and to 5 pages for each **Optional Component C, D and E** (total combined page limit for **Components A, C, D, and E** is 25 pages); the page limit for the **Research Strategy** section of the Research Plan for **Component B** is 25 pages.

7. Page Limitations

All page limitations described in this individual NOFO must be followed. For this specific NOFO, the Research Strategy component of the Research Plan narrative is limited to 25 pages. Supporting materials for the Research Plan narrative included as appendices may not exceed 10 PDF files with a maximum of 50 pages for all appendices. Pages that exceed page limits described in this NOFO will be removed and not forwarded for peer review, potentially affecting an application's score.

8. Format for Attachments

Designed to maximize system-conducted validations, multiple separate attachments are required for a complete application. When the application is received by the agency, all submitted forms and all separate attachments are combined into a single document that is used by peer reviewers and agency staff. Applicants should ensure that all attachments are uploaded to the system.

CDC requires all text attachments to the Adobe application forms be submitted as PDFs and that all text attachments conform to the agency-specific formatting requirements noted in the SF424 (R&R) Application Guide at .How to Apply - Application Guide.

Applicants must use FORMS-G application packages for due dates on or after April 4, 2022 and must use FORMS-F application packages until April 3, 2022.

Application guides for FORMS-F and FORMS-G application packages are posted to the How to Apply - Application Guide page.

Please use the form and instructions for SF424 (R&R) FORMS-G. Applicants must use FORMS-G application packages for due dates on or after April 4, 2022.

9. Submission Dates & Times

Part I. Overview Information contains information about Key Dates. Applicants are strongly encouraged to allocate additional time and submit in advance of the deadline to ensure they have time to make any corrections that might be necessary for successful submission. This includes the time necessary to complete the application resubmission process that may be necessary, if errors are identified during validation by Grants.gov and the NIH eRA systems. The application package is not complete until it has passed the Grants.gov and NIH eRA Commons submission and validation processes. Applicants will use a platform or system to submit applications.

ASSIST is a commonly used platform because it provides a validation of all requirements prior to submission. If ASSIST detects errors, then the applicant must correct errors before their application can be submitted. Applicants should view their applications in ASSIST after submission to ensure accurate and successful submission through Grants.gov. If the submission is not successful and post-submission errors are found, then those errors must be corrected and the application must be resubmitted in ASSIST.

Applicants are able to access, view, and track the status of their applications in the eRA Commons.

Information on the submission process is provided in the SF-424 (R&R) Application Guidance and ASSIST User Guide at https://era.nih.gov/files/ASSIST_user_guide.pdf.

Note: HHS/CDC grant submission procedures do not provide a grace period beyond the grant application due date time to correct any error or warning notices of noncompliance with application instructions that are identified by Grants.gov or eRA systems (i.e., error correction window).

Applicants who encounter problems when submitting their applications must attempt to resolve them by contacting the NIH eRA Service desk at:
Toll-free: 1-866-504-9552; Phone: 301-402-7469
http://grants.nih.gov/support/index.html
Hours: Mon-Fri, 7 a.m. to 8 p.m. Eastern Time (closed on Federal holidays)

Problems with Grants.gov can be resolved by contacting the Grants.gov Contact Center at:
Toll-free: 1-800-518-4726
https://www.grants.gov/web/grants/support.html
support@grants.gov
Hours: 24 hours a day, 7 days a week; closed on Federal holidays

It is important that applicants complete the application submission process well in advance of the due date time.

After submission of your application package, applicants will receive a "submission receipt" email generated by Grants.gov. Grants.gov will then generate a second e-mail message to applicants which will either validate or reject their submitted application package. A third and final e-mail message is generated once the applicant's application package has passed validation and the grantor agency has confirmed receipt of the application.

Unsuccessful Submissions: If an application submission was unsuccessful, the **applicant** must:

1. Track submission and verify the submission status (tracking should be done initially regardless of rejection or success).

    a. If the status states "rejected," be sure to save time stamped, documented rejection notices, and do #2a or #2b

2. Check emails from both Grants.gov and NIH eRA Commons for rejection notices.

a. If the deadline has passed, he/she should email the Grants Management contact listed in the Agency Contacts section of this announcement explaining why the submission failed.

b. If there is time before the deadline, correct the problem(s) and resubmit as soon as possible.

Due Date for Applications 05/09/2022

05/09/2022
Electronically submitted applications must be submitted no later than 5:00 p.m., ET, on the listed application due date.

10. Funding Restrictions

Expanded Authority:

For more information on expanded authority and pre-award costs, go to https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf and speak to your GMS.

All HHS/CDC awards are subject to the federal regulations, in 45 CFR Part 75, terms and conditions, and other requirements described in the HHS Grants Policy Statement. Pre-award costs may be allowable as an expanded authority, but only if authorized by CDC.

Public Health Data:

CDC requires that mechanisms for, and cost of, public health data sharing be included in grants, cooperative agreements, and contracts. The cost of sharing or archiving public health data may also be included as part of the total budget requested for first-time or continuation awards.

Data Management Plan:

Fulfilling the data-sharing requirement must be documented in a Data Management Plan (DMP) that is developed during the project planning phase prior to the initiation of generating or collecting public health data and must be included in the Resource Sharing Plan(s) section of the PHS398 Research Plan Component of the application.

Applicants who contend that the public health data they collect or create are not appropriate for release must justify that contention in the DMP submitted with their application for CDC funds (for example, privacy and confidentiality considerations, embargo issues).

Recipients who fail to release public health data in a timely fashion will be subject to procedures normally used to address lack of compliance (for example, reduction in funding, restriction of funds, or award termination) consistent with 45 CFR 74.62 or other authorities as appropriate. For further information, please see: https://www.cdc.gov/grants/additional-requirements/ar-25.html

Human Subjects:

Funds relating to the conduct of research involving human subjects will be restricted until the appropriate assurances and Institutional Review Board (IRB) approvals are in place. Copies of

all current local IRB approval letters and local IRB approved protocols (and CDC IRB approval letters, if applicable) will be required to lift restrictions.

If the proposed research project involves more than one institution and will be conducted in the United States, awardees are expected to use a single Institutional Review Board (sIRB) to conduct the ethical review required by HHS regulations for the Protections of Human Subjects Research, and include a single IRB plan in the application, unless review by a sIRB would be prohibited by a federal, tribal, or state law, regulation, or policy or a compelling justification based on ethical or human subjects protection issues or other well-justified reasons is provided. Exceptions will be reviewed and approved by CDC in accordance with Department of Health and Human Services (DHHS) Regulations (45 CFR Part 46), or a restriction may be placed on the award. For more information, please contact the scientific/research contact included on this NOFO.

Note: The sIRB requirement applies to participating sites in the United States. Foreign sites participating in CDC-funded, cooperative research studies are not expected to follow the requirement for sIRB.

