



PRACTICES, RESEARCH & OPERATIONS IN WATER, SANITATION & HYGIENE (PRO-WASH)

Request for Applications

RFA: SC-PROWASH-RFA-2021-01

Subject: Pathogens pathway study for children under two years old in the Nawiri intervention areas of Samburu North and Turkana South

Date RFA Issued:	Monday, January 11, 2021
End of Question Period:	Friday, January 22, 2021
Due Date for Applications:	Friday, February 5, 2021
Award Ceiling:	\$200,000 USD
Issued by:	Save the Children Federation, Inc. / PRO-WASH Activity

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Introduction from the PRO-WASH & Nawiri Team

January 2021

Dear Prospective Applicants,

I am pleased to share with you this call for applications for applied research to support the learning and evidence building efforts of the PRO-WASH Award funded by USAID's Bureau for Humanitarian Assistance (BHA).

In many locations around the globe, there are populations that struggle daily with access to clean drinking water and facilities and services that support proper sanitation and hygiene. Poverty, weak government systems, and acute or chronic crises—conflicts and natural disasters—both create and exacerbate the WASH challenges vulnerable people face. In many circumstances, the development community and the beneficiaries we work alongside know what is needed, but the solution to the WASH problem remains out of reach due to cost or is unlikely to be sustainable because of social-cultural barriers or other challenges within the broader enabling environment. PRO-WASH is calling on the WASH community—non-governmental organizations, research institutions, private-sector firms—to see where we can bring proven practices together with new research, innovative technologies, creative policies, and other approaches to develop affordable, sustainable solutions to meet the WASH needs of the vulnerable populations assisted by USAID/BHA programming.

For many, the household environment remains highly-contaminated, potentially exposing infants, youth, and children through contaminated food, water, soils, floors and dirty objects. Growing evidence is reinforcing that, to ensure healthy growth and development, infants and young children need to be less exposed to feces in their environment. Even in the absence of diarrhea, fecal contamination affects nutrient absorption and young children's resilience to fight infections. However, evidence from several randomized studies indicate that traditional sanitation interventions may not be enough to reduce the multiple pathways causing environmental contamination and potentially impacting longer-term child growth. Increasingly, the WASH community has cited the need for "transformational" interventions, which comprehensively address household sources of environmental contamination through multi-sectoral interventions, which also consider impacts on livelihoods, dietary diversity, and early childhood education.

This request for applications (RFA) is designed to provide innovative, context-specific research on strategies for interrupting fecal-oral transmission and reduce overall environmental contamination for BHA partners in Northwestern Kenya. The resulting strategy from this RFA will be critical in supporting implementing partners to be able to validate which transmission pathways are most important in the specific context of Turkana and Samburu and to begin the process of piloting potentially promising, multi-sectoral WASH interventions. For details on proposal submission guidelines, timing, subject areas, and review criteria, please see the RFA package included in this document and its attachments.

Sincerely,

Rebekah Pinto, Director, PRO-WASH & Darius Radcliffe, Chief of Party, Nawiri Program



A. Authority & Introduction

The purpose of this request for applications (RFA) is to solicit applications for a study of pathogen transmission pathways in children under the age of two in USAID Nawiri implementation areas within the Samburu North and Turkana South sub-counties of Northwestern Kenya. This study will provide actionable recommendations for interventions focused on interrupting fecal-oral transmission pathways which, in turn, can be used by the USAID Nawiri program to refine key nutrition and WASH implementation activities. Save the Children will fund one award under this RFA up to \$200,000 USD for a study period of up to eight months beginning in early 2021.¹

In order to be considered for this applied research sub-award, all applicants shall submit a detailed proposal narrative which outlines the applicants' understanding of the context and key challenges of the region and provides a comprehensive overview of the proposed approach to data collection for this pathogen transmission study. The proposal narrative should also provide a timeline for the completion of data collection, analysis, strategy development, peer review, and socialization of findings in accordance with the sub-grant duration specified below. Supporting documents, listed in Section I, are also required. Questions for this RFA will be received from potential applicants through **Friday, January 22, 2021 via email to prowash@savechildren.org**.

Resourcing for this sub-award is provided through [PRO-WASH](#), a five-year USAID Bureau for Humanitarian Assistance (BHA)-funded activity that aims to strengthen the effectiveness and sustainability of WASH practices across all BHA-funded development and emergency food security activities. PRO-WASH works to improve the impact, sustainability, and scalability of USAID/BHA's programming in WASH through activities focused on knowledge sharing, capacity-strengthening, and capturing best practices in WASH programming. The PRO-WASH Award also provides resourcing for small grants to support implementing partners to identify context-specific WASH solutions that focus on improving service delivery for the ultra-poor and to identify or develop solutions to select technological barriers for moving from unimproved or limited to basic and safely managed service delivery for water and sanitation.

This RFA describes the objectives of the PRO-WASH applied research sub-award, explains the key technical area of focus for this award, lists the qualifications of applying organizations and the criteria for evaluating applications, and provides information on funding, application format, and other relevant information.

¹ Unanticipated delays due to COVID-19 travel restrictions might lead to an extended timeline and start-up date for this award. Applicants should wherever possible in their response to this RFA indicate any contingency plans that will be implemented to anticipate travel restrictions, as well as outline their willingness to work beyond the six-month timeline. Extensions will be subject to final approval from key PRO-WASH, Nawiri, and BHA stakeholders. All teams share a preference for an expedited study schedule.



