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USAID
ASSIST PROJECT
*Applying Science to Strengthen
and Improve Systems*

USAID ASSIST Project

FY20 Annual Performance Monitoring Report

Cooperative Agreement No.:

AID-OAA-A-12-00101

USAID Funding Office:

Office of Health Systems

Performance Period:

October 1, 2019 – June 29, 2020

JUNE 2020

This annual performance monitoring report was prepared by University Research Co., LLC for review by the United States Agency for International Development (USAID). The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project was made possible by the generous support of the American people through USAID.

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DISCLAIMER

This annual performance monitoring report was authored by University Research Co., LLC (URC). The views expressed do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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For more information on the work of the USAID ASSIST Project, please visit <https://www.urchs.com/assist>.

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Acronyms

AAP	American Academy of Pediatrics
AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal care
AOR	Agreement Officer's Representative
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project
CARPHA	Caribbean Public Health Agency
CDC	U.S. Centers for Disease Control and Prevention
CMO	Chief Medical Officer
CSaZ	Congenital syndrome associated with Zika virus

DEC	Development Experience Clearinghouse
ECHO	Extension for Community Healthcare Outcomes
ESC	Eastern and Southern Caribbean
FTF	Face-to-face
FY	Fiscal year
HIV	Human immunodeficiency virus
IMNCI	Integrated Management of Newborn and Childhood Illness
ISQua	International Society for Quality Assurance
KM	Knowledge management
LAC	Latin American and Caribbean
MCH	Maternal and child health
MCHN	USAID Office of Maternal and Child Health and Nutrition
MNCH	Maternal, newborn, and child health
MOH	Ministry of Health
MOHW	Ministry of Health and Wellness (Jamaica)
NDS	Neurodevelopmental surveillance
NGO	Non-governmental organization
OHA	USAID Office of HIV/AIDS
OHS	USAID Office of Health Systems
OHT	Online health training
OVC	Orphans and vulnerable children
PCMD	Preventing Child and Maternal Deaths
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PPH	Post-partum hemorrhage
PMTCT	Prevention of mother-to-child transmission of HIV
QED	Quality, Equity, Dignity (WHO-led Quality of Care Network)
QI	Quality improvement
RMNCHA	Reproductive, maternal, neonatal, child, and adolescent health
URC	University Research Co., LLC
USAID	United States Agency for International Development
VMMC	Voluntary medical male circumcision
WHO	World Health Organization

EXECUTIVE SUMMARY

University Research Co., LLC (URC) and its partners have completed almost eight years of implementation of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. This report is the 16th and final Semi-Annual Performance Monitoring Report for ASSIST, summarizing the project's accomplishments and results during Fiscal Year 2020 (FY20). All ASSIST sub-agreements were completed in FY19, so no partners contributed to the implementation of project activities in FY20 aside from revisions to previously submitted deliverables.

The project's activities in FY20 focused on completion of deliverables funded with MNCH Core Directed funds and Cross Bureau funds; wrap-up of Zika activities funded under the Other Public Health Threats element in Ecuador, Peru, Jamaica, Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines; and completion of outstanding reports, knowledge products, and research and evaluation reports funded through the project's Common Agenda pool.

Overall goals

The USAID ASSIST Project sought to foster improvements in a range of health care processes through the application of modern improvement methods by host country providers and managers in USAID-assisted countries. The project's central purpose was to build the capacity of host country health and social service systems to improve the effectiveness, efficiency, client-centeredness, safety, accessibility, and equity of the services they provide. In addition to supporting the implementation of improvement strategies, the project sought to generate new knowledge to increase the effectiveness and efficiency of applying improvement methods in low- and middle-income countries.

USAID ASSIST country programs were aligned with the goals of United States Government's global initiatives and policies, including preventing child and maternal deaths, achieving HIV epidemic control, combatting other public health threats, protecting life, and addressing gender inequalities.

Where we worked

During FY20, USAID ASSIST provided technical support in seven countries, all funded through the Other Public Health Threats element for Zika-related activities. ASSIST's work in Ecuador and Peru closed in the first quarter of FY20 and in the five Caribbean island nations, by the end of the second quarter. Sustainability and Transition meetings were held in Ecuador (November), Peru (November), Jamaica (December), St. Kitts (January), St. Vincent (January), Antigua (February), and Dominica (February).

FY20 accomplishments and results:

- **Improvement in key indicators:** As discussed in this report, ASSIST-supported programs in Latin America and the Caribbean demonstrated improved care and outcomes for screening of pregnant women and newborns for Zika-related signs and symptoms, care and support for Zika-affected babies and children, and provision of neurodevelopmental screening in well-child care.
- **Promoting the project results and the use of improvement methods:** During FY20, the project published one peer-reviewed article and submitted two other manuscripts for peer

review. ASSIST published seven case studies and four case study compendia; 27 technical reports; 13 research and evaluation reports (three other research and evaluation reports were submitted and are still pending AOR approval); and four guides. The project also submitted seven annual reports.

- **Knowledge management:** Key learning from the project about improving Zika-related care; reproductive, maternal, newborn, child, adolescent and reproductive health (RMNCAH) care, assessing quality of integrated RMNCAH and HIV care; and examining the effectiveness and cost-effectiveness of different implementation strategies for engaging facility teams in using *Improving Care for Mothers and Babies: A Guide for Improvement Teams* were presented in final technical reports. ASSIST curated a list of “25 Essential Resources for Health Care Quality Improvement” that was disseminated through USAID’s Health Systems Strengthening listserv. The list highlights key guides, tools, and reports from ASSIST that will continue to be available on the URC website at <https://www.urc-chs.com/assist-25>.
- **Research and evaluation studies:** During FY20, the project completed 18 research studies in nine countries and six multi-country studies. Comparative analyses of ASSIST data validation, comparison group, and cost-effectiveness studies were also completed.

Challenges and Remedies:

- None

MNCH-DIRECTED FUNDING

Background

- Support implementation of global, regional, and national initiatives, including implementation of the Quality Equity Dignity (QED) global initiative for improving quality of care for MNCH.
- Build government and partner capacity to apply quality improvement (QI) approaches across health system levels (community, clinic, hospital, district management team, central/regional MOH) to improve, scale up, and sustain high-impact, people-centered MNCH services for leading causes of maternal newborn and child morbidity and mortality in USAID MNCH priority countries.
- Test innovative applications of improvement approaches to address cutting-edge areas in MNCH, such as integrating MNCH routine and complications' care across system levels; strengthening local information systems to track sentinel quality measures; and building provider/manager competencies to support improvement work in local systems.
- Strengthen health worker and manager skills, motivation, and performance through integrated clinical and quality improvement capacity building.
- Develop, test, and disseminate technical frameworks, approaches, and tools that can increase effectiveness of improvement and health system strengthening initiatives in support of the USAID Preventing Child and Maternal Deaths strategy.
- Support the development of MNCH quality of care indicators and measurement to strengthen routine health information systems, permit regular tracking of quality measures at service delivery level, and promote accountability at global, national, and sub-national levels.

In FY20, ASSIST continued to support the WHO-led QED initiative globally and in Uganda and completed data analysis and reporting for the assessment of comparative effectiveness and cost-effectiveness of the application of “Improving Care for Mothers and Babies: A Guide for Improvement Teams” in Uganda carried out in FY18. ASSIST also developed a synthesis paper on key results and learning from reproductive, maternal, newborn, child, and adolescent health and nutrition activities carried out under ASSIST. All these activities were successfully completed by the third quarter of FY20.

Program Overview

What are we trying to accomplish?	At what scale?
1. Provide support to the WHO Quality, Equity, Dignity (QED) Network to improve quality of MNCH care at the global level	
<ul style="list-style-type: none"> A1. Serve as technical resource partner for WHO technical working groups 	<ul style="list-style-type: none"> Global
<ul style="list-style-type: none"> A2. Provide catalytic support to first-wave countries 	<ul style="list-style-type: none"> First-wave nine countries: Bangladesh, Côte d'Ivoire, Ethiopia, Ghana, India, Malawi, Nigeria, Tanzania and Uganda Additional countries will be added based on identified needs
<ul style="list-style-type: none"> A3. Assess the comparative effectiveness and cost-effectiveness of implementing the "Improving Care for Mothers and Babies: A Guide for Improvement Teams" to improve care of mothers and babies through different implementation strategies in selected country 	<ul style="list-style-type: none"> Uganda, 16 facilities in 4 districts
<ul style="list-style-type: none"> A4. Disseminate lessons learned from implementation of USAID ASSIST's investment in the area of MNCH to inform global learning 	<ul style="list-style-type: none"> Global

Accomplishments and Results by Activity (October 2019 – June 2020)

Activity 1. Provide support to the WHO QED Network to improve quality of MNCH care at the global level

A1. Serve as technical resource partner for WHO technical working groups

- ASSIST participated in several Implementation Methods Technical Working Group calls with country teams and discussed country updates and the next stage of implementation of the Quality of Care Network activities (FY20 Q1).
- ASSIST communicated with the WHO QED Network secretariat to discuss the timing of a webinar on the integrated management of newborn and childhood illness (IMNCI) strengthening activity in Uganda. After it was determined that such a webinar could not be sponsored by the QED Network before the end of the ASSIST cooperative agreement, it was decided that ASSIST would hold its own webinar to share the findings.

A2. Provide catalytic support to first-wave countries

- Dr. Chitashvili continued discussions with the WHO Maternal, Newborn, Child, and Adolescent Health Department (Blerta Maliqi, Zainab Naimy, Moise Musigaba, and Wilson Were) to explore potential global and country-level technical assistance that ASSIST could provide to the QED Network (December 2019). Given the closing of ASSIST, it was agreed that no further technical assistance could be provided.

A3. Assess the comparative effectiveness and cost-effectiveness of implementing the “Improving Care for Mothers and Babies: A Guide for Improvement Teams” to improve care of mothers and babies through different implementation strategies in Uganda

- **Study completed.** The study report on the assessment of the comparative effectiveness and cost-effectiveness of implementing the “Improving Care for Mothers and Babies: A Guide for Improvement Teams” to improve care of mothers and babies through different implementation strategies in Uganda was completed and shared with USAID team. It was approved for publication in June 2020. The background, overall approach, design, key findings, and recommendations of the study are provided below.
- **Background:** The quality improvement (QI) guide for mothers and babies was developed through the collaboration of Survive and Thrive Global Development Alliance (S&T GDA) partner organizations to demystify the quality improvement process and scale up QI practices globally. To promote the use of the QI guide at the global level, the Office of Maternal and Child Health and Nutrition of USAID’s Bureau for Global Health tasked the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project to assess the effectiveness and cost-effectiveness of strategies to implement the guide in terms of its ability to initiate and establish continuous improvement processes in medical facilities and ultimately improve maternal and newborn care processes and outcomes.
- **Overall approach and design:** This was a prospective, non-randomized, controlled assessment of effectiveness and cost-effectiveness of three QI guide dissemination strategies in participant and control facilities before and after the intervention. The study assessed three different implementation scenarios of the QI guide by comparing the effectiveness and cost-effectiveness across three intervention groups to one control group:
 - Intervention group 1 received the QI guide
 - Intervention group 2 received the QI guide with a follow-up orientation workshop about the guide
 - Intervention group 3 received the QI guide, the orientation workshop, and follow-up coaching support (six coaching visits)
 - The control group received evidence-based maternal and newborn health clinical recommendations only. To avoid the possible impact of limited access to clinical guidelines, all intervention groups also received maternal and newborn health (MNH) clinical recommendations.
- **Main findings:**
 - **Use of the QI and clinical guides:** Key informant interviews at the end line of the study revealed that most respondents in the control (8 out of 9) and group 1 (6 out of 12) had not used either the QI or clinical guides. In group 3, all respondents had used both clinical and QI guides (8 of 9).
 - **Feedback on the QI guide:** Key informants of group 1 identified objectives and key knowledge as the most useful sections of the QI guide, while group discussion and tools for identifying barriers were most valued by group 2 and group 3 key informants. Orientation workshop participants mentioned that the guide will be

instrumental to provide step-by-step guidance during the implementation of the improvement interventions, help to explain the simple steps of improvement, and guide how to address specific QI problems. The only negative feedback received on the QI guide was the length of the material.

- **Feedback on the orientation workshop:** Orientation workshop participants found the workshop interactive and easy to understand, however, they noted the tight schedule as a challenge and suggested a follow-up meeting to help better utilize the content.
- **Feedback on the coaching visits:** Key informant interviews at the end line revealed very positive attitudes towards the coaching visits. Participants found the coaching visits to be a forum for corrections, knowledge sharing, and skill development. They reported that the coaching helped them to “change the attitude towards QI” and keep them motivated.
- **QI-related knowledge and attitudes:** Assessment of knowledge of key concepts of QI found universal use of QI guide ($p=0.02$) in the intervention group 3. The knowledge of key QI concepts improved in group 3, compared to other groups, particularly in such practical aspects of QI as focusing on one or two barriers of quality of care at a time, testing on small scale for feasibility, and strategies for prioritizing, measuring, and instituting changes. Knowledge of and positive attitude toward QI was the second highest in intervention group 2. It is important to note that 8% fewer key informants from intervention group 3 considered as essential, key inputs to deliver good quality of care at the end line, compared to baseline. The result suggests deeper understanding of the QI concepts in intervention group 3 (inputs are necessary but not enough to address all gaps in quality of care).
- **QI experience and activities:** About half of the respondents from the control group, intervention group 1, and group 2 and none of the intervention group 3 reported ongoing MNH QI activities in the previous month at baseline. While this remained the same at end line in the control group and intervention group 1, over 80% of respondents at the end line from intervention group 2 and 3 reported ongoing MNH improvement activities during the past month. Separate QI teams for MNH also increased at end line, particularly in intervention group 3 facilities. Self-reported routine QI processes reached 100% for almost all processes in groups 2 and 3, while these processes worsened in the control group. Intervention group 3 reported the greatest number of QI team meetings in the previous six months (average of 6.2). All respondents from intervention group 3 also reported availability of written QI plans in their health facilities, a sizable improvement compared to baseline. The availability of QI plans did not change dramatically in control and other intervention groups compared to baseline. Across groups and points of data collection, QI teams were not viewed by respondents as making improvement the norm, and the average number of hours spent on QI was lower at end line across all intervention and control groups.
- **Data collection and use for continuous improvement:** Fewer respondents in the control group at end line reported collection and review of performance data compared to baseline (5 of 9, 9 of 9, respectively). The data use patterns were the

weakest in group 1 facilities compared to other intervention groups and did not change substantially from baseline. In group 2, data was used to identify what had been learned from the improvement activity and the QI teams analyzed and interpreted data and documented changes, however self-reported data collection and use worsened compared to baseline. In group 3, there was an increase in the use of data to identify what was learned from an improvement activity, in analysis and interpretation of data within the QI team, and in the documentation of changes, written results, and internal and external factors contributing to changes observed. In group 3, self-reported data use for continuous improvement sizably improved at end line and surpassed over 65% for almost all measures.

