

CDC/USDA/CSTE Project Development Grant APPLICATION

Issuing Organization

Council of State and Territorial Epidemiologists (CSTE) at www.cste.org/

Participating Organizations

Centers for Disease Control and Prevention (CDC), at <http://www.cdc.gov>

Components of Participating Organizations

Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD/CDC), at <http://www.cdc.gov/ncidod/>

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Part I – Overview Information

1. Overview

CSTE will support capacity building of influenza and other zoonotic disease surveillance and prevention in state and local health districts by promoting One Health initiatives and education of the community on zoonotic diseases. This will be accomplished through a collaboration with the CDC/USDA Collaborative Partnership, by providing funding and assistance to civic and nonprofit youth agricultural organizations.

CSTE seeks pilot projects designed to educate youth on the epidemiology, prevention, and control of zoonotic diseases with public health impact. These projects should be targeted to youth participants in agricultural organizations.

Part II Full Text of Announcement

Section I. Application Description

Background

Zoonotic diseases are infections that spread from animals to humans. More than 60% of pathogenic infectious organisms in humans are zoonotic, and 75% of emerging pathogens are zoonotic. Young people with close animal contact are at increased risk for infection and are more likely to have complications from these diseases, especially influenza, *Salmonella*, and *E. coli*.

Novel influenza A viruses can emerge when a single host (e.g., swine) is infected with different influenza viruses. There may be little or no immunity against novel influenza A viruses in the human population. A virus of this type could cause an influenza pandemic, as it did during the 2009 H1N1 pandemic. Influenza viruses that normally circulate in pigs are called “variant” viruses when they are found in people. Influenza A H3N2 variant viruses (also known as “H3N2v” viruses) with the matrix (M) gene from the 2009 H1N1 pandemic virus were first detected in people in July 2011. The viruses were first identified in U.S. pigs in 2010. In 2011, 12 cases of H3N2v infection were detected in the United States. In 2012, 309 cases of H3N2v infection across 12 states were detected. In 2013, 19 cases of H3N2v across five states were detected. These outbreaks occurred primarily in children with close contact with swine at agricultural fairs, many of whom were exhibitors participating in 4-H. This demonstrates the need to fill gaps in members’ knowledge of disease and disease processes, particularly in the context of diseases that are transmitted between animals and people.

In addition to promoting zoonotic disease education for youth, family, and the community, key stakeholders at the state and national levels have identified the need for better collaboration between public health, animal health, and members of the agriculture community that have frequent contact with animals.

CSTE seeks to promote communication and increase collaboration between national, state, and local partners through this project and for future endeavors. One key partner in this collaboration is the National Association of State Public Health Veterinarians (NASPHV), which is a professional organization of state public health veterinarians that addresses zoonotic issues of public health concern. CSTE and NASPHV partner to provide resources for national and local regulatory bodies and provide guidance on surveillance and public health practice with a One Health approach. Last year CSTE provided support to six health departments to pilot partnership work around zoonotic disease between human, animal health and youth agriculture organizations at the state and county level. This funding opportunity aims to build upon successes thus far to continue existing partnership work and expand the project’s reach.

Other key partners for the project include the U.S. Department of Agriculture’s Animal Plant Health Inspection Service (APHIS) and the 4-H National Office in the National Institute for Food and Agriculture (NIFA) which have collaborated with CDC since 2011 on the zoonotic infection prevention project for youth, following identification of a novel influenza virus (H3N2v). The project focused primarily on education regarding influenza prevention for youth with swine exposure at agricultural fairs.

These partnerships leverage the experience and ability of public and animal health zoonotic disease experts in several organizations to create an integrated, One Health team which uses an interdisciplinary approach to prevent and respond to zoonoses. The motivating principles of this collaboration include reducing morbidity and mortality due to zoonotic diseases and developing relationships among stakeholders that would facilitate more effective and efficient responses to important public and animal health issues.

Objectives

The partnership's motivating principles include facilitating prevention, detection, and monitoring of zoonotic diseases, especially emerging diseases with epidemic potential.

1. Improve participant awareness and knowledge of zoonotic diseases, including zoonotic disease transmission and prevention
2. Motivate participants to adopt behavior that can help prevent zoonotic disease transmission
3. Increase participant awareness and knowledge of careers in public and animal health
4. Facilitate a better understanding among participants of the role public and animal health play in disease prevention
5. Develop relationships among stakeholders that could be used to facilitate more effective and efficient responses to important public and animal health issues (e.g., the response to infectious disease outbreaks or epidemics)

Methods

The applicant should plan to use funding primarily to implement delivery of content developed in conjunction with CSTE, Public Health, and Animal Health subject matter experts. Implementation can be of newly-developed content or of materials that have already been developed and piloted by CDC and USDA (for examples of materials that have already been developed, please see Appendix A and contact CSTE). Examples of implementation include:

- Printing and distributing educational content (such as the Friends Magazine described in Appendix A)
- Conducting classroom sessions
- Distributing messages developed in conjunction with CSTE, CDC, and USDA

For additional information describing materials that have been developed or information on materials that are currently under development by CDC and USDA, please contact CSTE.