The authority for these awards is found in the Food for Peace Act of 1954 (as amended) and the Foreign Assistance Act of 1961 (as amended) and is re-delegated to Save the Children Federation under its Cooperative Agreement No. 72DFFP18LA00005 with USAID.

B. Specific Programmatic Guidance

BI. Background

USAID Nawiri is a USAID Bureau of Humanitarian Assistance (BHA) funded Development Food Security Activity designed to reduce persistent acute malnutrition in four counties of northern Kenya including Turkana, Samburu, Marsabit, and Isiolo. In Turkana and Samburu, the program is led by Mercy Corps in close collaboration with several consortium members including: Save the Children, Research Triangle Institute (RTI), the Centre for Humanitarian Change (CHC), the BOMA Project, African Population, the Health Research Center (APHRC), Caritas Lodwar, and Caritas Maralal.

The USAID Nawiri consortium recognizes that causal pathways to persistent acute malnutrition in the target counties are complex and interlinked. In the rapidly changing context of the arid and semi-arid lands, where livelihoods are vulnerable to shocks and stresses, addressing both the household and systemic drivers of persistent acute malnutrition is critical. USAID Nawiri's theory of change (ToC) posits that underlying drivers cannot be sustainably improved without addressing systemic drivers simultaneously. Achieving sustained reductions in persistent acute malnutrition requires transforming systems to build the capacities of individuals, households, and communities to absorb, anticipate, and adapt to risk in ways that promote nutrition and WASH outcomes at scale. In this way, it is insufficient to work at individual and household level without sequencing, layering, and integrating activities that strengthen systems and institutions to address the functionality of the enabling environment.

Inherent within the design of the USAID Nawiri program is a focus on a phased approach that emphasizes learning, partnership, and co-creation with government, civil society, communities, and the private sector to drive sustained reductions in acute malnutrition. Findings of research and learning activities that demonstrate promise will be used to co-create and execute—together with county partners—integrated multi-sector activities that deliver lasting results for nutrition resilience at scale. In this way, research and learning activities are designed and executed in close collaboration with county government, civil society, private sector, and communities in order to ensure a shared understanding of the critical gaps that exist in causality, prevention, and treatment of persistent acute malnutrition in Samburu and Turkana.

At the center of USAID Nawiri's research agenda is an action-oriented longitudinal study of households coupled with in-depth qualitative research to investigate drivers of acute malnutrition. The goal is to provide evidence-based insights for the development of overarching as well as micro-solutions for the sustainable reduction of persistent acute malnutrition (PAM) and inform pilot studies and USAID Nawiri activities in Turkana and Samburu Counties. Its two main objectives are to understand and map how a variety of immediate, underlying, basic, and systemic drivers interact to influence PAM over time among infants and young children living in different livelihood zones and to identify and prioritize opportunities and barriers to achieve sustained reductions in PAM. The longitudinal study is a two-year mixed-methods



cohort study of households with children under two years at enrollment. The study will use a population-based sampling methodology and will collect anthropometric measurements and survey data every four months starting in January 2021. Topics included in the surveys are maternal, infant, and young child nutrition knowledge and practices, water sources, WASH practices, household water insecurity experiences scale (HWISE), health-seeking behaviors, morbidity, food security, livelihoods, among others. Qualitative data will be used to obtain community input on the factors related to acute malnutrition across seasons and how they are related to one another, seasonal time use (by gender), and the “hows” and “whys” of the behaviors measured in the surveys.

This research, in particular, is central to Nawiri’s WASH and nutrition research agenda and is designed to identify and prioritize the specific fecal-oral pathogen transmission pathways in children under two years of age in Turkana and Samburu. This research will also enable project implementers to identify current protective and risky behaviors among children and their caregivers, helping to inform prioritization of activities and the design of future pilot activities.

B2. Project Objectives & Methodology

The objectives of this RFA are to solicit proposals for a comprehensive strategy which would provide context-specific, actionable recommendations for addressing environmental exposure to animal and human fecal pathogens for children under the age of two years in USAID Nawiri implementation areas within Samburu North and Turkana South. The final study locations, as well as the sample size, will be determined in close collaboration with the USAID Nawiri team and county-level officials from a subset of households enrolled in the longitudinal study.

Recommendations included in the final strategy should consider the current prevalence and intensity of fecal contamination and fecal pathogens, including soil-transmitted helminths in implementing areas. Initially, this strategy will act to inform a small-scale pilot, including WASH behavior change activities, to address household environmental conditions in order to interrupt transmission pathways. In the longer-term, Nawiri will consider the ways in which these recommendations could be scaled-up more broadly within the program’s design.

The final deliverable(s), also outlined in Section B9, should consider the following overarching research questions for this sub-award:

- What are the potential ingestion pathways of fecal pathogens (both human and animal) for children under the age of two in Nawiri implementation areas of Samburu North and Turkana South?
- What are potential interventions for interrupting these transmission pathways which also take into account the specific implementation challenges (e.g., topography and climate), subsistence activities, migratory patterns, and unique cultural and social norms of Northwestern Kenya?

