SUPPORTING STATEMENT

Part A

Understanding multi-sectoral collaboration for strengthening public health capacities in Ethiopia

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Project Officers:
Shivani Dama
Global Emergency Management Capacity Development Branch (GEMCDB)
Division of Emergency Operations (DEO)
Center of Preparedness and Response (CPR)
US Department of Health and Human Services
Phone: 404-861-4477
E-mail: kji7@cdc.gov

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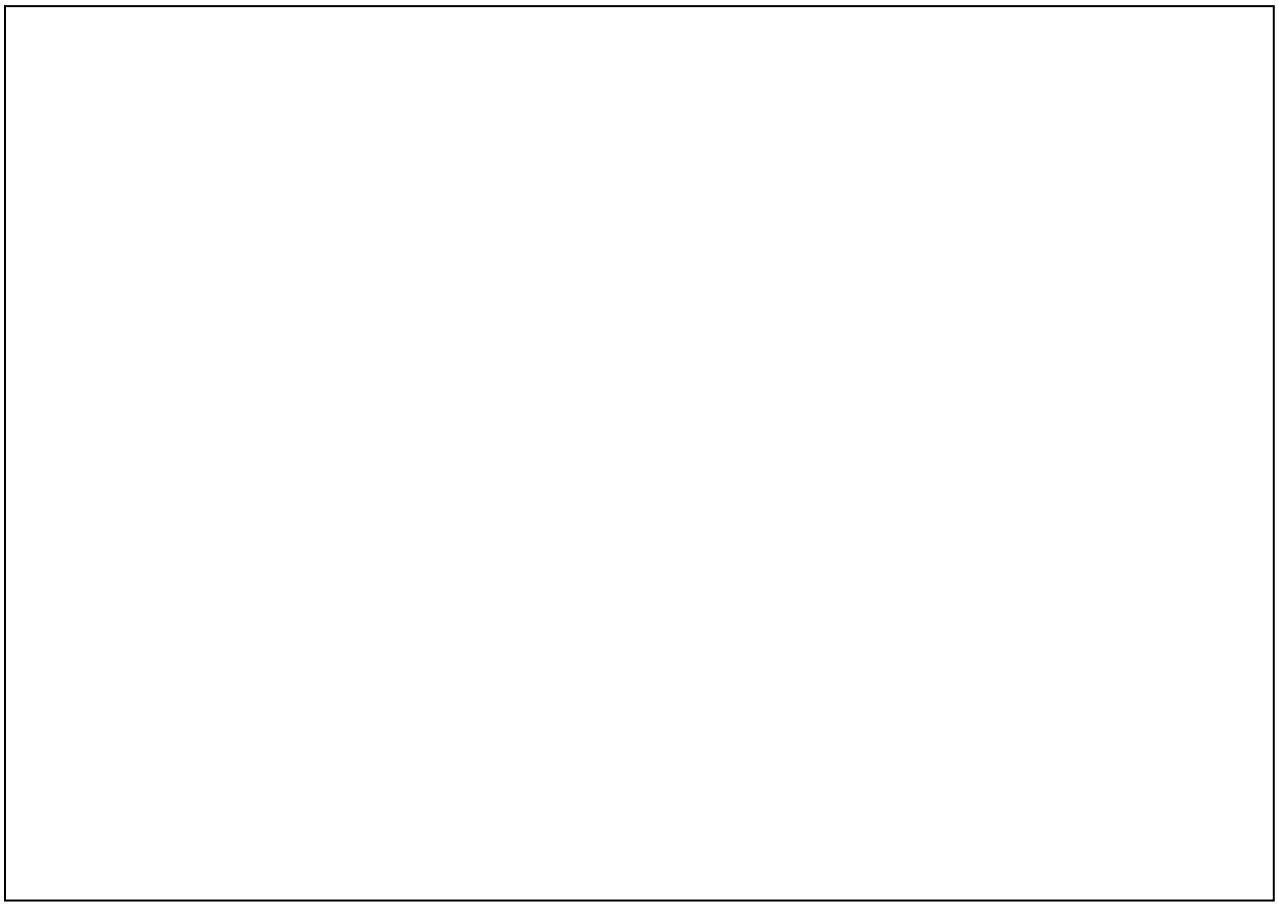

