USAID ASSIST Project

India Country Report
FY16

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October 1, 2015 – September 30, 2016
USAID ASSIST Project

Applying Science to Strengthen and Improve Systems

India Country Report FY16

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DISCLAIMER
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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.

Recommended citation
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# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIIMS</td>
<td>All India Institute of Medical Sciences</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal care</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
</tr>
<tr>
<td>ASSIST</td>
<td>USAID Applying Science to Strengthen and Improve Systems Project</td>
</tr>
<tr>
<td>HP</td>
<td>Himachal Pradesh</td>
</tr>
<tr>
<td>IAP</td>
<td>Indian Academy of Pediatrics</td>
</tr>
<tr>
<td>MOHFW</td>
<td>Ministry of Health and Family Welfare</td>
</tr>
<tr>
<td>NICU</td>
<td>Neonatal intensive care unit</td>
</tr>
<tr>
<td>Q</td>
<td>Quarter</td>
</tr>
<tr>
<td>QI</td>
<td>Quality improvement</td>
</tr>
<tr>
<td>RMNCH+A</td>
<td>Reproductive, Maternal, Newborn, Child, and Adolescent Health</td>
</tr>
<tr>
<td>URC</td>
<td>University Research Co., LLC</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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</table>
1 Introduction

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project started working in India in August 2013 in the six USAID-supported states to build improvement capability by enhancing the commitment and capability of leaders and health care workers to implement health care improvement along the continuum of reproductive, maternal, neonatal, child, and adolescent health (RMNCH+A). By the end of December 2015, the project was working with 415 facilities and 437 quality improvement teams in the country. At that point, ASSIST handed over its work with these facilities to IPE Global, another USAID-funded partner. Since February 2016, ASSIST has been focusing on building relationships with domestic institutions that we can support to become leaders in implementing and spreading quality improvement (QI) approaches. Our current focus is to build the skills of interested stakeholders to support the spread of improvement methods, by:

- Building the skills of individuals to become leaders in using QI methods
- Building capacity of institutions that are invested in using and promoting QI
- Building the skills of individuals and institutions to support other stakeholders in India to learn and apply QI

Scale of USAID ASSIST’s Work in India

2 Program Overview

<table>
<thead>
<tr>
<th>What are we trying to accomplish?</th>
<th>At what scale?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enhance improvement capability in the Indian health system through conducting improvements in the “RMNCH+A” continuum in public and private entities</td>
<td></td>
</tr>
</tbody>
</table>

A. Improve care along the RMNCH+A continuum in priority USAID districts

- Develop the capacity to conduct improvement among health care workers at community, facility, district, state, and national levels
- Enhance commitment and capability of leaders at the community, facility, district, state and national levels to lead health care improvement

Until December 2015 we worked in 6 USAID-supported states, all 27 of the USAID-supported districts, and one “block” in each of the selected districts, supporting facility-level improvement:

- Delhi: 2 districts, 2 blocks
- Himachal Pradesh (HP): 4 districts, 6 blocks
- Punjab: 5 districts, 5 blocks
- Uttarakhand: 3 districts, 3 blocks
- Jharkhand: 6 districts, 10 blocks
- Haryana: 7 districts, 7 blocks
- Total number of facilities: 437
3 Key Activities, Accomplishments, and Results

Activity 1a. Improve care along the RMNCH+A continuum in priority USAID districts

**BACKGROUND**

Approximately 800,000 babies per year die in their first month of life in India. This is more than 50% of all child deaths. Three hundred thousand (300,000) of these deaths occur during the first 24 hours. Progress on neonatal survival, and particularly early neonatal survival, has been slower than progress in other age groups. From August 2013 to December 2015, ASSIST worked across the RMNCH+A continuum, paying particular attention to the intrapartum and early neonatal periods since this is the most efficient strategy to save lives.