Project Period

The funding period will end no later than December 30, 2016.

Application Format

The methods section of applications proposed must address each of the following:

1. Include (or allow for) an evaluation component
2. Include influenza subject matter as a substantial component (other pathogens may be included as well.)
3. Include participation from (i) state public health, (ii) state animal health, and (iii) a youth agriculture organization
4. Identify by name, position, and affiliation, the individuals who will represent (i) state public health, (ii) state animal health, and (iii) the agricultural organization(s)
5. Include plan for sustainability of project – or some portion thereof – after funding period concludes.
5. Estimate the number of participants that proposed activities will engage
6. Include a line-item description of how any funding would be allocated

Section II. Award Information

1. Mechanism(s) of Support

CSTE will manage all matters related to financial support for this project. CSTE will reimburse recipients only for costs expended for the project in a Firm-Fixed type contract with awardees. In all cases, funds will only be reimbursed upon receipt of invoice from the applicant as well as sufficient progress as determined by CSTE made toward the activities of the project as outlined in this FOA and contract agreement with CSTE.

2. Funds Available

CSTE intends to commit up to \$75,000 to each pilot project (The number of pilot projects funded and the amount provided to each project will depend on the quality and scope of project proposals). Although the financial plans provide support for this program, awards pursuant to this funding opportunity are contingent upon the availability of funds and the number of applications received. Funds will be used to implement delivery of material designed to facilitate prevention, detection, and monitoring of zoonotic diseases.

CSTE receives funding for this project through the Centers for Disease Control and Prevention (CDC) cooperative agreement number 1U38 OT000143. Funds awarded under this announcement are subject to the laws, regulations and policies governing the U.S. Public Health Service grant awards. All estimated funding amounts are subject to availability of funds.

Section III. Eligibility Information

1. Eligible Applicants

State and local public health agencies having partnerships with state and national non-profit youth organizations.

2. Cost Sharing or Matching

Cost sharing, matching, or cost participation is not required but applications which include a matching component may have preference for funding during evaluation for this project.

Section IV. Application and Submission Information

1. Content and Form of Application Submission

Applications should include the following headings in the order listed and should address the issues included under each heading. Components of the application that exceed the page limit may not be reviewed.

- Contact information: Primary State Health Department coordinator, Primary Agricultural Organization coordinator, plus any additional contributors (such as State Animal Health participants or University-affiliated participants). Information should include email, mailing address (no PO boxes) and phone number. All correspondence will be sent to the primary coordinators listed. **1 page limit**
- Description of public/animal health problem in applicant state. **1 page limit**
- Resources: Personnel and infrastructure available to support project and ensure sustainability (e.g., administrative personnel, source of matching funds if available, existing platforms that can be leveraged to meet project objectives, description of prior collaboration with relevant partners at USDA or CDC on influenza or public and animal health education projects). **4 page limit**
- Methods: The methods according to those described in the objectives outlined in Section I. To include a description of proposed project deliverables and content delivery, desired impact (including description of how project help solve public/animal health problem identified above), project plan, project timetable, and plans for evaluation if applicable. **4 page limit**
- IRB: Human subject review process for the applicant if necessary. **½ page limit.**
- Budget: Proposed project budget.

For further assistance, technical questions, or inquiries about the application, contact Monica Schroeder at CSTE (770-458-3811 or mschroeder@cste.org). CSTE and CDC will be available to speak to potential applicants to discuss administrative and technical questions.

2. Submission Dates and Times

A completed letter of intent should be sent by mail, email, or fax to the Council of State and Territorial Epidemiologists by December 18, 2015 (required)

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mschroeder@cste.org

Submission, Review and Anticipated Start Dates

Letter of Intent Receipt Date: December 18, 2015 (required)

Application Submission Receipt Date: February 1, 2016

Award notification date: By February 15, 2016

Anticipated Award Date: After February 15, 2016

Submitting an Application

Completed applications should be sent to the Council of State and Territorial Epidemiologists at the above address. Alternatively, an electronic copy of the application must be submitted electronically to mschroeder@cste.org by February 1, 2016. Applications must be received by CSTE no later than February 1, 2016. Applications received after this deadline may not be reviewed.

