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TECHNICAL REPORT

The USAID ASSIST Project's approach to improving health care in low- and middle-income countries

AUGUST 2018

This report was prepared by University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID) and authored by M. Rashad Massoud and Leighann Kimble of URC under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. The work of the USAID ASSIST Project is made possible by the generous support of the American people through USAID.

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For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

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Acronyms

AIDS	Acquired immunodeficiency syndrome
AOR	Agreement Officer's Representative
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project (implemented by URC)
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit* (German Society for International Cooperation)
HCI	USAID Health Care Improvement Project (implemented by URC)
HR	Human resources
PDSA	Plan-do-study-act
QAP	Quality Assurance Project (implemented by URC)
QI	Quality improvement
URC	University Research Co., LLC
USAID	United States Agency for International Development
USG	United States Government

INTRODUCTION

The objective of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project is to improve the quality and outcomes of health care and other services by enabling host country providers and managers to apply the science of improvement. The project seeks to build the capacity of host country service delivery organizations in USAID-assisted countries to improve the effectiveness, efficiency, client-centeredness, safety, accessibility, and equity of the health and family services they provide. ASSIST also seeks to institutionalize the capacity to improve through competency development at the pre- and in-service levels as well as engaging with host country governments at the policy level.

The project uses Integrated Design as the template for improving health care outcomes, producing sustainable results, taking these results to scale, institutionalizing improvement, and generating learning for local and global purposes. This paper outlines the approach of the USAID ASSIST Project in conducting its work based on quality improvement principles and methods. It also highlights the USAID ASSIST Integrated Design Plan, outlining how each of the elements of the plan are implemented in the work of the project.

The approach used by the USAID ASSIST Project builds on experiences from the succession of the USAID-funded Quality Assurance Projects (QAP) I-III, the USAID Health Care Improvement (HCI) Project, and now, ongoing activities under the USAID ASSIST Project. This series of mechanisms has adapted industrial quality improvement methods to health care in low- and middle-income countries, evolving these methods overtime. As shown in **Figure 1** below, the approach used by ASSIST has been applied to a variety of technical areas in over 30 countries.

Figure 1. USAID ASSIST Project Technical Areas

- Maternal and Child Health
- Neonatal Health
- HIV and AIDS
- Family Planning
- Reproductive Health
- Tuberculosis
- Health Workforce and Community Health
- Integration across the Continuum of Care
- Health Workforce Development
- Malaria
- Nutrition
- Orphans and Vulnerable Children
- Health Systems Strengthening
- Hospital-acquired Infections
- Administration and Management Processes
- Community Health

ASSIST's core focus is to address one of the most pressing issues in health care: the gap between what we know works (in terms of diagnostic, prevention, and treatment interventions) and the health system's ability to deliver these interventions to those who need it. The work of the USAID ASSIST Project usually begins with a problem or challenge presented by a USAID Mission in a country, strategic element group, or regional bureau that needs to be solved. ASSIST is called upon to help solve the problem. Problems range in technical content and may include patients on antiretroviral therapy being lost to follow-up, neonates dying, increases in rates of hospital-acquired infections, etc. However, the overall assignment is generally a request to strengthen health systems to deliver better health outcomes. These can be health outcomes, outputs, efficiency of care delivery, responsiveness to patient needs, access to care, safety, equity of care, or any combination of them.

ASSIST uses a variety of quality improvement approaches to address identified health problems, improve outcomes of care, and strengthen the processes and systems of health care delivery yielding these outcomes.

The work of the USAID ASSIST Project involves collaboration with United States Government (USG) and non-USG partners. Through collaboration and coordination with partners, we are able to leverage USAID

assistance at a global level and the work of service delivery partners at a country level. One example of work with partners is our collaboration with Heidelberg University, funded through GIZ, to support the institutionalization of improvement in Kenya. Beyond our partners, we also work with USAID implementing partners, such as in our work with the Health Finance and Governance Project in governance for quality.

Considering the vast differences between countries, geography, scale, types of facilities, communities, and target outcomes, the USAID ASSIST Project does not use any single method. Instead we use an adaptive approach to improve outcomes based on context. We understand health care delivery as a complex adaptive system. This understanding underpins the technical and management approaches applied to achieve the results. ASSIST pulls on the scientific principles and framework underlying improvement and systems strengthening and adapts them to the challenges and context in which they are being applied. This contrasts with the traditional approach whereby projects apply specific models which may or may not work for those problems and contexts at that point in time. Also, this same understanding of operating in complex adaptive systems underlies ASSIST's adaptive management approach.

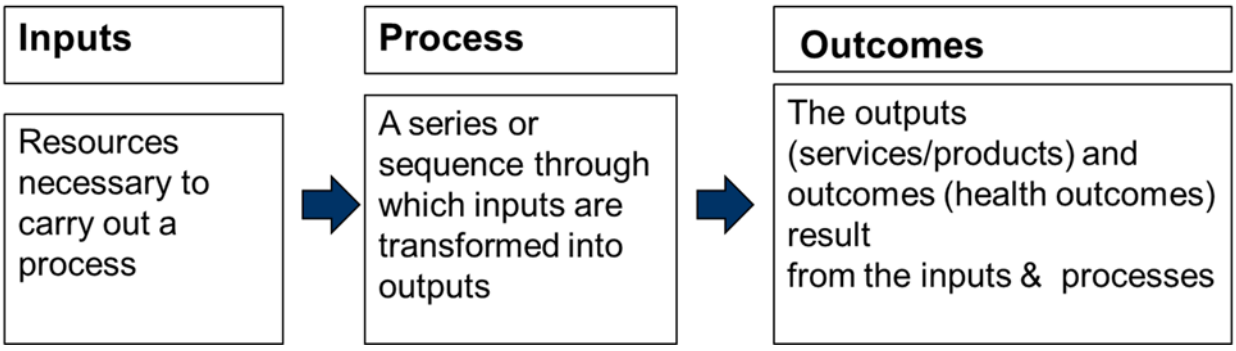
I. IMPROVING HEALTH CARE

A. Principles of Improvement

The fundamental concept underlying improvement is that "every system is perfectly designed to achieve exactly the results it achieves" (Batalden & Stolz 1993). If a system is not changed, it can only be expected that the system will continue to achieve the same results. The outcomes of a system are dependent on the system's inputs and the way in which these inputs are used to produce outcomes through the system's processes. When essential resources, or inputs, are unavailable, improving health care may involve adding new resources to a system. However, health care can also be improved by making changes to the processes of care delivery to make the best use of existing resources—irrespective of the degree of resource availability. Improving the processes of health care not only creates better outcomes, but also reduces the cost of delivering care by eliminating unnecessary work and rework.