**KEY ACCOMPLISHMENTS AND RESULTS**

- **Reduction in perinatal and neonatal mortality** [Quarter (Q)1]. Overall, there was a 5.9% reduction in perinatal mortality since starting this work due to a 15.6% reduction in in-hospital neonatal mortality and a 3.3% reduction in stillbirths from July 2013 to November 2015 (Figure 1). This is equivalent to 19 deaths averted per month compared to before we started working in these facilities. Spreading this improvement to the entire country could save 31,000 lives per year. A sex-disaggregated data analysis in a sample of the sites found no gap that needed to be addressed.

Figure 1. Perinatal mortality, 115 facilities (July 2013 – Nov 2015)

- **Reduction in perinatal mortality and stillbirths over life of the project** (Q1). We compared perinatal mortality across three time periods: July-November in 2013, 2014, and 2015 (these were the five months with data from all three years). Compared to the 2013 baseline, there was a 9.5% reduction in 2014 and a 14.6% reduction in 2015. Breaking down the stillbirth and neonatal deaths in
2013 and 2015, there has been a 10.1% reduction in stillbirths and a 30.4% reduction in in-hospital neonatal deaths (Figure 2).

**Figure 2. Perinatal deaths (2013 – 2015)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total births</th>
<th>Stillbirths</th>
<th>In-hospital neonatal deaths</th>
<th>Perinatal deaths (per 1000 births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July-Nov 2013</td>
<td>74,645</td>
<td>1411 (1.89%)</td>
<td>398 (0.53%)</td>
<td>24.2</td>
</tr>
<tr>
<td>July-Nov 2014</td>
<td>78,198</td>
<td>1380 (1.76%)</td>
<td>336 (0.43%)</td>
<td>21.9</td>
</tr>
<tr>
<td>July-Nov 2015</td>
<td>67,662</td>
<td>1149 (1.70%)</td>
<td>251 (0.37%)</td>
<td>20.7</td>
</tr>
</tbody>
</table>

- **Conducted qualitative study on perceptions of QI support in scale-up districts** (Q1). Thirty-six (36) health care workers, eight facility leads, and 11 block (sub-district) leaders working in blocks where QI was being spread through the government system were interviewed by ASSIST staff. The study was designed to identify how staff in these districts perceived the QI support in order to learn about how to provide support to other groups in scaling up.

- **Results of the qualitative study** (Q1):
  - Initial QI training was well rated (4.7/5 on a Likert scale), and all staff were involved in QI projects. Staff were most confident in their ability to form a team and pick an aim and least confident in their ability to carry out other QI steps (**Table 1**).

**Table 1. Staff ratings on their confidence in seven activities in a quality improvement project (n=36)**

<table>
<thead>
<tr>
<th>QI activity</th>
<th>Score*</th>
<th>QI activity</th>
<th>Score*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picking an improvement aim</td>
<td>4.4</td>
<td>Developing change ideas</td>
<td>3.7</td>
</tr>
<tr>
<td>Form a team</td>
<td>4.5</td>
<td>Testing changes</td>
<td>3.7</td>
</tr>
<tr>
<td>Analyze the system</td>
<td>3.9</td>
<td>Implementing successful changes</td>
<td>3.7</td>
</tr>
<tr>
<td>Developing a measurement system</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*0=not confident, 5= fully confident

- **Improving QI training**: The most common suggestion for how to improve the QI training was to organize visits to facilities already using QI approaches.
- **Initial QI work**: Respondents felt that QI led to work being more organized, with fewer errors, less time-consuming, and easier to see and track progress. The biggest challenges were involving non-QI team members in QI work and the frequent transfer of staff between facilities. Seventy-five percent (75%) of respondents spent less than 15 minutes a day on QI activities with many respondents stating that they spent no additional work but that QI was part of their everyday work. Seventeen percent (17%) spent more than 30 minutes a day. Ninety-four percent (94%) of respondents stated that 0-20% of their QI work required additional data – most could be done
Coaching visits: Seventy-seven percent (77%) of health workers felt that coaching visits were either useful or extremely useful. No one felt they were not useful. The most useful aspect of coaching was hands-on support (75% of respondents), facilitating communication between workers (56%), provision of job aids (39%), and QI training (31%).

Facility and block managers: Only 12 of the 20 managers had been trained in QI, but they all rated it highly (5/5). All were involved in QI work, 64% as part of a team, 27% as a coach, and 73% receiving reports. All block managers wanted to spread QI to other facilities, but only one (9%) had done so.