Additional Funding Restrictions:

1. Applications submitted under this notice of funding opportunity must not include activities that overlap with simultaneously funded research under other awards, regardless of the funding source (no scientific, budgetary or percent effort overlap allowed).
2. **Please note:** Certain grants or recipients are not eligible for expanded authorities. In addition, one or more expanded authority may be overridden by a special term or condition of the award. The Notice of Award (NoA) will indicate the applicability of expanded authorities by reference to the HHS Grants Policy Statement or through specific terms and conditions of the award. Therefore, recipients must review the NoA to determine whether and to what extent they are, or are not, permitted to use expanded authorities.
3. Funds related to the conduct of research involving human subjects will be restricted until the appropriate assurances and Institutional Review Board (IRB) approvals are in place. Copies of all current local IRB approval letters and local IRB approved protocols (and CDC IRB approval letters, if applicable) will be required to lift restrictions. If the proposed research project involves more than one institution and will be conducted in the United States, awardees are expected to use a single Institutional Review Board (sIRB) to conduct the ethical review required by HHS regulations for the Protections of Human Subjects Research, and include a single IRB plan in the application, unless review by a sIRB would be prohibited by a federal, tribal, or state law, regulation, or policy or a compelling justification based on ethical or human subjects protection issues or other well-justified reasons is provided. Exceptions will be reviewed and approved by CDC in accordance with Department of Health and Human Services (DHHS) Regulations (Title 45 Code of Federal Regulations Part 46), or a restriction may be placed on the award. For more information, please contact the scientific/research contact included in

this NOFO. Please see Section IV.2 of this NOFO, "Content and Form of Application Submission" for guidance on sIRB Plan content.

4. Funds relating to the conduct of research involving vertebrate animals will be restricted until the appropriate assurances and Institutional Animal Care and Use Committee (IACUC) approvals are in place. Copies of all current local IACUC approval letters and local IACUC approved protocols will be required to lift restrictions.
5. Projects that involve the collection of information, identical record keeping or reporting from 10 or more individuals and are funded by a cooperative agreement and constitute a burden of time, effort, and/or resources expended to collect and/or disclose the information will be subject to review and approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA).
6. On September 24, 2014, the Federal government issued a policy for the oversight of life sciences "Dual Use Research of Concern" (DURC) and required this policy to be implemented by September 24, 2015. This policy applies to all New and Renewal awards issued on applications submitted on or after September 24, 2015, and to all non-competing continuation awards issued on or after that date. CDC grantee institutions and their investigators conducting life sciences research subject to the Policy have a number of responsibilities that they must fulfill. Institutions should reference the policy, available at http://www.phe.gov/s3/dualuse, for a comprehensive listing of those requirements. Non-compliance with this Policy may result in suspension, limitation, or termination of United States Government (USG) funding, or loss of future USG funding opportunities for the non-compliant USG-funded research project and of USG funds for other life sciences research at the institution, consistent with existing regulations and policies governing USG funded research and may subject the institution to other potential penalties under applicable laws and regulations.
7. Please note the requirement for inclusion of a Data Management Plan (DMP) in applications as described above under "Funding Restrictions" and also in AR-25 in the Additional Requirements section of this NOFO (https://www.cdc.gov/grants/additionalrequirements/ar-25.html). Funding restrictions may be imposed, pending submission and evaluation of a Data Management Plan.

11. Other Submission Requirements and Information

Risk Assessment Questionnaire Requirement

CDC is required to conduct pre-award risk assessments to determine the risk an applicant poses to meeting federal programmatic and administrative requirements by taking into account issues such as financial instability, insufficient management systems, non-compliance with award conditions, the charging of unallowable costs, and inexperience. The risk assessment will include an evaluation of the applicant's CDC Risk Questionnaire, located at https://www.cdc.gov/grants/documents/PPMR-G-CDC-Risk-Questionnaire.pdf, as well as a review of the applicant's history in all available systems; including OMB-designated repositories of government-wide eligibility and financial integrity systems (see 45 CFR 75.205(a)), and other sources of historical information. These systems include, but are not limited to: FAPIIS (https://www.fapiis.gov/), including past performance on federal contracts as per Duncan Hunter National Defense Authorization Act of 2009; Do Not Pay list; and System for Award Management (SAM) exclusions.

CDC requires all applicants to complete the Risk Questionnaire, OMB Control Number 0920-1132 annually. This questionnaire, which is located at https://www.cdc.gov/grants/documents/PPMR-G-CDC-Risk-Questionnaire.pdf, along with supporting documentation must be submitted with your application by the closing date of the Notice of Funding Opportunity Announcement. If your organization has completed CDC's Risk Questionnaire within the past 12 months of the closing date of this NOFO, then you must submit a copy of that questionnaire, or submit a letter signed by the authorized organization representative to include the original submission date, organization's EIN and DUNS.

When uploading supporting documentation for the Risk Questionnaire into this application package, clearly label the documents for easy identification of the type of documentation. For example, a copy of Procurement policy submitted in response to the questionnaire may be labeled using the following format: Risk Questionnaire Supporting Documents _ Procurement Policy.

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 under "Other Attachment Forms." The document should be labeled: "Report on Programmatic, Budgetary, and Commitment Overlap."

Please note the new requirement for a **Risk Assessment Questionnaire** (described above) that should be uploaded as an attachment in the "12. Other Attachments" section of the "RESEARCH & RELATED Other Project Information" section of the application.

If requesting indirect costs in the budget based on a federally negotiated rate, a copy of the indirect cost rate agreement is required. Include a copy of the current negotiated federal indirect cost rate agreement or cost allocation plan approval letter.

Application Submission

Applications must be submitted electronically following the instructions described in the SF 424 (R&R) Application Guide. **PAPER APPLICATIONS WILL NOT BE ACCEPTED.**

Applicants must complete all required registrations before the application due date. Section III.6 "Required Registrations" contains information about registration.

For assistance with your electronic application or for more information on the electronic submission process, visit Applying Electronically (http://grants.nih.gov/grants/guide /url_ redirect.htm? id=11144).

Important reminders:
All Senior/Key Personnel (including any Program Directors/Principal Investigators (PD/PIs) must include their eRA Commons ID in the Credential field of the Senior/Key Person Profile Component of the SF 424(R&R) Application Package. Failure to register in the Commons and to include a valid PD/PI Commons ID in the credential field will prevent the successful submission of an electronic application to CDC.

It is also important to note that for multi-project applications, this requirement also applies to the individual components of the application and not to just the Overall component.

The applicant organization must ensure that the DUNS number it provides on the application is the same number used in the organization's profile in the eRA Commons and for the System for Award Management (SAM). Additional information may be found in the SF424 (R&R) Application Guide.