As shown in **Figure 2** below, health systems are comprised of inputs, processes, and outcomes. ASSIST focuses on changing the processes of a health system to improve outcomes of care.

Figure 2. Donabedian Model of a System



There are five principles of improvement that hold true for all quality improvement activities (Massoud et al. 2017). These principles are:

1. **Client focus:** Health services exist to meet the health needs of clients, and improvement activities must be designed accordingly. Client-focused models are designed to meet client needs and expectations, thereby providing higher quality care. A focus on the client examines how and

whether each step in a process is relevant to meeting client needs and eliminates steps that do not ultimately lead to client satisfaction or desired outcomes.

2. **Understanding work as processes and systems:** All work can be expressed in terms of processes and systems. Providers must understand the service system and its key service processes to improve them. This is achieved by analyzing existing processes and systems and changing them to produce better results.
3. **Teamwork:** Improvement is achieved through the team approach to problem solving and quality improvement. Working in teams comprised of various categories of workers involved in delivering health care is key to making changes work and fostering ownership of the changes to enhance sustainability.
4. **Testing changes using real-time data:** Changes are tested to determine whether they will improve outcomes in care delivery. The changes introduced that involve content of care are based on evidence-based medicine. The changes in care delivery organization focus on how to make evidence-based medicine available for every patient, every time they need it. Data are used to analyze processes, identify problems, and determine whether the changes have resulted in improvement.
5. **Shared learning:** Implementing improvement work by members of the team generates learning that is not just valuable for the improvement at hand but also for global learning. Managing that knowledge is an important principle of improvement.

B. The Key Issue of Quality Health Care

There is an overemphasis on the "science of discovery" at the expense of the "science of delivery". Relentless research is conducted on discovering *what* treatments and interventions to deliver, and much less on *how* to deliver them to every person who needs them, every time are needed (Das 2012; Wagstaff 2013). Quality improvement focuses on the "science of delivery" and provide health care workers with the methods and tools to reorganize care in a way that ensures that the appropriate evidence-based medicine is delivered to patients, every time it is needed. While the work of USAID ASSIST is in low- and middle- income countries, it is important to recognize that achieving quality health care is not just a developing country issue. The processes and systems of health care delivery are not optimal in many countries, both developed and developing. Developed countries may have more technology and resources. However, improvement is about not only the inputs into health care, but the way in which those inputs are used.

Figure 3. Example – Improving Health Outcomes in Neonatal Hypothermia

Solutions:

1. Kangaroo Care
2. Process Change
3. Inputs

Case:

Two hospitals in Delhi were working on neonatal hypothermia. In both cases the problem was the journey from labor room to the Neonatal Intensive Care Unit. In one hospital the main issue was a process – the babies had to go to registration desk where they got cold waiting for paper work. In the other, the problem was keeping the transport incubators batteries charged. The first problem was solved with a process solution; the second involved both process and input solutions.

For example, it is known that all babies must be kept warm after delivery. As illustrated in **Figure 3**, there may be barriers in the inputs and processes of the health system in a facility that prevents all babies from being kept warm after delivery, every time a baby is delivered. Quality improvement seeks to find solutions to overcome these barriers to ensure that the processes of the health system effectively delivers evidence-based medicine to improve overall health outcomes.

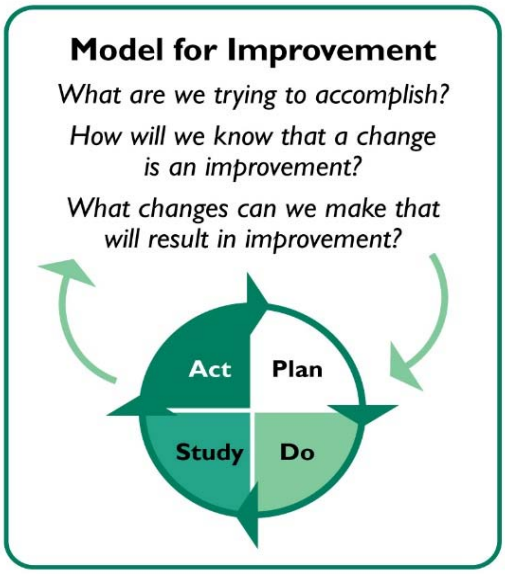
II. METHODOLOGY AND STRATEGY

Quality improvement is a continuous process of assessment, improvement, and re-evaluation of interdependent processes at each level of the health system. Through quality improvement, USAID ASSIST aims to produce better results at scale, institutionalize improvement, generate learning, and to advance the science of improvement in low- and middle-income countries. As demonstrated in the USAID ASSIST Project Improving Health Care eLearning Course, quality improvement involves six steps:

1. Defining improvement aims
2. Forming improvement teams
3. Plotting time series charts
4. Analyzing processes of care
5. Testing and implementing changes to improve health care processes
6. Monitoring and evaluating results of tested changes

In improving existing processes of care, ASSIST's general approach is iterative and reflects a commonly adopted Model for Improvement. The Model for Improvement involves using the plan-do-study-act (PDSA) cycle (also known as the Shewhart Cycle) to test and implement changes. As shown in **Figure 4**, the purpose of the cycle is to understand the problem, plan, act, study the results, and plan new actions in response. Through improvement, solutions to problems in existing processes of care are tested, implemented, and adapted over time. Collecting data in real-time with short intervals is key to monitoring the effects of changes to processes of care on the outcomes of care yielded by the health system.