The specific objectives of this study will be to:



- Identify the key fecal pathogens and/or parasites (such as soil-transmitted helminths) likely affecting the health and well-being of children at different growth stages, including birth up to 6 months, 6-11 months, and 12-23 months, both in terms of pathogen types, contamination loads, and overall prevalence
- Determine if pathogens and/or parasites found in stool are similar to those found in soil
- To quantify the interaction of children under the age of two with their environment (both indoors and outdoors) within the immediate household compound, agricultural, public, and other spaces they come into contact with either by themselves or while being carried by a caregiver. Specifically, quantify the frequency of individual's hand-to-mouth and object-to-mouth contacts, which have the potential to convey fecal-oral pathogens into the mouth.
- Explore the relative degree to which children may be exposed to fecal contamination through various pathways including ingesting contaminated food, unimproved drinking water, mouthing hands/fomites, and/or directly ingesting soil
- Identify child and caregiving behaviors likely contributing to pathogen ingestion, including mothers' and caregivers' hygiene behaviors
- Identify any environmental or behavioral variations between groups of children in Nawiri beneficiary communities
- Identify potential interventions for interrupting fecal-oral pathogen transmission pathways

Three distinct methodologies are expected to be employed as part data collection and analysis efforts for this study including observational, environmental, and stool sampling. Observational data collection should take into account current caregiver feeding practices, household WASH practices, food hygiene measures, and infant mouthing behaviors of fomites and/or other surfaces, which may contain fecal pathogens. Environmental sampling should test pathogen loads on surfaces, soil, and drinking water, including play areas, food, fomites or other objects which come into contact with the infant's mouth. Finally, analysis of stool samples should be conducted in order to determine if pathogens being ingested by infants are similar to those present in the immediate household environment and/or other areas where children occupy. All three methodologies should include data collection both in the immediate household area as well as other areas that infants may be exposed to such as neighboring dwellings or parents' work spaces.

Environmental samples will be tested for the fecal indicator bacteria using the IDEXX method or other suitable robust methods which must be identified in the response to this proposal. It is anticipated that initial samples will be tested for the presence of *E. coli* which can subsequently be used to detect predominant enteropathogen genes among the sample population using the Taq qPCR approach. Given limitations in both the available resourcing and timeline for this study, the researcher will work closely with the Nawiri team to identify the most prevalent enteropathogens across households and children in the sample areas. This limited sub-set of enteropathogens will serve as key markers in order to determine the prevalence and quantity in the environment as well as identify predominant transmission pathways.

As part of their response to this request, applicants should also take into consideration the reliability, capacity and distance from implementation areas to available labs within the Turkana and Samburu



regions to carry out the necessary testing for this sub-award. An illustrative list of robust laboratories in the region is available in Annex A. These laboratories have been identified as having adequate protocols that are currently aligned with the expectations of quality control for this sub-award. As discussed in other sections of this RFA, applicants should also consider the impact of travel-related restrictions due to COVID-19 and propose potential mitigation strategies for carrying out this work within the given timeline.

Specific deliverables are listed in section B9 below. The final strategy should provide clear, actionable recommendations (and possible monitoring indicators) for new or modified WASH activities focused on interrupting transmission pathway, which the Nawiri project team could consider as part of a small-scale pilot leading into a larger package of multi-sectoral food security interventions. It should also guide prioritization of the following risks and potential solutions:

- Identification of prioritized water, sanitation, and/or hygiene risks and optimal behaviors at household and community level
- Identification of environmental contamination risks related to agriculture and livestock management practices and design of feasible and effective mitigation efforts for physical interruption of fecal pathogen ingestion, particularly among children under two
- Promotion of safe WASH, agriculture, and livestock management practices as part of nutrition counseling and promotion
- Improved water governance to ensure the availability of WASH services to allow household and community compliance with optimal environmental contamination mitigation activities

The final deliverable should draw heavily on existing sources of qualitative and quantitative assessments of enteric infection among young children and infants that have already been conducted in Northwestern Kenya. The literature review for this study (included in B9 below) should also provide an overview of any available research and interventions exploring the connections between enteric infection and acute malnutrition, with a particular emphasis on populations that engage in subsistence activities which are similar to Nawiri beneficiary households. Additional WASH formative research collected by Nawiri focusing on WASH knowledge, attitudes, and practices will be made available to researchers.

A crucial strategic objective of PRO-WASH is to generate reliable and high-quality information that will improve the delivery of WASH interventions for the beneficiaries across all USAID/BHA programming. This includes identifying solutions to delivering WASH services in challenging contexts, such as those found in Northwestern Kenya. The award resulting from this RFA should provide a series of sustainable, affordable and innovative recommendations for interrupting potential fecal-oral transmission pathways, while also providing a concept that can be tailored and used in other water scarce areas in which USAID/BHA implementing partners work.

