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COLLABORATIVE QUALITY IMPROVEMENT OF MATERNAL, NEWBORN, AND CHILD HEALTH SERVICES IN TAJIKISTAN

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Background

The Feed the Future Tajikistan Health and Nutrition Activity (THNA) is a five-year (2015-2020) project funded by USAID and led by IntraHealth International. With partner Abt Associates, IntraHealth is working with the Ministry of Health and Social Protection of the Population to improve the health and nutrition of women and children living in 12 of 24 districts of the Khatlon region.

Facing many social and economic challenges at the time of the break-up of the Soviet Union, Tajikistan additionally suffered as a result of the 1992-1997 civil war that took place mainly in Khatlon. The conflict damaged health care infrastructure and services, with more than 60 primary and secondary care health facilities destroyed. It also resulted in "brain drain," as over 260,000 people, including medical professionals, left the country.

The Ministry of Health and Social Protection of the Population is committed to improving the quality of maternal, newborn, and child health (MNCH) and nutrition services in hospitals and primary health centers (PHCs), as well as in communities. A government call to action to eliminate maternal deaths resulted in major reductions in the maternal mortality rate, from 68/100,000 live births in 2000 to 32/100,000 in 2015. To continue this progress, multiple quality improvement (QI) initiatives are being considered and introduced. However, despite high emphasis on QI at the central level, the ministry's capacity to roll it out to facilities remains limited and donor-dependent, and health indicators are poor, especially in rural areas such as Khatlon.

In the 12 districts where THNA works, the 2017 Demographic and Health Survey showed only 44% of pregnant women had made four antenatal care (ANC) visits and, while facility delivery was high at 90%, postpartum care was almost nonexistent. Infant death and under-5 mortality rates remained high (33 and 40 per 1,000 live births, respectively), along with the prevalence of anemia, malnutrition, and child illnesses such as diarrhea and acute respiratory infections. These problems are compounded by a high fertility rate (4.1) and low contraceptive prevalence (21%).

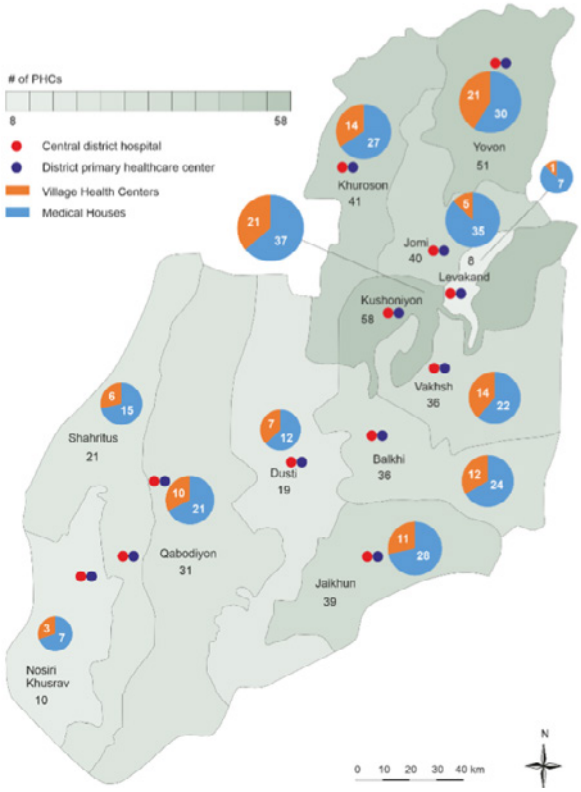
Approaches

To address these challenges, THNA implements four integrated, cross-sectoral approaches:

1. Improve quality, accessibility, and utilization of MNCH services at the community, PHC and hospital levels
2. Increase availability and consumption of diverse nutrient-rich foods throughout the year
3. Drive behavior change related to MNCH, water, sanitation, and hygiene (WASH), and nutrition for children and women
4. Conduct advocacy to support and institutionalize these interventions.