Summary: Scale-up through the government system is being well received by health workers and managers. Based on this study we will focus future efforts on:
- More involvement of leaders at the start of the project and a greater focus on clarifying the management structure to support QI (only 73% of leaders were getting reports on QI activities)
- Greater emphasis on helping managers learn how to scale up improvement efforts
- Clarifying the best way to sequence QI training and supporting staff to build their skills in developing and testing changes

Activity 1b. Build the skills of interested stakeholders to support the spread of improvement methods

BACKGROUND

ASSIST is focusing on building relationships with domestic institutions that we can support to become leaders in implementing and spreading QI approaches. We achieve this by building the skills of individuals to become leaders in using QI methods, building the capacity of institutions that are invested in using and promoting QI, and building the skills of individuals and institutions to support other stakeholders in India to learn and apply QI.

KEY ACCOMPLISHMENTS AND RESULTS

- Supported AIIMS Delhi to hold a two-day QI workshop for the six other AIIMS campuses in the country as well as three other leading medical colleges (Aug 2016). Teams from these facilities are developing their own QI projects and planning support for other facilities in their catchment areas.
- Leadership in AIIMS Delhi agreed to form a cadre of QI nurses in the institution to support new QI teams and committed $600,000 to support the spread of QI approaches internally (Q4).
- Supported AIIMS Delhi to run a three-day workshop to support four medical colleges in West Bengal to design eight initial QI projects (July 2016).
  - Within two months, seven of the eight projects were completed (Table 2). The State of West Bengal is considering how to spread QI approaches from these medical colleges to peripheral facilities.

Table 2. Results from initial QI projects in medical colleges in West Bengal (July – Aug 2016)

<table>
<thead>
<tr>
<th>Facility</th>
<th>Department</th>
<th>Aim</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSKM</td>
<td>Obstetrics</td>
<td>Increase delayed cord clamping</td>
<td>32% to 80%</td>
</tr>
<tr>
<td>SSKM</td>
<td>Pediatrics</td>
<td>Reduce nasal injury in babies on continuous positive airway pressure</td>
<td>Bridge injury: 50% to 16% Columella injury: 20% to 0%</td>
</tr>
<tr>
<td>NRS</td>
<td>Obstetrics</td>
<td>Increase use of antenatal corticosteroids</td>
<td>40% to 80%</td>
</tr>
<tr>
<td>NRS</td>
<td>Pediatrics</td>
<td>Decrease neonatal hypothermia</td>
<td>100% to 0%</td>
</tr>
<tr>
<td>KMCH</td>
<td>Obstetrics</td>
<td>Improve infection prevention during vaginal delivery</td>
<td>Cleaning increased from 10% to 80%</td>
</tr>
<tr>
<td>KMCH</td>
<td>Pediatrics</td>
<td>Decrease number of hours per day that healthy babies are staying in NICU</td>
<td>61 h/d to 24 h/d</td>
</tr>
<tr>
<td>RGKAR</td>
<td>Pediatrics</td>
<td>Exclusive breastfeeding in NICU</td>
<td>Improved but data was unclear</td>
</tr>
</tbody>
</table>
• Improved care within neonatal intensive care unit (NICU) at Lady Hardinge Medical College (Q4). Decreased ambient noise within the NICU from a mean of 70dB to 54dB. Decreased the percentage of hypothermic babies admitted to NICU from 84% (July 2016) to 45% (October 2016). On average, 35 babies are admitted per week at this facility, so 15 babies per week are benefitting from this improvement.

• Reviewed how to provide QI support with IAP staff who will be providing QI support to facilities in six districts (June 2016).

• We have trained all IAP staff working on the Helping 100k Babies Survive and Thrive approach, and they have supported 51 facilities to form QI teams and start improvement projects (Q4). Twenty-four (24) of these teams are now submitting monthly data (the rest were formed in September so it is too early to see if they are going to submit data). Figure 3 shows improvements in newborn care at Primary Health Center Adesar, where there are on average 17 babies born each month, after clinical and QI support from IAP.