The receipt deadline for all application components is February 1, 2016

Submitted appendices should be kept at a minimum and may not be reviewed as part of the application process. Inquiries about successful receipt of application by CSTE will be sent only upon request by email to mschroeder@cste.org.

Application Processing

Applications will be reviewed based on criteria described in Section V.

Section V. Application Review Information

1. Criteria and Prioritization

Maximum Points

To what extent will the proposal meet the primary objectives of the project? 20

How much will the proposal improve participant awareness and knowledge of zoonotic diseases, including disease transmission and prevention? Will the proposal motivate participants to adopt behavior that can help prevent zoonotic disease transmission? How much will the proposal develop relationships among stakeholders that could be used to facilitate more effective and efficient responses to important public and animal health issues? Will the proposal increase participant awareness and knowledge of careers in public and animal health? Is influenza subject matter a substantial disease component of the proposal?

How well does the submission describe the implementation and potential impact of the proposal? 20

Does the proposal include a thorough description of project deliverables? What is the potential impact of the proposal (e.g., estimated number of participants that proposed activities will engage)? Does the project include (or allow for) an evaluation component? Is there a clear and appropriate timeline for implementation? Are the staff roles clearly defined? As described, will the staff be sufficient to accomplish the program goals? Does the proposal include a project budget with line-item description of how funding would be allocated? Is the budget reasonable and consistent with the purpose of the announcement, the proposed objectives, and project timeline? To what extent are the project plan and personnel adequate to carry out the proposed objectives?

Does the applicant have a record of demonstrated success in a collaboration between human and animal health authorities with a youth agriculture organization? 20

Does the proposal demonstrate previous work between state and/or local public health authorities and a youth agriculture group? Does that previous collaboration provide a platform to use this award to expand the reach and impact of that existing collaboration?

To what extent does the proposal represent collaboration among public health, animal health, and a youth agricultural organization? 15

Are partners at the state public health, state animal health, and youth agriculture organization levels involved in the project? To what extent does the project include participation from state public health, state animal health, and a youth agriculture organization? To what extent will senior-level organization leadership be involved?

To what extent does the applicant demonstrate a clear and comprehensive understanding of the underlying public health issue that this opportunity targets? 10

Does the submission include a well-defined description of the public/animal health problem(s) that currently exist or are anticipated to exist in the state? Does the applicant have prior experience with partnerships between animal and human health? Do the staff members have sufficient experience with public and animal health to develop a successful project?

To what extent does the proposal leverage existing resources that are currently being used to address public and animal health concerns in the state? **15**

Does the proposal utilize existing platforms for public and/or animal health within the state? Are there any opportunities for cost sharing, matching, or cost participation? If the proposal describes development of a new project, how sustainable is it, once the funding provided by this announcement is exhausted (i.e., using only state or local resources)?

Grand Total **100**

2. Review and Selection Process

Eligible applications that are complete will be evaluated by CSTE and CDC/USDA Collaborative Partnership Steering Committee in accordance with the review criteria stated within this announcement. Funding awards will be made based upon the quality of the submitted proposal and the ability of the applicant to meet the objectives stated above.

Section VI. Award Administration Information

1. Award Notices

Applicants will be notified via email or phone by February 15, 2016. Any delays in award notification will be shared with all applicants.

2. Recipient Rights and Responsibilities

Each recipient will have primary responsibility for the following:

- Providing management oversight for the overall project including collaborations with national, state, and local partners.
- Obtaining the appropriate human subjects clearances at local sites if required.
- Providing written progress reports that describe performance milestones and invoices to CSTE as required in the contract agreement.
- Initiate a formal agreement with state animal health, youth agricultural organization, and other partners and to ensure participation

3. CSTE Responsibilities

During the established grant period, CSTE is responsible for:

- Monitoring the terms of the contract agreement between the recipient and CSTE.
- Collecting invoices from the recipient and paying invoices according to the terms of the contract agreement between the recipient and CSTE.
- Providing information about the progress of the program to the CSTE Executive Board and to CDC.
- Reviewing and distributing progress reports and the final report with CDC.
- Providing technical expertise.

- Convene an independent review panel of experts to provide an objective review of the submitted applications.
- Provide CSTE staff to support the day to day activities of the Zoonotic Infection Prevention Project for Youth.