B3. Focus & Subject Areas



In 2019, 47 million children globally under five and living in low- and middle-income countries (LMICs) were wasted (low weight-for-height), of which 14.3 million were considered severely wasted.² Wasting increases a child's risk of diarrhea, pneumonia, measles, and death. Wasting is also associated with childhood stunting and anemia. Research has established the linkages between diarrhea (a WASH-related illness) and chronic malnutrition, both of which are serious risk factors for acute malnutrition in early childhood. However, the relationship between malnutrition and diarrhea is bidirectional - chronic malnutrition predisposes children to a greater incidence and duration of diarrhea.³ Chronic and acute malnutrition can be triggered or worsened by significant diarrhea due to the reduced absorption of carbohydrates, protein, potassium, zinc, and other nutrients, further contributing to malnutrition.⁴ Significant water losses from diarrhea can lead to dehydration, electrolyte imbalance, shock, decreased mental status, and death.⁵ Episodes of prolonged diarrhea are also associated with increased morbidity and mortality from other diseases, adverse neurodevelopment, and growth stunting.⁶

However, a growing body of evidence also indicates that, while the overall childhood mortality rate attributable to diarrheal disease is decreasing, there is little effect on the total number of episodes pointing towards other potential pathways towards stunting other than diarrhea. Over the past decade, environmental enteric dysfunction (EED), a condition characterized by inflammation of the small intestinal lining that inhibits permeability and nutrient absorption, has been identified as a potential major mediating pathway linking poor WASH conditions and chronic undernutrition. Evidence indicates that assaults on the gut (linked with ingestion by infants, youth, and children of animal and human feces) changes the shape and function of the gut, weakening ability to absorb nutrients and making IYC more susceptible to enteric infection. EED is also thought to explain why current nutrition interventions, implemented in isolation from others focused on preventing child exposure to feces, only have modest effects on stunting.

For the past several decades, potential pathways of fecal pathogen transmission have been understood through the framework of the "F-diagram," which linked ingestion of contaminated fluids, fingers, flies, fields (floors, earth, and dirt), fomites (surfaces), and food with sub-standard IYC growth and development outcomes. However, the traditional "F-diagram" overlooks other risk factors, such as exposure to animal feces, often facing children in developing contexts. Infants and children, living in LMICs, live closely with animals, often sharing sleeping quarters and increasing their chances of contamination through multiple transmission pathways inside of homes. Children's behaviors are also not taken into account when considering risk factors associated with eating dirt (geophagy) or human/animal feces through mouthing

² WHO. Available online at: <https://www.who.int/gho/child-malnutrition/en/>

³ Lima AA et al. Persistent diarrhea in Northeast Brazil: etiologies and interactions with malnutrition. *Acta Paediatrica*, 1992, 81(Suppl. 381):39–44

⁴ Ashworth A. Treatment of severe malnutrition. *Journal of Pediatric Gastroenterology and Nutrition*, 2001, 32(5):516–518.

⁵ Suh JS, Hahn WH, Cho BS. Recent advances of oral rehydration therapy (ORT). *Electrolyte Blood Press*, 2010, 8(2):82–86.

⁶ Moore SR et al. Prolonged episodes of acute diarrhea reduce growth and increase risk of persistent diarrhea in children. *Gastroenterology*, 2010, 139(4):1156–1164. Epub 2 June 2010.



behaviors. Young children are also often given water from unprotected sources, given food that is not properly reheated, or fed using dirty utensils or caregiver's hands.

While there is a growing body of evidence directly linking WASH conditions and practices to stunting or chronic malnutrition in children under two through diarrhea, environmental enteric dysfunction, and helminth infections,^{7 8 9} there is little research exploring the direct relationships between various WASH characteristics and acute malnutrition in children under the age of two.^{10 11} Within the available evidence, two, high-quality studies demonstrated the impacts of water treatment interventions during treatment for severe acute malnutrition (SAM) at the household level. These interventions improved recovery outcomes among children but did not prevent relapse post-discharge, suggesting other fecal-oral pathways are a likely source of recurring infection.^{12 13} Similarly-focused evidence linking caregiver hygiene behaviors to the prevention of childhood acute malnutrition yielded mixed results. Various studies have also explored the protective effects of caregiver handwashing and the use of improved latrines on improvements to weight-for-height with mixed results.^{14 15} However, little of the research base focused on prevention of acute malnutrition has explored the individual or combined effects of the potential risks now known to be important in the prevention of chronic malnutrition, including food hygiene, use of soap, and ingestion of animal feces (either directly or through contaminated soil and fomites).

This is particularly true in the context of Turkana and Samburu Counties of Kenya where, despite years of investment and notable progress against other key development indicators, persistent acute malnutrition remains stubbornly high. Much of the population resides in rural areas, has limited access to improved sanitation and water, and relies heavily on livestock and farming to support their subsistence activities. At present, less than 10 percent of households in the counties served by the Nawiri program have access to improved sanitation, with the majority currently practicing open defecation. Despite a majority of

⁷ Danaei G et al. 2016 *PLoS Med.*, 13(11):1-18; 2. Troeger C et al. 2018 *Lancet Glob. Health*, 6(3):e255-e269; 3. Liu L et al. 2016 *Lancet*, 388(10063):3027–35; 5. Fischer-Walker CL et al. 2012 *BMC Pub. Health*, 6(3):e230-e231

⁸ Kotloff KL et al. 2013; *Lancet*, 382:209–22; 2. Korpe PS et al. 2012 *Trends Molec. Med.*, 18 (6): 328–336; 3. Humphrey JH 2009 *Lancet*, 374:1032–35; 4. Online at <https://tralfaz.blogspot.com/2017/08/i-cant-see-thing.html>.