**Figure 3. Improvements in newborn care at Primary Health Center Adesar after clinical and QI support from IAP (July – Sept 2016)**

• Participated in two-day workshop in Himachal Pradesh in collaboration with AIIMS and IPE Global to support Himachal Pradesh to develop a quality of care system in alignment with the World Health Organization framework (April 2016).

• Supported 33 staff from eight departments in Tanda Medical College to develop initial QI projects (June 2016). These staff will use these skills internally but will also serve as a QI resource for the state in rolling out their QI strategy.

• Develop a state-wide quality of care program in Himachal Pradesh (Q3 and Q4). We are working with the State of Himachal Pradesh, AIIMS, National Health Systems Research Centre (a parastatal group with a quality assurance program), and IPE Global to develop a state-wide quality of care program that integrates quality improvement with quality assurance and training approaches. The action plan has been approved by the State Health Commission, and we are currently developing a detailed implementation plan. The State has committed around $300,000 for the plan.

• Providing Sitaram Bhartia Institute for Science and Research with support for planning first internal QI learning session and in developing strategies for getting clinicians more involved in QI (Q3).

• Virtual support of QI (Q3 and Q4). We are developing different virtual systems for QI training and coaching to see if there are less intense ways of providing QI support.
  o In Q3, we started using WhatsApp to coach a large facility in Delhi. WhatsApp coaching gives us great details on team progress and helps to identify when the team is having problems in the different QI steps. For example, WhatsApp has already enabled coaching facility members to improve aseptic technique with IV procedures in a neonatal intensive care unit, from 0% in April to 88% in June 2016 (Figure 4). WhatsApp was less useful in providing support when the team was having problems. We will continue to need to have strategies using more intense support either via telephone or in person.
In Q4, we developed protocol for qualitative assessment of WhatsApp coaching with a new QI team.

Figure 4. Using WhatsApp to coach a facility on improving aseptic technique with IV procedures in a neonatal intensive care unit, facility in Delhi (Apr – Jun 2016)*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline (Dec 2013) Approx. 100 sites</th>
<th>Aug 2015 Approx. 150 sites†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of newborns who were assisted for breathing out of total newborns reviewed*</td>
<td>17% *</td>
<td>2%</td>
</tr>
<tr>
<td>Proportion of newborns made dry and provided warmth immediately after birth out of total newborns observed</td>
<td>47%</td>
<td>100%</td>
</tr>
<tr>
<td>Proportion of newborns who were provided sterile cutting and clamping of cord out of total newborns reviewed</td>
<td>47%</td>
<td>100%</td>
</tr>
<tr>
<td>Proportion of newborns breastfed within one hour of birth</td>
<td>87%</td>
<td>88%</td>
</tr>
<tr>
<td>Proportion of newborns given injection of vitamin K at birth</td>
<td>55%</td>
<td>98%</td>
</tr>
<tr>
<td>Proportion of vaginal deliveries for which oxytocin was administered within one minute of birth of baby</td>
<td>16%</td>
<td>99%</td>
</tr>
<tr>
<td>Average number of times vitals (both blood pressure and pulse) checked and recorded within first six hours post-partum</td>
<td>0.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Proportion of ANC visits during which hemoglobin of pregnant woman was checked and documented</td>
<td>59%</td>
<td>88%</td>
</tr>
</tbody>
</table>

†*These are the last updates due to the Activity 1a closing down in December 2015

5 Sustainability and Institutionalization

All of our work is focused on building the capacity of Indian institutions to use QI methods, teach others how to use it, and provide ongoing support for interested groups within India to build their QI skills. We are using different approaches to do this. In addition to working with the government on scale-up, our current focus is working through domestic organizations to institutionalize and sustain QI capacity. AIIMS, the largest medical college in the country, has requested our support in developing a quality management system for the institute. ASSIST has trained teams from six departments. These teams have all achieved impressive results, and more teams have started to join. Currently, there are teams
from 12 departments working on quality improvement projects. We are in discussions with AIIMS on the possibility of developing QI curricula and training programs for students, instituting a formal QI system across the institution, and hosting QI events for external groups.