PLEASE NOTE: For applications due on or after April 4, 2022, applicants must have a unique entity identifier (UEI) at the time of application submission. In preparation for the federal government's April 4, 2022, transition from the Data Universal Numbering System (DUNS) to the Unique Entity Identifier (UEI), applicants must obtain a UEI. 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.

If the applicant has an FWA number, enter the 8-digit number. Do not enter the letters "FWA" before the number. If a Project/Performance Site is engaged in research involving human subjects, the applicant organization is responsible for ensuring that the Project/Performance Site operates under and appropriate Federal Wide Assurance for the protection of human subjects and complies with 45 CFR Part 46 and other CDC human subject related policies described in Part II of the SF 424 (R&R) Application Guide and in the HHS Grants Policy Statement.

See more resources to avoid common errors and submitting, tracking, and viewing applications:

- http://grants.nih.gov/grants/ElectronicReceipt/avoiding_errors.htm
- http://grants.nih.gov/grants/ElectronicReceipt/submit_app.htm

- https://era.nih.gov/files/ASSIST_user_guide.pdf
- http://era.nih.gov/erahelp/ASSIST/

Upon receipt, applications will be evaluated for completeness by the CDC Office of Grants Services (OGS) and responsiveness by OGS and the Center, Institute or Office of the CDC. Applications that are incomplete and/or nonresponsive will not be reviewed.d/////

Section V. Application Review Information

1. Criteria

Only the review criteria described below will be considered in the review process. As part of the CDC mission (http:// www.cdc.gov/ about/ organization/ mission.htm), all applications submitted to the CDC in support of public health research are evaluated for scientific and technical merit through the CDC peer review system.

Overall Impact
Reviewers will provide an overall impact/priority score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

Scored Review Criteria
Reviewers will consider each of the review criteria below in the determination of scientific merit and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a project that by its nature is not innovative may be essential to advance a field.

Significance
Does the project address an important problem or a critical barrier to progress in the field? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

For Component A:

- Does the project address both seasonal influenza vaccine effectiveness as well as COVID-19 vaccine effectiveness?
- Does the application address challenges to conducting studies of seasonal influenza vaccination during the COVID-19 pandemic?

For Component B:

- Are the proposed activities by the Network Coordination Center (NCC) aligned with the key functional area needs of the program?
- Do the proposed activities and objectives bring added value to the research program and add efficiency to the research program?

Investigator(s)
Are the PD/PIs, collaborators, and other researchers well suited to the project? Have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the

project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

For Component A:

- Does the investigator team have the capacity or experience to recruit and consent research participants in ambulatory settings, as documented in the application?
- Do the investigators have the capacity or experience to verify vaccination dates, as well as vaccine type and product information among enrollees from ambulatory settings?
- Do the investigators have the capacity to collect, manage, and analyze accurate data in a timely manner, including vaccination records from health system data, data from electronic medical systems and procedure codes (if applicable)?
- Do the investigators have the capacity or a track record to collect acute phase and convalescent phase blood specimens from participants within an established time window?

For Component B:

- Do the investigators or investigator team have the capacity or appropriate experience to meet the needs for the key functional areas of the research program?

For Optional Component C:

- Do the investigators have the capacity or experience to recruit and enroll index patients meeting laboratory and time-based eligibility criteria, enroll household members including collection of data and specimens?
- Do the investigators have the capacity or experience to conduct active surveillance for laboratory confirmed illness in a source population, recruit and enroll households including both adult members and young children to conduct active surveillance using patient self-swabbing for disease transmission following identification of an index (or initial) case?

For Optional Component D:

- Do the investigators have the capacity or experience to recruit and enroll patients meeting clinical and laboratory criteria in settings, including collection of data from laboratory testing, vaccination records and electronic medical records for chronic medical conditions?

For Optional Component E:

- Are the investigators, collaborators, and other researchers well suited to the project?
- If Early Stage Investigators, or those in the early stages of independent careers, do they have appropriate experience and training in laboratory science?

- If established, have the investigators demonstrated an ongoing record of accomplishments that have advanced laboratory testing methods for influenza?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

For Component A:

- Does the application demonstrate creativity in test-negative design for the evaluation of seasonal influenza and COVID-19 vaccine effectiveness during co-circulation of both viral diseases and the implications for laboratory testing and case classification?

For Component B:

- Does the application propose innovative strategies to facilitate meeting the coordination needs of the research program, where appropriate (e.g., conferencing, document sharing, data management, analysis, dashboard reports)?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility, and will particularly risky aspects be managed?

If the project involves clinical research, are there plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?

For Component A:

- Does the application include plans to collect respiratory specimens and acute- and convalescent-phase blood specimens from research participants during the COVID-19 pandemic if patients with mild illness are enrolled remotely, or discouraged from coming to healthcare facilities?
- Does the application include alternative plans for recruitment and enrollment of research participants?
- Does the application provide information about availability of individual data on a source population to evaluate accuracy of VE estimates from enrolled participants and to estimate incidence of medically attended influenza and COVID-19 among persons seeking care for acute respiratory illness in the source population or healthcare system?
- Does the application describe the capacity and processes to provide de-identified individual data from the source population for combined estimates of vaccine

effectiveness and burden of medically attended illness due to influenza and COVID-19 in the study population?

For Component B:

- Are the activities proposed in the Network Coordination Center application to facilitate coordination needs of the research program robust?
- Are the activities proposed in the Network Coordination Center application to meet the key functional area needs of the research program, particularly in coordination/logistics, protocol development across sites, IRB coordination, and timely effective communication with partners robust?
- Does the application describe appropriate plans for data management, including activities such as: building databases, secure data transmission, housing data, cleaning and validating data, analyzing data, implementing dashboards, and writing reports?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

For Component A:

- Does the application demonstrate institutional support for conducting research in ambulatory settings, including access to lists of patients screened for possible influenza or COVID-19 for screening and recruitment, outreach to patients who contact healthcare providers through telephone or telehealth consultation services or access for staff to recruit and collect respiratory and blood specimens from patients seeking care in urgent care settings or emergency departments?

For Component B:

- Is the evidence for institutional capacity at the Network Coordination Center to support the research program in the key functional areas robust?

For Optional Component E:

- Are the laboratory/testing centers appropriate for the testing of specimens proposed in the NOFO?
- Do the proposed laboratories have the capacity or an established track record of success to conduct laboratory testing and data analysis, and publish findings in peer-reviewed journals?
- Are the proposed devices, methods, and assays contemporary, applicable and relevant to the study of influenza infections in humans?

2. Additional Review Criteria

As applicable for the project proposed, *reviewers will evaluate* the following additional items while determining scientific and technical merit, and in providing an overall impact/priority score, but *will not give separate scores* for these items.