- **Supportive supervision and coaching:** Across all groups and data collection points, respondents indicated that they had received supportive supervision or coaching in the previous 12 months, mostly from an external coach or supervisor. Control group and group 3 also reported improved regularity of coaching and frequency of the visits (at least monthly). Notably, internal on-site support functions improved in group 2 and group 3 facilities at end line, suggesting the possible effect of the orientation workshop and the use of the QI guide. While multiple infrastructure and human resource factors were reported as barriers to QI by respondents in intervention group 3 at baseline, their attitude had changed by the end line: none of the care providers identified human-resource related factors as barriers to QI at end line. This is an important shift in perceived barriers to better care that may indicate improved confidence of QI teams in intervention group 3 to solve local problems that are within their control.
- **Change in MNH care processes and outcomes: Intervention group 1:** Over 80% of respondents of intervention group 1 reported essential maternal care and care of sick newborns and mothers with or at risk of sepsis as priority areas of focus for improvement activities. According to the medical documentation review, the intervention did not improve care processes related to essential maternal care (e.g., uterotonic administration after birth or counselling on danger signs, infant feeding, and maternal nutrition) except the provision of immediate post-partum family planning method to the mother before discharge, which improved by 12% from baseline, compared to the control group ($p=0.02$). Analysis of facility statistics found statistically significant reduction in the institutional maternal mortality rate and incidence of obstructed labor in intervention group 1 facilities ($p=0.012$ and 0.05 , respectively). These results, however, are difficult to attribute to the improvement intervention given that respondents of group 1 reported limited use of QI guide (6 out of 12) and we did not see related improvements in care processes based on the information available in the maternal registries. The case fatality among babies with asphyxia increased by 19% ($p=0.029$).
- **Intervention group 2:** All key informants of group 2 reported working on improving newborn resuscitation, prevention and management of post-partum hemorrhage (PPH), care of preeclampsia/eclampsia, and management of obstructed labor. Review of medical documentation showed 10% improvement in uterotonic administration immediately after birth to prevent PPH ($p=0.005$) compared to the control group and baseline. However, improvements in care outcomes, except

institutional maternal mortality rate, which was reduced to 492 per 100,000 deliveries ($p=0.05$), were not statistically significant.

- **Intervention group 3:** According to key informant interviews and coaching reports, the majority of intervention group 3 facilities were focused on improving labor monitoring using the partograph (all four facilities), prevention of PPH (all four facilities), and newborn resuscitation. Routine monitoring of improvement interventions across all sites (where data was available) indicated improved partograph use from 6% at the beginning of February 2018 to 91% at the end of May 2018. Correct partograph use went from 54% to 93% in the same period. Analysis of medical record review showed reduced incidence of obstructed of labor by 26% and reduced fresh stillbirth rate by 4 per 1000 total birth in intervention group 3 facilities, compared to control facilities and baseline, although the results were not statistically significant ($p=0.17$ and 0.47 , respectively). Weekly monitoring of PPH incidence per 1000 deliveries, reported by all intervention group 3 facilities showed sizable reduction of PPH cases in group 3 facilities from about 48 to 12. This has also been confirmed by review of facility statistics according to which, PPH incidence two months after the intervention was reduced by 15 per 1000 ($p=0.08$) compared to control facilities and the baseline. A statistically significant reduction was also achieved in the institutional maternal mortality rate by 284 per 100,000 deliveries ($p=0.004$) and case fatality rate by 8% ($p=0.026$) in group 3 facilities, compared to control facilities.
- **Cost-effectiveness evaluation of the intervention:** Decision tree analysis was used to model the cost-effectiveness of the improvement intervention for each intervention group, compared to the control group. The intervention in group 1 (distribution of QI guide) cost 86.8 USD and was not cost-effective as it reduced the institutional maternal mortality rate, incidence of obstructed labor, and case fatality from maternal PPH, however increased the case fatality among babies with asphyxia. The results in intervention group 1 are also difficult to attribute to improvement intervention given that we did not see related improvements in care processes based on the information available in the maternal registries and only half of the respondents reported the use of QI guide. Similarly, intervention in group 2 (QI guide and orientation workshop), which cost 1931.4 USD, was not cost-effective as, in parallel to reducing the institutional maternal mortality rate, incidence of newborn sepsis and case fatalities from maternal PPH and preterm birth, it increased the incidence of newborn asphyxia and stillbirth rate. The intervention 3 was cost-effective as it averted institutional maternal mortality, reduced the incidence of PPH, and reduced case fatality from maternal PPH. The incremental cost-effectiveness ratio (ICER) per patient to avert institutional maternal mortality, reduce incidence of PPH, and reduce case fatality from PPH was 73.4 USD, 13.9 USD and 215.8 USD, respectively. These results were also associated with improvement areas of focus and could be attributed to the intervention as all respondents reported the exposure to the intervention.

- **Conclusions and recommendations:**
 - The study results demonstrate that dissemination of the QI guide with an orientation workshop and coaching support is the most effective implementation strategy in Uganda and other similar settings, compared to control group and changes in other groups, because it strengthened continuous improvement processes in medical facilities and improved maternal and newborn care processes and outcomes in the focused improvement area. The intervention 3 was also cost-effective as it averted institutional maternal mortality, reduced incidence of PPH, and reduced case fatality from PPH. Considering the long-term cost of the coaching model, with the district coach from the district health management team performing coaching support, the intervention 3 could be very cost-effective.
 - To effectively scale up the implementation of the QI guide in Uganda and other similar settings, the following measures need to be considered:
 - Extend the length of the orientation workshop to a minimum of two days
 - Strengthen the clinical and QI capacity of District Health Teams and mobilize district-level resources to address resource availability issues within and across health facilities and to provide continuous coaching to health facility teams
 - Improve medical documentation and data quality and use, as a critical component of any MNH improvement activity
 - Scale-up of the proven implementation strategy for the QI guide, focused on continuous coaching and team-based problem solving across Uganda and other similar settings, would likely contribute to health and economic benefits for patients and society. One such opportunity is to scale up the implementation of the QI guide across the global network of Quality of Care for MNCH, implemented in 11 countries.

A4. Disseminate lessons learned from implementation of USAID ASSIST's investment in the area of MNCH to inform global learning

- **MNCH Synthesis Report:** At the request of the USAID MNCH team, ASSIST prepared a synthesis of results and lessons learned across all of ASSIST's MNCH core and field funded work. The report was submitted to the MNCH team on 6/19/20 for review and approval.
- **Zika results presented:** The ASSIST team participated in the USAID Zika webinar series on ASSIST's MNCH work in Latin America and the Caribbean to improve prevention of Zika virus infection, early detection of its harmful consequences, and care and support of babies and families potentially affected by Zika (January 12, 2020). The webinar highlighted illustrative results and lessons learned from 13 countries and over 800 health facilities.
- **Zika Technical Working Group:** The ASSIST team (Dr. Chitashvili, Dr. Coore-Desai and Ms. Hager) presented achievements and lessons learning on monitoring child development using the updated neurodevelopmental surveillance tool in five Caribbean countries (Antigua and Barbuda, Dominica, Jamaica, St. Kitts and Nevis, and St. Vincent and the Grenadines) at the Zika technical Working Group call (May 2020). The Zika Technical Working Group unites the stakeholders from over 10 English-speaking

Caribbean countries and other international and partner organizations, working in the region, including PAHO, UNICEF, Caribbean Public Health Agency (CARPHA), American Academy of Pediatrics (AAP), World Pediatric Program, and others.

- **MNCH results presented in the ASSIST Capstone Webinar:** ASSIST presented a capstone webinar on the Critical Role of Quality Improvement in the Era of the Sustainable Development Goals, Universal Health Coverage, and Countries' Journey to Self-Reliance: Achievements and Learning from the USAID ASSIST Project (April 23, 2020). The webinar highlighted ASSIST's key learning and achievements in MNCH along with results in other priority areas and discussed how QI builds individual and institutional capacity in QI, strengthens health systems, improves service delivery, and supports progress toward country self-reliance. Key achievements in the area of MNCH/FP/RH presented included:
 - Reduced maternal, newborn and child morbidity and mortality at large scale
 - Improved cost-effectiveness and efficiency of ASSIST interventions (Georgia, Uganda)
 - Addressed equity gap (e.g., vaccination rates between males and females in Mali)
 - Providing technical and catalytic support to countries participating in the WHO-led Global Network for improving quality of care for maternal, newborn, and child health
 - Developing products and tools to improve and monitor the quality of MNCH/FP/RH in Preventing Child and Maternal Deaths priority countries.
- ASSIST launched the open-access resource, *Improving Health Care in Low- and Middle-Income Countries: A Case Book* (June 4 2020). The book, available at: <https://www.springer.com/us/book/9783030431112>, features 12 case studies written by health professionals that provide real-life examples of the steps, challenges, solutions, and benefits of improving health care quality and clearly demonstrate for readers what QI is like in practice. Two case studies presented at the webinar featured ASSIST's experiences in the area of MNCH/FP/RH:
 - Improving Quality of Care for Respiratory Tract Infections in Children: The Role of Capacity Building and Coaching in Supporting One Multi-Facility Improvement Team in Samtredia District, Georgia
 - Scaling Up a Quality Improvement Initiative: Lessons from Chamba District, India
- ASSIST presented the results of the Integrated Management of Newborn and Childhood Illness (IMNCI) strengthening activity in Uganda in an ASSIST-sponsored webinar (June 26, 2020). Opened by Smita Kumar, Senior Newborn Advisor at the USAID Office of Maternal and Child Health and Nutrition (MCHN), the webinar featured a presentation by Dr. Tamar Chitashvili on the key learning from this intervention about practical strategies to improve the equity, efficiency, and the quality of care for common childhood conditions. Commentary on the presentation was provided by Nicholas Mwanja (ASSIST IMNCI Activity Lead in Uganda), Troy Jacobs (Senior Medical Advisor, Office of MCHN, USAID), and Rhea Bright (Senior Quality Improvement Advisor, Office of Health Systems).

Challenges and Remedies

- **None**

ASSIST supported country-led MNCH improvement initiatives and implemented all activities in close collaboration with the MOH and other key stakeholders in order to promote ownership and institutionalization. At the national level, ASSIST made every effort to embed activities into existing health system structures and functions so that future changes and improvements are not dependent on external resources. At the global level, ASSIST MNCH core-funded activities informed global learning on effective strategies to institute and sustain the improvement practices in different MNCH clinical areas and settings as well as contributed to developing the guidance on setting up the support systems required (e.g., management structures, learning platforms, coaching systems, data systems) to institutionalize improvement within various policy, regulatory, and other implementation tools.

OFFICE OF HEALTH SYSTEMS, CROSS-BUREAU ACTIVITIES

Background

The Office of Health Systems (OHS) undertakes health systems strengthening work to contribute to USAID’s goal of Preventing Child and Maternal Deaths (PCMD). OHS invests cross-bureau funds for global learning surrounding the successful development and testing of interventions related to Universal Health Coverage, finance, governance, service delivery, medical products, vaccines and other technologies, and information systems.

Since FY13, cross-bureau funds have supported ASSIST to strengthen essential system functions and improve and sustain high-impact, evidence-based health care. In FY20, ASSIST focused on completing the remaining deliverables as described below.

Program Overview

What are we trying to accomplish?	At what scale?
1. Assessment of quality of integrated reproductive, maternal, newborn, child and adolescent health (RMNCHA) and HIV care in PCMD and PEPFAR priority countries	
<ul style="list-style-type: none"> Finalize reports on assessment of RMNCHA and HIV care in Kenya and Uganda 	<ul style="list-style-type: none"> Uganda, Kenya
2. Finalize remaining deliverables	
<ul style="list-style-type: none"> Publish French and Spanish online versions of the Introduction to Improvement Course 	Publish French and Spanish online versions of the Introduction to Improvement Course

Accomplishments and Results by Activity (October 2019 – June 2020)

Activity 1. Assessment of quality of integrated RMNCHA and HIV care in PCMD and PEPFAR priority countries

Key accomplishments:

Deliverable 1: Assessment of quality of care for RMNCH+A services in Uganda and Kenya, including: full report with data tables annex and a key findings report

- In 2017-2018, the survey toolkit was developed and the tools tested and implemented in 10 facilities in Uganda and 11 facilities in Kenya. Information related to the assessed services was gathered from: a) self-administered questionnaires for service providers; b) retrospective reviews of individual patient records; c) observation of services being provided for the MNH care process with supplementation of information for observed patients from their patient chart/card; d) interviews with clients; e) key informant interviews with managers/providers; and f) observations to verify reported response about facility-level key inputs (e.g., drugs, diagnostics) and supporting systems for quality of RMNC+A and integrated RMNC+A and HIV care. In November 2019, the following full package of deliverables was developed and submitted to USAID OHS and MNCH teams for review and approval:

- Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Health Care in Uganda and Kenya
- Key Findings of the Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Care in Uganda and Kenya
- Annex Tables: Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Care in Uganda and Kenya
- Assessment of Quality of Integrated RMNCHA and HIV Care in Uganda and Kenya
- Based on USAID OHS and MNCH teams' feedback, the reports were revised and re-submitted in February 2020. Final approval of the reports was provided by the MNCH team and AOR in April-May 2020, and the reports were published.
 - Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Health Care in Uganda and Kenya (April 2020) [DEC link](#)
 - Key Findings of the Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Care in Uganda and Kenya (April 2020) [DEC link](#)

Deliverable 2: Report on assessment of quality of care of integrated RMNCH+A and HIV care in Uganda and Kenya (full report with data tables)

- The report of the assessment of quality of care of integrated RMNCH+A and HIV care in Uganda and Kenya, Assessment of Quality of Integrated Reproductive, Maternal, Newborn, Child and Adolescent health (RMNCA) and HIV Care in Uganda and Kenya, was submitted to the OHS and OHA teams for review (Nov 2019).
- Based on feedback received from the OHS and OHA teams in February 2020, ASSIST revised and resubmitted the document (February 2020).
- In March 2020, OHA provided additional feedback to incorporate additional PEPFAR data in the background section of the study. The ASSIST team is revising the report to reflect this feedback. The following products were approved and published:
 - Assessment of Quality of Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and HIV Care in Uganda and Kenya (May 2020) [DEC link](#)
 - Quality of Integrated Reproductive, Maternal, Newborn, Child, and Adolescent Health and HIV Services: Assessment Toolkit (June 2020) [DEC link](#)

Activity 2. Building effective leadership for quality improvement

Key accomplishments:

- **Finalized and launched the Spanish version of the online Improving Health Care eLearning course:** In April 2020, the Spanish of the online course version was finalized and posted on the ASSIST and URC websites to be available to download and use, even without access to internet. The Spanish version can be accessed and downloaded at: <https://www.usaidassist.org/resources/mejorando-la-atencion-en-salud-curso-de-elearning> and at: <https://www.urc-chs.com/projects/usaid-applying-science-strengthen-and-improve-systems-assist-project>.

- **Finalized the French version of the online Introduction to Improvement course.** The French version was reviewed again and further corrections communicated to the developer in April. The French online course was finalized and posted to the URC website in June.
- **All three language versions of the Improving Health Care eLearning course are available at:** <https://www.urc-chs.com/assist-25>.

Challenges and Remedies

OTHER PUBLIC HEALTH THREATS ELEMENT FUNDING

Background

As part of USAID's Zika response, during the period 2016-2020, ASSIST implemented health systems strengthening efforts to provide targeted support to health systems affected by the Zika virus in Latin America (Nicaragua, EL Salvador, Honduras, the Dominican Republic, Guatemala, Paraguay, Ecuador, and Peru) and the Caribbean (Jamaica, Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines). ASSIST worked to improve the capacity of Zika-related health services to deliver consistent, evidence-based, respectful, person-centered quality care with a focus on pregnant women, newborns, infants and children under five, and women of reproductive age, by supporting Ministries of Health and Social Security Institutions to:

- Increase knowledge of Zika risks and prevention measures among health care providers and clients, such as the use of condoms in preventing sexual transmission of Zika during pregnancy
- Increase the availability and quality of antenatal care in relation to counseling, screening, diagnosis, and follow-up of suspected, probable, or confirmed Zika infection in pregnant women and implementation of recommended care
- Improve clinical detection of congenital syndrome associated with Zika virus (CSaZ) in newborns and increase the number and proportion of Zika-affected infants and children receiving recommended and high-quality care and support
- Strengthen the provision of quality psycho-emotional support services for women and families affected by Zika
- Strengthen the quality of well-baby care, neurodevelopmental surveillance, and growth monitoring and development in children up to five years of age

In all 13 Latin American and Caribbean (LAC) countries, ASSIST leveraged QI methodology to strengthen health systems' inputs and processes to increase access to quality care and improve care and support provided by health services to infants affected by Zika, their mothers and families, including appropriate psycho-emotional support for pregnant women in antenatal care who present with a potential Zika infection and mothers or caregivers of infants affected by Zika. ASSIST also integrated a gender-sensitive, person-centered, approach to ensure that males and females are equally accessing and utilizing Zika-related services. The project supported local and global learning in all 13 countries through research and evaluation activities and knowledge management support.