⁹ USAID, 2018. *Toward a Hygienic Environment for Infants and Young Children: A Review of the Literature*. Washington, DC. USAID Water, Sanitation, and Hygiene Partnerships and Sustainability (WASHPaLS) Project.

¹⁰ USAID (2020). *WASH and Its Links to Nutrition: Water and Development Technical Series*. Technical Brief 3.

¹¹ Stobaugh, H. (2019). *Impacts of WASH on Acute Malnutrition: From Available Scientific Evidence to Informed Action*. R4ACT.

¹² Dodos J, Altare C, Bechir M, et al. Individual and household risk factors of severe acute malnutrition among under-five children in Mao, Chad: a matched case-control study. *Arch Public Health*. 2018; 76:35. Published 2018 Aug 1. doi:10.1186/s13690-018-0281-5

¹³ Doocy S, Tappis H, Villemainot N, et al. Point-of-use water treatment improves recovery rates among children with severe acute malnutrition in Pakistan: results from a site-randomized trial. *Public Health Nutr*. 2018; 21(16):3080-3090. doi:10.1017/S1368980018001647

¹⁴ Ayana, A.B., Hailemariam, T.W. & Melke, A.S. Determinants of acute malnutrition among children aged 6–59 months in Public Hospitals, Oromia region, West Ethiopia: a case–control study. *BMC Nutr* 1, 34 (2015). <https://doi.org/10.1186/s40795-015-0031-9>

¹⁵ Buttenheim, A.M. The sanitation environment in urban slums: implications for child health. *Popul Environ* 30, 26–47 (2008). <https://doi.org/10.1007/s11111-008-0074-9>



caregivers being aware of optimal handwashing (82% in Turkana and 57% in Samburu), a minority actually practice the optimal behaviors (16% in Turkana and 26% in Samburu).¹⁶

Access to improved water sources is also a key challenge facing the health and well-being of households in Turkana and Samburu. A majority of the population (60%) lacks access to improved water sources, and only 11-17% of HH in Turkana and Samburu report treating water before drinking.¹⁷ Statistics on water access underestimate the problem of unreliability. National studies suggest that between 20-30% of improved water supplies are non-functional at any one time and a recent report measures the sustainability of water and sanitation investments as only 44% and 56% for Turkana and Samburu, respectively.

For the majority of households, the main water source is surface water (rivers, dams, lakes, ponds, and streams), boreholes, dug wells and traditional river wells, piped water, and water kiosks, with significant intra- and inter-county variation. Hydro-climatic and socio-ecological disruptions compound challenges related to water security particularly for vulnerable households with sedentary pastoralists, women, and children particularly vulnerable.¹⁸ Extended dry periods, repeated drought, and rangeland degradation has also meant increasing time and distance traveled by men and herds for water and browse, with serious implications for the food and nutrition security and household water, sanitation, and hygiene practices.

Much of the population in Turkana and Samburu (76%) also depends heavily on livestock and/or farming, which inherently places people in close contact with animals and soil. These counties have also experienced significant environmental changes due to climate change-related weather variation (drought and flooding), deforestation, and increasing population. These environmental factors contribute to poor child health and nutrition outcomes shown in Table 1 below.

Table 1: Key Child Health and Nutrition Outcomes (U5) in Samburu and Turkana Countries (2018)

County	Reported Prevalence Among Children Under Five Years Old		
	Acute Malnutrition (wasting)	Chronic Malnutrition (stunting)	Watery Diarrhea
Turkana	25.6%	23.3%	17.9%
Samburu	15.8%	29.3%	11.8%

*Data from County SMART surveys (2019)

¹⁶ Turkana and Samburu June 2018 SMART Surveys

¹⁷ Ibid, 2018 SMART Surveys

¹⁸ Balfour, N., et. al (2018) Dimension of Water Insecurity for Pastoralists Households in Kenya



Emerging evidence from experimental studies show mixed effects of improved sanitation on health outcomes, such as soil-based helminths and EED. What is known is that more context-specific research is needed in order to better understand the best mix of technological and behavioral interventions for specific communities. A better understanding of transmission pathways, and the high-benefit interventions that can be employed to interrupt these pathways, will enable program implementers to better adapt interventions, such as animal husbandry, IYCF practices, and food hygiene, particularly among children under the age of two years.

B4. Duration of Applied WASH Sub-Award

The duration of the award provided under this RFA for a duration of eight to twelve months from the start date of the award with the possibility of extension is at the discretion of the PRO-WASH Director and Nawiri Senior Leadership. Given the findings of this work will feed into the Nawiri program design, preference will be given to a shorter study period. Extensions to the timeline for this sub-award will be jointly considered by the PRO-WASH and Nawiri teams. PRO-WASH, Save the Children Federation, Inc., and/or USAID/BHA reserve the right to cancel this RFA at any time for cause.

B5. Sub-Award Management

The sub-award will be jointly managed by designated team members from PRO-WASH and the Mercy Corps-led Nawiri project team, including key project stakeholders from Save the Children US and RTI. It is expected that the successful applicant will coordinate all work closely with both the PRO-WASH and Nawiri teams, including designated county government officials and program staff operating in Nawiri implementation areas. The purpose of this collaboration will be to ensure that the final study design is responsive to the needs of all beneficiaries in implementation areas and that recommendations are developed in alignment with Nawiri's WASH program approach, including the program's social behavior change strategy. Collaboration may include coordinating site visits during the assessment/design stage as appropriate, working with Nawiri staff to collaborate with Government of Kenya officials at the national and sub-national level and other WASH actors, and communicating modifications to the study design in a timely manner and socializing findings with key stakeholders on an ongoing basis.