This technical brief covers clinical QI interventions in hospitals and PHCs while a **second technical brief** documents community-based approaches. The major clinical focus areas for QI include ANC, emergency obstetric and newborn care (EmONC), effective perinatal care (EPC), integrated management of childhood illness (IMCI), anemia, and nutrition.

Figure 1. Health care facilities in the 12 Feed the Future districts



Clinical-level Activities

THNA and the ministry are implementing a collaborative improvement approach to strengthen the quality of the targeted clinical services at 12 hospitals and 12 PHCs serving the Feed the Future districts, using **World Health Organization (WHO) scorecards** for EPC and IMCI as quantitative measures for QI. The scorecards are tools to conduct rapid health facility assessments for quality of care, in which each item is evaluated through information gathered by different sources to reach an overall score.

Essential features of THNA QI collaborative

- Shared objectives and clinical standards
- Qualified, functional QI teams
- Shared monitoring system using WHO scorecards
- Training and coaching support
- Learning sessions and site visits to share experiences, innovative ideas, and solutions

Sample QI team members

- Facility head (honorary team lead)
- Responsible person for QI (collaborative improvement team lead)
- Responsible person for infection control and clinical safety
- Responsible person for continuing education
- Responsible person for internal protocols

QI collaborative: Originally developed by the Institute for Healthcare Improvement and further adapted by University Research Co., collaborative improvement is a structured QI approach that organizes health facilities to work together for 18 to 24 months to achieve significant gains in specific areas of care. The intention is to accelerate both the pace and geographic spread of the improvements, even in the context of weak health systems, by focusing on the collaborative efforts of QI teams that learn together.

Supervision and monitoring: THNA provided initial coaching and monitoring while simultaneously training staff from the QI teams to undertake this role. Team leads develop QI action plans with their team, agree on responsibilities, and monitor and follow up on the team's achievements and challenges. The approach encourages supportive supervision instead of the previous punitive approach—for example, the QI collaborative transformed near-miss maternal death audits from a punitive to a positive QI approach, in which teams analyze the root causes of each case and introduce safeguards to prevent them in the future.

"The QI approach encouraged supportive supervision. THNA explained expectations and worked closely with us. Before our system relied on orders. Now we explain, and the team willingly accepts and implements the changes. We stopped punishments."

—Nurse, Shahritus Hospital

Shared learning: During learning sessions or exchange visits between facilities, teams complete scorecards on each other and provide useful feedback, accelerating the adoption of positive changes through an environment of positive competition.

Building clinical competence: THNA uses mixed approaches to strengthen clinical competencies, including on-the-job training and simulation using anatomical models as well as classroom training, on-the-job mentoring, and supportive supervision. For hospitals, THNA trained 12 EPC, 10 IMCI, and 18 Kangaroo Mother Care master trainers. For PHCs, THNA built the capacity of 19 master trainers in nutrition in pregnancy, infant and young child feeding, management of anemia, and infection control. Master trainers are based at nutrition resource training centers equipped by THNA at the 24 hospitals and PHCs.

"We almost lost a young mother to postpartum hemorrhage during a heavy shift with eight simultaneous deliveries and Cesarean sections. A young woman was bleeding from a perineal tear, sutured hastily, and was almost going into shock when we discovered her. Since then, we improved our compliance with the postpartum care standard that requires us to check vital signs and vaginal bleeding every 15 minutes, for every delivery, including uncomplicated normal deliveries."

—Midwife, Dusti District Hospital

Linking QI with the community: QI teams counsel communities and work with health volunteers and peer-support groups (e.g., for mothers-in-law, young mothers, and men) to emphasize the value of ANC for the mother and baby. THNA also connects health workers at rural facilities with health volunteers who identify and refer pregnant women not registered for ANC, those with danger signs in pregnancy, and children with malnutrition and diarrhea.