Activities in six of the eight Spanish-speaking countries closed in the last quarter of FY19 and in Ecuador and Peru, in the first quarter of FY20.

In Jamaica, ASSIST supported the Ministry of Health and Wellness (MOHW) to improve screening of infants up to two years of life for neurodevelopmental milestones in well-baby care clinics and increase the proportion of infants identified with potential development deficiencies who are referred for care and support services as per MOHW guidelines. Activities in Jamaica closed in February 2020.

Jamaica, it was agreed with the MOHW that the operational protocol will serve the guiding document in the MOHW's efforts to operationalize automated case management of children with CSaZ.

- ASSIST worked with host country teams, MOH leaders, and technical experts from the AAP in the four ESC countries to co-develop and standardize clinical management pathways to ensure that every newborn and child who is identified as having microcephaly or other CSaZ anomalies is appropriately referred to a higher level of specialized care, in the right way and at the right time. A clinical management pathway was drafted and finalized in early FY20, which includes initial recommended clinical actions and evidence-based follow up care, based on the resources and services that are available across the four ESC countries.

Activity 2. Increase the provision of quality psycho-emotional support services for mothers and families affected by Zika

- In Ecuador, 100% of mothers and families of children with CSaZ are treated by professionals trained in psycho-emotional support. Additionally, 92% of children with CSaZ receive early stimulation and/or rehabilitation therapies.
- In Peru, 59 psychology professionals participated in the workshop “Psycho-Emotional Support for Pregnant Women or Mothers, their Partners and Family, with Suspected and / or Affected Children with Congenital Syndrome Associated with Zika.” Additionally, 31 Home Early Stimulation Kits (microporous floor, teaching cube, stackable toys, sponge, spoon, Tower of Hanoi, rattle, puzzles) were delivered. 500 copies of the *Regional Counseling Guide for Women of Childbearing Age and Pregnant Women in the Context of Zika* and 100 copies of the *Monitoring Protocol for pregnant women and children suspected or affected by Zika virus* were delivered.
- In Jamaica, ASSIST developed guidelines and a training video on the provision on the provision of psychosocial support. These products were transferred to the MOHW.

Activity 3. Increase the proportion of children attending well-children clinics who are screened for neurodevelopmental delays in accordance to national and international guidelines, and for those identified as suspected of, or having a neurodevelopmental delay, referred to the appropriate level of care

- In Ecuador, the project ensured that health care professionals correctly screened 75% of children in neurodevelopmental delays.
- In Peru, 42 nursing professionals participated in the Workshop “Early Development Care in Infants Exposed to Zika Virus Disease. Two online courses—one on psycho-emotional support and the other on screening for neurodevelopment milestones—were completed in December.
- The English language final report of the Zika Care and Support Collaborative implemented in the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, and Peru, summarizing the key activities, results, and tested changes to improve Zika care and support developed by QI teams, was completed and submitted to the USAID Zika point of contact and the AOR team on 6/25/20.

Jamaica

- NDS trainings, ongoing clinical and ECHO tele-mentoring as well as QI coaching conducted by ASSIST prepared master trainers (nurses) and ASSIST staff, have facilitated an increase in percentage of children attending well-child clinics whose head circumference is correctly documented and interpreted has increased from 39 in May 2019 to 76 in November 2019. Similarly, it led to an increase from 37 to 65 in proportion of children who have been correctly assessed for NDS according to the ASSIST updated child health record form (NDS tool). In turn, it resulted in a number from 4 to 14 increase of children who were identified with suspected developmental delays and referred for further neurological and psychomotor assessment.
- ASSIST provided training materials to support neurodevelopmental surveillance training for health care providers from phase 2 ASSIST-supported facilities. During the reporting period, Master Trainers from ASSIST-supported facilities have trained 90 of their colleagues in NDS and in the use of the updated child health record form (NDS tool)
- Sixty-five representatives from all 60 ASSIST-supported health facilities in Jamaica participated in the final learning session on October 16-17 to share experiences and change ideas about improving the quality of Neurodevelopmental Surveillance in well-childcare. In collaboration with the Jamaican MOHW, the learning session also sought to further enhance regional referral pathways for children with suspected developmental delays.
- In November 2019, ASSIST presented the case management framework for children identified with suspected developmental delays to 29 medical officers at their national monthly meeting facilitated by the Ministry of Health and Wellness (MOHW) in Kingston. Participants were then asked to review and make suggestions for the next version of the case management framework. The case management framework has been further finalized and submitted to the MOHW.
- One hundred and twenty kits (two kits per ASSIST-supported site in Jamaica) to help care providers implement NDS have been procured by ASSIST and delivered to ASSIST-supported facilities. Each kit contains sensory stimulation toys and books to be used by nurses to conduct neurodevelopmental surveillance during well-child clinics. The health care providers highly appreciated the support.
- Two TV sets, a video conferencing system and a desktop have been procured for the MOHW's ECHO hub. ASSIST supported the MOHW's Family Health Unit in leading three NDS ECHO tele mentoring session on November 8, 22, and December 6, 2020.
- In December, the MOHW officially approved for implementation the ASSIST-supported redesign of the National Child Health Record.
- ASSIST finalized a training video for Jamaican health care providers on conducting neurodevelopmental surveillance in well-child clinics and two videos on early child stimulation.

Eastern and Southern Caribbean Countries

- All four Ministries of Health in the four ESC countries have integrated, or have plans to integrate in the near future, the updated neurodevelopmental surveillance (NDS) tool into the child health records for community-based health centers.
- Community-based health centers in all four ESC countries continue using the updated NDS tool to document the assessments of children under five year for neurodevelopmental delays and their referral to care.
- All four ESC countries demonstrated improvements in the identification of children under five years with potential neurodevelopmental deficiencies (e.g., abnormal head circumference

measurement, presence of select risk factors and phenotypical alterations, and delayed development of reflexes, skills, behaviors, and positions appropriate for their age).

- All four countries achieved standardized use of the referral pathway (finalized in FY19) for health care workers to use when referring children with suspected or confirmed CSaZ to higher levels of care.
- ASSIST conducted the final technical assistance visits to the four countries in November 2019 and January 2020, reaching a total of 192 nurse midwives and health care workers to further build their capacity to appropriately complete the neurodevelopmental surveillance form using case scenarios.

Activity 4. Improve newborn care, specifically focused on improving standard evaluation at birth to detect suspected CSaZ

- In Ecuador, 100 *Guidelines for the use of the DENVER II Developmental Screening Test Kit* were produced and distributed in 13 health facilities.
- In Peru, 350 CLAP tapes for measuring head circumference were donated to prioritized health facilities in the Piura and Tumbes regions. These tools ensure that head circumference measurement is standardized throughout the regions.

ESC Countries

- All 4 ESC countries demonstrated improved results in the percentage of newborns who were screened for microcephaly, and the percentage of newborns who were appropriately evaluated for other symptoms of CSaZ. This was achieved through building the capacity of health care workers at the hospital level to routinely and properly measure, document, and classify head circumference of newborns within the first 24 hours of birth, and then repeatedly before discharge. Newborns were also routinely evaluated for visible congenital brain abnormalities, and mothers who gave birth at the hospital were screened for signs and symptoms of Zika virus infection (rash, red eyes, joint pains, fever), or reviewed lab results of Zika virus infection during pregnancy.

Activity 5. Enhance regional Zika Response by sharing technical resources and lessons learnt across English-Speaking Caribbean Zika Technical Working Group member countries

- The Zika technical working group for English-speaking Caribbean countries held three virtual meetings on October 8, 2019, January 17, 2020, and May 20, 2020.
- During the May 2020 call, ASSIST presented achievements and lessons learned on monitoring child neurodevelopment using the updated surveillance tool in the five Caribbean countries.
- ASSIST transitioned the role of Chairperson and Coordinator of the Technical Working Group to the Caribbean Public Health Agency (CARPHA)
 - Starting in May, the Zika Technical Working Group will be folded under the Caribbean Vector-Borne Diseases Network (CariVecNet), an existing working group under CARPHA that aims to foster collaboration amongst member countries and public health partners (e.g., CDC, WHO) in order to strengthen vector-borne diseases.

Technical Leadership Activities

Webinars

- **“Improving Care and Support for Zika Affected Infants and Mothers: The Experience of the ASSIST Project in 13 LAC Countries”**: On October 2, 2019, ASSIST’s Graciela Avila and Diana Chamrad discussed the importance of finding women and children affected by Zika to assure that needed services such as psychosocial support are available and linked across the health system. The webinar recording is available at: <https://ghpod.adobeconnect.com/p567cmt9ngqu/>.
- **Data Recording Webinar presented for QI teams in Jamaica**: Between November 18-19, 2019, a total of 25 health care providers from well-child clinics attended four Data Webinars hosted by ASSIST Jamaica’s Data and Administrative Assistant Chevaughn Miller on how to correctly record data for the five indicators being tracked by facility-based QI teams in Jamaica and how to plot and annotate time series graphs in Excel to display their results. The webinar recording is available at: <https://www.usaidassist.org/content/jamaica-data-recording-webinar>.
- **“Improving prevention of Zika virus infection, early detection of its harmful consequences and care and support of babies and families potentially affected by Zika: What we learned through work with over 800 facilities in 13 countries”**: On January 12, 2020, ASSIST staff Tamar Chitashvili, Jorge Hermida, Charlene Coore-Desai, and Maria-Jose Escalante presented an overview of USAID ASSIST’s comprehensive approach to the Zika response in LAC, shared selected high-level results from countries, and presented lessons learned. The recording may be viewed at: <https://www.usaidassist.org/content/zika-webinar-series-improving-prevention-zika-virus-infection-early-detection-its-harmful>.
- **Health Systems Global webinar on Sustainable Improvement Efforts**: On March 12, 2020, Dr. Massoud presented on “Sustainable Improvement” for the Health Systems Global Quality in Universal Health Coverage Technical Working Group. Dr. Massoud’s presentation highlighted ASSIST’s learning about key factors contributing to the sustainability of Zika improvement efforts and presented the ASSIST Guide for Developing Sustainability and Transition Plans. A PDF of the presentation is available at: <https://www.usaidassist.org/content/webinar-sustainable-improvement-efforts>.
- **Virtual Chief Medical Officer (CMO) Summit for ASSIST-supported Caribbean countries**: On May 21 and 28, 2020, ASSIST conducted a virtual CMO Summit with MOH representatives from Jamaica and St. Vincent and the Grenadines in order to support the countries in planning and operationalizing different structures and processes for continuous improvement in healthcare, and to strengthen the network of ASSIST-supported Caribbean countries beyond the end of the ASSIST Project. Country teams completed a template to map out their human resources at three levels of the health care system and made plans for the formation of a QI unit and to advocate for policies that would help address some gaps in human resources and competencies.

Conferences and workshops

- **International Conference of the International Society for Quality Assurance (ISQua) in Cape Town, South Africa** (October 20-23, 2019): M. Rashad Massoud presented a session

on the Sustainability and Transition of improvement activities, drawing on the Zika Sustainability and Transition workshops convened with senior MOH officials in Dominican Republic, Guatemala, Honduras and Paraguay and with university leaders in Nicaragua and on informal conversations with country leaders in other ASSIST-supported Zika programs.

- **AAP National Conference and Exhibition** (Oct. 25-29, 2019): Dr. Chitashvili presented a poster on Improving Early Childhood Development in the context of Zika response in the Caribbean at the American Academy of Pediatrics National Conference and Exhibition in New Orleans, LA, Oct. 25-29th, 2019. The poster, which highlighted collaborative efforts of URC and AAP team to strengthen well-baby care systems and improve nurturing care and neurodevelopmental surveillance in Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines, was recognized as the “Best Quality Improvement Poster” at the conference.
- **Jamaica:** On December 4, 2019 ASSIST and the Ministry of Health and Wellness of Jamaica held a harvest meeting for 38 MOHW representatives including regional health authorities, health managers, and care providers from ASSIST-supported facilities. Participants convened to share key knowledge, experiences, observations, and other learnings from the project, and to document recommendations for future initiatives. On December 5, 2019, ASSIST held a meeting with key counterparts from the MOHW, the Family Health Unit, regional health authorities, master trainers, and other health care providers and technical personnel to re-examine the Scale-Up and Sustainability Plan developed in 2018 and discuss the inclusion of additional interventions and elements to sustain beyond the project’s end.
- **ESC countries:** ASSIST conducted the final two-day learning session in Q1 and Q2 in all four ESC countries. A total of 188 health care providers and educators were trained across all four countries. Content of the learning session included:
 - Sharing lessons learnt and QI best practices across facility teams
 - Presentations and peer reviews of plan-do-study-act cycles by facility QI teams
 - Case scenarios on Neurodevelopmental Surveillance (NDS) and correct completion of the NDS tool
 - Refresher on the principles of QI
 - Coaching in quality improvement
 - Introductions of psycho-social support guidelines and job aides
- The MOHW of Jamaica submitted an abstract entitled “Strengthening Health Services in the Context of Zika in Jamaica: Improving Neurodevelopmental Surveillance of Infants and Young Children in Well-Child Clinics” for the International Forum on Quality and Safety in Health Care that will take place in Copenhagen, Denmark on Tuesday, 28 - Thursday, 30 April 2020. The abstract was accepted for a poster presentation. However, due COVID-19 the International Forum was postponed. This submission demonstrates the MOHW’s ownership and commitment to advance achievements gained under the partnership between USAID ASSIST and the MOHW.
- Three abstracts on ASSIST Zika results were submitted to international conferences after the AOR gave her non-objection since no ASSIST funds would be used to support the presentations if accepted:
 - FHI 360 submitted the abstract, “Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador,” for presentation at the ISQua Conference in Florence, Italy, 30 Aug – 2 Sept 2020.

- FHI 360 submitted the abstract, “Improving Zika care through quality improvement: A qualitative study of the USAID ASSIST Zika response in Peru,” for presentation at the 6th Global Symposium on Health Systems Research, Dubai, Nov 8-12, 2020.
- Elena Hurtado submitted the abstract, “Healthcare quality improvement and providers’ behavior change: what worked in Zika prevention and control in Latin America,” for presentation at the 2020 International Social and Behavior Change Communication Summit, Marrakech, Morocco, March 30-April 3. The Summit has been postponed.

Virtual course

- In Ecuador, the Neurodevelopment Virtual Course ended October 8, 2020 with 96% of participants finishing the course and 90% (250 participants) passing the course.
- In Peru, 247 health professionals took the “Psycho-emotional Support for Pregnancy and Families Affected by Microcephaly and Other Neurological Complications in the Context of Zika Virus” virtual course.

Job Aids, Clinical Guidelines and Protocols

- In Ecuador, guidelines for the use of the DENVER II Developmental Screening Test Kit were developed and produced.
- In Peru, *Regional Counseling Guide for Women of Childbearing Age and Pregnant Women in the Context of Zika* and *Monitoring and Protocol for pregnant women and children suspected or affected by Zika virus* were produced and delivered to the regional health directorates in Piura and Tumbes.
- In Jamaica, we supported the MOHW to publish *Psychosocial Support for Women and their Families and Persons with Guillain-Barré Syndrome, Affected by Zika Virus: Guidelines for Health Providers* (December 2019).
- In the ESC countries, a summary report of activities for the period of implementation, as well as a link to a OneDrive folder with the final electronic versions of all job aids, tools, guidelines, and products co-developed with the MOH, were distributed to the Chief Medical Officers, ASSIST focal persons, QI coaches, and other MOH representatives (May 2020).
- In the ESC countries, the Psychosocial Support Guidelines for Health Providers and referral pathways for mental health services were finalized based on feedback and approval from MOH representatives and uploaded to the OneDrive folder (May 2020).