The successful applicant will also collaborate with PRO-WASH and Nawiri staff for support as needed during the life of the award and provide bi-weekly updates to both teams on the progress of the final deliverable. Following the submission of the final deliverable, the successful applicant will be available to collaborate with PRO-WASH, Nawiri, and USAID/BHA by answering any questions on the final study findings, and potentially hold a webinar to share the final results with the larger audience of USAID/BHA stakeholders.

All products, materials, and data produced under this award are subject to the approved PRO-WASH branding strategy, which allows Save the Children US, along with Nawiri as the award co-managers, to reproduce, translate, and publish any results not first produced or prepared by "the Provider" in the performance of this Agreement. As per 22 CFR 226.36, USAID also reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes and to



authorize others to do so. Any resulting anonymized data collected using funding provided through this sub-award will be considered open-source and made publicly available via the Development Data Library (DDL) and Development Evaluation Clearinghouse (DEC).

Nawiri is a key partner in ensuring the successful implementation of this sub-award as well as the resulting small pilot project. As such, applicants are asked to acknowledge the intellectual and administrative contributions of Nawiri, including any key staff members, as part of outputs resulting from this sub-award. Further, Nawiri and PRO-WASH are requesting that the final grantee include their logo in any presentation, publication, or materials derived from research conducted as part completion of the final strategy as well as inform the Nawiri team of any future products resulting from this sub-award. The USAID Nawiri and research teams will hold dissemination events to present study findings to national, county, sub-county, and regional stakeholders and may advertise the journal publications through its social media platforms.

B6. Funding Availability

Final funding levels for each award will depend on the content and needs of the proposed activity, with a ceiling of \$200,000 USD. The award will be a Fixed Amount Award (FAA), which is a type of award that provides a pre-defined level of funding based on a schedule of pre-determined deliverables and results rather than reimbursement based on actual costs.¹⁹

B7. Type and Number of Awards

PRO-WASH plans to award one award under this RFA. Issuance of this RFA does not constitute an award commitment on the part of Save the Children Federation, Inc. or PRO-WASH nor does it commit Save the Children Federation, Inc. or PRO-WASH to pay for the costs incurred in the submission of an application. Save the Children Federation, Inc. and PRO-WASH reserve the right to reject any or all submissions received and to negotiate separately with an applicant, if such action is considered to be in the best interest of Save the Children Federation, Inc. and the PRO-WASH donor, USAID.

B8. Authorized Geographic Code

The authorized geographic code for procurement of goods and services under this RFA is 937. However, local procurement is authorized within the parameters specified in 22 CFR 228.40, “Local Procurement.”

B9. Post-Award Reporting Schedule

Fixed payments will be scheduled in the award as Milestone Payments. The payment and schedule of the Milestone Payments will depend on the selected applicant’s negotiated budget amount, the agreed upon

¹⁹ Please see 22 CFR 200.45 “Fixed amount awards” for more information



amount for each Milestone, and successful completion of the deliverable(s) associated with each Milestone.

Deliverables under this sub-award will include:

- Roles and Responsibilities document outlining timelines for the delivery of each approved milestone deliverable and responsibilities across the grantee, Mercy Corps Nawiri, and PRO-WASH teams. This document should also include clear communication protocols across all relevant points of contact for the sub-award
- Kick-off meetings (in-person and/or remote) for all relevant project team and government stakeholders to review timeline, deliverables, and the sub-award budget
- A bibliography and summary of existing knowledge and resources relevant to a study of pathogenic infection in young children in Kenya, and which is inclusive of available existing resources from Nawiri, USAID, Government of Kenya, and other relevant WASH stakeholders
- Identification of appropriate Institutional Review Board (IRB) approvals as needed. There is a possibility of submitting approvals for this study to the AMREF IRB as part of the larger longitudinal study being led by RTI
- Inception Report which details the proposed sampling strategy taking into consideration any issues related to travel restriction or safety related to COVID-19, data collection methodology, and lab methods for identifying pathogens. This inception report should also clearly outline quality control measures to be undertaken as part of this study and a detailed project timeline as well as outline sample collection and testing procedures
- Clear identification of the lab that will undertake testing of soil, food, water, and stool samples (See Section B2 above for those that have been pre-identified for this project)
- Appropriate study protocols
- The final strategy should be delivered as both a formal report, executive summary, and an accompanying PowerPoint presentation that provides clear, actionable recommendations/new or modified WASH activities focused on interrupting transmission. Data sets must also be made publicly available via DDL and DEC (as specified above)
- Validation workshop with the Nawiri team, including any relevant stakeholders from the USAID Mission and/or Government of Kenya as identified by project staff

Throughout the course of the sub-award, the final grantee will also be responsible for providing regular, timely progress reports and update meetings to the Nawiri (including Save the Children and RTI team members), PRO-WASH, USAID/BHA, and other relevant stakeholders.