Figure 4. Model for Improvement: Shewhart Cycle/PDSA



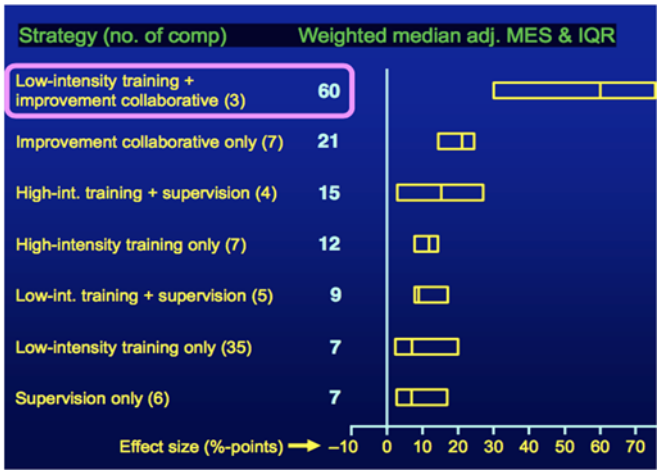
The main implication of the Model for Improvement approach is that specific changes in the organization of care delivery to implement evidence-based medicine to yield improvement are not necessarily static. The PDSA cycle requires that adaptations to care delivery processes be made on a continuous basis, as necessary, based on the context in which the improvement is taking place.

Figure 5 illustrates a comparison of the effectiveness of different approaches to improving health care. There are several improvement approaches available to overcome barriers to delivering quality health care. The key is selecting the specific approaches that are most appropriate for the context. One of the approaches used by ASSIST is collaborative improvement, which brings multiple teams together to work on common aims and indicators in improving health care processes. As reflected in **Figure 5**, the strategy with the greatest effectiveness in yielding improvement is one that combines low-intensity training and collaborative improvement (Rowe 2015). The central innovation of collaborative improvement is the structured shared learning among many teams working on the same problem area: this feature promotes rapid dissemination of successful practice.

The exceptionally high effectiveness yielded by the combination of collaborative improvement and low-intensity training underscores the value of a learning-centered model—one that emphasizes using evidence based on an improvement program's own tests of change and the experience of others, to continually enhance performance.

A. Leadership at all Levels

Figure 5. Findings from Rowe's Health Care Worker Performance Review



Improving health care processes requires the engagement and accountability of the whole system, including Ministries of Health, districts, provinces, facilities, and communities. Decision-makers at all levels must keep the performance of the whole system under review and develop and maintain strategies for improving quality outcomes which apply across the system. Health service providers must be committed to the broad aims of quality policy and to improving outcomes of care to ensure the services they provide are of the highest possible standard and meet the needs of individual service users, their families, and communities. ASSIST believes that communities and services users are the co-producers of health and subsequently have critical roles and responsibilities. Their contributions include identifying their own needs and preferences and managing their own health with appropriate support from health service providers.

Leadership is fundamental for the success of improvement efforts and is required—at every level—for improvement actions to be taken. For best results, strong leadership and support for quality must come from national and community leaders, as well as from leaders of health service delivery organizations. Leadership in the health system is important for strategic interventions, to build commitment and leadership capacity, and to strengthen accountability. Accountability and leadership are necessary for both sustainability and institutionalization of improvement, independent of the project.

Local champions that lead the work of improvement are key in managing improvement teams. While ASSIST provides technical assistance in improvement, we recognize that the work of improvement teams goes beyond building technical capability – leaders must have the capacity to lead improvement and must be engaged and committed to use their capabilities. Within our work, we find that supporting local leadership by creating both the capability and capacity for leading improvement is essential. On one hand, capability involves having the clinical and improvement knowledge and technical skill needed as related to improving health care results. However, capability on its own is not enough to translate into action. Leaders must have the capacity to use their capabilities to lead improvement. Capacity involves leaders having the empowerment and confidence needed to apply their knowledge and make changes to the processes of care in their health system to yield better results.

III. USAID ASSIST PROJECT COUNTRY INTEGRATED DESIGN

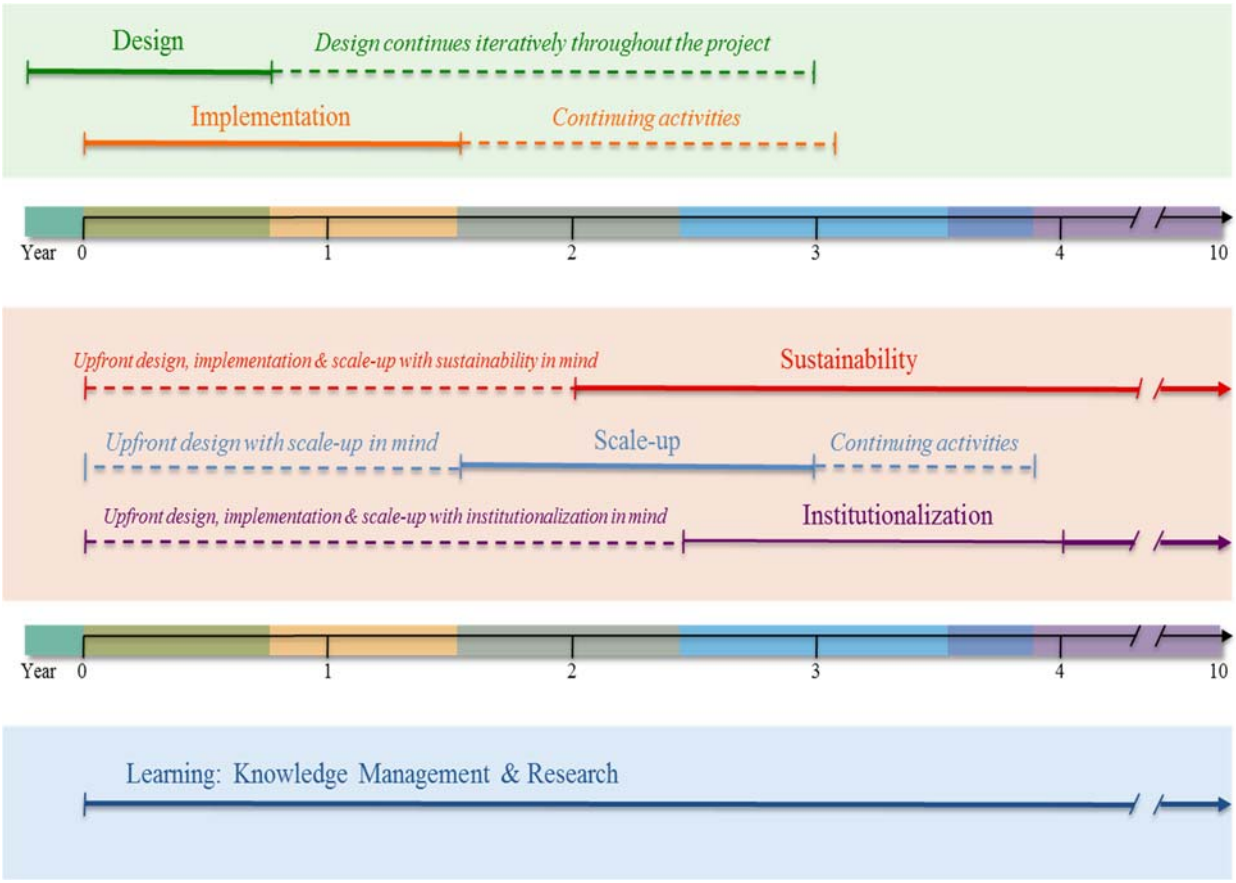
Drawing on experiences and learnings from the previous QAP 1-3 and HCI projects, the USAID ASSIST Project has developed the Country Integrated Design, as displayed in **Figure 6**. The USAID ASSIST Country Integrated Design is the overarching framework for the project's approach. The work of the USAID ASSIST Project begins with developing a plan in consideration of all six key elements and determining the degree to which each of the elements can be addressed based on the scope of work and context in which the work is to take place. The six key elements in the USAID Country Integrated Design are:

1. Improvement Design
2. Implementation
3. Sustainability
4. Scale-up

5. Institutionalization
6. Learning

These elements depicted in further detail in **Appendix I** and described further below.

Figure 6. USAID ASSIST Project Country Integrated Design



The six elements of the Country Integrated Design are interwoven with one another and continuously adapted based on the context of the complex adaptive health system in which it is to be conducted. From all stages starting with the context and program design of the improvement at hand, through institutionalization of improvement, comes local and global learning, which is captured and disseminated through ASSIST's Research and Evaluation and Knowledge Management activities. All six elements are addressed in the Country Improvement Plan document, the template for which is found in **Appendix II**.

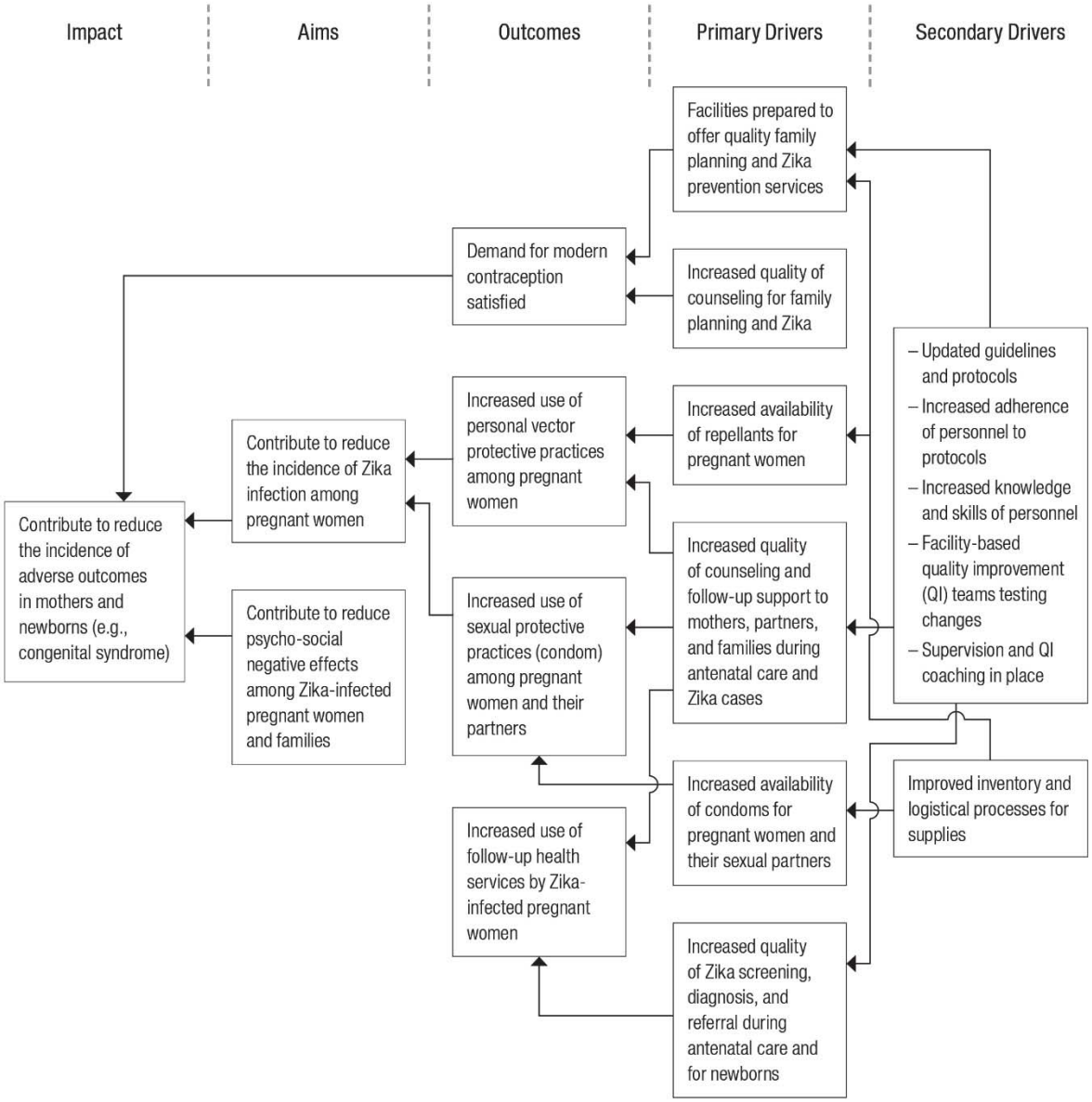
A. Improvement Design

Improvement design begins the moment an improvement scope of work is received. Design is used as a verb, not a noun. It is iterative design and re-design throughout the improvement activity. Especially after implementation starts, the facts on the ground and learning from implementation are used to continually improve and refine the design (also known as adaptive management).