A. Justification

- The goal of this study is to explore multi-sectoral collaboration in Ethiopia, in the context of strengthening public health capacities under the Global Health Security Agenda (GHSA). As GHSA implementation has progressed, it is unknown how collaboration across sectors is occurring in Ethiopia, and how it may be similar or different across the technical areas of GHSA.
- The information collected in this study will be used by CDC technical experts to improve their collaboration efforts, and can also be utilized by partner nations and stakeholders to explore ways to enhance their own partnerships for improving public health systems and overall global health security.
- A multiple case study design will be used for this study, and will be supported by several methods: document analysis, in-depth interviews, an adapted questionnaire, and workshops. Document analysis will be used to identify stakeholders, and a stakeholder mapping exercise will be utilized to gain a preliminary understanding of stakeholders' roles and responsibilities. An adapted questionnaire will be used to understand collaboration strength as perceived by stakeholders, workshops will be conducted for each technical area serving as a "case" to improve common understanding among stakeholders on one another's perceptions of collaboration strength.
- Information will be collected from technical experts and identified points of contact from key stakeholders in Ethiopia, including Government of Ethiopia, non-governmental organization, and US government technical experts.
- Information collected will be analyzed using appropriate qualitative research methods, such as inductive and deductive coding, and quantitative methods, such as descriptive statistical analysis.

1. Circumstances Making the Collection of Information Necessary

The US Centers for Disease Control and Prevention (CDC) requests a two year approval from the Office of Management and Budget (OMB) for a new information collection request under the Paperwork Reduction Act of 1995 for understanding how collaboration across sectors occurs for public health capacity building efforts in Ethiopia, and how it is similar and different for two technical areas of the Global Health Security Agenda (GHSA): 1) zoonotic diseases (ZD) and 2) public health emergency preparedness (PHEP). The World Health Organization (WHO) defines multi-sectoral collaboration as the relationships between different sectors of society that form to achieve health outcomes more effectively, efficiently or sustainably than would have been the case if the health sector was acting alone.

In the past decade, earthquakes in Haiti and Nepal, as well as infectious disease outbreaks in West Africa and the Americas have highlighted the importance of strengthening capacities and systems in all countries to adequately address public health events. CDC has been working with partner nations to strengthen public health emergency preparedness (PHEP) related capacities, which focus acutely on the resources and infrastructure required for communities and countries

to effectively respond to incidents, and zoonotic disease (ZD) related capacities, which center on minimizing the spread of diseases from animals to humans in domestic, agricultural and wildlife settings. PHEP and ZD are regarded as cross-cutting technical areas of public health, spanning numerous fields of practice and knowledge necessary to successfully mitigate the impacts of public health events. As a result, multi-sectoral collaboration – a cornerstone of many public health initiatives and programs – is a prominent feature of efforts and plans to strengthen PHEP and ZD capacities.

While the importance of multi-sectoral collaboration for health strategies is widely recognized by global health experts and leaders, the evidence base on demonstrated benefits and advantages in public health capacity building is limited. Some research has been carried out to understand aspects of public health capacity strengthening efforts and their impact on global health security (Kruk, 2008); however, it often focuses on high-income countries, such as the US (Hamblion, 2014). More research is needed, particularly in low- and middle-income country settings, to understand how collaboration occurs across sectors to implement efforts to strengthen PHEP and ZD capacities and systems, and to gain a deeper understanding of the perspectives of partners involved in the collaboration.

This data collection is authorized by Section 301 of the Public Health Service Act (42 U.S.C. 241) **Attachment A – Authorizing Legislation**.

2. Purpose and Use of the Information Collection

The purpose of the proposed research is to explore how multi-sectoral collaboration occurs for PHEP and ZD related activities implemented under the Global Health Security Agenda (GHSA). The study seeks to understand the landscape of stakeholders engaged in PHEP and ZD related capacity development, and their perspectives on one another's roles and contributions to efforts. This research will also examine stakeholder perceptions on barriers and facilitators to collaboration under GHSA, overall and in each technical area.

Finally, this study will utilize a questionnaire adapted from Thomson (2009) that measures collaboration across five key domains to foster dialogue between partners on the strength of multi-sectoral collaboration in Ethiopia for GHSA related ZD and PHEP activities.

Research findings will be compared across the two technical areas to understand similarities and differences in stakeholder environments and partner perspectives on collaboration under GHSA; they can also be used to identify opportunities to amplify successes and overcome challenges for stakeholders to collaborate across sectors – in Ethiopia and other countries – to achieve ZD and PHEP goals under GHSA. This research can enrich understanding among stakeholders of one another's perspectives on collaborative efforts, and encourage further dialogue on how to best facilitate multi-sectoral collaboration for broad global agendas such as GHSA, and improved health outcomes overall.