We are supporting the Indian Academy of Pediatrics to implement the ‘Helping Babies Survive’ Initiative in five districts to improve neonatal care. ASSIST is supporting IAP to develop the QI component. We are also interested in moving into the private sector. Currently, we plan to work with one private facility – Sitaram Bhartia Institute for Science and Research. They have a well-established QI program and have achieved great results. They have asked ASSIST to help them with how to do more work faster and to better involve front line workers.

6 Knowledge Management Products and Activities

- Co-authored a case study with IAP staff on how a single facility improved care for newborns within weeks of the start of helping babies survive support.

- Published two journal articles on a qualitative study ASSIST conducted on professional experiences and challenges faced by Accredited Social Health Activists.

7 Gender Integration

In India, accredited social health activists (ASHAs) are female community health workers who provide a range of services, mainly focusing on reproductive, maternal, neonatal, child, and adolescent health. Despite the government’s focus on RMNCH+A and the importance of community support in improving outcomes, these women are the only health workers who do not receive a fixed salary. Instead, they are remunerated based on the services that they provide. To explore the challenges faced by ASHAs and the role of family, community, and health system in supporting their work, ASSIST conducted a qualitative study in which we interviewed 49 ASHAs in two districts in northern India – Mewat (Haryana) and Gurdaspur (Punjab). We also interviewed one decision-making family member for each interviewed ASHA: 34 husbands, 13 mothers-in-law, one sister-in-law, and one son. The findings from this study help us better understand the role incentives play in gender dynamics within the family and community, which affects performance of CHW.

Thematic analysis revealed that incentives were both empowering and a source of distress for ASHAs and their families. Earning income and contributing to the household’s financial wellbeing inspired a sense of financial independence and self-confidence for ASHAs, especially with respect to relations with their husbands and parents-in-law. For most ASHAs, the finances gained from their work were spent on items for their children, with less being spent on themselves or their own family; most were able to use their own discretion on these types of purchases. Discussions around spending money on the ASHAs’ families, however, were still held with husbands or mothers-in-law with a joint decision-making process. Some ASHAs reported less domestic conflict after they became ASHAs and started earning an income. There was also more sharing of household chores by mothers-in-law, husbands, and other female relatives, leaving time for ASHAs to accomplish their official duties. Additionally, in terms of decision-making in other areas of household management, such as health-care seeking, ASHAs reported a shift as a result of their position.

However, some ASHAs reported increased domestic conflict as a result of their participation since the time and resources required to perform their professional duties drew them away from their household
responsibilities. Some husbands expressed frustration that ASHAs’ responsibilities took them away from family and household responsibilities with only meagre financial compensation.

In parts of India, a preference for male children has resulted in skewed child sex ratios. For example, in Gurdaspur, one of the districts included in the study above, the child sex ratio is 821 girls per 1000 boys. A systematic assessment of sex ratios of infant, child, and under-five mortality from 1990-2012 found the highest excess female infant mortality rate in 2012 was in India, which also had the highest excess female mortality for children aged 1–4 years for 2012, with the ratio of estimated to expected female child mortality rate increasing between 1990 and 2012. However, a sex-disaggregated data analysis of perinatal and neonatal mortality in a sample of 115 ASSIST sites found no gender gap that needed to be addressed.

8 Directions for FY17
In FY17 ASSIST in India plans to:

- Support the All India Institute of Medical Sciences to develop an internal system to spread and support the use of QI methods and to support other institutions within India to do the same. By working through the network of medical colleges, we hope to build a group of institutions which can serve as resource centers for spreading QI.
- Support the Indian Academy of Pediatrics to integrate QI approaches into their Helping Babies Survive project.
- Support the Government of Himachal Pradesh to develop and implement a quality of care program that will use quality assurance, training, and quality improvement approaches to deliver better care to women and newborns.
- Support the Government of Meghalaya to use QI approaches to improve care in Special Care Newborn Units.
- Develop virtual QI training and coaching materials. We plan to develop various training approaches that can be placed on a website. Our aim is that teams will be able to access these materials and will allow us to do more virtual rather than on-site support.

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