Ahead of the visit to the country where the improvement activity is to take place, as much knowledge as possible is gathered from existing resources as well as through communications such as emails and phone calls, to better understand the programs and challenges. On arrival in a country, meetings with national and district/province leadership, facilities, and community visits are conducted to deepen understanding. Initial mapping of the theory of change is completed by developing a driver diagram, an

example of which is included in **Figure 7**. Indicators for improvement are then developed to measure the results for which data is collected on a regular basis throughout the improvement activity.

Figure 7. Driver Diagram for ASSIST Zika Activities



B. Implementation

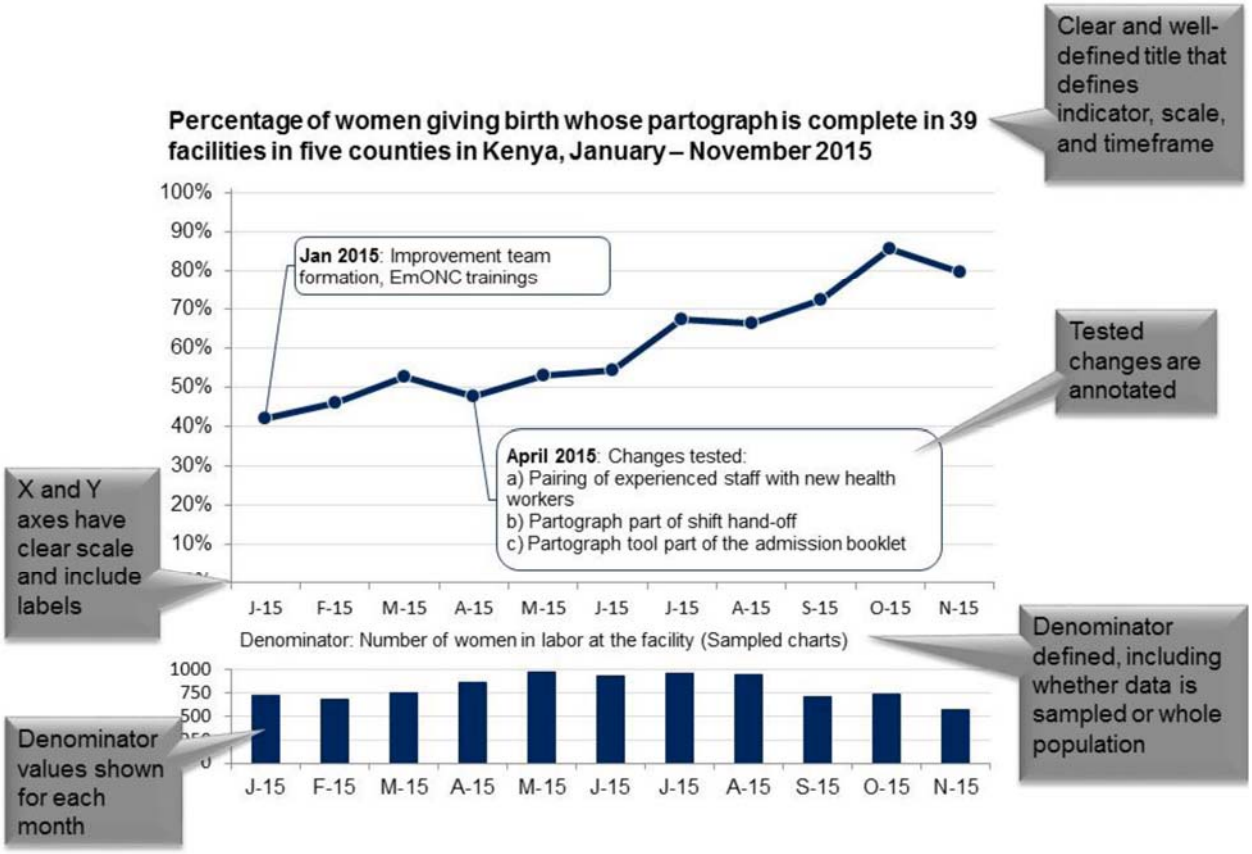
The first step in implementation is setting up improvement teams at facilities. The support structures to be created for the improvement teams include:

1. Team Leader
2. Steering Committee
3. Project Support and Communications

The improvement teams should be convened regularly, each team separately by its own leader and jointly in collaborative learning sessions that promote continued learning and knowledge sharing both

within and outside of learning sessions. Regular coaching units should also be provided to improvement teams. Throughout implementation, baseline assessments are conducted as needed, and data should be collected daily, using time series charts to plot the data. Existing practices should be mapped against evidence-based guidelines, and changes that adhere to evidence-based practices should be tested based on the results revealed by the data. The data is normally plotted on a time series chart, an example of which is shown in **Figure 8**.

Figure 8. Example of a Well-defined Time Series Chart



A time series chart tracks data trends over time. It can be plotted on a daily, weekly, or monthly basis. The x-axis is the time. In **Figure 8**, the unit of time is month. The y-axis is the indicator that the improvement team is tracking. In the time series chart shown in **Figure 8**, the indicator is the percentage of delivering women whose partograph was completely filled in.

C. Sustainability, Scale-up, and Institutionalization

ASSIST implements improvement activities with the intention of producing sustainable, scalable results. ASSIST aims to enable the host country governments to make improvements, independent of the project's technical assistance, by institutionalizing improvement within the system. Sustainability, scale-up, and institutionalization are each goals of ASSIST that require the leadership, ownership, accountability, and teamwork that have been described above. Here, we will briefly point out the differences between sustainability, scale-up, and institutionalization.

1. Sustainability

Sustainability is the ability to continue improved outcomes or "sustain" results beyond project end. For results to be sustainable, the improved health care delivery process must become the default, sustained

through policies and procedures, job descriptions, etc. Making such changes to processes and structures allows for the new health care delivery process to become “hard-wired” in everyday work. ASSIST Improvement Design and Implementation focus on building process ownership and capacity for local teams and facilities to take ownership of and maintain the results independent of technical assistance. Sustainability is considered at the onset of improvement design and implementation, with follow-up after technical assistance ends to determine whether results are sustained.