A multiple case study design will be used for this research, and will be supported by several methods: document analysis, in-depth interviews (IDIs) (**Attachment C**), an adapted questionnaire (**Attachment D**), and stakeholder workshops.. The study will utilize document analysis to identify stakeholders, and a stakeholder mapping exercise to gain a preliminary understanding of stakeholders' roles and responsibilities. 80 IDIs (**Attachment C**) will be carried out to explore perspectives on roles and responsibilities, barriers and facilitators of collaboration, and overall satisfaction with the collaboration. Finally, the study will administer an adapted questionnaire (**Attachment D**), to understand collaboration strength as perceived by

stakeholders, and conduct workshops for each technical area serving as a "case" to improve common understanding among stakeholders on perceptions of collaboration strength held across the collaboration.

Information collected from document reviews and IDIs (**Attachment C**) will be utilized to identify stakeholders and understand their perspectives on one another's roles and responsibilities. IDI data will also be used to explore factors promoting and inhibiting collaboration, as well as overall stakeholder satisfaction with the collaboration. A questionnaire tool (**Attachment D**) will be used to gather data from the identified stakeholders on perceived collaboration strength, and will be followed up by a stakeholder workshop to further delve into these viewpoints. Triangulating data collected from the different research methods can reduce any bias associated with one method and can corroborate findings across data sources; this will hopefully lead to strengthened conclusions about collaboration across sectors for building public health capacities.

Document review is a method commonly employed in qualitative research, and is often a vital source of information to develop the detailed descriptions of context and environment that are valuable facets of case studies. CDC will review official GHSA and Ethiopian government documentation from the past ten years (since 2008) to gain a preliminary understanding of formal partnerships between the country's public and private entities, international organizations providing external assistance, and bilateral engagements with other country governments for implementing GHSA activities for ZD and PHEP in Ethiopia. This includes GHSA country roadmaps and work plans, as well as national strategies and plans that either affect GHSA implementation or were put into place because of GHSA. It is assumed that GHSA will build upon existing networks, strategies and policies the country has established. A document review from 2008 to present can capture multi-year initiatives the FMOH may be updating periodically, and any notable shifts prompted by political administration changes, since elections occur every five years. Earlier documentation will be reviewed for historical context, but not for specific indications of GHSA-related stakeholder engagement. If CDC determine that more information is still needed to identify key partners in current GHSA efforts, CDC will expand the review to include documents prior to 2008. If accessible, documents indicating budgets and responsibilities of these partners will also be reviewed, to better understand anticipated roles and investments of partners in capacity building activities under GHSA.

There are various ways to define the term "stakeholder"; for the purposes of this research, a narrower definition presented by Brugha (2000) will be used to focus only on those entities that can influence the policy or program issue of interest. Stakeholders may engage in GHSA implementation in different ways, and the extent of their engagement may vary. Primary stakeholders are essential to the collaboration's survival and success, while secondary stakeholders are not essential, but are still regular participants in dialogue and implementation efforts. For this study, it is important to understand how both primary and secondary stakeholders influence the overall direction and/or execution of activities to support implementation. CDC will use the following inclusion criteria to categorize partners as primary and secondary stakeholders:

Table 4. Inclusion criteria for primary and secondary stakeholders

	Primary stakeholder	Secondary stakeholder
Inclusion criteria	- Decision-making role or authority in implementation - Directly engaged in developing or operationalizing implementation strategy - Contributor of majority of financial or personnel resources for implementation - Source of technical expertise informing implementation approach/priorities	- Technical expertise to implement activities, but no decision-making role or governing authority - Bolster implementation efforts, but are not indispensable or vital to its success

Primary and secondary stakeholders for this study can include non-profit organizations, multi-lateral organizations, and government entities; they can be units or groups within an institution, and may even be different entities within the same institution that may be charged with distinct responsibilities under GHSA, or represent independent interests. The following Ethiopian government entities are confirmed leads for implementing ZD and PHEP related activities:

- the Federal Ministry of Livestock and Fisheries Resources Development (FMOLFRD), which includes the National Animal Health Diagnostic and Investigation Center (NAHDIC) and the National Veterinary Institute (NVI);
- the Federal Ministry of Health (FMOH), which includes the Ethiopian Food, Medicine and Health Care Administration and Control Authority (EFMHACA), the Ethiopian Public Health Institute (EPHI), and regional health authorities.