C. Applicant Eligibility

PRO-WASH will not accept applications from individuals. All applicants must be legally recognized organizational entities under applicable law. Applicants must comply with all applicable Dun and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management (SAM) requirements. Applicants are not required to have a DUNS number at the time of application but must



have a DUNS number at the time of the award. Hence, applicants should be in the process of receiving a DUNS number to avoid any delays in the award process. Applicants must have completed all required steps (if any) with the host government to legally operate their program.

Organizations are welcome to propose collaborative efforts, but each proposal must identify one organization that will be the lead/prime recipient of funding and be responsible for program requirements. The lead/prime organization also will be responsible for coordinating efforts with other partners. All collaborative efforts must be clearly identified and described in the proposal.

The following are not eligible to apply for grants under this RFA:

- Individuals
- Government entities, including ministries
- Multilateral organizations
- Firms operating as commercial companies or other organizations (including nonprofit and nongovernmental organizations) that are wholly or partially owned by foreign governments or agencies

Eligible entities include NGOs, universities, nonprofits, and for-profit entities not owned in-full or in-part by foreign governments. In their cost application, organizations should indicate whether they have a negotiated indirect cost rate agreement (NICRA) with USAID. Organizations or institutions that do not have a NICRA are eligible for grants under this RFA either by using a de-minimus indirect cost rate (if requirements of 2 CFR 200.414(f) are met) or by direct charging all costs using a documented cost allocation methodology.

D. Selection Process & Schedule

D1. Selection Process

Applications will be evaluated in accordance with the criteria set forth in Section F below. After evaluation of the applications, either award(s) will be made or, if deemed necessary or desirable by PRO-WASH, written discussions/negotiations will be conducted with applicants who submit the most-highly rated applications. PRO-WASH reserves the right to conduct subsequent rounds of discussions/negotiations and/or request a revised application. PRO-WASH also may limit the number of applicants with whom such subsequent discussions/negotiations would be conducted or from whom revised applications are requested.

D2. Schedule

This Pathogens Pathways Study for under two years old in the Nawiri intervention areas of Samburu North and Turkana South is open from the date of issue. Submissions are due by 5 PM EST on **Friday, February 5, 2021**. PRO-WASH, in close coordination with Nawiri/Mercy Corps, reserves the right to amend this RFA at any time.



D3. Questions

The point of contact concerning this RFA is Ms. Rebekah Pinto, Director, PRO-WASH, rpinto@savechildren.org. Questions on this RFA may be submitted in writing before **Friday, January 22, 2021** with “Pathogens Pathways Study for Samburu North and Turkana South” in the subject line and should be copied to prowash@savechildren.org. Answers to submitted questions will be posted to the FSN Network website (www.fsnnetwork.org) by **Monday, January 25, 2021**.

E. General Guidance

E1. Content of Applications

Applicants must submit applications in compliance with the guidelines under Sections E2 and E3 of this RFA. Applications that do not adhere to those guidelines will not be considered for funding. Applications must be in English.

E2. Pathogens Pathways Study for Samburu North and Turkana South Proposal Format

Applications shall be submitted in accordance with the Proposal Submission Package of this RFA, included as **Attachments 1–4**.

E3. Application Submission

Applications (to include proposal and detailed budget) must be submitted **electronically** to: prowash@savechildren.org.

E4. Program Branding and Marketing Guidelines

As a condition of receipt of the PRO-WASH applied research sub-award, adherence to the PRO-WASH Associate Award Branding and Marking Guidelines is required. The guidelines will be sent to applicants whose proposals are selected for further review or at the time of the award.

F. Evaluation Criteria

Applications will be evaluated in accordance with the evaluation process set forth below. Awards will be made to the responsible applicant whose application best meets the aforementioned requirements of the Save the Children Federation, Inc. /PRO-WASH Pathogens Pathways Study for Samburu North and Turkana South. The PRO-WASH RFA Evaluation Committee (REC) will evaluate and rank all applications independently and uniformly in writing, based on the selection criteria of this RFA.

PRO-WASH reserves the right to determine the resulting level of funding for the award(s).

F1. Evaluation Criteria (Maximum 100 points)



1) Understanding of the Context/Challenge (10 points)

- Demonstrate understanding of the various challenges of executing WASH, nutrition, and/or animal husbandry interventions in the specific context of Northwestern Kenya
- Demonstrate an in-depth understanding of the specific social and cultural factors underlying certain WASH behaviors in Northwestern Kenya
- Demonstrate an in depth understanding of the target population WASH needs (social, economic, health, convenience) with particular consideration provided to agro-pastoralist communities living in the designated study areas

2) Proposed Approach to Data Collection and Analysis (35 points)

- Describe the overall approach to data collection and how it is suited to Northwestern Kenya
- Clearly identify any local partners that will be engaged as part of this award and describe their ability and previous experience carrying out similar research
- Describe how the approach to data collection and analysis can be adapted to COVID-19-related travel restrictions and safety precautions for the study team and households included in the final sample
- Demonstrate capacity to conduct research in a context similar to Kenya including the applicants ability to recruit enumerators and conduct fieldwork in rural, developing contexts within the required timeline
- Describe the ways in which the final recommendations will be validated with implementing partners and government stakeholders and integrated into planned market-based sanitation activities