2. Scale-up

The “scale” of an activity refers to the number of facilities or communities in which the activity is operating and consequently increasing the number of patients and clients benefiting from the activity. When we “scale up”, we are bringing the improvement activity to a larger number of facilities or communities. An activity is operating “at scale” when it is working in all facilities in which the improvement is needed, most often country-wide.

The degree to which an activity can be scaled up is dependent on whether the host country government and other stakeholders desire and are willing to scale up, as well as the resources available to scale up. Scale-up therefore requires ongoing discussion between ASSIST and the host country government and stakeholders. ASSIST uses several scale-up approaches, including collaboratives and wave-sequence spread (Massoud & Mensah-Abrampah 2014; Berocochea 2015). For each activity, the selection of the scale-up approach is dependent on the type of improvement, scale, geography, and other factors. When an activity is scaled up, the experience and lessons learned through scale-up are captured and disseminated.

3. Institutionalization

One of ASSIST’s priorities is enabling the host country to continually make improvements through institutionalizing improvement beyond the technical assistance provided by ASSIST. Institutionalization is also critical to both sustaining good results and is an important step in building the government’s ability to scale up the use of quality improvement (QI) methods. This requires the political will and commitment of both national and local governments. The key elements of institutionalizing include the country ownership of improvement strategy and activities including collecting data, prioritizing, commissioning, leadership and oversight, problem-solving, evaluating, analyzing care delivery processes, and recognizing and celebrating successes. **Figure 9** summarizes what we have found to be five essential elements to achieve QI institutionalization.

As with sustainability and scale-up, institutionalization is considered in the improvement design and implementation stage of ASSIST activities. By focusing on accountability, empowerment, and engagement at all levels of the health care system, and throughout the design and implementation of improvement activities, ASSIST encourages host country governments, leaders, and stakeholders to “institutionalize” improvement, by making improvement a norm within the health system and the way in which the system works. The key differentiating factor between sustainability and institutionalization is that sustainability is maintaining the good results obtained through an improvement project. Institutionalization is building the

Figure 9. Five Elements of Institutionalization

1. Develop approaches to help frontline workers use QI approaches and tools.
2. Building structures throughout the system to support front line workers to use QI. This includes coaching structures, peer-to-peer learning structures, and management structures.
3. Align other systems to support the use of QI, e.g., Human Resources gives time for QI activiites, Finance gives money for coaches’ transport.
4. Build a culture that supports improvement (non-hierarchical, focused on outcomes, non-punitive, etc.).
5. Involve leadership in putting the other four elements into place and adapting them until they work.

government's ability to use improvement methods to improve other priorities in other places on an ongoing basis, independent of external support.

D. Learning: Knowledge Management & Research

1. Managing Knowledge for Improvement

The USAID ASSIST Project has developed strong capacity in managing knowledge. Using knowledge management techniques, we facilitate the conversations which generate tacit knowledge. We are also able to capture this knowledge, decipher it, and package to make it useful for others.

To implement high-impact interventions, it is not sufficient to impart technical knowledge and skills. It is imperative to impart the know-how of implementing interventions to successfully reach every patient, every time, in each unique setting. As important as the readily available information (explicit knowledge) is, implementers must also consider the tacit (implicit knowledge) that includes a practical understanding of the setting and the context in which the intervention is implemented. This tacit knowledge is generally undocumented because it is difficult to generate and capture.

Tacit knowledge is usually generated in the moment, through human conversation when multiple probing questions are focused on "how" not "what" the implementers did what they did and an understanding why it worked the way it did. Tacit knowledge must be shared with the understanding that delivering health care in real-life comprises many intertwined processes that are not perfect. Tacit knowledge and experience are captured and disseminated through knowledge management techniques.

A phenomenon we often see in health care improvement is that successful work which produces results is more often published and widely shared. However, learning comes from not only what has worked and why, but also what has not worked and why not. To enhance learning and inform future improvement efforts, we need to be deliberate about documenting and better understanding both successes and failures in quality improvement (Heiby 2014). Documenting the improvement process is important and includes knowledge beyond what interventions work and do not work. Knowledge is gained from addressing the challenges encountered, methods used, relationships involved in the process, and how challenges are overcome. This knowledge is valuable and should be captured and made available in various ways for others.

2. Research and Evaluation

The purpose of the research and evaluation agenda of the USAID ASSIST Project is to answer the questions not answered through the knowledge management activities, with the purpose of furthering local and global learning on improving health care in low- and middle-income countries. The research and evaluation agenda builds on the improvements conducted in ASSIST country programs and has focused on three areas:

1. Improving improvement by understanding how improvement activities are or are not working and gathering lessons learned.
2. Institutionalizing improvement by learning about making improvement part of the way the system operates.
3. Understanding the cost and cost-effectiveness of improvement.

In addition, the USAID ASSIST Project has the following three research and evaluation mandates:

1. 10% comparison groups in which counterfactuals are established to determine what would have happened if we did not implement an improvement activity.
2. 25% of improvement indicators are validated.

3. 80% of improvement collaboratives are costed.

A New Agenda of Research and Evaluation in Improving Health Care

In recent years, with the success of improvement and the results it produces, questions have emerged regarding the attribution of the results to the changes implemented using improvement. The field of health care improvement addresses the complex, interdependent, systemic nature of health care challenges by using iterative testing and adaptive management of changes and empowering teams to use data in real time to do so (Dixon-Woods 2014; Walshe 2009).

The study of these systems will therefore require different methods of inquiry. Health care improvement programs have been associated with more significant results in outcomes at scale in recent years. This has necessitated evolving research and evaluation of improvement efforts to address new challenges identified in discussions during the Salzburg Global Seminar – Session 565 “Better Health Care: How Do We Learn about Improvement?” (Massoud et al. 2016). As a result, in the research agenda going forward, more emphasis has been placed on attribution of the results to the changes being tested and implemented. ASSIST has started to move in this new direction, emphasizing attribution in its work.

IV. CONCLUSION

> "Your job is to do your job and to improve your job".
>
> *–Sven Olaf-Karlsson, Former Chief Executive, Jonkopong County, Sweden*

The work of the USAID ASSIST Project begins with a problem or challenge. Through a Country Integrated Design Plan, we seek to address the identified problem, while considering sustainability, scale-up, and institutionalization. Using quality improvement methods, we make process-level changes to yield improved health outcomes. In the process of testing and implementing changes, much learning is generated from our work. Through our Knowledge Management and Research and Evaluation activities, we have captured and disseminated the learning from our many years of applying principles of quality improvement to health systems in low- and middle- income countries.