These ministries will have identified stakeholders for the relevant capacity strengthening efforts, and it is likely that multiple departments or units within the Ministries are supporting GHSA implementation for ZD and PHEP in different ways. There will also likely be a number of external partners engaged in activities. Some of these partners will be captured in official documentation for GHSA implementation, with agreements outlining monetary resources and positions in an organizational structure, while others may be brought in through more informal methods.

For the adapted questionnaire, the collaboration domains that form the basis of the tool were developed after an extensive review of multidisciplinary literature on organizational behavior and definitions of collaborative processes (Thomson, 2009). The tool was initially comprised of 56 items, and researchers underwent a process to test the construct validity of these items and determine the extent to which the five domains represent the construct of collaboration. The tool was administered as a mailed questionnaire to 1,382 directors of organizations participating in the AmeriCorps program in the US; 440 usable surveys were returned. The organizations ranged in size and scope across national, state and local levels, and represented a diverse array of missions and goals contributing to the service-oriented AmeriCorps network. Structural equation modeling was then used to better understand the relationships between the tool items, the domains they represented, and the overall collaboration construct. An analysis of overall and component fit reduced the tool from 56 items to 17 items, depicted in Table 8. The process to empirically validate the tool was an important endeavor that produced a more robust tool; however, the tool has only been administered to US organizations.

The proposed research does not seek to fully validate the tool; the process for empirical validation requires a large sample size of stakeholders that is beyond the scope of this study, and will require expanding technical areas of interest (in addition to PHEP and ZD). Instead, this

study will carry out an initial assessment of face validity and feasibility, and adapt the tool for use in the GHSA implementation context in Ethiopia. Adaptation is necessary to maintain conceptual equivalence between the original and adapted tool; this will help ensure each item retains the same meaning for the respondents. Validity is an important concept for any instrument adaptation process, and especially if the data collected and analyzed will inform research conclusions or decision-making processes. Validity is the extent to which a test measures what it intends to measure; different types of validity measure aspects of this in different ways. Face validity, for instance, determines whether a measure seems to be assessing an intended construct from the perspective of stakeholders of interest. While a subjective consideration of validity, it is important for an instrument or measure to have strong face validity if buy-in or approval is needed from leaders or research participants to gather data. Criterion validity examines how a measure compares to a gold standard; if that is not available, construct validity utilizes a panel of experts in the subject area to evaluate the measure.

The interviews undertaken for this study begin the tool adaptation and validation process, and questions included in the interview guide seek to validate the domains presented by Thomson. It will be important to understand how robust these domains of collaboration are perceived to be by the stakeholders, and whether they resonate as key elements for implementing GHSA activities. If interview participants identify other domains they see as critical to achieving collaboration goals, CDC will review literature to identify question modules or themes in questions that need to be added to the questionnaire, and modify accordingly. CDC will then adapt the questionnaire to ensure the questions are asked in a manner that is appropriate for the country context. Because the target population for this questionnaire is the pool of key informants identified from ZD and PHEP stakeholders, the country context mainly concerns the GHSA implementation environment in Ethiopia, and not necessarily broader sociocultural contexts that may be factors if the target population was a sampling from a broader segment of the general population of the country.

Shortly after completing all stakeholder interviews, CDC will work with participants to schedule one workshop for each technical area to discuss multi-sectoral collaboration. Workshop participants will have limited availability; therefore, the workshops will be a half-day format with allotted time to discuss summary analysis for the data, factors for collaboration strength, and the GHSA context for fostering strong collaboration among partners from different sectors. If there is a great deal of overlap between the study participants for ZD and PHEP, then there will only be one workshop; the format of the workshop will be adjusted to encourage distinct discussions for each technical area, and may also incorporate facilitated discussion exploring differences and similarities in collaboration across the technical areas. Participants are encouraged to recommend other individuals from their organization to participate in the workshop, or, if they strongly prefer to do so, they can attend themselves.

The adapted version of the questionnaire will be emailed to participants to complete 6 weeks prior to the scheduled workshop date. In addition to completing the 17 items, participants will be prompted to explain why they selected their score if they selected an “extreme” response of 1 (lowest score possible) or 7 (highest score possible); all responses will be anonymized prior to analysis. Tool data will be analyzed using descriptive statistics for a summary of measures of central tendency, frequency of responses, and other pertinent respondent data that will be useful to prompt discussion during the workshop. Because these are ordinal data, the Kruskal-Wallis test will be used to determine significant differences in questionnaire responses among stakeholders; the Friedman test will be used to determine significant differences in measures of

central tendency between groups, with each group of stakeholders representing a different sector engaged in GHSA implementation. Participants will be asked to provide feedback on the adapted version of the tool briefly in an optional section at the end of the questionnaire, as to whether they perceive it as an appropriate assessment of collaboration strength. Participants will have the option of providing at this time, or in conversations with the primary investigator or the workshop facilitator at a later time.