Protections for Human Subjects

If the research involves human subjects but does not involve one of the six categories of research that are exempt under 45 CFR Part 46, the committee will evaluate the justification for involvement of human subjects and the proposed protections from research risk relating to their participation according to the following five review criteria: 1) risk to subjects, 2) adequacy of protection against risks, 3) potential benefits to the subjects and others, 4) importance of the knowledge to be gained, and 5) data and safety monitoring for clinical trials.

For research that involves human subjects and meets the criteria for one or more of the six categories of research that are exempt under 45 CFR Part 46, the committee will evaluate: 1) the justification for the exemption, 2) human subjects involvement and characteristics, and 3) sources of materials. For additional information on review of the Human Subjects section, please refer to the HHS/CDC Requirements under AR-1 Human Subjects Requirements (https://www.cdc.gov/grants/additional-requirements/ar-1.html).

If your proposed research involves the use of human data and/or biological specimens, you must provide a justification for your claim that no human subjects are involved in the Protection of Human Subjects section of the Research Plan.

Inclusion of Women, Minorities, and Children

When the proposed project involves clinical research, the committee will evaluate the proposed plans for inclusion of minorities and members of both genders, as well as the inclusion of children. For additional information on review of the Inclusion section, please refer to the policy on the Inclusion of Women and Racial and Ethnic Minorities in Research (https://www.cdc.gov/maso/Policy/Policy_women.pdf and the policy on the Inclusion of Persons Under 21 in Research (https://www.cdc.gov/maso/Policy/policy496.pdf).

Vertebrate Animals

The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following four points: 1) proposed use of the animals, and species, strains, ages, sex, and numbers to be used; 2) justifications for the use of animals and for the appropriateness of the species and numbers proposed; 3) procedures for limiting discomfort, distress, pain and injury to that which is unavoidable in the conduct of scientifically sound research including the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices; and 4) methods of euthanasia and reason for selection if not consistent with the AVMA Guidelines on Euthanasia. For additional information on review of the Vertebrate Animals section, please refer to the Worksheet for Review of the Vertebrate Animal Section (https://grants.nih.gov/grants/olaw/VAChecklist.pdf).

Biohazards

Reviewers will assess whether materials or procedures proposed are potentially hazardous to

research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Dual Use Research of Concern
Reviewers will identify whether the project involves one of the agents or toxins described in the US Government Policy for the Institutional Oversight of Life Sciences Dual Use Research of Concern, and, if so, whether the applicant has identified an IRE to assess the project for DURC potential and develop mitigation strategies if needed.

For more information about this Policy and other policies regarding dual use research of concern, visit the U.S. Government Science, Safety, Security (S3) website at: http://www.phe.gov/s3/dualuse. Tools and guidance for assessing DURC potential may be found at: http://www.phe.gov/s3/dualuse/Pages/companion-guide.aspx.

3. Additional Review Considerations

As applicable for the project proposed, reviewers will consider each of the following items, but will not give scores for these items, and should not consider them in providing an overall impact/priority score.

Applications from Foreign Organizations
N/A
Resource Sharing Plan(s)
HHS/CDC policy requires that recipients of grant awards make research resources and data readily available for research purposes to qualified individuals within the scientific community after publication. Please see: https://www.cdc.gov/grants/additional-requirements/ar-25.html

New additional requirement: CDC requires recipients for projects and programs that involve data collection or generation of data with federal funds to develop and submit a Data Management Plan (DMP) for each collection of public health data.

Investigators responding to this Notice of Funding Opportunity should include a detailed DMP in the Resource Sharing Plan(s) section of the PHS 398 Research Plan Component of the application. The AR-25 outlines the components of a DMP and provides additional information for investigators regarding the requirements for data accessibility, storage, and preservation.

The DMP should be developed during the project planning phase prior to the initiation of collecting or generating public health data and will be submitted with the application. The submitted DMP will be evaluated for completeness and quality at the time of submission.

The DMP should include, at a minimum, a description of the following:

- A description of the data to be collected or generated in the proposed project;
- Standards to be used for the collected or generated data;
- Mechanisms for, or limitations to, providing access to and sharing of the data (include a description of provisions for the protection of privacy, confidentiality, security, intellectual property, or other rights - this section should address access to identifiable and de-identified data);

- Statement of the use of data standards that ensure all released data have appropriate documentation that describes the method of collection, what the data represent, and potential limitations for use; and
- Plans for archiving and long-term preservation of the data, or explaining why long-term preservation and access are not justified (this section should address archiving and preservation of identifiable and de-identified data).

Applications submitted without the required DMP may be deemed ineligible for award unless submission of DMP is deferred to a later period depending on the type of award, in which case, funding restrictions may be imposed pending submission and evaluation.

CDC OMB approved templates may be used (e.g. NCCDPHP template https://www.cdc.gov/chronicdisease/pdf/nofo/DMP-Template-508.docx

Other examples of DMPs may be found here USGS, http://www.usgs.gov//products/data-and-tools/data-management/data-management-plans

Budget and Period of Support
Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research. The applicant can obtain guidance for completing a detailed justified budget on the CDC website, at the following Internet address: http://www.cdc.gov/grants/interestedinapplying/application-resources.html

The budget can include both direct costs and indirect costs as allowed.

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 modified total direct costs 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 on training grants are limited to a fixed rate of eight percent of MTDC exclusive of tuition and related fees, direct expenditures for equipment, and sub-awards in excess of $25,000.

If requesting indirect costs in the budget based on a federally negotiated rate, a copy of the indirect cost rate agreement is required. Include a copy of the current negotiated federal indirect cost rate agreement or cost allocation plan approval letter.

4. Review and Selection Process

Applications will be evaluated for scientific and technical merit by an appropriate peer review group, in accordance with CDC peer review policy and procedures, using the stated review criteria.
As part of the scientific peer review, all applications:

- Will undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review), will be discussed and assigned an overall impact/priority score.
- Will receive a written critique.

Applications will be assigned to the appropriate HHS/CDC Center, Institute, or Office. Applications will compete for available funds with all other recommended applications submitted in response to this NOFO. Following initial peer review, recommended applications will receive a second level of review. The following will be considered in making funding recommendations:

- Scientific and technical merit of the proposed project as determined by scientific peer review.
- Availability of funds.
- Relevance of the proposed project to program priorities.

As part of the initial scientific merit review, **Component A, Component B** and **Optional Components C, D and E** will be scored and ranked separately. An applicant must receive a **Component A** award to be eligible for **Optional Component C, D or E** funding. Thus, one application could receive up to four independent scores, one for each component project.