The field of improving health care has evolved over the past three decades such that there is no question today that industrial improvement methods have been adapted to health care to yield and sustain improved outcomes in low- and middle-income countries. Progress has been made in scaling up such efforts, and much more remains to be learned about scale-up. The frontier of the science of improvement in health care in low- and middle-income countries today appears to be at two junctures: 1) institutionalizing improvement as a means of everyday work; and 2) increasing the rigor of improvement, particularly in relation to attribution and generalizability of results. The USAID ASSIST Project is making significant progress on both fronts, but much more remains to be done to move the field of improvement forward.

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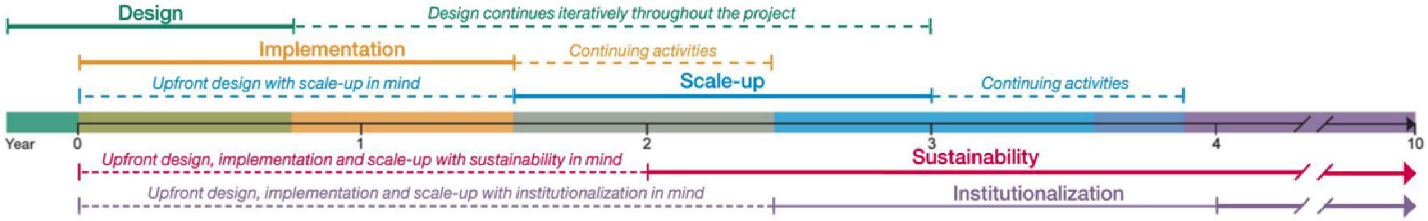
APPENDICES

Appendix I: Country Integrated Design Plan



PROGRAM DESIGN

A. Programmatic

- **Map the terrain.** Understand priorities and activities as well as engage host country government, MOH and USAID Field Mission, other country, regional and international stakeholders.
- **What is the challenge for improvement?** Participatory process led by country government and USAID mission with SIS support, to decide improvement objectives.
- **What is the SOTA technical content knowledge for prioritized quality problem(s)?** Define high impact interventions for the priority content area.
- **What are the gaps?** Conduct focused situational analysis to identify quality gaps, health system weaknesses and gender related barriers in priority area(s).
- **Develop country program strategy** with country government and other stakeholders based on prioritized quality of care problems and situation analysis. Design an evidence-based, improvement strategy including improvement approache(s).
- **How will we know if the change(s) yield improvement?** Develop feasible and meaningful program indicators that align to extent possible with the country health information system. Plan for validating 25% indicators and collecting sex disaggregated data (where relevant).

B. Designing for Sustainability, Scale-up and Institutionalization

- **Country ownership.** Position country stakeholders as decision-makers and implementers of country program improvement for all phases: design, implementation and scale-up.
- **Plan for improvement to be scaled up.** Specify the full scale from the beginning and select sites for the initial phase. All elements of initial improvement need to be scalable. Identify initial plan for how and when will scale-up happen (all at once, phased in, campaign, collaborative, wave sequence, etc.).
- **Plan for sustaining gains** by fostering locally developed, implemented and led solutions and changes.
- **Plan for institutionalizing capacity for improvement** by embedding program improvement activities in country institutions to nurture country leadership and build competence to continuously improve health care.

C. Contribution to Local and Global Learning

- **What do we expect to learn?** Determine learning objectives for the country program.
- **How will learning be advanced through Research & Evaluation?** Identify research opportunities to meet country and global learning needs. Include a comparison group for at least 10% of all country program indicators.
- **What is the economic impact and cost-effectiveness?** Build into country program evaluation to determine efficiency and cost implications.
- **How will learning be captured and disseminated through Knowledge Management?** Identify opportunities for team sharing, processes for synthesis, case study development and processes for sharing and dissemination.

IMPLEMENTATION

- **What are the changes and interventions to be tested?** Teams at various levels of the system identify and test changes to ensure reliable implementation of the high-impact interventions.
- **What are the results?** Quantitative and qualitative indicators are tracked by individual teams and aggregated across sites. Sex disaggregated data and gender sensitive indicators collected and analyzed where relevant.
- **How will human resources be strengthened?** Implement evidence-based Human Performance Technology approaches to improve health worker engagement, performance, and productivity to enable and sustain improvements at all levels.
- **Elevate improvement to the system level.** Apply improvement approaches to strengthen health system functions which are critical to the improvement objective. Improvement efforts should span across all appropriate levels of the system (community, facility, district, regional, central).
- **How much does the country program cost and is it cost-effective?** Calculate implementation costs and analyze cost effectiveness.
- **Capture, synthesize, and share learning** at all levels through multiple channels in country (learning sessions, professional association meetings, etc.) and globally (conferences, SIS web portal, communities of practice, social media etc.)
- **Collaborate with stakeholders and partners** on improvement efforts to facilitate alignment towards shared goal(s), and ensure synergies across efforts. Leverage other partners for any emergent needs for material inputs, training etc.

SCALE-UP

- **Determine the scale and period of time.** "Will go from X facilities to Y facilities in N months"
- **What is the scale-up strategy?** Involve the host country government and other stakeholders in adapting appropriate spread approaches and developing implementation strategy.
- **How will we know we have scaled-up?** Develop feasible approach for tracking country program indicators as program scales up.
- **How much does scale up cost and is it cost-effective?** Economic analysis to indicate the relative efficiency of scaling up.
- **What are the results?** Indicators of scale-up to measure progress against defined country scale-up plan and improvement targets
- **Capture, synthesize, and share learning during scale-up.** Document processes and lessons learned during scale-up. Disseminate learning at country level and share globally through case studies on the SIS portal, peer-reviewed publications, conference presentations, exchange visits across countries, etc.

SUSTAINABILITY

- **Holding the gains.** Improved outcomes and new ways of working become the norm and the systems surrounding them are transformed in support.
- **How will we know that improvements are sustained?** Follow up R&E with former country program sites that no longer receive technical assistance to determine if (and how) past results were maintained.