Results

Table 1 presents data on QI collaborative interventions. **Figure 2** shows progressive improvements at eight hospitals that regularly reported on four essential indicators for EPC and EmONC. **Figure 3** illustrates progress reflected in EPC scorecards in 12 hospitals. Despite continuous improvements, no hospital reached the optimal score of 3, mainly due to low scores on infrastructure indicators related to water supply and sewage systems. **Figure 4** shows progress between the first baseline visit and second monitoring visit at the

12 hospitals using the WHO IMCI scorecard. **Figure 5** documents marked improvements in ANC indicators at the 12 PHCs. Screening for eclampsia showed slower improvement as some PHCs have no kits to test albuminuria, one of the three measures for eclampsia screening. Appropriate anemia therapy is also not improving quickly due to stock outs of iron supplements at PHCs. Infection control improved in all locations where collaborative improvement strengthened mentoring and monitoring systems; **Figure 6** shows progress in hospitals.

Table 1. Data on THNA clinical interventions, Year 4

Intervention	Result	Denominator
Facility health workers trained in nutrition counseling	**1,584**	Total number of health workers in FTF districts: **3,017**
PHC providers trained in prevention and management of anemia	**590**	Total number of PHC providers in FTF districts: **2,394**
Children under five reached with clinical nutrition interventions	**27,000**	Total number of children under five in FTF districts: **102,251**
Pregnant women reached with clinical nutrition interventions	**50,000**	Total number of pregnant women in FTF districts: **52,162**
Trainers and health workers trained in Kangaroo Mother Care	**466**	Total number of maternity department workers: **510**
Nutrition resource training centers established at hospitals and PHCs	**24**	Total number of central district hospitals and PHCs: **24**
Topics/standards developed for on-the-job training	**32**	n/a
PHCs	**13**	n/a
Hospitals	**19**	n/a
Health workers receiving clinical on-the-job training	**1,497**	Total number of health workers in FTF districts: **3,017**
Doctors	**280**	Total number of doctors: **474**
Midwives	**161**	Total number of midwives: **268**
Nurses	**950**	Total number of nurses: **2,099**
Neonatal nurses	**51**	Total number of neonatal nurses: **86**
Pediatric nurses	**54**	Total number of pediatric nurses: **90**
Obstetrics/gynecology and neonatology specialists trained as trainers in supportive supervision for EPC	**12**	Total number of hospital-level resource and training centers: **12**
PHC providers trained as trainers in supportive supervision for ANC and infant and young child feeding	**21**	Total number of PHC-level resource and training centers: **12**
Hospitals receiving equipment for IMCI and EPC	**12**	Total number of central district hospitals: **12**
Health fairs conducted to connect specialists to remote rural communities	**60**	Total number of THNA target communities: **500**