Listed below are additional funding preferences for Components, in priority order, that may be taken into consideration in the funding recommendation process to provide maximum portfolio diversity:

1. The best scoring **Component A** project applications will be given funding preference over the best scoring **Component B** application or **Optional Component C, D or E** projects. No applicant receiving a **Component A** award can receive a **Component B** award and vice versa.
2. The best scoring **Component B** application will be given funding preference over **Optional Component C, D or E** awards.
3. Only those applications that receive a **Component A** award can receive an **Optional Component C, D or E** award.
4. **Component C** awards will be given preference over **Component D** awards.
5. **Component D** awards will be given preference over a **Component E** award.

Component A applications will be rank ordered by overall impact score and the acceptable funding range for **Component A** applications will be determined using these scores; it is anticipated that the top seven (7) scoring **Component A** applications will be funded. **Component B** applications will also be rank ordered by overall impact score and the acceptable funding range for **Component B** applications will be determined using these scores; it is anticipated that the top scoring **Component B** application will be funded.

Once the fundable range is determined for **Component A** applications, from among these fundable applications, **Component C** projects will be recommended for funding in rank order by

overall impact score; this process will then continue for **Component D** projects followed by **Component E** projects, as available funds allow. It is estimated that there will be up to five (5) **Component C**, four (4) **Component D** and one (1) **Component E** awards.

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 with 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 (currently the Federal Recipient Performance and Integrity Information System (FAPIIS)) 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 framework for evaluating the risks posed by an applicant may incorporate results of the evaluation of the applicant's eligibility or the quality of its application. If it is determined that a Federal award will be made, special conditions that correspond to the degree of risk assessed may be applied to the Federal award. The evaluation criteria is described in this Notice of Funding Opportunity.

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 45 CFR Part 75, subpart F, 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.

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.

5. Anticipated Announcement and Award Dates

After the peer review of the application is completed, the PD/PI will be able to access his or her Summary Statement (written critique) and other pertinent information via the eRA Commons.

Section VI. Award Administration Information

1. Award Notices

Any applications awarded in response to this NOFO will be subject to the DUNS, SAM Registration, and Transparency Act requirements. If the application is under consideration for funding, HHS/CDC will request "just-in-time" information from the applicant as described in the HHS Grants Policy Statement (https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf).

PLEASE NOTE: For applications due on or after April 4, 2022, applicants must have a unique entity identifier (UEI) at the time of application submission. In preparation for the federal government's April 4, 2022, transition from the Data Universal Numbering System (DUNS) to the Unique Entity Identifier (UEI), applicants must obtain a UEI. 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 formal notification in the form of a Notice of Award (NoA) will be provided to the applicant organization for successful applications. The NoA signed by the Grants Management Officer is the authorizing document and will be sent via email to the grantee's business official.

Recipient must comply with any funding restrictions as described in Section IV.11. Funding Restrictions. Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NoA are at the recipient's risk. These costs may be allowable as an expanded authority, but only if authorized by CDC.

2. CDC Administrative Requirements

Overview of Terms and Conditions of Award and Requirements for Specific Types of Grants

Administrative and National Policy Requirements, Additional Requirements (ARs) outline the administrative requirements found in 45 CFR Part 75 and the HHS Grants Policy Statement and other requirements as mandated by statute or CDC policy. Recipients must comply with administrative and national policy requirements as appropriate. For more information on the Code of Federal Regulations, visit the National Archives and Records Administration: https://www.archives.gov/

Specific requirements that apply to this NOFO are the following:

AR-1: Human Subjects Requirements
AR-2: Requirements for Inclusion of Women and Racial and Ethnic Minorities in Research
AR-3: Animal Subjects Requirements

AR-8: Public Health System Reporting Requirements
AR-10: Smoke-Free Workplace Requirements
AR-11: Healthy People 2030
AR-12: Lobbying Restrictions
AR-13: Prohibition on Use of CDC Funds for Certain Gun Control Activities
AR-14: Accounting System Requirements
AR-15: Proof of Non-profit Status
AR-16: Security Clearance Requirement
AR-21: Small, Minority, And Women-owned Business
AR-22: Research Integrity
AR 23: Compliance with 45 C.F.R. Part 87
AR-24: Health Insurance Portability and Accountability Act Requirements
AR-25: Data Management and Access
AR-26: National Historic Preservation Act of 1966
AR-27: Conference Disclaimer and Use of Logos
AR-28: Inclusion of Persons Under the Age of 21 in Research
AR-29: Compliance with EO13513, "Federal Leadership on Reducing Text Messaging while Driving", October 1, 2009
AR-30: Information Letter 10-006, - Compliance with Section 508 of the Rehabilitation Act of 1973
AR-31: Research Definition
AR-32: Appropriations Act, General Provisions
AR-33: United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern
AR-34: Accessibility Provisions and Non-Discrimination Requirements
AR-36: Certificates of Confidentiality
AR-37: Prohibition on certain telecommunications and surveillance services or equipment for all awards issued on or after August 13, 2020.

The full text of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for HHS Awards, 45 CFR 75, can be found at: https://www.ecfr.gov/cgi-bin/text-idx?node=pt45.1.75

To view brief descriptions of relevant CDC requirements visit: https://www.cdc.gov/grants/additionalrequirements/index.html

Lobbying Note: See "Additional Requirement (AR)-12" link above for detailed guidance on this prohibition and additional guidance on lobbying for CDC recipients.

A recipient of a grant or cooperative agreement awarded by the Department of Health and Human Services (HHS) with funds made available under Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 (P.L. 116-123) agrees to:

1. Comply with existing and/or future directives and guidance from the Secretary regarding control of the spread of COVID-19;
2. In consultation and coordination with HHS, provide, commensurate with the condition of the individual, COVID-19 patient care regardless of the individual's home jurisdiction and/or

appropriate public health measures (e.g., social distancing, home isolation); and
3. Assist the United States Government in the implementation and enforcement of federal orders related to quarantine and isolation.

3. Additional Policy Requirements

The following are additional policy requirements relevant to this NOFO:

Should you successfully compete for an award, recipients of federal financial assistance (FFA) from HHS must administer their programs in compliance with federal civil rights laws that prohibit discrimination on the basis of race, color, national origin, disability, age and, in some circumstances, religion, conscience, and sex (including gender identity, sexual orientation, and pregnancy).This includes taking reasonable steps to provide meaningful access to persons with limited English proficiency and providing programs that are accessible to and usable by persons with disabilities. The HHS Office for Civil Rights provides guidance on complying with civil rights laws enforced by HHS. See https://www.hhs.gov/civil-rights/for-providers/provider-obligations/index.html and https://www.hhs.gov/civil-rights/for-individuals/nondiscrimination/index.html.

- Recipients of FFA must ensure that their programs are accessible to persons with limited English proficiency. For guidance on meeting your legal obligation to take reasonable steps to ensure meaningful access to your programs or activities by limited English proficient individuals, see https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/fact-sheet-guidance/index.html and https://www.lep.gov.