Knowledge Management Products and Activities

During FY20, the following Zika-related research reports were finalized (date published indicated in parentheses):

- Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving antenatal care in Latin America. *Research and Evaluation Report* (submitted for approval on 1/17/20)
- Assessing the quality of USAID ASSIST Zika program data in the Dominican Republic. *Research and Evaluation Report* (December 2019)
- Barriers and facilitators to head circumference and neurodevelopmental surveillance in well-child clinics in Jamaica. *Research and Evaluation Report* (December 2019)

- Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador. *Research and Evaluation Report* (December 2019)
- Evaluation of the Region-Led Expansion of Zika Prevention, Care, and Support Best Practices in the Dominican Republic. *Research and Evaluation Report* (November 2019)
- Jamaica Neurodevelopmental Surveillance in the Age of Zika ECHO Evaluation. *Research and Evaluation Report* (December 2019)
- Using a Quality Improvement Approach to Strengthen Clinical Zika Services: Head Circumference Measurement and Provider Perceptions in Peru. *Research and Evaluation Report* (May 2020)
- Latin America and Caribbean Zika Extension for Community Healthcare Outcomes Evaluation. *Research and Evaluation Report* (June 2020)

The following Zika-related technical reports and knowledge products were published during FY20:

- Tamizaje adecuado de microcefalia, un desafío en el Hospital Básico de Shushufindi, Ecuador (*Case Study*, October 2019)
- Gender Issues Influencing Zika Response in Dominica (*Technical Report*, November 2019)
- Disability in the Caribbean: Social Inclusion Challenges and the Impact of Support Programs for Families Learned from Zika Response (*Case Study*, November 2019)
- An Argument for Paternity Leave and Progressive Maternity Policies: Lessons from Country Governments and Private Sector in the Caribbean (*Case Study*, November 2019)
- Male Partner Engagement in Antenatal Care and Zika-related Health Care (*Short Report*, November 2019)
- Gender Issues Influencing Zika Response in Paraguay (*Technical Report*, November 2019)
- Involving Health Posts in Quality Improvement of Prenatal Care in the Context of Zika (*Case Study*, December 2019)
- Involucramiento de los Puestos de Salud en la Mejora de la Atención Prenatal en el Contexto de Zika en Guatemala (*Case Study*, December 2019)
- Informe Resumen de las Actividades del Proyecto de USAID “Aplicando la Ciencia a Fortalecer y Mejorar los Sistemas de Salud” en el Ecuador (*Technical Report*, December 2019)
- Jamaica: Gender Considerations in the Context of Zika Emergency Response Programming (*Technical Report*, December 2019)
- Eastern and Southern Caribbean: Gender Considerations in the Context of Zika Emergency Response Programming (*Technical Report*, December 2019)
- Gender Issues Influencing Zika Response in Antigua (*Technical Report*, December 2019)
- Activities of the American Academy of Pediatrics in the Zika Program of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project in the Eastern and Southern Caribbean (*Technical Report*, January 2020)
- Gestantes evaluadas adecuadamente durante la atención prenatal en la Unidad de Salud de Zarumilla en el Perú (*Case Study*, January 2020)
- Summary Report of the USAID Applying Science to Strengthen and Improve Systems Project in Jamaica (*Technical Report*, January 2020)
- Informe Resumen de las Actividades del Proyecto de USAID “Aplicando la Ciencia para Fortalecer y Mejorar los Sistemas de Salud” en el Perú (*Technical Report*, January 2020)

- Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in Antigua and Barbuda (*Technical Report*, April 2020)
- Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in Dominica (*Technical Report*, April 2020)
- Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in St. Kitts and Nevis (*Technical Report*, April 2020)
- Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in St. Vincent and the Grenadines (*Technical Report*, April 2020)
- Application of Quality Improvement Approaches in Strengthening Health System Resilience for Zika Emergency Preparedness, Response, and Health Care in Honduras (*Consultant Report*, May 2020)
- Collaborative improvement of newborn care focused on screening for microcephaly in the context of Zika in selected countries of Latin America and the Caribbean (*Technical Report*, May 2020)
- Enhancing the connectivity and confidence of healthcare officers in Jamaica through Project ECHO. *Case Study* (May 2020)
- Collaborative improvement of prenatal care to prevent and control Zika in selected countries of Latin America and the Caribbean (*Technical Report*, May 2020)
- Collaborative Improvement of Care and Support for Children and Families Affected by Zika in Selected Countries of Latin America and the Caribbean. Technical Report (*Technical Report*, June 2020)

ASSIST submitted the following research report which is pending AOR approval as of June 30, 2020 (date submitted indicated in parentheses):

- Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving antenatal care in Latin America. *Research and Evaluation Report* (1/17/20)

ASSIST also submitted the Final Progress Report on the USAID ASSIST Project USAID Zika Program (Performance Period – June 1, 2016 to June 29, 2020) to the AOR and Mr. Eric Baranick of the Zika team on 6/30/20.

Research and Evaluation

- **WHO conceptual Framework development and testing in Honduras:** This case study sought to gain an operational understanding of quality improvement interventions implemented in the context of the Zika outbreak and their role in improving preparedness and response capacities of health facilities and regional and national level authorities in Honduras. The case study was developed by a WHO consultant. Based on USAID feedback on the initial draft, a revised version was submitted to the AOR for review and approval on 4/9/2020. The revised consultant report was approved by the AOR in May and published.
- **Using a Quality Improvement Approach to Strengthen Clinical Zika Services: Evidence from Antenatal and Newborn Care in Peru (includes cost effectiveness analysis).** The report was submitted to the Peru Mission on 9/10/2019. A revised version addressing the Missions' comments was submitted on 1/17/2020. The Mission informed ASSIST that it was not satisfied with the revised report. ASSIST requested the opportunity

to resubmit a revised report omitting the objectives and sections the Peru Mission objected to due to study design limitations (Objectives 1, 2, 5). A revised version with these changes was submitted to the Mission on 3/27/2020, and the Mission provided approval on 5/12/2020. The revised *Research and Evaluation Report* was approved by the AOR in May and published.

- **Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving care in five Latin American countries (Honduras, Guatemala, Dominican Republic, Nicaragua, and Paraguay):** The report was submitted 1/17/20 for AOR review and approval, and as of 6/30/20, was still pending approval.
- **Case Study: Rapid Multi-Country, Parallel Process Multi-Tasking for Project Startup:** The manuscript, “Evaluation of the Rapid, Multi-Country, Parallel Process, Multi-Tasking Approach to Startup of Short-Term Technical Assistance to Improve Service Delivery in Newborn and Child Health in the Context of USAID’s Zika Response in Four Eastern and Southern Caribbean Countries,” was approved by the AOR on 2/29/2020 and submitted to the online platform *F1000Research* for peer review on 3/10/2020. It was published on April 9, 2020 and is available at: <https://f1000research.com/articles/9-251>.
- **Evaluation of ASSIST Extension for Community Health Care Outcomes (ECHO) in Latin America:** This evaluation was conducted in collaboration with the American Association of Pediatrics to assess LAC Zika ECHO participants’ self-reported competencies and skills, satisfaction with the LAC Zika ECHO program, and changes in practice following participation in the program. The report was submitted to the AOR for review and approval on 1/13/2020 and approved on 6/26/20.

Challenges and Remedies

- The COVID emergency has necessarily become the priority focus of Ministry of Health officials in the Caribbean countries, causing the reprogramming of the proposed Caribbean Chief Medical Officer Summit as a virtual rather than in-person event.

Sustainability and Transition

- On December 5, 2019, ASSIST and the MOHW of Jamaica held a Closeout ceremony and Sustainability & Transition meeting for 43 participants including representatives from the MOHW, Regional Health Authorities, ASSIST-supported facilities, USAID, and ASSIST. The Closeout ceremony was chaired by the Director of the Health Services Planning and Integration Unit, Dr. Naydene Williams, and the MOHW’s Permanent Secretary, Mr. Dunstan Bryan. The USAID/Jamaica Country Representative, Mr. Jason Fraser, offered welcoming statements that commended ASSIST for building a strong partnership with the MOHW and achieving sustainable results. Dr. Melody Ennis, Director of the MOHW Family Health Unit, delivered a presentation about key accomplishments under the two-year partnership between MOHW and ASSIST on “Strengthening Health Services in the Context of Zika”. The Sustainability & Transition meeting highlighted key accomplishments, as well as reviewed and proposed additional actions to enhance the 2018 MOHW and ASSIST plan “Enhancing Scale-up and Sustainability of Health Services Strengthening in the Context of Zika in Jamaica.”
- ASSIST convened a one-day Sustainability and Transition policy discussion meeting in each of the ESC countries in Q2 of 2020 to actively plan the transition of the USAID co-

implemented activities to full country ownership. The meeting dates were: Jan. 24, 2020 in St. Kitts; Jan. 30, 2020 in St. Vincent; Feb. 3, 2020 in Antigua; and Feb. 10, 2020 in Dominica. The meetings were facilitated using the ASSIST-developed “Guide for Developing Sustainability and Transition Plans” to frame the discussion around primary issues, processes, and other factors to consider in the development of a sustainability and transition plan. The objectives of the meetings were to:

- Present the results and achievements from the implementation of the USAID ASSIST project in each of the four ESC countries
- Co-develop a plan for sustainability and transition that clearly outlined a shared vision of prioritized activities, timelines, and methods to hand over, sustain, and institutionalize newborn and child care improvement activities after the project end date

Meeting participants included MOH focal persons and decision-makers, QI coaches, principal nursing officers, supervisory nurses, physicians, educators, and other stakeholders. The project provided an electronic copy of a list of all evidence-based interventions that were co-implemented during the short-term technical assistance in each country and recommended for sustainability. During each meeting, participants reviewed the activity list, then engaged in an in-depth discussion to identify prioritized interventions for sustainability, the individual skills and competencies needed to carry out those interventions, systems and resources needed to sustain those activities, the entities that would be responsible for implementing the activities, and the challenges and opportunities for these various components. Findings from the meetings were documented in country-specific Sustainability and Transition Plans, which were reviewed and approved with the MOH for each country. The plans were finalized and distributed to the MOH of each country and USAID in May 2020.

COMMON AGENDA ACTIVITIES

GLOBAL TECHNICAL LEADERSHIP

Background

ASSIST's global technical leadership activities on behalf of USAID seek to further advance and inform the field of improvement globally by engaging and building capacity of USAID staff, implementing partners, and global health organizations to apply improvement approaches. The project also aims to serve as a conduit and catalyst for sharing, learning, and advancement in the field of improvement applied to health and social services. Technical leadership activities are carried out primarily by the project management, technical unit leads, and country teams with support provided by the project's knowledge management team for the development of technical publications and conference presentations.

Program Overview

What did we try to accomplish?	At what scale?
1. Increase application of improvement methods	
<ul style="list-style-type: none">Expand the use of modern improvement approaches in USAID-assisted health care systems and by USAID cooperating agencies through global technical leadership for USAID's worldwide efforts to improve health care in developing countries	<ul style="list-style-type: none">Global, regional
2. Demonstrate results	
<ul style="list-style-type: none">Demonstrate the results of USAID's investment in health care quality improvement	<ul style="list-style-type: none">Global, regional

Accomplishments and Results by Activity

Activity 1. Increase application of improvement methods

- Presented three sessions on improvement strategies and ASSIST results** at the 36th International Conference of the International Society for Quality Assurance (ISQua) in Cape Town, South Africa (October 20-23, 2019)
 - M. Rashad Massoud presented a session on the Sustainability and Transition of improvement activities, drawing on the ASSIST Sustainability and Transition workshops convened with senior MOH officials in Dominican Republic, Guatemala, Honduras and Paraguay and with university leaders in Nicaragua and on informal conversations with country leaders in other ASSIST- supported Zika programs.
 - Astou Coly and M. Rashad Massoud (Community of Practice Co-Chair) convened the first in-person meeting of the Community of Practice (CoP) on "Learning about Improvement"
 - M. Rashad spoke on panel for the Learning Journey Advanced Session, "Patient Safety Debate: How to Achieve Exemplary Patient Safety: through Implementation Science or Improvement Science?"

- **Presented a poster on Improving Early Childhood Development in the context of Zika response in the Caribbean at the AAP National Conference and Exhibition** (Oct. 25-29, 2019): Dr. Chitashvili presented the poster, which highlighted collaborative efforts of URC and AAP team to strengthen well-baby care systems and improve nurturing care and neurodevelopmental surveillance in Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines, The poster was recognized as the “Best Quality Improvement Poster” at the conference.
- **Presented on improvement topics in the American University of Beirut course on Advanced Program Planning and Evaluation:** On March 25-27, 2020, Dr. Massoud gave three lectures via Zoom to American University of Beirut students and faculty on Improving Healthcare, Scaling up Improvements, and Designing Improvement Evaluations to Maximize Learning.
- **Hosted a webinar for the ISQua Community of Practice on Learning about Improvement:** On March 27, 2020, Dr. Massoud and Ms. Leighann Kimble co-chaired a webinar for ISQua’s Community of Practice on Learning about Improvement, featuring a talk by Helen Crisp on “Learning from Measurements in Improvement.”

Activity 2. Demonstrate results

- **Completed case studies and reports on project results:** During FY20, the project published one peer-reviewed article and submitted two other manuscripts for peer review. ASSIST published seven case studies and four case study compendia; 27 technical reports, 13 research and evaluation reports (and submitted three other research and evaluation reports that are still pending AOR approval), and four guides. The project also submitted seven annual reports (see **Table 1.**)
- **Completed the QI Case Book manuscript and submitted it to Springer Publishing:** As discussed in more detail in the Knowledge Management section below, Lani Marquez successfully submitted all of the text files and images for the 14 chapters of *Improving Health Care in Low- and Middle-Income Countries: A Case Book* to Springer’s editorial system on December 30, 2019. The online book was published on May 27, 2020. ASSIST sponsored a webinar with the Office of Health Systems and all of the QI case lead authors to promote the online book.
- **Convened the ASSIST end-of-project Capstone event:** In close consultation with the AOR team, ASSIST developed a concept note for an in-person Capstone event in April at the new Global Health Bureau office. Due to COVID-19 restrictions, in early March, the plan for an in-person event was changed to a webinar. Discussions with the AOR team continued through the end of March on the proposed content and timing of the webinar, which was scheduled for April 23, 2020 (see **Briefings, presentations, and webinars** below for more information).