INSTITUTIONALIZATION

- **Capability for improvement.** Improvement is fully embedded within host country health workforce and institutions as an integrated way of doing work.
- **Policies & Regulations.** Hold national policy seminars, develop national QI policies, work with stakeholders to create improvement infrastructures within the MOH
- **Strengthening health systems by introducing a new way of working.** Transform system culture to a learning environment that is continuously improving and sharing learning on what is and isn't working.

Appendix II: USAID ASSIST Country Improvement Plan

USAID ASSIST Country Improvement Plan: [insert country name here]

Expected Start Date: [fill in month/year of the start of activities]

	Activity	Type of Activity		Funding Source		
		Improvement	Activity	Field	Core	Common Agenda
1		X				
2			X			

Add more rows as needed. Put an "x" in the "Type of Activity" column for type of activity. "Improvement activities" have improvement aims and indicators that measure improvement in care; "activities" include activities, such as research, capacity building, or standards development, do not have improvement aims.

USAID ASSIST Chief of Party:

_____ _____ _____
Name Signature Date

USAID Mission Activity Manager:

_____ _____ _____
Name Signature Date

Government of [fill in country/institution]:

_____ _____ _____
Name Signature Date

USAID ASSIST Director:

M. Rashad Massoud _____ _____
Name Signature Date

USAID Washington AOR:

James R. Heiby _____ _____
Name Signature Date

USAID ASSIST Country Plan: [insert country name here]

Background and Rationale

Please provide a brief (1-3 paragraphs) description of the background and rationale for the improvement and other activities that ASSIST has been asked to support. The description should convey: 1) why these activities are important to the country and the USAID Mission; 2) what work has been done in the past regarding these activities and when and how URC was involved; 3) which government agency(ies) has/have asked for assistance; 4) how each activity contributes to national priorities and to the USAID Mission's strategies; and 5) which key donors and implementing partners are addressing each activity and any coordination opportunities.

Program Overview

Activities	What are we trying to accomplish?	At what scale?	Improvement Activity	Activity
1. *Please provide a 2-3 word name of the activity*	*Please provide "aims" for improvement activity*	*Please describe the geographic areas in which the work will be implemented: Insert as relevant:* -# regions, districts, etc. project is covering (provide denominator) -# and types of facilities -# and types of communities we are working with, if applicable -# of QI teams working with -Coverage: pop. project is covering/total pop.	*Put an "x" here if improvement activity*	
2. *Please provide a 2-3 word name of the activity*	*Please provide "objectives" for other activity*	*Please describe the geographic areas in which the work will be implemented*		*Put an "x" here if non-improvement activity*

Improvement Activity Cross-cutting Activity

Add more rows as needed, following either the model for "improvement activity" or "activity" according to the nature of the work

Activity 1: [insert name of activity as in "Program Overview" table above]
Template to follow for improvement activities

Improvement Plan

Please provide 2-3 sentences on each topic below, if it is currently relevant and you have made decisions on how to address it.

- **Aim:** *Please insert your improvement aims here (from the Activities, Indicators, Content (AIC) plan). If you are still working on your design plan, please just say "As part of our AIC plan, we will develop detailed aims and indicators for this activity."*
- **Proposed Improvement Strategy:** *Please briefly describe the planned improvement strategy and how it will be executed. Your description ideally would include: 1) how you will use data to identify gaps in quality of services; 2) how partners will be convened; 3) the geographic scale of activities; 4) how the improvement work will be organized (for example: "collaborative improvement involving X# sites in X# regions, using a slice-of-the-system approach, with intention to scale up to X# sites in X# regions within X# months"; and 5) describe the role of ASSIST staff in supporting country actors to successfully implement this strategy.*
- **Human Performance:** *Describe how you will work with teams to strengthen human performance for this activity. Performance improvement (PI) considers the institutional context, identifies gaps between actual and desired performance, determines root causes, implements one or more solutions aimed at closing the gap, and measures the change in improvement. PI interventions can include job aids, performance support, staffing selection, supervision, appraisal systems, coaching/mentoring, documentation, team building, and training, among others.*
- **Health System Gaps and Linkages:** *Describe how ASSIST will support host country stakeholders to address health system gaps and weaknesses that impede how care in the priority content area is delivered to reach the desired outcomes. In addition, describe how ASSIST will work at multiple levels of the formal and informal (if applicable) health system to achieve the improvement objectives (e.g., management team, facility level, community level, district level, national level, etc.) to achieve the improvement objectives.*
- **Gender:** *Please describe how the project will utilize sex-disaggregated data and gender sensitive indicators to identify and overcome gaps in service delivery or other gender-related issues between males and females. What changes will the project propose to overcome previously identified discrepancies in outcomes between males and females or gender-related issues hindering project outcomes?*
- **Sustainability:** *Please describe how you will create conditions for sustaining the results of the improvement activity.*
- **Scale-up:** *Please describe the full scale to which the improvement strategy will be implemented, over what period of time, and how the implementation plan will create the conditions for spread.*
- **Institutionalization:** *Please describe how ASSIST will build capability within the host country or partner institutions to be able to lead and conduct this and other improvement efforts without external assistance, as a permanent, integral part of delivering health services.*
- **Contribution to Local and Global Learning:** *List the key learning questions this work seeks to answer. These questions can be organized by Knowledge Management, Research and Evaluation and/or Economic Evaluation.*

Implementation Schedule *please fill out the table below for this improvement activity*

If there is more than one improvement activity covered in this country plan, please insert a page break and use the same format as above for each additional improvement activity.

Activity 2: [insert name of activity as in "Program Overview" table above]
Template to follow for non-improvement activities

Objective of the Activity

Please describe the overall objective of the activity.

Description of the Activity

Please provide a short description of the activity, including the major products anticipated. Please describe the geographic scale of activity, how the work will be executed, and the role of ASSIST staff in implementing the activity.

Contribution to Local and Global Learning

Please describe how this activity will contribute to local and global learning.

Implementation Schedule *please fill out the table below for this activity*

If there is more than one non-improvement activity covered in this country plan, please insert a page break and use the same format as above for each additional non-improvement activity.

USAID APPLYING SCIENCE TO STRENGTHEN AND IMPROVE SYSTEMS PROJECT

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