- For information on your specific legal obligations for serving qualified individuals with disabilities, including providing program access, reasonable modifications, and taking appropriate steps to provide effective communication, see http://www.hhs.gov/ocr/civilrights/understanding/disability/index.html.

- HHS funded health and education programs must be administered in an environment free of sexual harassment, see https://www.hhs.gov/civil-rights/for-individuals/sex-discrimination/index.html.

- For guidance on administering your project in compliance with applicable federal religious nondiscrimination laws and applicable federal conscience protection and associated anti-discrimination laws, see https://www.hhs.gov/conscience/conscience-protections/index.html and https://www.hhs.gov/conscience/religious-freedom/index.html.

HHS Policy on Promoting Efficient Spending: Use of Appropriated Funds for Conferences and Meetings, Food, Promotional Items and Printing Publications This policy supports the Executive Order on Promoting Efficient Spending (EO 13589), the Executive Order on Delivering and Efficient, Effective, and Accountable Government (EO 13576) and the Office of Management and Budget Memorandum on Eliminating Excess Conference Spending and Promoting Efficiency in Government (M-35-11). This policy applies to all new obligations and all funds appropriated by Congress. For more information, visit the HHS website at: https://www.hhs.gov/grants/contracts/contract-policies-regulations/efficient-spending/index.html.

Federal Funding Accountability and Transparency Act of 2006 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 grants, contracts, loans and other assistance and payments through a single, publicly accessible website, www.usaspending.gov. For the full text of the requirements, please review the following website: https://www.fsrs.gov/.

Plain Writing Act The Plain Writing Act of 2010, Public Law 111-274, was signed into law on October 13, 2010. The law requires that federal agencies use "clear Government communication that the public can understand and use" and requires the federal government to write all new publications, forms, and publicly distributed documents in a "clear, concise, well-organized" manner. For more information on this law, go to: http://www.plainlanguage.gov/plLaw/index.cfm.

Pilot Program for Enhancement of Employee Whistleblower Protections All applicants will be subject to a term and condition that applies the terms of 48 CFR section 3.908 to the award and requires that grantees inform their employees in writing (in the predominant native language of the workforce) of employee whistleblower rights and protections under 41 U.S.C. 4712.

Copyright Interests Provision 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.

Language Access for Persons with Limited English Proficiency Recipients of federal financial assistance from HHS must administer their programs in compliance with federal civil rights law. This means that recipients of HHS funds must ensure equal access to their programs without regard to a person's race, color, national origin, disability, age and, in some circumstances, sex and religion. This includes ensuring your programs are accessible to persons with limited English proficiency. Recipients of federal financial assistance must take reasonable

steps to provide meaningful access to their programs by persons with limited English proficiency.

Dual Use Research of Concern On September 24, 2014, the US Government Policy for the Institutional Oversight of Life Sciences Dual Use Research of Concern was released. Grantees (foreign and domestic) receiving CDC funding on or after September 24, 2015 are subject to this policy. Research funded by CDC, involving the agents or toxins named in the policy, must be reviewed to determine if it involves one or more of the listed experimental effects and if so, whether it meets the definition of DURC. This review must be completed by an Institutional Review Entity (IRE) identified by the funded institution.

Recipients also must establish an Institutional Contact for Dual Use Research (ICDUR). The award recipient must maintain records of institutional DURC reviews and completed risk mitigation plans for the term of the research grant, cooperative agreement or contract plus three years after its completion, but no less than eight years, unless a shorter period is required by law or regulation.

If a project is determined to be DURC, a risk/benefit analysis must be completed. CDC will work collaboratively with the award recipient to develop a risk mitigation plan that the CDC must approve. The USG policy can be found at http://www.phe.gov/s3/dualuse.

Non-compliance with this Policy may result in suspension, limitation, restriction or termination of USG-funding, or loss of future USG funding opportunities for the non-compliant USG-funded research project and of USG-funds for other life sciences research at the institution, consistent with existing regulations and policies governing USG-funded research, and may subject the institution to other potential penalties under applicable laws and regulations.

Data Management Plan(s)

CDC requires that all new collections of public health data include a Data Management Plan (DMP). For purposes of this announcement, "public health data" means digitally recorded factual material commonly accepted in the scientific community as a basis for public health findings, conclusions, and implementation.

This new requirement ensures that CDC is in compliance with the following; Office of Management and Budget (OMB) memorandum titled "Open Data Policy–Managing Information as an Asset" (OMB M-13-13); Executive Order 13642 titled "Making Open and Machine Readable the New Default for Government Information"; and the Office of Science and Technology Policy (OSTP) memorandum titled "Increasing Access to the Results of Federally Funded Scientific Research" (OSTP Memo).

The AR-25 https://www.cdc.gov/grants/additional-requirements/ar-25.html outlines the components of a DMP and provides additional information for investigators regarding the requirements for data accessibility, storage, and preservation.

Certificates of Confidentiality: Institutions and investigators are responsible for determining

whether research they conduct is subject to Section 301(d) of the Public Health Service (PHS) Act. Section 301(d), as amended by Section 2012 of the 21st Century Cures Act, P.L. 114-255 (42 U.S.C. 241(d)), states that the Secretary shall issue Certificates of Confidentiality (Certificates) to persons engaged in biomedical, behavioral, clinical, or other research activities in which identifiable, sensitive information is collected. In furtherance of this provision, CDC-supported research commenced or ongoing after December 13, 2016 in which identifiable, sensitive information is collected, as defined by Section 301(d), is deemed issued a Certificate and therefore required to protect the privacy of individuals who are subjects of such research. Certificates issued in this manner will not be issued as a separate document, but are issued by application of this term and condition to this award. See Additional Requirement 36 to ensure compliance with this term and condition. The link to the full text is at: https://www.cdc.gov/grants/additional-requirements/ar-36.html.

4. Cooperative Agreement Terms and Conditions

The following special terms of award are in addition to, and not in lieu of, otherwise applicable U.S. Office of Management and Budget (OMB) administrative guidelines, U.S. Department of Health and Human Services (DHHS) grant administration regulations at 45 CFR Part 75, and other HHS, PHS, and CDC grant administration policies. The administrative and funding instrument used for this program will be the cooperative agreement, an "assistance" mechanism (rather than an "acquisition" mechanism), in which substantial CDC programmatic involvement with the awardees is anticipated during the performance of the activities. Under the cooperative agreement, the HHS/CDC purpose is to support and stimulate the recipients' activities by involvement in and otherwise working jointly with the award recipients in a partnership role; CDC Project Officers are not to assume direction, prime responsibility, or a dominant role in the activities. Consistent with this concept, the dominant role and prime responsibility resides with the awardees for the project as a whole, although specific tasks and activities may be shared among the awardees and HHS/CDC as defined below.