Table 1: USAID ASSIST Project publications, FY20

Journal Articles (Date Published)
Evaluation of the Rapid, Multi-Country, Parallel Process, Multi-Tasking Approach to Startup of Short-Term Technical Assistance to Improve Service Delivery in Newborn and Child Health in the Context of USAID's Zika Response in Four Eastern and Southern Caribbean Countries (published on April 9, 2020 and available at: https://f1000research.com/articles/9-251)
Reflections from Over a Decade of Managing Large, Global, USAID-Funded Quality Improvement Projects (approved by the AOR on 5/26/20; pending acceptance by <i>F1000 Research</i>)
The Next Frontier of Improvement: Remaining Gaps and Priorities (approved by AOR on 6/9/20; pending acceptance by <i>F1000 Research</i>)
Case Studies (Date Published)
Tamizaje adecuado de microcefalia, un desafío en el Hospital Básico de Shushufindi, Ecuador (October 2019)
Disability in the Caribbean: Social Inclusion Challenges and the Impact of Support Programs for Families Learned from Zika Response (November 2019)
An Argument for Paternity Leave and Progressive Maternity Policies: Lessons from Country Governments and Private Sector in the Caribbean (November 2019)
Involucramiento de los Puestos de Salud en la Mejora de la Atención Prenatal en el Contexto de Zika en Guatemala (December 2019)
Involving Health Posts in Quality Improvement of Prenatal Care in the Context of Zika (December 2019)
Gestantes evaluadas adecuadamente durante la atención prenatal en la unidad de salud de Zarumilla en el Perú (January 2020)
Reproductive, Maternal, Newborn, and Child Health Case Studies from the USAID Applying Science to Strengthen and Improve Systems Project, 2014-2017 (April 2020)
HIV and AIDS Case Studies from the USAID Applying Science to Strengthen and Improve Systems Project, 2013-2018 (April 2020)
Other Topic Case Studies from the USAID Applying Science to Strengthen and Improve Systems Project, 2016-2017 (April 2020)
Enhancing the connectivity and confidence of healthcare officers in Jamaica through Project ECHO (May 2020)
Zika Case Studies from the USAID Applying Science to Strengthen and Improve Systems Project, 2018-2020 (May 2020)
Technical Reports (Date Published)
Key Findings of the Ghana Situational Analysis of Inpatient Care of Sick Newborns and Young Infants (<i>Technical Report</i> , October 2019)
Gender Issues Influencing Zika Response in Paraguay (<i>Technical Report</i> , November 2019)
Gender Issues Influencing Zika Response in Dominica (<i>Technical Report</i> , November 2019)
Eastern and Southern Caribbean: Gender Considerations in the Context of Zika Emergency Response Programming (<i>Technical Report</i> , December 2019)
Gender Issues Influencing Zika Response in Antigua (<i>Technical Report</i> , December 2019)
Gender Considerations in the Context of Zika Emergency Response Programming (<i>Technical Report</i> , December 2019)

Informe Resumen de las Actividades del Proyecto de USAID “Aplicando la Ciencia a Fortalecer y Mejorar los Sistemas de Salud” en el Ecuador (<i>Technical Report</i> , December 2019)
Activities of the American Academy of Pediatrics in the Zika Program of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project in the Eastern and Southern Caribbean (<i>Technical Report</i> , January 2020)
Summary Report of the USAID Applying Science to Strengthen and Improve Systems Project in Jamaica (<i>Technical Report</i> , January 2020)
Informe Resumen de las Actividades del Proyecto de USAID “Aplicando la Ciencia para Fortalecer y Mejorar los Sistemas de Salud” en el Perú (January 2020)
Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in Antigua and Barbuda (<i>Technical Report</i> , April 2020)
Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in Dominica (<i>Technical Report</i> , April 2020)
Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in St. Kitts and Nevis (<i>Technical Report</i> , April 2020)
Summary Report of the Activities of the USAID Applying Science to Strengthen and Improve Systems Project in St. Vincent and the Grenadines (<i>Technical Report</i> , April 2020)
Improving the Quality of Integrated Management of Newborn and Childhood Illnesses in Gulu, Omoro, and Nwoya Districts in Northern Uganda (<i>Technical Report</i> , April 2020)
Effectiveness and Cost-effectiveness of Quality Improvement Interventions for Integrated Management of Newborn and Childhood Illness in Northern Uganda (<i>Technical Report</i> , April 2020)
Care and Support for Mothers, Infants, and Families Affected by Zika: Sharing Lessons Learned and Recommendations for the Future (<i>Technical Report</i> , April 2020)
Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Health Care in Uganda and Kenya (<i>Technical Report</i> , April 2020)
Key Findings of the Assessment of Quality of Reproductive, Maternal, Newborn, Child, and Adolescent Health Care in Uganda and Kenya (<i>Technical Report</i> , April 2020)
Collaborative Improvement of Prenatal Care to Prevent and Control Zika in Selected Countries of Latin America and the Caribbean (<i>Technical Report</i> , May 2020)
Collaborative Improvement of Newborn Care Focused on Screening for Microcephaly in the Context of Zika in Selected Countries of Latin America and the Caribbean (<i>Technical Report</i> , May 2020)
Application of Quality Improvement Approaches in Strengthening Health System Resilience for Zika Emergency Preparedness, Response, and Health Care: Honduras Case Study (<i>Consultant Report</i> , May 2020)
Gender Issues Influencing Zika Response in Ecuador (<i>Technical Report</i> , May 2020)
Integrating Gender Considerations in the Zika Response: Activities of WI-HER, LLC on the USAID Applying Science to Strengthen and Improve Systems Project (<i>Technical Report</i> , May 2020)
USAID ASSIST Project Country Integrated Design: Strategic Approach and Country Examples (<i>Technical Report</i> , May 2020)
Assessment of Quality of Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and HIV Care in Uganda and Kenya (<i>Technical Report</i> , May 2020)

Collaborative Improvement of Care and Support for Children and Families Affected by Zika in Selected Countries of Latin America and the Caribbean (<i>Technical Report</i> , submitted for AOR approval on 6/25/20)
Research and Evaluation Reports (Date Published)
Evaluation of the Region-Led Expansion of Zika Prevention, Care, and Support Best Practices in the Dominican Republic (<i>Research and Report</i> , November 2019)
Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador (<i>Research and Report</i> , December 2019)
Assessing the quality of USAID ASSIST Zika program data in the Dominican Republic (<i>Research and Report</i> , December 2019)
Barriers and facilitators to head circumference and neurodevelopmental surveillance in well-child clinics in Jamaica (<i>Research and Report</i> , December 2019)
Jamaica Neurodevelopmental Surveillance in the Age of Zika ECHO Evaluation (<i>Research and Report</i> , December 2019)
ASSIST Technical Assistance to CSOs for VMMC Improvement Activities in Uganda: The Case of TASO Gulu (<i>Research and Report</i> , January 2020)
Evaluation of a point-of-care HIV testing improvement intervention in Kenya (<i>Research and Report</i> , March 2020)
Analysis of ASSIST program activities for improving the quality of services for PMTCT, 90-90-90 targets, and malaria in Uganda (<i>Research and Report</i> , March 2020)
Data validation in quality improvement: A review of validation exercises under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project (<i>Research and Report</i> , April 2020)
Improving the Quality of Services for Vulnerable Children and Families in Malawi: An Evaluation (<i>Research and Report</i> , May 2020)
Cost-effectiveness analysis of quality improvement: A review of studies under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project (<i>Research and Report</i> , May 2020)
Using a Quality Improvement Approach to Strengthen Clinical Zika Services: Head Circumference Measurement and Provider Perceptions in Peru (<i>Research and Report</i> , May 2020)
Latin America and Caribbean Zika Extension for Community Healthcare Outcomes Evaluation (<i>Research and Evaluation Report</i> , June 2020)
Assessment of Effectiveness and Cost-effectiveness of the Quality Improvement (QI) Guide on QI Processes and Maternal and Newborn Care in Uganda (<i>Research and Evaluation Report</i> , June 2020)
Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving antenatal care in Latin America (<i>Research and Report</i> pending AOR approval; submitted 1/20/20)
A comparison of improvements in anemia indicators in ASSIST and non-ASSIST sites in Mali (<i>Research and Report</i> pending AOR approval; submitted 6/10/20)
Use of comparison groups in quality improvement: A review of analyses under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project (<i>Research and Report</i> , pending AOR approval; submitted 6/10/20)
Guides and Tools (Date Published)
Male Partner Engagement in Antenatal Care and Zika-related Health Care (November 2019)

Psychosocial Support for Women and their Families and Persons with Guillain-Barré Syndrome, Affected by Zika Virus: Guidelines for Health Providers (Published for the Ministry of Health and Wellness of Jamaica) (December 2019)
Quality Improvement Coaching Guide for Middle Level Managers (May 2020)
Quality of Integrated Reproductive, Maternal, Newborn, Child, and Adolescent Health and HIV Services: Assessment Toolkit (June 2020)
Annual Reports (Date Published)
USAID ASSIST Project FY19 Annual Performance Monitoring Report (Nov. 2019)
USAID ASSIST Project FY19 Annual Documentation and Knowledge Management Report (Dec. 2019)
USAID ASSIST Project FY19 Research and Evaluation Report (Dec. 2019)
USAID ASSIST Project Tanzania FY19 Country Report (Dec. 2019)
USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project Annual Progress Report - USAID Zika Program (Dec. 2019)
USAID ASSIST Project FY20 Annual Documentation and Knowledge Management Report (June 2020)
USAID ASSIST Project FY20 Research and Evaluation Report (June 2020)

Briefings, presentations, and webinars:

- **USAID Zika webinar series presentations:** ASSIST staff presented in two USAID Zika webinars during the first two quarters of FY20:
 - **“Improving Care and Support for Zika Affected Infants and Mothers: The Experience of the ASSIST Project in 13 LAC Countries”:** On October 2, 2019, ASSIST’s Graciela Avila and Diana Chamrad discussed the importance of finding women and children affected by Zika to assure that needed services such as psychosocial support are available and linked across the health system. The webinar recording is available at: <https://ghpod.adobeconnect.com/p567cmt9ngqu/>.
 - **“Improving prevention of Zika virus infection, early detection of its harmful consequences and care and support of babies and families potentially affected by Zika: What we learned through work with over 800 facilities in 13 countries”:** On January 12, 2020, ASSIST staff Tamar Chitashvili, Jorge Hermida, Charlene Coore-Desai, and Maria-Jose Escalante presented an overview of USAID ASSIST’s comprehensive approach to the Zika response in LAC, shared selected high-level results from countries, and presented lessons learned. The recording may be viewed at: <https://www.usaidassist.org/content/zika-webinar-series-improving-prevention-zika-virus-infection-early-detection-its-harmful>.
- **Data Recording Webinar presented for QI teams in Jamaica:** On November 18 and 19, 2020, ASSIST Data Assistant Chevaughn Miller presented a webinar four times for QI teams in Jamaica on how to correctly record data for the five indicators being tracked by facility-based QI teams in Jamaica and how to plot and annotate time series graphs in Excel to display their results. The webinar recording is available at: <https://www.usaidassist.org/content/jamaica-data-recording-webinar>.

- **Health Systems Global webinar on Sustainable Improvement Efforts:** On March 12, 2020, Dr. Massoud presented on “Sustainable Improvement” for the Health Systems Global Quality in Universal Health Coverage Technical Working Group. Dr. Massoud’s presentation highlighted ASSIST’s learning about key factors contributing to the sustainability of improvement efforts and presented the ASSIST [Guide for Developing Sustainability and Transition Plans](#). A PDF of the presentation is available at: <https://www.usaidassist.org/content/webinar-sustainable-improvement-efforts>.
- **The Critical Role of Quality Improvement in the Era of the SDGs, UHC, and Countries’ Journey to Self-Reliance: Achievements and Learning from the USAID ASSIST Project:** On April 23, 2020, ASSIST convened the capstone webinar to highlight through presentations, commentary, and facilitated virtual discussions, the key lessons learned and achievements of the USAID ASSIST Project from 2012-2020 (FY13-FY20). Following welcoming remarks by Ms. Lisa Maniscalco ASSIST AOR, Dr. M. Rashad Massoud, Project Director, gave an overview presentation on ASSIST’s achievements. The presentation was followed by surprise remarks from Dr. Jim Heiby, former AOR of ASSIST. The webinar continued with four learning conversations:
 - How QI strengthens health systems, improves service delivery, and supports progress toward country self-reliance (Leader: Nigel Livesley; Commentator: Jackie Calnan, USAID Uganda)
 - Building individual and institutional capacity in QI (Leader: Tamar Chitashvili; Commentator: Ashok Deorari, All India Institute of Medical Sciences)
 - Organizing and institutionalizing structures and processes to sustain high quality health systems (Leader: Victor Boguslavsky; Commentator: Henry Mwebesa, MOH Uganda)
 - The strategic value of QI in addressing public health emergencies (Leader: Jorge Hermida; Commentator: Shivon Belle-Jarvis, MOH, Antigua and Barbuda)

Additional commentary was provided by Tim Quick, USAID/OHA, on the cross-country learning activities supported by ASSIST under the Partnership for HIV-Free Survival; Troy Jacobs, USAID/MNCH, on the value of QI in addressing critical MNCH problems; and Shams Syed of WHO on priorities to continue to build sustainable capacity for QI within country health systems in support of Universal Health Coverage and the Sustainable Development Goals. Closing remarks were provided by Ms. Kelly Saldaña, Director of the USAID Office of Health Systems, and Dr. Massoud. The webinar recording is available at

<https://youtu.be/svoTzliehbk?list=PLnKCNaCaKhoeYRE1IFIM2geP1Vxp4zBcf>.

- **Webinar: Case Book Launch: Improving Health Care in Low-and Middle-Income Countries:** On June 4, 2020 ASSIST presented this webinar to highlight, through a brief presentation and remarks from USAID and case book authors, how implementers can benefit from this new USAID-supported resource for health care improvement. The presentation outlined the scope of the book, who contributed cases (organizations that implemented the QI efforts and the funding organizations), how the cases were chosen to provide a broad portrait of what improvement efforts look like in low-resource settings, and highlighting some of the results produced by the cases featured. Following welcoming remarks by Lisa Maniscalco, ASSIST AOR and USAID Deputy Assistant

Administrator for Global Health Kerry Pelzman, the webinar featured commentary by Dr. Jim Heiby, the originator of the QI Case Book project, and Ms. Rhea Bright, Senior QI Advisor in the Office of Health Systems; and conversations with all 12 lead authors of the QI cases included in the book. Approximately 150 participants attended. The webinar recording is available at: <https://youtu.be/0qCKaxDWKil>.

- **Webinar: Improving Integrated Management of Newborn and Childhood Illness (IMNCI) in Uganda:** On 6/26/20, ASSIST and the USAID MNCH Office presented on the results of the IMNCI field work carried out by USAID ASSIST in Uganda. The webinar featured a presentation by Dr. Tamar Chitashvili on the key learning from this intervention about practical strategies to improve the equity, efficiency, and the quality of care for common childhood conditions. Commentary on the presentation was provided by Nicholas Mwanja (ASSIST IMNCI Activity Lead in Uganda), Troy Jacobs (Senior Medical Advisor, Office of MCHN, USAID), and Rhea Bright (Senior Quality Improvement Advisor, Office of Health Systems).

Challenges and Remedies

- Due to COVID-19 restrictions on meetings, ASSIST was not able to sponsor any in-person launch events for the QI Case Book. URC is committed to supporting the Office of Health Systems in organizing and supporting through social media and staffing any QI case book launch events that the Office of Health Systems sponsors after the closing of the ASSIST cooperative agreement.

KNOWLEDGE MANAGEMENT

Background

The focus of ASSIST knowledge management (KM) activities in year eight (FY20) was to complete the documentation of learning from the implementation of country-level improvement and research activities and make that learning available in a variety of knowledge product formats. We continued to promote new content on the ASSIST website and ASSIST webinars through Facebook, Twitter, and tapping into various listservs.