Figure 2. Progress in EPC and EmONC at 12 hospitals, Jan. 2018-June 2020

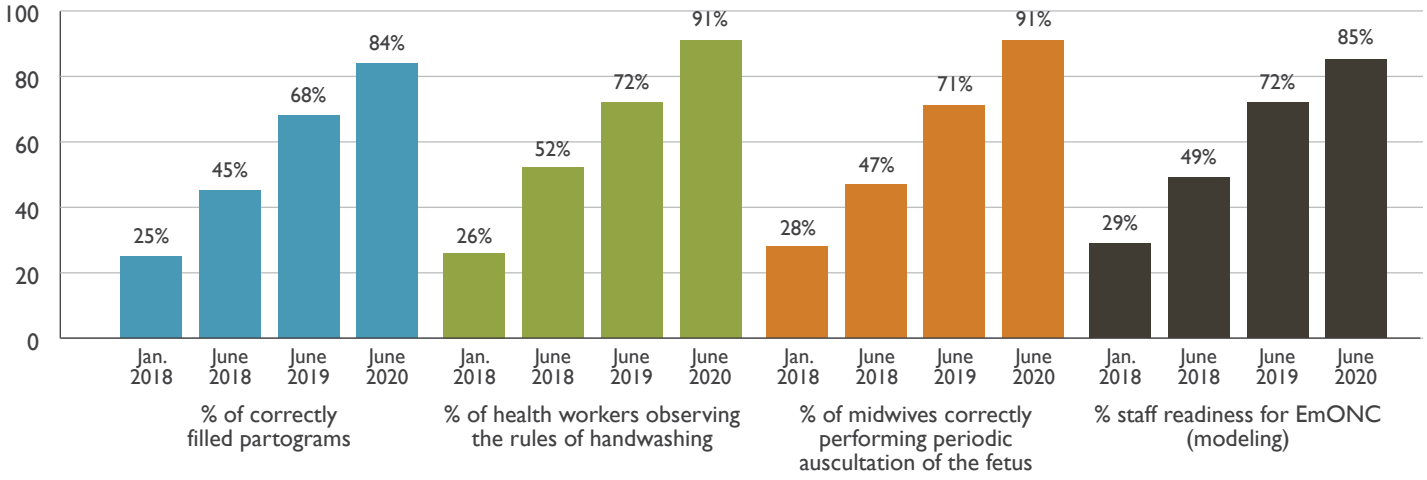


Figure 3. Progress in EPC scores at 12 hospitals, May 2016-Feb. 2020

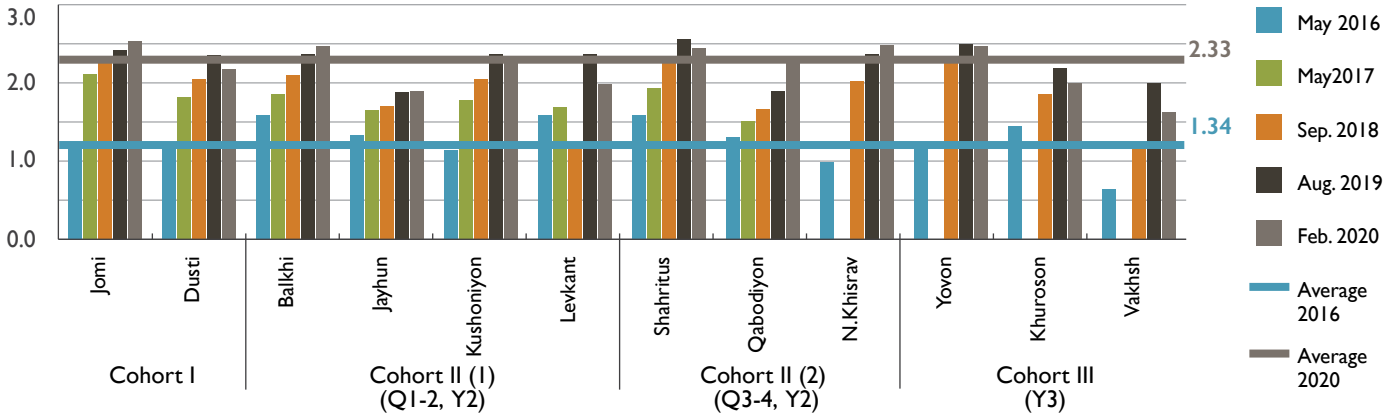


Figure 4. Progress in IMCI scores at 12 hospitals between first (Oct. 2016-Nov. 2017), second (Feb. 2017- Aug. 2018) and third (Jan-Feb. 2020) supportive supervision visits