3) Proposed Approach to Sensitization of Findings (30 points)

- Describe the strategy for working with Nawiri, USAID Mission, and relevant government stakeholders throughout the sub-award to sensitize the research design, findings, and final recommendations
- Demonstrate a clear plan for how the final analysis can be used to provide actionable, context specific guidance for the Nawiri project

4) Pre-Existing Experience Working in Country Context & Sector (15 points)

- Describe any previous experience working within the region, country, or specific context conducting similarly-focused WASH, nutrition, and/or animal husbandry research
- Demonstrate capacity producing outputs for a range of audiences that are accepted within the sector
- Identify any foreseeable challenges to an immediate start of this sub-award

5) Cost Proposal (10 points)

See **Attachment 2: Budget Template** and **Attachment 3: Budget Narrative Template**. For the purposes of this RFA, technical considerations are more important than cost. Proposed costs will be analyzed for cost realism, reasonableness, completeness, effectiveness, and allocability. Applications will be assessed to determine if the overall costs proposed are realistic for the work to be performed, if the costs reflect the applicant's understanding of the requirements, and if the costs are consistent with the technical application. Applications that do not meet these criteria may risk not being considered for the award. Applications that have more efficient operational systems that reduce operation costs will be more favorably considered. As technical scores converge, applications that maximize direct activity costs and



that minimize administrative costs will be more favorably considered. It is important to note that, where applications are found to be technically equal, cost will become the determining factor for award. Applications will be assessed to determine if the overall costs proposed are realistic for the work to be performed, if the costs reflect the applicant's understanding of the requirements, and if the costs are consistent with the technical application.

As noted in Attachment 2, applicants should estimate as part of a separate line item the breakdown of costs related to sample collection and laboratory testing. Note that additional costs related to journal publication or conference fees are not allowable as part of resourcing provided under this sub-award.

G. Intellectual Property

Any materials developed under this award relating to intangible property, such as intellectual property or patents, are subject to applicable rules under 2 CFR 200.315, "Intangible Property."²⁰ If applicants have intangible property developed previously under non-federal awards and are planning to use the intangible property in this award, clearly identify the intangible property and its anticipated use in the application. Applicants must also specify if the proposals include any proprietary information and must also mark as proprietary, if applicable.

H. Other Applicable USAID Regulations

Awards will be administered in accordance with USAID policies and procedures. Awards to U.S. organizations will be administered in accordance with 2 CFR Part 200, the applicable OMB Circulars, and USAID Standard Provisions.

Awards to non-U.S. organizations will be administered in accordance with the cost principles contained in 2 CFR 200, Subpart E and USAID Standard Provisions for Non-U.S. Non-governmental Organizations. Please refer to **Attachment 4** for applicable USAID regulations.

I. Attachments

Applications shall be submitted as per the following proposal submission package:

- Attachment 1: Program Narrative Template
- Attachment 2: Budget Template
- Attachment 3: Budget Narrative Template

²⁰ In 2 CFR 200.315, "The applicant may copyright any work subject to a copyright that was developed under a Federal award. The federal government has the right to: (1) obtain, reproduce, publish, or otherwise use the data under a Federal award; and (2) Authorize other to receive, reproduce, publish, or otherwise use such data for Federal purposes." For more details, see 2 CFR 200.315 and e-CFR 401 "Patents, Trademarks, and Copyrights."



- Attachment 4: Applicable USAID Regulations



Annex A: Laboratories List

S/NO	Laboratory	Sub County	County
1	Baragoi Sub County Hospital	Samburu North	Samburu
2	Baragoi Catholic Dispensary	Samburu North	Samburu
3	Lesirkan Health Centre	Samburu North	Samburu
4	South Horr Catholic	Samburu North	Samburu
5	Maralal County Referral Hospital	Samburu Central	Samburu
6	Maralal Catholic Dispensary	Samburu Central	Samburu
7	Kisima Health Centre	Samburu Central	Samburu
8	Suguta Marmar Health Centre	Samburu Central	Samburu
9	Porro Health Centre	Samburu East	Samburu
10	Wamba Catholic Mission Hospital	Samburu East	Samburu
11	Wamba GOK Health Centre	Samburu East	Samburu
12	Archers post Catholic Mission Health Centre	Samburu East	Samburu
13	Lodwar County and Referral Hospital	Turkana Central	Turkana
14	Lokichoggio AIC Health Centre	Turkana West	Turkana
15	Lokichoggio Sub County Hospital	Turkana West	Turkana
16	Lokichar Sub County Hospital	Turkana South	Turkana
17	Kakuma Mission Hospital	Turkana West	Turkana
18	St. Patricks Dispensary	Turkana Central	Turkana
19	Lokichar RCEA Health Centre	Turkana South	Turkana
20	Kaikuk Health Centre	Turkana South	Turkana
21	Katilu Sub County Hospital	Turkana South	Turkana
22	Kalemngorok Health Centre	Turkana South	Turkana
23	Nakwamoru Health Centre	Turkana South	Turkana
24	Moi Teaching and Referral Hospital	Eldoret	Uasin Gishu
25	Nakuru PGH	Nakuru	Nakuru
26	KEMRI Lab Nairobi	Nairobi	Nairobi
27	KEMRI Lab Kisumu	Kisumu	Kisumu