Program Overview

What are we trying to accomplish?	Scale
1. Support knowledge management and dissemination on the USAID ASSIST Project	
<ul style="list-style-type: none"> • Coordinate the preparation of annual work plan • Manage semi-annual and annual reporting to USAID • Support the finalization of knowledge products from non-Zika programs • Support the editing, formatting, approval process, and web posting of all ASSIST publications • Manage the ASSIST website • Create a curated page on the URC website with key ASSIST products • Post to ASSIST social media and various listservs (Health Systems Strengthening, Global Health Knowledge Collaborative, CORE Group, etc.) on ASSIST events and publications • Conduct ASSIST quarterly review meetings 	All ASSIST countries and activities

Accomplishments and Results by Activity

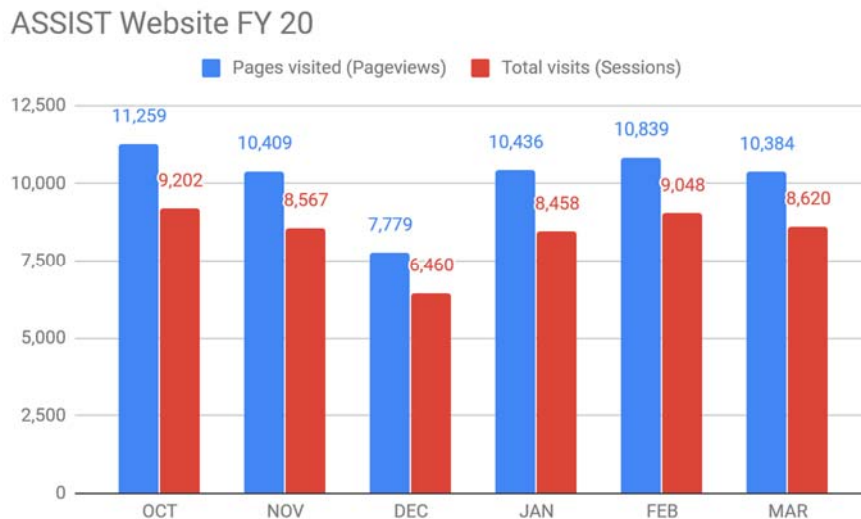
Activity 1. Support knowledge management and dissemination on the USAID ASSIST Project

- **Coordinated the preparation of the project's annual work plan:** The draft ASSIST FY20 Annual Work Plan was submitted for AOR review on September 10, 2019. In response to AOR team comments, a revised work plan (with tracked changes) was submitted to the AOR on 10/28/19. Additional comments from the AOR team were addressed in a second revision of the work plan submitted on 11/20/19. The revised work plan was approved by the AOR on 11/21/19.
- **Coordinated the preparation of the FY19 annual project performance monitoring report, the FY19 Documentation and Knowledge Management Report, the FY19 Research and Evaluation Report, and the FY19 USAID ASSIST Tanzania Annual Country Report:** The ASSIST FY19 Annual Performance Monitoring Report was submitted on time to the AOR team on November 13, 2019. The ASSIST FY19 Documentation and Knowledge Management Report and FY19 Research and Evaluation Report were submitted

to the AOR team on December 16, 2019. The ASSIST Tanzania Annual Country Report for FY19 was submitted to the USAID Mission on December 18, 2019.

- **Prepared and submitted to the USAID Zika team USAID ASSIST's FY19 Zika Annual Report:** The ASSIST FY19 Zika Annual Report and the indicators reporting through Q4 of FY19 were submitted to the USAID Zika team on Dec. 23, 2019.
- **Support the editing, formatting, approval process, web posting, and Development Experience Clearinghouse submission of all ASSIST publications:** During FY20, all remaining approved ASSIST publications were uploaded to the ASSIST website and submitted to the USAID Development Experience Clearinghouse.
- **Support the development of materials for review meetings with the ASSIST AOR:** No quarterly review meetings were organized in FY20.
- **Prepared and submitted to the USAID Zika team USAID ASSIST's End-of-Project Zika Report:** The end-of-project report summarized key activities, results, and learning from ASSIST's three-year Zika response support in 13 LAC countries following the reporting template provided by USAID. The report was submitted to the USAID Senior Zika Advisor Mr. Eric Baranick on 6/30/20.
- **Drafted the final report of the ASSIST Cooperative Agreement.** The draft report was submitted to the AOR team on 6/23/20. Comments were received from the Acting AOR, Ms. Rhea Bright, on 6/26/20. URC will revise the report to respond to Ms. Bright's comments and submit the final version, laid out by URC's graphic designers, in July.
- **Prepared and submitted the USAID ASSIST Project FY20 Documentation and Knowledge Management Report and the FY20 USAID ASSIST Project Research and Evaluation Report.** These two annual reports for FY20 were submitted to the AOR team on 6/30/20.
- **Sent to the USAID Health Systems Strengthening listserv a final message about the closing of the USAID ASSIST Project and featuring a curated list of "25 Essential Resources for Health Care Quality Improvement"** (6/29/20). The list highlights key guides, tools, and reports from ASSIST that will be available on the URC website at <https://www.urc-chs.com/assist-25>.
- **Manage the ASSIST website:** 50,355 visitors viewed 61,106 pages within the ASSIST Knowledge Portal (Oct 2019-March 2020) (see **Figure 1**). ASSIST resources (9,700 pageviews) and toolkits (2,500 pageviews) were the top visited areas of the site. Following the closing of the ASSIST Cooperative Agreement on 6/29/20, URC will continue to host the www.usaidassist.org website through September 2020 but will indicate on the site that information about the project and key products are available on the URC-CHS website at <https://www.urc-chs.com/assist>. ASSIST video content formerly on the project VIMEO page is now available at <http://bit.ly/ASSISTvideos>. Visitors will be encouraged to contact URC's webmaster to request any ASSIST product not posted on the URC website. All ASSIST publications have been archived by URC and will be made available upon request.

Figure 1: ASSIST Website Visits, October 2019—March 2020



- Completed the QI Case Book manuscript and submitted to Springer Publishing:** During the first quarter of FY20, Lani Marquez completed editing and prepared abstracts for the 14 chapters selected to be included in the book, *Improving Health Care in Low- and Middle-Income Countries: A Case Book*. The complete manuscript was submitted to Springer on 12/30/19 and shared with the USAID AOR team.
- Processed Springer edits to the QI Case Book manuscript:** The AOR team requested changes in the Acknowledgements, and these were relayed to Springer on 1/10/20. During the second quarter, Ms. Marquez responded to requests from Springer for edits to several cases to remove identifying information for individuals, to provide further information on chapter authors, and to obtain permission from FHI 360 for inclusion of the Academy for Educational Development’s BEHAVE format in the Guatemala case. FHI 360 provided permission for the use of the BEHAVE format. A mock-up of the book’s cover was shared with USAID on 3/5/20, and requested changes were conveyed to Springer on 3/19/20.
- Reviewed page proofs for all 14 chapters of the QI Case Book:** Springer provided page proofs to all chapter authors on March 26-27, 2020. Ms. Marquez proofread all of the chapters and worked with each of the authors to indicate to Springer any corrections required.
- The QI Case Book went live on 5/27/20 on Springer’s website**
<https://www.springer.com/us/book/9783030431112>: URC promoted the book on Twitter and Facebook, and the USAID Office of Health Systems announced the book’s availability and the launch webinar on 6/4/20 on the USAID Health Systems Strengthening listserv. Personal invitations to access the book and join the launch webinar were sent to contacts at the World Bank, Johns Hopkins Bloomberg School of Public Health, the George Washington University School of Public Health, Columbia University School of Public Health, and the Georgetown University School of Public Health.
- URC ordered 200 hard copies of the QI Case Book for use in launch events at USAID and Schools of Public Health.** Due to the closure of USAID and most offices due to the

COVID-19 pandemic, URC will hold onto the hard copies until the USAID Office of Health Systems is ready to receive them. URC staff will be available to support any QI Case Book launch events organized by the Office of Health Systems.

- **Provided support to ASSIST headquarters teams to finalize key deliverables:** As listed in **Table 2**, the KM team provided support for the editing and finalization of several deliverables and knowledge products in FY20.

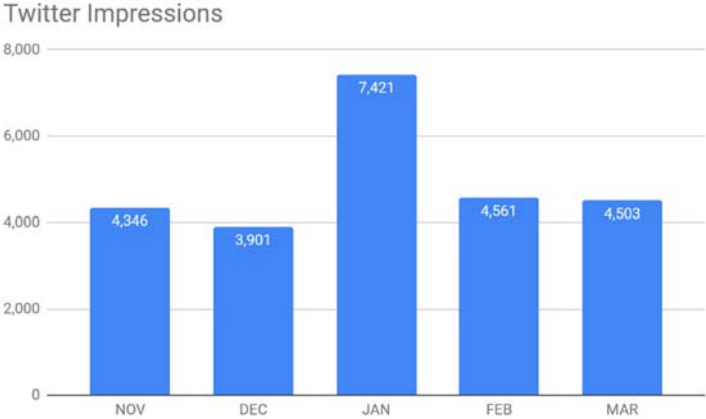
Table 2: USAID ASSIST Project knowledge products supported by the KM team in FY20

Country/Unit	Knowledge Product
Africa	
Tanzania	<ul style="list-style-type: none"> • Quality Improvement Coaching Guide for Middle Level Managers
Uganda	<ul style="list-style-type: none"> • Analysis of ASSIST program activities for improving the quality of services for PMTCT, 90-90-90 targets, and malaria in Uganda • ASSIST Technical Assistance to CSOs for VMMC Improvement Activities in Uganda: The Case of TASO Gulu
Office of Health Systems-funded activities	
Assessment quality of integrated RMNCHA and HIV care	<ul style="list-style-type: none"> • RMNCHA Quality of Care, RMNCHA+HIV Quality of Care report, Annex Tables, and Highlights Report • Editorial Support for the QI which were submitted to the USAID MNH team for review
Improving Care for Mothers and Babies guide	<ul style="list-style-type: none"> • Assessment of the comparative effectiveness and cost-effectiveness of implementing the “Improving Care for Mothers and Babies: A Guide for Improvement Teams” to improve care of mothers and babies through different implementation strategies in Uganda
Improving Health Care eLearning course	<ul style="list-style-type: none"> • Spanish translation of the eLearning course • French translation of the eLearning course
MNCH Core-directed	
Synthesis of results and learning across all ASSIST MNCH activities	<ul style="list-style-type: none"> • Improving Health of Mothers, Newborn, Children and Adolescents in Low- and Middle-Income Countries: Synthesis Report
Support initiatives to improve MNCH in priority countries	<ul style="list-style-type: none"> • Ghana Situational Analysis of Inpatient Care of Sick Newborns and Young Infants (October 2019) • Key Findings of the Ghana Situational Analysis of Inpatient Care of Sick Newborns and Young Infants • Improving the Quality of Integrated Management of Newborn and Childhood Illnesses in Gulu, Omoro, and Nwoya Districts in Northern Uganda
HIV/AIDS-funded	

Country/Unit	Knowledge Product
HIV treatment, care, and support	<ul style="list-style-type: none"> Evaluation of a point-of-care HIV testing improvement intervention in Kenya
Common Agenda-funded	
Build effective leadership for QI	<ul style="list-style-type: none"> French translation of the guide for effective leadership : <i>Leadership efficace pour l'amélioration de la qualité des soins de santé: Guide pratique</i>
QI Case Book	<ul style="list-style-type: none"> Finalized manuscript for the QI Case Book with 14 chapters: Introduction, 12 country cases, Conclusion

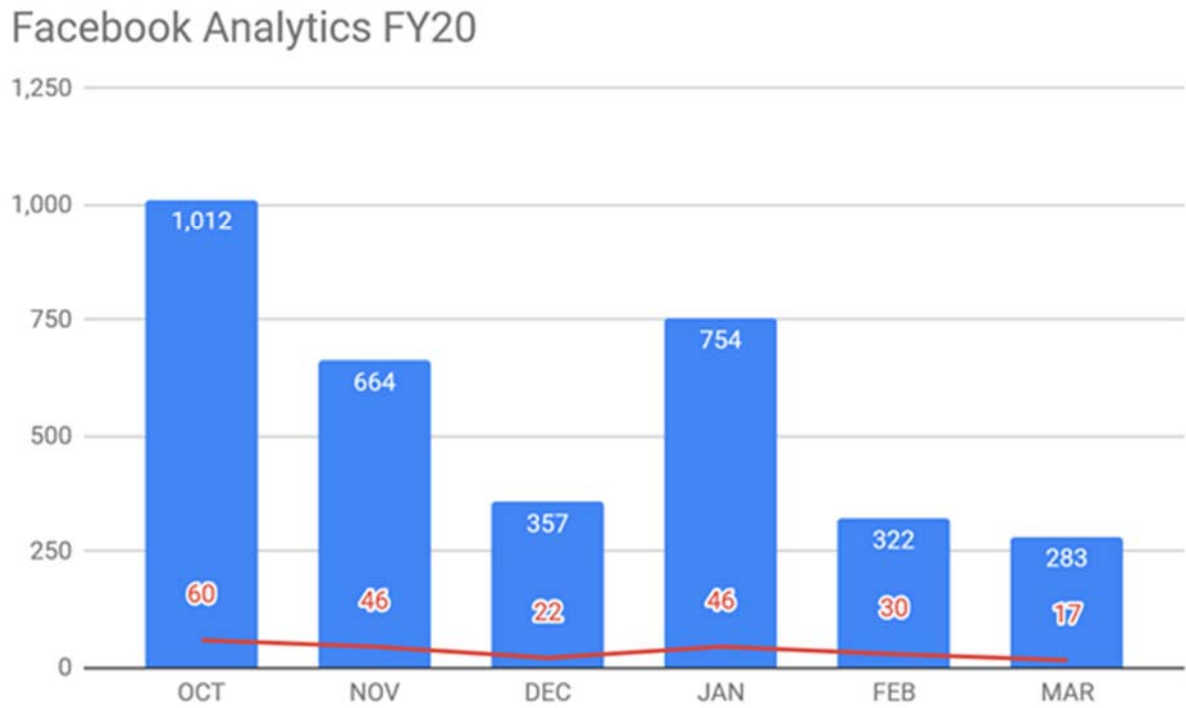
- ASSIST’s active social media presence, built through regular posting of relevant and engaging content, allowed us to disseminate and share project learning widely.** The project’s Twitter and Facebook pages were used during the period to promote ASSIST webinars and presentations.
 - Twitter:** As of March 2020, ASSIST had 2,862 followers on Twitter (@usaidassist); an increase of 33 new followers in FY20. A total of 178 users engaged (liked, replied, shared) with the content (average of 15 per month) during the first two quarters of FY20 (see **Figure 2**), and 27 users were linked to the ASSIST website from Twitter.

Figure 2: ASSIST Twitter Impressions, FY20 Q1-Q2



- Facebook:** The ASSIST Facebook page (www.facebook.com/USAIDASSISTProject) had 6,352 followers as of March 31, 2020. Over 212 users engaged (like, replied, shared) with the content (average of 18 per month), and over 184 sessions were referred to the ASSIST website from Facebook during the first two quarters of FY20 (see **Figure 3**).
- ASSIST’s social media activities ended in April, with the departure of the Knowledge Management and Social Media Specialist, Ms. Karina Valenzuela.** URC’s social media accounts continued to promote ASSIST webinars during the third quarter of FY20.

Figure 3: ASSIST Facebook Analytics, FY20 Q1-Q2



Challenges and Remedies

- Not applicable

RESEARCH AND EVALUATION

Background

The research and evaluation (R&E) unit of the USAID ASSIST Project provided technical assistance and guidance on country-led research and synthesizes learning across country- and centrally funded activities. Topics addressed by these studies included the validity of improvement indicator data, sustainability and institutionalization, and economic analysis. The R&E unit worked closely with the ASSIST knowledge management team to disseminate knowledge generated by these studies through web-published reports, peer-reviewed journal articles, and presentations at relevant international meetings to encourage wider application of improvement methods and their rigorous, objective evaluation.

In FY20, the R&E team has focused on completing studies in Latin American and Caribbean countries where ASSIST worked to address Zika infection. The R&E unit also finalized synthesis reports on completed studies on data validation, use of comparison groups, and use of cost-effectiveness analysis.

Program Overview

What are we trying to accomplish?	At what scale?
1. Validation of 25% of improvement indicators	
Demonstrate that data reported by the ASSIST project are accurate, reliable and relevant	No less than 25% of total number of country-reported indicators with completed validity assessment
2. Collecting data from control groups for 10% of indicators	
Demonstrate the attributable impact of ASSIST interventions on improvement indicators	Comparison reports on no less than 10% of country-reported indicators
3. Evaluating the design of improvement activities for low-and middle-income countries	
Advance learning in improvement science in low and middle-income countries	Every ASSIST country program

As listed in **Table 3**, the project completed 18 research studies in FY20. Six were multi-country studies.