Because the FMOH is leading implementation of GHSA activities, CDC will work with FMOH points of contact to identify an appropriate facilitator for this discussion. Selecting a facilitator who can properly elicit honest opinions and encourage discourse among partners will depend on the information learned about relationships between GHSA stakeholders in Study Aims 1 and 2. If this information reveals that a facilitator from FMOH may not elicit the desired discussion on collaboration, another stakeholder that carries an approachable and relatively "neutral" position in these discussions will be selected. If none of the participating stakeholders seem appropriate for the facilitator role, CDC will approach researchers or students at Addis Ababa University, or a research institute who may be able to provide an appropriate external facilitator for this workshop. Every effort will be made to identify a facilitator who is experienced in the field of public health, has a thorough understanding of Ethiopian culture and has considerable knowledge of some, if not all, the stakeholders in attendance.

If the workshop improves awareness and understanding among stakeholders of one another's views on collaborative activities, this may lead to further discussion and eventual action to improve collaboration across different sectors. If the adapted tool is viewed favorably by respondents and received as an appropriate tool for measuring and understanding collaborations in Ethiopia, it may be suitable to move forward with culturally adapting the tool for future use. Approaches for cross-cultural validation of data collection instruments often outline a process including translation and back-translation of materials. This may or may not be appropriate for the research participants; English is widely spoken in Ethiopia, and is a common foreign language taught in schools.

The information collected from this research effort will be used by CDC technical experts and partners in country governments to understand the gaps between existing frameworks and theories for collaboration, and the realities of advantages and challenges in multi-sectoral collaborative efforts for public health systems strengthening. This can inform and improve approaches for technical assistance provided by CDC for public health systems and capacity development to collaborating countries. Findings may also be utilized to refine assistance approaches domestically to state and local health departments, if they prove transferable to collaboration across sectors in the domestic context.

3. Use of Improved Information Technology and Burden Reduction

IDI (**Attachment C**) data will be collected via paper surveys and in person, to facilitate administering the interviews and protecting the confidentiality of interview participants. While interviews may be digitally recorded with permission from the participant, unique identifiers will be assigned to all participants for transcribed interviews and accompanying notes, and all responses will be de-identified in research files, and no personal information will be retained from participants as part of the IDIs or questionnaire. The questionnaire (**Attachment D**) will be emailed to participants to complete 6 weeks prior to the scheduled workshop date. Hard copy and

electronic files containing participant responses will be stored in a locked file cabinet and on a secure, password protected computer, respectively, accessible only by the researcher.

4. Efforts to Identify Duplication and Use of Similar Information

Literature reviews and consultations with CDC technical experts indicate there are no similar data available for this study. There has been no study on multi-sectoral collaboration in Ethiopia for strengthening public health capacities and systems in PHEP and ZD technical areas. The information collected through this study will help identify key stakeholders, understand their perspectives on barriers and facilitators to collaboration across sectors, and inform recommendations on approaches to strengthen multi-sectoral collaboration to accomplish capacity strengthening objectives.

5. Impact on Small Businesses and Other Small Entities

No small businesses will be impacted by this data collection.

6. Consequences of Collecting the Information Less Frequently

This study requests collection of data from identified stakeholders in Ethiopia during the duration of Global Health Security Agenda (GHSA) implementation. Not collecting this data during that timeframe will impede our ability to understand how multi-sectoral collaboration occurs in Ethiopia for public health systems strengthening efforts, and by extension limits our ability to improve approaches for systems development and collaboration to achieve common goals in this area of CDC programmatic work.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This study does not involve any special circumstances relating to the Guidelines of 5 CFR 1320.5.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A 60-day Federal Register Notice (FRN) was published in the Federal Register on August 23, 2018, Vol. 83 , No. 164 , Pages 42656-42658 . There were no substantive public comments. There was one public comment unrelated to this information collection to which agency did not respond (**Attachment B1**).

9. Explanation of Any Payment of Gift to Respondents

No gifts or incentives will be included or given to any participants involved in this project.

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

The Paperwork Reduction Act Contact for the Center for Preparedness and Response has determined that the Privacy Act does not apply.