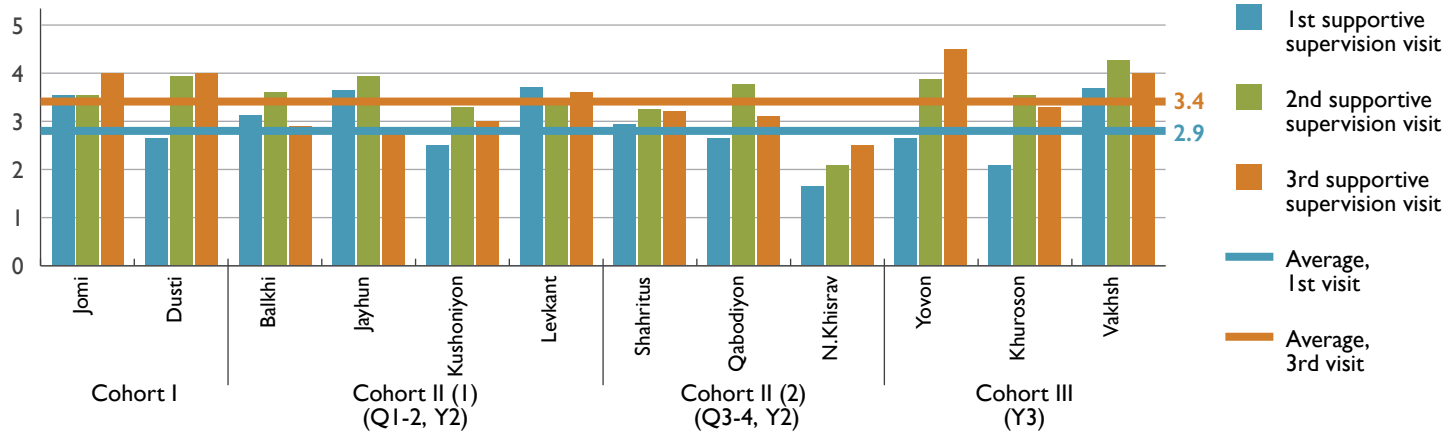


Figure 5. Progress in ANC at 12 PHCs, Quarter 2, Year 2-Quarter 3, Year 5

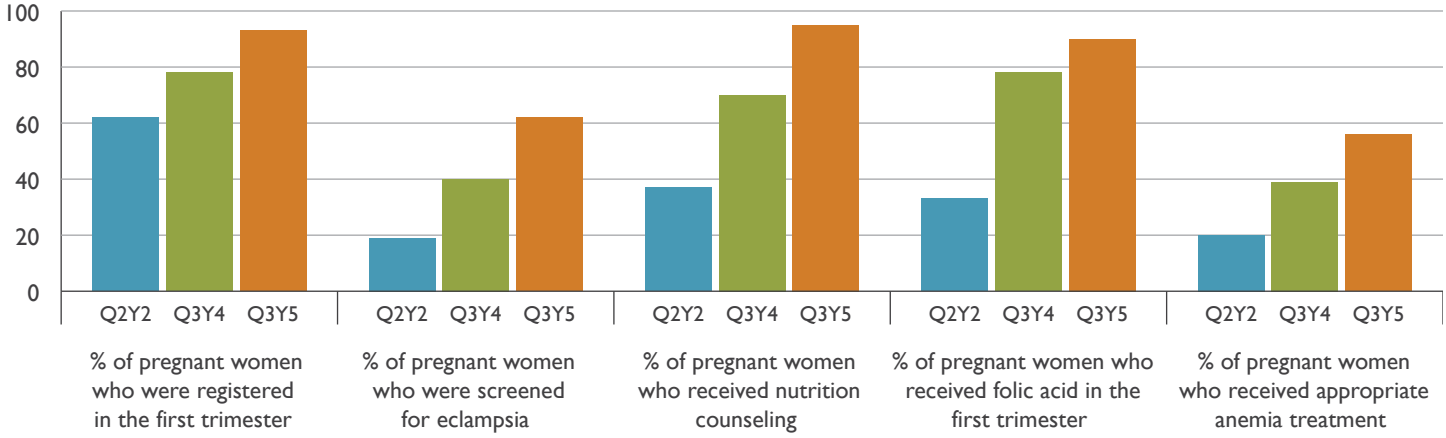
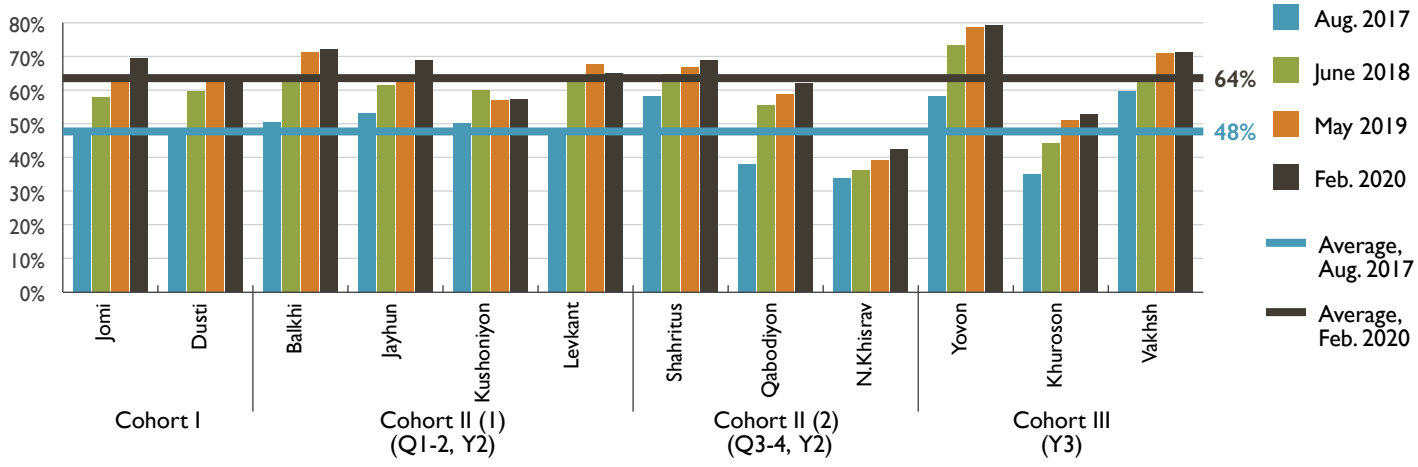