Table 3: ASSIST research and evaluation studies completed in FY20

	Country	Study	Research Area	Status	Program Area
1	Dominican Republic	Assessing the quality of USAID ASSIST Zika program data in the Dominican Republic	R&E mandates	Completed	Zika

	Country	Study	Research Area	Status	Program Area
2	Dominican Republic	Evaluation of the Costs and Results of Region-led Expansion of Zika Prevention, Care and Support Best Practices in the Dominican Republic	Evaluation	Completed	Zika
3	Ecuador	Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador	Evaluation	Completed	Zika
4	Honduras	Application of quality improvement approaches in strengthening health system resilience for Zika emergency preparedness, response, and health care: Honduras case study	Improving care	Completed	Zika
5	Jamaica	Barriers and facilitators to head circumference and neurodevelopmental surveillance in well-child clinics in Jamaica	Improving care	Completed	MNCH
6	Jamaica	Jamaica Neurodevelopmental Surveillance in the Age of Zika ECHO Evaluation	Evaluation	Completed	Zika
7	Kenya	Evaluation of a point-of-care HIV testing improvement intervention in Kenya	Evaluation	Completed	HIV
8	Malawi	Improving the Quality of Services for Vulnerable Children and Families in Malawi	Improving care	Completed	OVC
9	Mali	Comparison of ASSIST and control group improvement indicators data in Mali	Control group	Submitted 06/10/20 for AOR review and approval	MNCH
10	Peru	Using a quality improvement approach to strengthen clinical Zika services: head circumference measurement and provider perceptions in Peru	Evaluation	Completed	Zika

	Country	Study	Research Area	Status	Program Area
11	Uganda	Analysis of ASSIST program activities for improving the quality of services for PMTCT, 90-90-90 targets, and malaria in Uganda	Evaluation	Completed	HIV and malaria
12	Uganda	ASSIST technical assistance to CSOs for VMMC improvement activities in Uganda: The case of TASO Gulu	Evaluation	Completed	HIV
13	Multi-country	Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving antenatal care in Latin America	Evaluation	Submitted 01/17/20 for AOR review and approval	Zika
14	Multi-country	Case Study: rapid multi-country, parallel process multi-tasking for project startup	Evaluation	Completed	Zika
15	Multi-country	Latin America and Caribbean Zika Extension for Community Healthcare Outcomes (ECHO) evaluation	Evaluation	Completed	Zika
16	Multi-country	Cost-effectiveness analysis in quality improvement: A review of studies under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project	CEA synthesis	Completed	All
17	Multi-country	Data validation in quality improvement: A review of validation exercises under the USAID ASSIST Project	Validation synthesis	Completed	All
18	Multi-country	Use of comparison groups in quality improvement: A review of analyses under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project	Comparison group synthesis	Submitted 06/11/20 for AOR review and approval	All

Accomplishments and Results by Activity

Activity 1. Validation of 25% of improvement indicators

- **Data validation in quality improvement: A review of validation exercises under the USAID ASSIST Project**
 - This report synthesizes findings from validation exercises conducted by the USAID ASSIST Project. ASSIST validation reports were reviewed for the following information: validation methodology; key findings; and corrective action recommended or taken to address data quality issues identified in the validation exercises.
 - Record review and interviews with quality improvement team members were the most commonly used methodologies for validating indicators. Overall, validation findings showed that facilities tended to overreport performance. There were not notable changes in data quality over time. Causes of discrepancies between reported and re-calculated indicators included difficulties with sampling, indicator definitions, and extracting data from correct sources. Recommendations to improve data quality focused on ensuring QI teams had registers and other tools to accurately capture data and received ongoing support to enhance understanding of indicator definitions, data sources and collection, analyses, and interpretation.
 - The report was submitted for AOR approval on 02/28/2020. The AOR team provided comments on 4/28/20, and ASSIST submitted a revised version on 4/29/20. The report was approved by the AOR on 5/5/20, published on the ASSIST website, and submitted to the USAID Development Experience Clearinghouse (DEC).

Activity 2. Collecting data from control groups for 10% of indicators

- The last control group study using existing data was completed for Mali and submitted to the AOR team for approval on 6/11/20.
- A report synthesizing findings from ASSIST studies using control groups was completed and submitted to the AOR team for approval on 6/11/20.

Activity 3. Evaluating the design of improvement activities for low-and middle-income countries

- **Assessing the quality of USAID ASSIST Zika program data in the Dominican Republic**
 - The objectives of this study were to: 1) assess the validity of three quality improvement indicators reported by ASSIST-supported quality improvement teams; 2) determine whether data quality changed over time; and 3) understand the perceptions and practices of quality improvement teams about how data had been collected, what factors have facilitated or inhibited data collection, and possible ways to improve data collection, analysis, and dissemination.
 - This validation exercise included a quantitative component which consisted of a retrospective chart review and a qualitative component consisting of key informant interviews. Quantitative data were collected for a baseline and end line period.
 - While ASSIST-supported facilities achieved substantial improvements in performance across the three indicators reviewed, the validation exercise found that the indicator values reported by the QI teams were higher than those validated by the external reviewers. There was no clear improvement in the accuracy of the data

over time. That many interview respondents could not articulate how indicators were calculated may be one cause of the inaccuracies. Active engagement of the clinical and non-clinical staff around the data is needed to elevate the understanding and use of data. Recommendations include strengthening complete and accurate documentation of clinical encounters, strengthening the capacity of QI teams to correctly calculate and interpret indicators during coaching visits, conducting regular data quality assessments as part of coaching visits, and providing more guidance to QI teams about the strategic use of data.

- The report was approved by the AOR on 12/03/2019, published on the ASSIST website, and submitted to the USAID DEC.
- **Evaluation of the Costs and Results of Region-led Expansion of Zika Prevention, Care and Support Best Practices in the Dominican Republic**
 - The objectives of this study were to: 1) Document the scale-up process as implemented in the regions; 2) Assess the short-term results achieved through the scale-up (evidence of adoption of practices as of May 2019); and 3) Document the experience and perceptions of key actors in the scale-up process.
 - This comparison mixed methods retrospective study was conducted in two regions in the Dominican Republic: one region which had participated in the first wave (Region I) and one region which had not (Region VIII). Comparison hospitals were selected from hospitals which had received ASSIST support under the first wave. Data for three indicators were gathered from scale-up and first-wave comparison hospitals. Monthly data were captured for the entire first-wave and scale-up periods. The research team was not able to collect cost data on scale-up expenditures at the regional and district levels. As this was a retrospective study, data collection relied upon extracting information from existing data. The regional financial management systems did not track staff time and other costs specifically for the scale-up activities, making it impossible to discern the regional costs associated with this activity.
 - Findings showed that for head circumference measurement, two scale-up hospitals reached 100% and two hospitals remained at 0%, with an aggregate of 50% following five months of support. First-wave hospitals achieved similar improvement over the course of 14 months; the first five months of improvement work in first-wave sites yielded no improvement. Measuring head circumference was viewed by interview respondents as the easiest change to implement followed by distributing condoms for prevention. Providing psychosocial support was viewed as more challenging. Recommendations as a result of this study include: clearly communicating expectations at the start of the scale-up process, ongoing supervision to ensure sustained gains, and coupling hospital-based activities with activities at lower-level facilities as well as community-based efforts.
 - The report was approved by the AOR on 11/30/2019, published on the ASSIST website, and submitted to the USAID DEC.
- **Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador**
 - The objectives of this study were to: 1) Compare clinical Zika-related knowledge between providers trained online versus providers trained face-to-face; 2) Compare satisfaction with the trainings between providers receiving online training and those receiving in-person face-to-face training; and 3) Calculate and compare the total costs and incremental cost-effectiveness of the two training approaches.

- The sample included data from 513 providers trained using online health training (OHT) who worked in one of the 21 health facilities implementing a facility-level Zika quality improvement (QI) program and 83 providers who were trained face-to-face (FTF) and worked in similar health facilities not currently receiving support from ASSIST. Provider Zika knowledge and satisfaction with each training modality were assessed via surveys at three points: 1) Prior to the training; 2) Immediately following training; and 3) Eight to 12 weeks after completing the training.
 - Findings showed that while providers trained OHT and those trained FTF increased their scores, the percentage of providers who correctly answered knowledge items was higher in the OHT group. Modeling results show that providers trained with OHT increased their scores for each module with a significant increase for Module 1 (an average increase of 12 percentage points) and Module 5 (an average increase of 17 percentage points). From post-test to follow-up, the percentage of providers who correctly answered knowledge items increased dramatically in the FTF group while decreasing slightly in the OHT group. Scores on Module 5 were the lowest or nearly lowest. While a decrease in knowledge several months following training is not surprising, the significant increase for FTF participants is unexpected. The FTF group had higher overall satisfaction with the training, and higher perceived effectiveness of Zika training in the identification and prevention of Zika than the OHT providers. While both OHT and FTF providers reported that the training content was updated, accurate, and clear, providers in the OHT group noted that some tutors were not viewed as readily available. While the overall cost of the OHT training course was higher than the FTF course, the average cost per provider completing training was much lower for OHT; this finding, combined with evidence of equivalent or greater effectiveness for OHT, suggests that OHT offered better value for money in this context. Recommendations include using electronic data collection to gather feedback from providers to ensure legible data, reducing the components of the training or increasing the amount of time allowed for each module, ensuring providers can easily access all material in Spanish to enable full understanding of the training content, and ensuring all providers have in-person opportunities to discuss new knowledge. Implementing these recommendations could improve engagement with training while maximizing efficiency.
 - The report was approved for publication on 12/3/2020, published on the ASSIST website, and submitted to the USAID DEC.
- **Barriers and facilitators to head circumference and neurodevelopmental surveillance in well-child clinics in Jamaica**
 - The objective of this study was to identify facility-level barriers and facilitators to the assessment and interpretation of head circumference measurements and neurodevelopmental surveillance in Jamaican well-child clinics to inform Ministry of Health and Wellness (MOHW)-led and partner-supported strategies for strengthening services in the context of Zika in Jamaica.
 - Two data collection methods were used: 1) in-depth interviews with health workers, facility leaders/managers, and parents/caregivers attending well-child visits; and 2) direct observations of service delivery (well-child visits) processes. Observations and interviews were conducted in eight ASSIST-supported primary health care centers with well-child clinics.
 - Qualitative interviews revealed that Zika-focused trainings and job aids appear to have resulted in well-informed staff, revised growth charts, and improvements in practices compared to before the intervention. Even with the positive developments,

there is still room to address remaining barriers and ensure positive change is sustained. Barriers included the epidemiology of the Zika virus and limited public understanding and knowledge of it, staff attitudes and perceptions that conducting all aspects of visits are not practical, and actual delivery challenges due to space and time constraints compounded by inefficiencies in clinic processes.

Recommendations include use of pre- and post-clinic processes or staff forums to review and refine clinical processes, conduct well-child clinic protocol refreshers, ensure sufficient paper forms and guides are available and user friendly, find opportunities to demonstrate milestone assessment and child stimulation during visits, use innovative ways to convey information about issues such as Zika and child growth and development, and reinforce the need for respectful interactions between clients and providers.

- The study report was approved by the AOR on 12/5/2020, published on the ASSIST website, and submitted to the USAID DEC.

- **Jamaica Neurodevelopmental Surveillance in the Age of Zika ECHO Evaluation**

- This study was conducted in collaboration with the American Academy of Pediatrics. The objective of this study was to assess participation, participant experience, learner self-reported changes in knowledge and self-efficacy, and program impacts at the individual client and larger systems levels following participating in the ECHO program, following the Project ECHO® (Extension for Community Healthcare Outcomes) model. The Jamaica ECHO program was focused on developing health professionals' competence in neurodevelopmental surveillance (NDS). Project ECHO is an evidence-based telemonitoring program that brings together, through video technology, health care professionals and multidisciplinary specialists to create communities of learners around specific topics of interest and need.
- Data were collected through a post-session survey, a post-program survey, and focus group discussions.
- Evaluation results highlight the positive impacts and outcomes of the Jamaica NDS ECHO. In each evaluation component, participants reported high satisfaction with the Jamaica NDS ECHO as well as the ECHO model and demonstrated self-reported gains in knowledge and efficacy regarding key aspects of neurodevelopmental surveillance, including early intervention and referral. Participants spoke with confidence about their ability to train others to more appropriately assess, intervene, and refer children regarding neurodevelopmental concerns.
- The study report was approved by the AOR on 12/05/2020, published on the ASSIST website, and submitted to the USAID DEC.

- **Application of quality improvement approaches in strengthening Health system resilience for Zika emergency preparedness, response, and health care: Honduras case study**

- This case study sought to gain an operational understanding of quality improvement interventions implemented in the context of the Zika outbreak and their role in improving preparedness and response capacities of health facilities and regional and national level authorities in Honduras. The case study was developed by a consultant.
- A revised version addressing comments from USAID on the initial draft was submitted to the AOR on 4/9/2020. The AOR provided additional comments on 5/12/20 along with approval to publish after comments considered.

- The study report was published on the ASSIST website in May 2020 and submitted to the USAID DEC.
- **Evaluation of a point-of-care HIV testing improvement intervention in Kenya**
 - This study evaluated the effectiveness and efficiency of an intervention to improve the processes of point-of-care HIV rapid testing in participating facilities in western Kenya.
 - This was a prospective pre-/post-intervention, quantitative evaluation using primary data collection from five intervention facilities and five comparable facilities undergoing no improvement intervention. We collected data from direct observations of service delivery on a sample of 455 testing and counseling procedures in intervention sites and 276 testing and counseling procedures in control sites.
 - Baseline performance in intervention and control sites was high. However, when considered together, there was no statistically significant difference in the improvement seen in the quality indicators for testing procedure and management indicators between the intervention and control groups. When the results were considered for individual intervention facilities, for the counseling overall indicator, the two smallest facilities improved the least while for the testing variables, two of the larger facilities improved the least, though it is notable that they started at the highest initial level of compliance among the intervention facilities. The two smallest clinics also improved the least for the data management indicators. The cost-effectiveness of this intervention was US\$10 per additional patient provided counseling to full compliance to standards, compared the business-as-usual scenario, assuming the effects lasted two years without attenuation. The intervention was not shown to be cost-effective in improving testing indicators in this evaluation.
 - The intervention appeared to improve counseling indicators but not testing or data management indicators in this setting. The cost-effectiveness of improving the counseling indicators is comparable to other HIV testing interventions reported from the same setting.
 - The report was approved by the AOR on 3/05/2020, published on the ASSIST website, and submitted to the USAID DEC.
- **Improving the Quality of Services for Vulnerable Children and Families in Malawi**
 - This study used previously collected data to examine the contributions of ASSIST-supported improvement efforts to improved household economic strengthening and food security, improved primary school education performance among vulnerable children, increased access to and utilization of health services, and increased awareness, identification of and action on abuse toward vulnerable children in Balaka and Mangochi districts in Malawi. The evaluation examined household survey respondents' perceptions of and participation in these services. Results of the intervention appear positive but inconsistent. There were improvements in the intervention households compared to the control households in school enrollment (+9% p=0.035) and percentage of children enrolled in school who advanced one standard or form from previous year (+10% p=0.097). Children age 10 years and older reported a decrease in going 24 hours without eating at any time in the last four weeks. However, adults in intervention households reported that the percentage of all children going 24 hours without eating at any time in the last four weeks worsened in intervention households compared to controls. This conflicting information may be due to respondents' misinterpreting the question or adults not being aware of

services provided in schools. Respondent bias may also have factored in if adults expected support if they presented a dire situation with regard to food security. Intervention households were significantly more likely than controls to have exposure to relief programs at end line compared to baseline (+22% $p < 0.001$) but significantly less likely to have exposure to village savings programs (-10% $p = 0.025$) and earning food or cash for work projects (-13% $p = 0.002$). Given the complex landscape in which this study was conducted, making it impossible to have adequate control sites, we are unable to determine attribution. However, it is clear that USAID ASSIST contributed to improvements observed in intervention sites, even as other activities were ongoing in both the intervention and control sites. This conclusion is based on the direct linkage between the interventions promoted by community QI teams and the areas where intervention households showed improvement, such as increasing school enrollment and increasing the proportion of children who advanced in grade from the previous year. This study report was approved by the AOR on 5/12/20, published on the ASSIST website, and submitted to the USAID DEC.