IDI (**Attachment C**) data will be collected via paper surveys and in person, to facilitate administering the interviews and protecting the confidentiality of interview participants. No personal information will be collected from participants as part of the interviews or questionnaire, unique identifiers will be assigned to all participants for transcribed interviews and accompanying notes, and all responses will be de-identified in research files. The questionnaire (**Attachment D**) will be emailed to participants to complete 6 weeks prior to the scheduled workshop date. Hard copy and electronic files containing participant responses will be stored in a locked file cabinet and on a secure, password protected computer, respectively, both accessible only by the researcher.

11. Institutional Review Board and Justification for Sensitive Questions

CDC's Human Research Protection Office has deemed this activity to be human research exempt from regulations (**Attachment H**). No sensitive questions will be asked.

12. Estimates of Annualized Burden Hours and Costs

It is estimated that for every stakeholder entity identified, there will be 1-2 interview participants. For each case, (ZD and PHEP), roughly 20 stakeholders (primary and secondary) are expected to be identified. This results in approximately 40 interviews per case, or 80 interviews in total for the proposed study; the study data saturation prior to conducting all interviews, if interview data does not yield new themes or codes for analysis.

Shortly after completing all stakeholder interviews, researchers will work with participants to schedule one workshop for each technical area to discuss multi-sectoral collaboration. Workshop participants will have limited availability; therefore, the workshops will be a half-day format with allotted time to discuss summary analysis for the data, factors for collaboration strength, and the GHSA context for fostering strong collaboration among partners from different sectors. If there is a great deal of overlap between the study participants for ZD and PHEP, then there will only be one workshop; the format of the workshop will be adjusted to encourage distinct discussions for each technical area, and may also incorporate facilitated discussion exploring differences and similarities in collaboration across the technical areas.

Exhibit 1: Estimated Annualized Burden Hours

The estimated annualized burden hours for this collection are 200 hours.

Type of Respondents	Form Name	Number of respondents	Number of Responses per	Average Burden per	Total Burden

			Respondent	Response (in hrs.)	Hours
Key informants from identified stakeholder entities	In-depth Interviews (IDIs)	80	1	1	80
Key informants from identified stakeholder entities	Questionnaire	80	1	1.5	120
Total					200

13. Estimates of Other Total Annual Cost Burden to Respondents and Record Keepers

Annual cost to respondents is $7,802. There are no other cost burdens to respondents and record keepers for this data collection.

Type of Respondents	Form Name	No. of Respondents	No. of Responses per Respondent	Avg. Burden per Response (in hrs.)	Total Burden (in hrs.)	Hourly Wage Rate	Total Respondent Costs
Key informants from identified stakeholder entities	In-depth Interviews	80	1	1	80	$39.01	$3,120.80
Key informants from identified stakeholder entities	Questionnaire	80	1	1.5	120	$39.01	$4,681.20

14. Annualized Cost to the Federal Government

The annual cost to the Federal Government for this data collection is $27,470.97. There are no equipment or overhead costs. The principle investigator will be traveling to Ethiopia to assist with other CDC programmatic activities, and study-related interviews will be conducted while already being in country for these tasks.

Staff (FTE)	**Salary**	**Fringe (38%)**	**Total Compensation**	**% Time**	**Total Annual**
GS-12 Health Scientist	$79,626	$30.257.88	$109,883.88	25	$27,470.97

15. Explanation for Program Changes or Adjustments

This is a new data collection.

16. Plans for Tabulation and Publication and Project Time Schedule

Exhibit 3 illustrate the timeline for activities related to this collection, including recruitment of participants, data collection, data analysis and publication.

Exhibit 3: Project Timeline

Activity	Time Schedule
Document Review	2 months after OMB approval
Recruitment a. In-depth Interviews recruitment and outreach	1 month after OMB approval
Data Collection a. In-depth Interview administration b. Adapted Questionnaire administration c. Workshop	4-6 months after OMB approval 12 months after OMB approval Minimum 6 weeks after adapted questionnaire administration
Data Analysis a. In-depth Interviews b. Adapted Questionnaire and feedback	8-12 months after OMB approval 13-14 months after OMB approval
Publication	24-30 months after OMB approval

17. Reason(s) display of OMB Expiration Date is Inappropriate

The display of the OMB expiration date is not inappropriate.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

List of Attachments
Attachment A – Authorizing Legislation
Attachment B – Published 60-Day Federal Register Notice
Attachment C – In-Depth Interview (IDI) Guide
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