The PD(s)/PI(s) will have the primary responsibility for:

- Ensuring the protection of human subjects through ethical review of all protocols involving human subjects at the local institution and at CDC and obtaining the appropriate Institutional Review Board approvals for all institutions or individuals engaged in the conduct of the research project.
- Working with CDC scientists to obtain OMB-PRA approvals, as needed.
- PUBLICATIONS/PRESENTATIONS: Publications, journal articles, presentations, etc. produced under a CDC grant-supported project must bear an acknowledgment and disclaimer, as appropriate, for example: “This publication (journal article, etc.) was supported by the Cooperative Agreement Number above from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention”. In addition, the PI/PD must provide to CDC Program abstracts or manuscripts prior to any publication related to this funding. The grantee will not seek to publish or present results or findings from this project without prior clearance and approval from CDC.

- Complying with the responsibilities for the PI as described in the United States Government Policy for Institutional Oversight of Life Science Dual Use Research of Concern (DURC) http://www.phe.gov/s3/dualuse/Documents/durc-policy.pdf).
- Awardees will retain custody of and have primary rights to the data and software developed under these awards, subject to Government rights of access consistent with current DHHS, PHS, and CDC policies.

CDC staff have substantial programmatic involvement that is above and beyond the normal stewardship role in awards, as described below:

- Assisting the PI, as needed, in complying with the Investigator responsibilities described in the Policy on Public Health Research and Non-research Data Management and Access.
- Preparing the paperwork necessary for submission of research protocols to the CDC Institutional Review Board for review, as needed.
- Obtaining Office of Management and Budget approval per the Paperwork Reduction Act, if necessary.
- Assisting the PI, as needed, in complying with the PI responsibilities described in the United States Government Policy for Institutional Oversight of Life Science Dual Use Research of Concern (DURC) http://www.phe.gov/s3/dualuse/Documents/durc-policy.pdf

Additionally, a Scientific Program Officer in the NCHHSTP Extramural Research Program Office (ERPO) will be responsible for the normal scientific and programmatic stewardship of the award as described below:

- Named in the Notice of Award as the Program Official to provide overall scientific and programmatic stewardship of the award;
- Serve as the primary point of contact on official award-related activities including an annual review of the grantee's performance as part of the request for continuation application;
- Make recommendations on requests for changes in scope, objectives, and or budgets that deviate from the approved peer-reviewed application;
- Carry out continuous review of all activities to ensure objectives are being met;
- Attend committee meetings and participate in conference calls for the purposes of assessing overall progress, and for program evaluation purposes; and
- Monitor performance against approved project objectives.

5. Reporting

Recipients will be required to complete Research Performance Progress Report (RPPR) in eRA Commons at least annually
(see https://grants.nih.gov/grants/rppr/index.htm; https://grants.nih.gov/grants/forms/report_on_grant.htm) and financial statements as required in the HHS Grants Policy Statement.

A final progress report, invention statement, equipment inventory list and the expenditure data portion of the Federal Financial Report are required for closeout of an award, as described in the HHS Grants Policy Statement.

Although the financial plans of the HHS/CDC CIO(s) provide support for this program, awards pursuant to this funding opportunity depend upon the availability of funds, 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 Federal Funding Accountability and Transparency Act of 2006 (Transparency Act), includes a requirement for recipients of Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY2011 or later.

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 recipients:
1) Information on executive compensation when not already reported through the SAM Registration; and
2) Similar information on all sub-awards/ subcontracts/ consortiums over $25,000. It is a requirement for recipients of Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY2011 or later. All recipients of applicable CDC grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at www.fsrs.gov on all subawards over $25,000. See the HHS Grants Policy Statement (https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf).

A. Submission of Reports

The Recipient Organization must provide HHS/CDC with an original, plus one hard copy of the following reports:

1. **Yearly Non-Competing Grant Progress Report**, is due 90 to 120 days before the end of the current budget period. The RPPR form (https://grants.nih.gov/grants/rppr/index.htm; https://grants.nih.gov/grants/rppr/rppr_instruction_guide.pdf) is to be completed on the eRA Commons website. The progress report will serve as the non-competing continuation application. Although the financial plans of the HHS/CDC CIO(s) provide support for this program, awards pursuant to this funding opportunity are contingent upon the availability of funds, 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.
2. **Annual Federal Financial Report (FFR) SF 425** (https://grants.nih.gov/grants/forms/report_on_grant/federal_financial_report_ffr.htm) is required and must be submitted through eRA Commons **within 90 days after the end of the calendar quarter in which the budget period ends.**
3. **A final progress report**, invention statement, equipment/inventory report, and the final FFR are required **90 days after the end of the period of performance.**

B. Content of Reports

1. Yearly Non-Competing Grant Progress Report: The grantee's continuation application/progress should include:

    - Description of Progress during Annual Budget Period: Current Budget Period Progress reported on the RPPR form in eRA Commons (https://grants.nih.gov/grants/rppr/index.htm). Detailed narrative report for the current budget period that directly addresses progress towards the Measures of Effectiveness included in the current budget period proposal.
    - Research Aims: list each research aim/project

a) Research Aim/Project: purpose, status (met, ongoing, and unmet), challenges, successes, and lessons learned

b) Leadership/Partnership: list project collaborations and describe the role of external partners.

- Translation of Research (1 page maximum). When relevant to the goals of the research project, the PI should describe how the significant findings may be used to promote, enhance, or advance translation of the research into practice or may be used to inform public health policy. This section should be understandable to a variety of audiences, including policy makers, practitioners, public health programs, healthcare institutions, professional organizations, community groups, researchers, and other potential users. The PI should identify the research findings that were translated into public health policy or practice and how the findings have been or may be adopted in public health settings. Or, if they cannot be applied yet, this section should address which research findings may be translated, how these findings can guide future research or related activities, and recommendations for translation. If relevant, describe how the results of this project could be generalized to populations and communities outside of the study. Questions to consider in preparing this section include:

- How will the scientific findings be translated into public health practice or inform public health policy?
- How will the project improve or effect the translation of research findings into public health practice or inform policy?
- How will the research findings help promote or accelerate the dissemination, implementation, or diffusion of improvements in public health programs or practices?
- How will the findings advance or guide future research efforts or related activities?

- Public Health Relevance and Impact (1 page maximum). This section should address improvements in public health as measured by documented or anticipated outcomes from the project. The PI should consider how the findings of the project relate beyond the immediate study to improved practices, prevention or intervention techniques, inform policy, or use of technology in public health. Questions to consider in preparing this section include:
- How will this project lead to improvements in public health?