Figure 6: Progress in infection control and clinical safety at 12 hospitals, Aug. 2017-Feb. 2020



Challenges

- Although the Ministry of Health and Social Protection of the Population has been introducing multiple QI interventions at facilities, its overall strategy and approach for QI is not firm yet. Multiple standards and tools are being considered and used by different donors, which complicates roll out.
- While the ministry is interested in expanding QI for EmONC and IMCI in Khatlon region and nationally, budget limitations may inhibit sustainability and scale up. Using evidence from its work, THNA is advocating with the Khatlon Department of Health and donors to scale up the interventions.
- The training and capacity building provided through THNA has not been counted in terms of providers' continuing medical education (CME) achievements and requirements. Multiple donors and partners face the same issue and are advocating with the ministry to accredit such trainings to motivate health workers to participate.
- Some hospitals and PHCs still lack running water and sewage systems, presenting a major barrier to infection control and quality of care.
- Postpartum care, although offered at the facility after delivery, remains almost absent once the mother and newborn go home. This is mainly due to shortages of health workers in communities and long distances from many communities to PHCs. Missed opportunities to provide family planning counseling and services also continue.
- Health facilities face shortages of essential medicines and supplies, such as iron supplements and lab kits. Some essential ANC services, such as basic lab tests, are offered for a fee, which creates a barrier to access for most women.

Recommendations

- ***Scale up the clinical QI interventions:*** These approaches resulted in remarkable quality improvements at minimal additional cost or effort to the Ministry of Health and Social Protection of the Population, which makes the interventions ready for scale up. The QI collaborative is an excellent model for scaling up best practices, as it improves the inputs, the process, and the system of care. We recommend initial scale up to additional hospitals and PHCs in Khatlon, since their situations and challenges are very similar. However, the ministry and donors need to agree on one approach to QI to accelerate progress.
- ***Involve the Department of Health in supportive supervision and monitoring:*** This is essential for sustainability and scale up, as the QI teams need additional stakeholder support to respond to some of the infrastructure needs and policy changes.
- ***Update the government CME system:*** The motivation of health providers to take part in clinical and QI training activities would improve significantly if such training brought a required CME credit.
- ***Ensure all hospitals and PHCs have running water and sewage systems:*** The government, local communities, private sector entities and donors need to prioritize this basic need.
- ***Strengthen postpartum care:*** Greater impact will be achieved if postpartum care includes a mix of home visits by PHC midwives and health volunteers to check on mothers and newborns and provide counseling and referrals to facilities as needed.
- ***Integrate family planning services and counseling*** throughout the continuum of care.
- ***Improve funding and supply chain for ANC:*** Ensure all basic ANC medicines and supplies, such as iron supplements and urine albumin dipsticks are available at the lowest level PHC facilities free of charge.

Photo by Claudia Muir for IntraHealth International

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