4. CDC/USDA Collaborative Partnership

CDC/USDA Collaborative Partnership will have programmatic involvement as described below:

- CDC/USDA will provide technical assistance in developing project plans and materials
- CDC/USDA will assist with review of proposed project plans and materials
- CDC/USDA will assist with expansion of projects to other jurisdictions

5. Collaborative Responsibilities

CSTE and CDC/USDA Collaborative Partnership in conjunction with the recipient contacts for all awarded projects will continue participation in a Project Coordination Committee (PCC). Each recipient contact will be a member of the PCC and will participate in its activities. The PCC will function to:

- Establish goals, promote collaboration, share best practices, and coordinate project activities among members of the PCC.
- Provide guidance to project coordinators regarding project implementation and sustainability.
- Evaluate monthly progress of all funded project activities

Appendix A: Examples of previous projects and potential project ideas

Example 1: Georgia Friends Magazine

CDC staff and the state of Georgia 4-H leadership developed an educational pamphlet designed to increase awareness of zoonotic diseases and public health issues among GA 4-H members. GA 4-H leadership recommended using an existing vehicle, the GA "Friends Magazine" as the format, which allowed for rapid production of a product that was familiar to the Georgia 4-H staff and county extension agents who would be the primary trainers while providing CDC and APHIS the opportunity to shape the content.

Following receipt of funding provided by APHIS, an 8-page Zoonotic Diseases "Friends Magazine" was developed as an interactive learning tool utilizing colorful pictures, good-health practices recommendations, real-world situational examples, and check-your-knowledge exercises. CDC and USDA staff created the subject matter content and worked with GA 4-H to design the pamphlet. An accompanying Lesson Plan and an Evaluation Component were also created. Key milestones accomplished:

- 1) 75,000 copies of the Friends Magazine have been printed for use by elementary-school aged 4-H members
- 2) 4-H Extension Professionals were trained by CDC to deliver content contained in the magazine, and webinars will provide ongoing support as the magazine is implemented into 4-H curricula
- 3) The magazine content was designed to be easily adaptable to other state 4-H programs; using Georgia as a model, content training can also be shared with other states via the 4-H National Curriculum Work Group

This project was co-developed by public health and a youth agricultural organization (4-H) and included contributions from animal health; all contributing parties reviewed and agreed upon the project content prior to distribution. A similar project, implemented using funding from this Project Development Grant, should include leadership contributions from public health, animal health, and a youth agricultural organization. For more information, including an electronic copy of the full Georgia Friends Magazine on zoonotic diseases, please contact CSTE.

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Georgia 4-H and the Centers for Disease Control

have formed a partnership to help you learn more about zoonoses and how to protect yourself against disease. Whether you have pets at home, show livestock, or visit a petting zoo, protecting yourself against the transfer of disease can often be accomplished through practicing healthy habits. Join me, Arch the Dawg, as we become Disease Detectives to explore the microorganisms behind these diseases and ways to protect yourself and others from the spread of germs!

Georgia 4-H is a partner in public education activities to increase Common Core Georgia Performance Standards and Georgia Performance Standards in the educational materials produced for school use. The following standards are considered to the current delivery indicated in this publication:

Georgia Standard SSCE1: Students will be aware of the importance of caring, honesty, openness, and respect in science and will exhibit these traits in their own efforts to understand how the world works.

Georgia Standard SSCE2: Students will understand the importance of observing what things are like or what is happening sometimes, collecting evidence for analysis, and doing experiments.

Georgia Standard SSCE3: Students will understand the importance of the process of scientific inquiry. Students will apply the following inquiry learning practices:

- a. Scientific investigations may take many different forms, including observing what things are like or what is happening sometimes, collecting evidence for analysis, and doing experiments.
- b. Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, as well as their ideas to others by other scientists, and stay informed about scientific discoveries around the world.
- c. Science involves many different kinds of work and engages men and women of all ages and backgrounds.

Georgia Standard HES.1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Georgia Standard SSCE4: Students will realize how microorganisms benefit or harm larger organisms.

Georgia Standard SSCE5: Students will explain why they are harmful.

Georgia Performance Standards from www.assessment.state.ga.us

Think Green! Not just 4-H Green...but let's help do our part to people and place. Save the book, reuse it or pass it along to a friend. If it's not worn, please recycle it.

WHAT ARE ZOONOSSES?

Zoonoses is a term scientists use to describe diseases that pass between people and animals. Zoonoses are caused by microorganisms (or germs) like viruses and bacteria.

Did you know that our own animals can spread zoonoses? Animals don't have to be sick to spread diseases to people. In fact, many times animals appear healthy and clean, and the germs don't make them sick at all. But, if people catch zoonoses, they can be very sick. Animals that spread zoonoses may have germs all over their bodies (on their fur, feathers, and scales for example) and in the areas where they live and roam (for example a cage or bedding).