- How will the findings, results, or recommendations been used to influence practices, procedures, methodologies, etc.?
- How will the findings, results, or recommendations contribute to documented or projected reductions in morbidity, mortality, injury, disability, or disease?

- Current Budget Period Financial Progress: Status of obligation of current budget period funds and an estimate of unobligated funds projected provided on an estimated FFR.

- New Budget Period Proposal:
- Detailed operational plan for continuing activities in the upcoming budget period, including updated Measures of Effectiveness for evaluating progress during the upcoming budget period. Report listed by Research Aim/Project.
- Project Timeline: Include planned milestones for the upcoming year (be specific and provide deadlines).

- New Budget Period Budget: Detailed line-item budget and budget justification for the new budget period. Use the CDC budget guideline format.

- Publications/Presentations: Include publications/presentations resulting from this CDC grant only during this budget period. If no publication or presentations have been made at this stage in the project, simply indicate "Not applicable: No publications or presentations have been made."

- IRB Approval Certification: Include all current IRB approvals to avoid a funding restriction on your award. If the research does not involve human subjects, then please state so. Please provide a copy of the most recent local IRB and CDC IRB, if applicable. If any approval is still pending at time of APR due date, indicate the status in your narrative.

- Update of Data Management Plan: The DMP is considered a living document that will require updates throughout the lifecycle of the project. Investigators should include any updates to the project's data collection such as changes to initial data collection plan, challenges with data collection, and recent data collected. Applicants should update their DMP to reflect progress or issues with planned data collection and submit as required for each reporting period.

- Additional Reporting Requirements:

N/A

2. Annual Federal Financial Reporting The Annual Federal Financial Report (FFR) SF 425 is required and must be submitted through the Payment Management System (PMS) within 90 days after the end of the calendar quarter in which the budget period ends. The FFR should only include 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 in a timely manner may adversely affect the future funding of this project. If the information cannot be provided by the due date, you are required to submit a letter explaining the reason and date by which the Grants Officer will receive the information.

The due date for final FFRs is 90 days after the Period of Performance end date.

Recipients must submit closeout reports in a timely manner. Unless the Grants Management Officer (GMO) of the awarding Institute or Center approves an extension, recipients must submit a final FFR, final progress report, and Final Invention Statement and Certification within 90 days of the end of grant period. Failure to submit timely and accurate final reports may affect future funding to the organization or awards under the direction of the same Project Director/Principal Investigator (PD/PI).

FFR (SF 425) instructions for CDC recipients are now available at https://grants.nih.gov/grants/forms/report_on_grant/federal_financial_report_ffr.htm. For further information, contact GrantsInfo@nih.gov. Additional resources on the Payment Management System (PMS) can be found at https://pms.psc.gov.

Organizations may verify their current registration status by running the "List of Commons Registered Organizations" query found at: https://era.nih.gov/registration_accounts.cfm. Organizations not yet registered can go to https://commons.era.nih.gov/commons/ for instructions. It generally takes several days to complete this registration process. This registration is independent of Grants.gov and may be done at any time.

The individual designated as the PI on the application must also be registered in the Commons. The PI must hold a PI account and be affiliated with the applicant organization. This registration must be done by an organizational official or their delegate who is already registered in the Commons. To register PIs in the Commons, refer to the eRA Commons User Guide found at: https://era.nih.gov/docs/Commons_UserGuide.pdf.

3. Final Reports: Final reports should provide sufficient detail for CDC to determine if the stated outcomes for the funded research have been achieved and if the research findings resulted in public health impact based on the investment. The grantee's final report should include:

- Research Aim/Project Overview: The PI should describe the purpose and approach to the project, including the outcomes, methodology and related analyses. Include a discussion of the challenges, successes and lessons learned. Describe the collaborations/partnerships and the role of each external partner.
- Translation of Research Findings: The PI should describe how the findings will be translated and how they will be used to inform policy or promote, enhance or advance the

impact on public health practice. This section should be understandable to a variety of audiences, including policy makers, practitioners, public health programs, healthcare institutions, professional organizations, community groups, researchers and other potential end users. The PI should also provide a discussion of any research findings that informed policy or practice during the course of the Period of Performance. If applicable, describe how the findings could be generalized and scaled to populations and communities outside of the funded project.

- Public Health Relevance and Impact: This section should address improvements in public health as measured by documented or anticipated outcomes from the project. The PI should consider how the findings of the project related beyond the immediate study to improved practices, prevention or intervention techniques, or informed policy, technology or systems improvements in public health.
- Publications; Presentations; Media Coverage: Include information regarding all publications, presentations or media coverage resulting from this CDC-funded activity. Please include any additional dissemination efforts that did or will result from the project.
- Final Data Management Plan: Applicants must include an updated final Data Management Plan that describes the data collected, the location of where the data is stored (example: a repository), accessibility restrictions (if applicable), and the plans for long term preservation of the data.

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.

7. 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.

Section VII. Agency Contacts

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Application Submission Contacts

Grants.gov Customer Support (Questions regarding Grants.gov registration and submission, downloading or navigating forms)
Contact Center Phone: 800-518-4726
Email: support@grants.gov
Hours: 24 hours a day, 7 days a week; closed on Federal holidays

eRA Commons Help Desk (Questions regarding eRA Commons registration, tracking application status, post submission issues, FFR submission)
Phone: 301-402-7469 or 866-504-9552 (Toll Free)
TTY: 301-451-5939
Email: commons@od.nih.gov
Hours: Monday - Friday, 7am - 8pm U.S. Eastern Time

Scientific/Research Contact(s)

Amy Yang, PhD
Extramural Research Program Office
Office of the Associate Director of Science
National Center for HIV, Viral Hepatitis, STD and TB Prevention
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services
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Peer Review Contact(s)

Gregory Anderson, MPH, MS
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U.S. Department of Health and Human Services
1600 Clifton Road, MS US8-1
Atlanta, GA 30329
Telephone: 404-718-8833
Email: GAnderson@cdc.gov

Financial/Grants Management Contact(s)

Sharon Cassell
Office of Financial Resources

Office of Grants Services
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services
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Telephone: 770-488-2703
Email: SCassell@cdc.gov

Section VIII. Other Information

Other CDC Notices of Funding Opportunities can be found at www.grants.gov.

All awards are subject to the terms and conditions, cost principles, and other considerations described in the HHS Grants Policy Statement.

Authority and Regulations

Awards are made under the authorization of Sections of the Public Health Service Act as amended and under the Code of Federal Regulations.

- Public Health Service Act Section 301(a) [42 USC 241(a)].
- Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020, Public Law 116-123.
- Coronavirus Aid, Relief, and Economic Security (CARES) Act, Public Law 116-136.
- Paycheck Protection Program and Health Care Enhancement Act, Public Law 116-139.
- American Rescue Plan Act of 2021, Public Law 117-2.