- **Using a quality improvement approach to strengthen clinical Zika services: head circumference measurement and provider perceptions in Peru**
 - The initial objectives of this study were to : 1) determine whether ASSIST's training and QI approach was associated with an increase in the percentage of Zika counseling elements delivered during antenatal care (ANC) consultations compared to training alone; 2) identify how client retention of key Zika prevention messages differed between facilities implementing training + QI and those utilizing training alone; 3) determine if training + QI increased the percentage of newborns who received head circumference measurement and documentation compared to pre-intervention; 4) determine whether training + QI increased the correct interpretation of head circumference measurements compared to pre-intervention; 5) determine the incremental cost and cost-effectiveness of training + QI to increase the percentage of Zika counseling elements delivered during ANC consultations compared to training alone; and 6) identify providers' perceptions of the benefits of a QI approach for improving clinical Zika care and understand the facilitators and barriers to the successful implementation of QI to support Zika care according to QI leaders, team members, and providers.

The report was submitted to the Peru Mission on 09/10/2019. A revised version addressing the Missions' comments was submitted on 01/17/2020. The Mission informed ASSIST that it was not satisfied with the revised report. ASSIST requested the opportunity to resubmit a revised report omitting the objectives and sections the Peru Mission objected to due to study design limitations (Objectives 1, 2, 5). A revised version with these changes was submitted to the Mission on 3/27/2020, and on 5/12/20 the Peru Mission gave consent to publish the report.
 - The AOR approved the report for publication on 5/28/20. The report was published on the ASSIST website and submitted to the USAID DEC.
- **Analysis of ASSIST program activities for improving the quality of services for PMTCT, 90-90-90 targets, and malaria in Uganda**
 - This report described a secondary analysis of routine program data abstracted from facility records by quality improvement teams over the intervention period to assess improvements in key indicators. We analyzed indicator data for ASSIST PMTCT, 90-90-90, and malaria programs.

- This analysis showed improvements in the cascade for viral load suppression despite remaining gaps in HIV testing and treatment initiation. More male partners were identified and followed up for HIV testing services following the implementation of the quality improvement intervention. For the malaria program, there was an increase in the number of suspected malaria cases at the outpatient department who had complete and accurate records, the number of patients who were treated for malaria and had a positive malaria test, and the number of patients who were prescribed and given Artemisinin Combination Therapy.
 - Although findings suggested that QI interventions can have a great impact on interventions for PMTCT, 90-90-90, and malaria, evaluations using a prospective design and a comparison group should be encouraged as they would establish stronger evidence for the effect of programs on key indicators.
 - The report was approved by the AOR on 3/5/2020, published on the ASSIST website, and submitted to the USAID DEC.
- **ASSIST technical assistance to CSOs for VMMC improvement activities in Uganda: The case of TASO Gulu**
 - This short report describes the support ASSIST provided to the civil society organization (CSO) TASO Gulu in Uganda. Following the implementation of quality improvement activities, the CSO registered improvements in data quality, including seven-day post circumcision patient follow-up, documentation of consent, and Tetanus Toxoid administration as well as in compliance with Safe Male Circumcision quality standards like infection control, monitoring and evaluation, surgical procedure, group education, management system, supplies, equipment, and environment, and individual/couple counseling.
 - The short report was approved by the AOR on 1/30/2020, published on the ASSIST website, and submitted to the USAID DEC.
- **Assessing changes in knowledge and factors influencing behavior related to Zika prevention among women receiving antenatal care in Latin America**
 - The objectives of this study were to: 1) Determine whether the ASSIST Zika QI intervention was associated with a change in women’s knowledge of Zika prevention behaviors in four ASSIST-supported countries (Dominican Republic, Guatemala, Nicaragua, and Paraguay); 2) Understand through a qualitative component of the study carried out only in Guatemala, ANC clients’ perspectives on which aspects of the intervention most influenced women’s desire/non-desire and ability/inability to practice Zika prevention behaviors and to understand the perspectives of facility-based staff on which aspects of the intervention facilitated their ability to effectively counsel women on Zika prevention during ANC visits.
 - The report was submitted to the AOR on 01/17/2020.
- **Case study: Rapid multi-country, parallel process multi-tasking for project startup**
 - The objectives of the case study were to: 1) Document in detail the “Rapid Multi-Country, Parallel Process Multi-Tasking Project Startup” activities and strategies employed by the ASSIST short-term technical assistance activity in four countries of the Eastern and Southern Caribbean (Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines); 2) Describe the enablers, challenges, and constraints faced in startup of the Zika response project in the four countries,

- including the local and regional contexts; and 3) Identify lessons learned from the start-up in the four countries.
- Remote in-depth interviews were conducted with persons involved in the startup using semi-structured interview guides and data retrieved from the review of project documents.
 - Findings showed that using the rapid multi-country parallel process multi-tasking project startup approach, the USAID ASSIST Project successfully implemented the startup for complex short-term technical assistance in four countries in less than four months, from mid-May to early September 2018. Milestones included achieving buy-in from stakeholders, co-developing the technical scope and materials, and rapid execution of critical operational functions. Dedicated project teams, country leadership, and local champions were essential to overcoming the main challenges, which included a short timeframe, lack of in-country offices, and country-level factors such as a shortage of health care workers and a weak health infrastructure.
 - We concluded that the approach employed was a feasible and resource-efficient mechanism of interest to implementers, donors, and low- and middle-income countries facing temporal and financial limitations to rapidly addressing public health priorities.
 - The manuscript was approved by the AOR on 2/29/2020, submitted to the online platform *F1000Research* on 3/10/2020, and published on 4/9/20.
- **Latin America and Caribbean Zika Extension for Community Healthcare Outcomes (ECHO) evaluation**
 - This evaluation was conducted in collaboration with the American Association of Pediatrics.
 - The objective of this evaluation was to assess LAC Zika ECHO participants' self-reported competencies and skills, satisfaction with the LAC Zika ECHO program, and changes in practice following participation in the program.
 - The report was submitted to the AOR on 01/13/2020 and approved on 6/26/20. It was posted to the ASSIST website and submitted to the USAID DEC.
- **Cost-effectiveness analysis in quality improvement: A review of studies under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project**
 - This report synthesizes findings and lessons generated from cost-effectiveness analyses (CEAs) conducted by ASSIST. CEA reports were examined for the following information: CEA methodology, key findings, key recommendations, and conclusions as a result of the CEA.
 - Seven CEAs conducted in five countries were included in the synthesis report (Ecuador, Kenya, Pakistan, Uganda, and Tanzania). CEAs were conducted for both QI activities carried out by ASSIST as well as by improvement programs implemented by other partners, encompassing immunization; HIV; maternal, newborn, and child health (MNCH); medical male circumcision, and Zika prevention and treatment. Overall, CEAs revealed that improvement programs provide good value for money compared to the status quo. However, findings were more mixed for the ASSIST MNCH and HIV improvement activities in Uganda, the immunization program in Pakistan, and the point-of-care testing intervention in Kenya.
 - The main limitation of these CEAs was the lack of long-term health outcome measures such as deaths, disability, secondary infections, and or disability-adjusted

- life years (DALYs) averted. This limits the ability to compare results from ASSIST CEAs to the CEAs of other interventions
- The report was submitted to the AOR on 3/26/2020 and approved for publication on 5/28/20. It was posted to the ASSIST website and submitted to the USAID DEC.

Challenges and Remedies

Not applicable.

Knowledge Management Products and Activities

The following research and evaluation reports were published:

- Evaluation of the Region-Led Expansion of Zika Prevention, Care, and Support Best Practices in the Dominican Republic (November 2019)
https://pdf.usaid.gov/pdf_docs/PA00W7MW.pdf
- Comparing the effectiveness and cost-effectiveness of on-line versus in-person training for strengthening the Zika response in Ecuador (December 2019)
https://pdf.usaid.gov/pdf_docs/PA00W7GM.pdf
- Assessing the quality of USAID ASSIST Zika program data in the Dominican Republic (December 2019) https://pdf.usaid.gov/pdf_docs/PA00W7JF.pdf
- Barriers and facilitators to head circumference and neurodevelopmental surveillance in well-child clinics in Jamaica (December 2019)
https://pdf.usaid.gov/pdf_docs/PA00WGT2.pdf
- Jamaica Neurodevelopmental Surveillance in the Age of Zika ECHO Evaluation (December 2019) https://pdf.usaid.gov/pdf_docs/PA00WCHP.pdf
- ASSIST Technical Assistance to CSOs for VMMC Improvement Activities in Uganda: The Case of TASO Gulu (January 2020) https://pdf.usaid.gov/pdf_docs/PA00WC38.pdf
- Evaluation of a point-of-care HIV testing improvement intervention in Kenya (March 2020) https://pdf.usaid.gov/pdf_docs/PA00WG7Q.pdf
- Analysis of ASSIST program activities for improving the quality of services for PMTCT, 90-90-90 targets, and malaria in Uganda (March 2020)
https://pdf.usaid.gov/pdf_docs/PA00WG7S.pdf
- Data validation in quality improvement: A review of validation exercises under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project (April 2020)
https://pdf.usaid.gov/pdf_docs/PA00WKFX.pdf
- Improving the Quality of Services for Vulnerable Children and Families in Malawi: An Evaluation (May 2020) https://pdf.usaid.gov/pdf_docs/PA00WKZG.pdf
- Cost-effectiveness analysis of quality improvement: A review of studies under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project (May 2020)
https://pdf.usaid.gov/pdf_docs/PA00WNV4.pdf
- Using a Quality Improvement Approach to Strengthen Clinical Zika Services: Head Circumference Measurement and Provider Perceptions in Peru (May 2020)
https://pdf.usaid.gov/pdf_docs/PA00WP31.pdf

- Assessment of Effectiveness and Cost-effectiveness of the Quality Improvement (QI) Guide on QI Processes and Maternal and Newborn Care in Uganda (June 2020)
<https://dec.usaid.gov/dec/content/Detail.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTY0MjQ3>
- Latin America and Caribbean Zika Extension for Community Healthcare Outcomes Evaluation (June 2020)
<https://dec.usaid.gov/dec/content/Detail.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTY0NDE3>

Institutionalization/Sustainability Strategy

In FY20, ASSIST developed a synthesis of cost-effectiveness analyses conducted under the project. ASSIST's work on cost-effectiveness economic analysis demonstrates the importance of tracking and analyzing the cost of improvement interventions in order to better understand their impact and feasibility. These studies also play a role in determining the long-term sustainability of QI in countries once the project ends.

PERFORMANCE MONITORING PLAN

Table 4 summarizes the final values achieved by ASSIST through June 30, 2020 on the indicators in the ASSIST performance monitoring plan.

Table 4: Progress on USAID ASSIST Project performance monitoring indicators as of June 30, 2020

Project Management					
#	Indicator	Baseline	End-of-project target	June 30, 2020	Data source
1	# of Annual Work Plans submitted on-time to the AOR	0	8	8	Transmission of deliverable to the AOR
2	# of Annual Project Reports submitted on-time to the AOR	0	8	8 (this report)	Transmission of deliverable to the AOR
3	Gender Framework submitted within 90 calendar days of the cooperative agreement effective date	0	1	1	Transmission of deliverable to the AOR
4	# of annual research and evaluation reports submitted on-time to the AOR	0	8	8	Transmission of deliverable to the AOR
5	# of quarterly financial reports submitted on-time to the AOR	0	31	30	Transmission of deliverable to the AOR
6	# of Semi-annual Performance Monitoring Reports submitted on-time to the AOR	0	16	16 (this report)	Transmission of deliverable to the AOR
7	Final report of the cooperative agreement submitted on-time to the AOR	0	1	NA—will be submitted in July	Transmission of deliverable to the AOR
Documentation and Knowledge Management					
#	Indicator	Baseline	End-of-Project Target	Progress as of June 30, 2020	Data Source [Benchmark]
1	Knowledge Management Plan submitted within 90 calendar days of the	0	1	1	Transmission of deliverable to the AOR

	cooperative agreement effective date				
2	# of Documentation and Knowledge Management Reports submitted to AOR	0	8	8	Transmission of deliverable to the AOR
3	Design of ASSIST Knowledge Portal submitted to AOR for approval	NA	1	1	Written approval by AOR [Benchmark: completed in year 1]
4	# of country case studies	0	30	98	[Benchmark: 20 by the end of year 3]
5	# of research and evaluation studies examining the KM system as a whole or components	0	4	5	[Benchmark: four completed by the end of year 3]
6	% of ASSIST country teams with at least one team member with basic competencies in KM and documentation	0	100%	100% (11/11, FY19)	Country program quarterly and annual reporting; special surveys
7	% of assisted countries that apply KM approaches to conduct synthesis and knowledge harvesting exercise each year	7% (1/14)	100%	100% (10/10, FY19)	Country program quarterly and annual reporting; special surveys
8	Average # of knowledge products developed per country	0.6 (9/14) (FY13)	3	206/35 = 5.9	Country program quarterly and annual reporting
9	% of assisted countries with local repository of improvement knowledge	0%	Baseline + 25%	28% (8/29)	Country program quarterly and annual reporting
10	# of communities of practice supported on the ASSIST knowledge portal	0	3	3	HQ quarterly and annual reporting
11	# of virtual learning events supported by the ASSIST KM system	0	3	77	HQ quarterly and annual reporting

Global Technical Leadership					
#	Indicator	Baseline	Target	Progress as of 6/30/20	Data Source
1	# of articles on improvement methods and results published in peer-reviewed journals	NA	10	67	Publication
2	# of assisted countries with national health care improvement policies and strategies	3	Baseline + 5 = 8	10	Country program quarterly and annual reporting
3	# presentations given by ASSIST staff at global health technical conferences	NA	25	239	HQ and country quarterly and annual reporting
Field Operations					
#	Indicator	Baseline	Target	Progress as of 6/30/20	Data Source
1	% of integrated country design plans signed by country and USAID stakeholders	NA	100% (4/4 FY18)	(Last value FY18 because no new country plans were developed in FY19 or FY20).	Country Improvement Plan signed
2	% of annual country reports submitted on-time	NA	100%	FY13: 100% (7/7) FY14: 100% (19/19) FY 15: 100% (20/20) FY16: 100% (18/18) FY17: 100% (17/17) FY18: 100% (4/4) FY19: 100% (1/1)	Dates of submission of annual country reports to AOR
3	% of annual country reports that examine magnitude and spread rate of improvement	NA	100%	100%	Review of annual country reports

4	% of country-reported indicators externally validated	NA	25% of reported indicators	25% (132/523)	Review of R&E studies
5	% of improvement indicators tracked with a QI and non-QI intervention comparison groups	NA	10% of reported indicators	12% (63/523)	Review of R&E studies
6	% of countries collecting and analyzing sex-disaggregated data for improvement when relevant	86% (6/7) (FY13)	100%	100% (10/10) (FY19)	Country quarterly and annual reporting
7	% of country programs tracking expenditures for the purpose of economic evaluation (integrated into the country plan)	0	80%	57% FY18 (No new country design plans were developed after FY18)	Accounting records
8	% of integrated country design plans that address relevant gender-related barriers	43% (3/7)	30%	100% (2/2 FY18) (No new country design plans were developed after FY18)	Review of integrated country design plans

NA = Not applicable (deliverable not yet due)

**USAID APPLYING SCIENCE TO STRENGTHEN
AND IMPROVE SYSTEMS PROJECT**

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