Young children, older persons, and people whose bodies are less able to fight off diseases are more likely than others to develop severe illness from zoonoses. Because of this, epidemiologists would say these people are at "high risk" for zoonotic diseases. Arch the Dawg has listed some common zoonotic diseases below. These can often be spread between animals and people at fairs and petting zoos.

- Influenza** (also known as "flu"): Influenza is a virus that can cause fever, cough, sore throat, runny nose, body aches, headaches, fatigue, and sometimes even vomiting and diarrhea in people. There are human flu viruses and flu viruses that usually spread only in animals, such as pigs and birds, but these viruses also can spread back and forth between humans and animals. Flu viruses are normally spread by sick people or animals while coughing, sneezing, or talking. To protect themselves from getting human flu viruses, most people should get a flu vaccine every year. But it's important to know that this vaccine usually won't protect against animal flu viruses. In addition to the "high-risk" groups mentioned above, people with medical conditions like asthma or heart disease also are more likely to get very sick from the flu and may even need to go to the hospital.
- Salmonella**: Salmonella is a kind of bacteria that can cause diarrhea, fever, and stomach pain in people. Some animals infected with Salmonella get sick, but most look healthy and clean. Salmonella is spread to people through contaminated food (eggs, meats, fruits or vegetables and raw milk) or contact with certain infected animals including chickens and other live poultry, turkeys and other reptiles, amphibians (such as frogs), cows, pigs and many other types of pets and livestock. You don't have to touch an animal to get sick; contact with an animal's fur, skin, feathers or scales or anything in the areas where they live and roam (for example bedding or water in a turtle tank) can lead to illness.
- E. coli** (short for *Escherichia coli* O157:H7): *E. coli* are bacteria that can cause severe stomach cramps, diarrhea (often bloody), and vomiting in people. *E. coli* O157:H7 can also lead to kidney failure in some people. *E. coli* O157:H7 infections are spread to people through contaminated food or through contact with certain animals including goats, sheep, and cattle. Most animals carrying *E. coli* O157:H7 look normal but can shed germs in their manure that can make people sick. You don't have to touch an animal to get sick. Contact with anything in the areas where animals live and roam (for example a fence or bedding) can lead to illness.

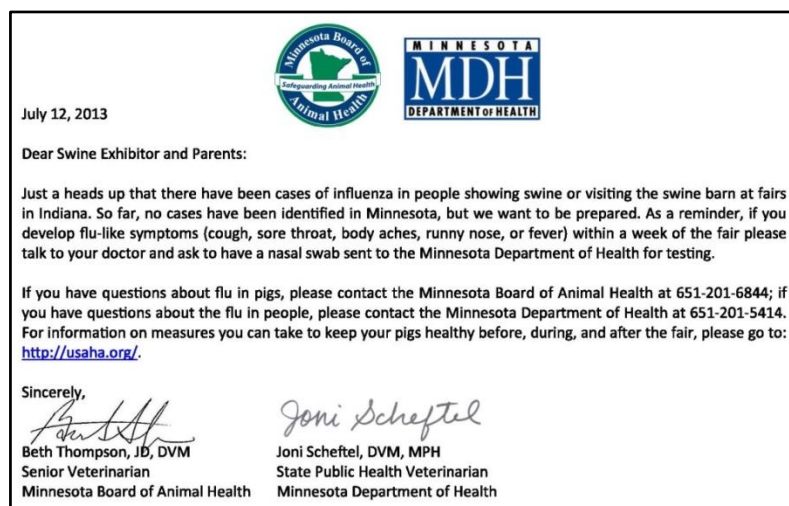
Example 2: Postcard Notification to State Fair Exhibitors

Public and animal health practitioners in Minnesota met early in 2013 to design and implement a plan to prevent variant influenza virus infections during the upcoming agricultural fair season. Meeting participants agreed on a uniform prevention message and commissioned a state fair artist to design a poster (see below) using this language which was distributed for use in agricultural fairs across the state, including the MN state fair.



Meeting participants also developed postcards (below) with variant influenza prevention messaging and mailed these to all 4-H members intending to exhibit swine during the year. MN public and animal health agencies reinforced the messages in the posters and postcards by holding “Healthy Fair” workshops across the state; these workshops contained information on how fair attendees could prevent variant influenza virus infection and infection with other zoonotic pathogens. Finally, the state Health Department stationed nurses at the MN state fair to evaluate attendees with influenza-like illness for variant influenza virus infection.

A similar project, implemented using funding from this Project Development Grant, should include leadership contributions from public health, animal health, and a youth agricultural organization. For more information on this project, and for additional examples of materials already developed, please contact CSTE.



Appendix B: Logic Model

