CASE STUDY

Healthy Mother, Healthy Baby (HMHB)

Digitally Transforming Service Delivery in Tajikistan

dimagi USAID FROM THE AMERICAN PEOPLE

OVERVIEW

The USAID-funded Healthy Mother, Healthy Baby (HMHB) Activity set out to improve health outcomes in Tajikistan through digital transformation. It expands USAID's maternal, newborn, and child health (MNCH) and nutrition investments in Tajikistan as the country introduces new health strategies. It is a multi-year activity with a mandate to make sustainable improvements in the ability of the Government of Tajikistan to deliver quality maternal and child health and nutrition services. It focuses on building the technical capacity, leadership, and management of Tajikistan while also creating a path towards country-wide digitalization and policy reform.

Healthy Mother, Healthy Baby aims to improve the quality of healthcare, increase access to health services, and help meet the increasing demand for health services in 12 districts. It will build the capacity of health providers through in-service training and ongoing continuing education; integrate person-centered care across hospitals, Primary Health Care (PHC), and Healthy lifestyle centers (HLSCs); and support an enabling environment for skilled, motivated providers by expanding Quality Improvement (QI) efforts and availability of infrastructure and equipment.

HMHB leverages the power of CommCare, to create an enabling environment to strengthen capacity and ensure users have the correct information at their fingertips to make better-informed decisions.

SUMMARY

LOCATION

Khatlon Province, Tajikistan

SECTOR

Maternal and Child Nutrition and Health

PARTNERS

Ministry of Health and Social Protection of the Population (MOHSSP), USAID, Abt Associates

NUMBER OF USERS

600+

FEATURES

Case Management; Survey Application; Decision Support; Attendance Tracker; Facility Assessment; Multimedia; Counseling; DHIS2 Integration

PROBLEM

In Tajikistan, women and children have benefited from the country's commitment and strengthened capacity to improve maternal, newborn and child health (MNCH); however, the country continues to have the highest rates of maternal and child mortality and stunting, wasting, and underweight children in Central Asia.

Tajikistan struggles to provide timely and quality health care services for mothers and children. Registries on health service provision and data management are primarily paper-based, which delays services and impacts the quality of care. Digitizing health information is an effective way to improve coordination and expedite decision-making.

SOLUTION

The Healthy Mother, Healthy Baby (HMHB) Activity builds on USAID's prior work including Tajikistan Health and Nutrition Activity (THNA) whose goal was to improve the health status and nutrition of women and children who live in 12 southwestern districts of Khatlon Region. HMHB will pursue its goal to improve the nutritional state and prevent morbidity and mortality of mothers and children under two, as well as improve the quality and availability of lifesaving evidence-based health interventions, for women and children in the Feed the Future Zone of Influence (FTFZOI) in Khatlon Region,[1] as identified by USAID.

To deliver long-term country-led results HMHB collaborates with the MoHSPP to adapt MNCH and nutrition systems and interventions, and strengthen local technical and organizational capacities to improve quality.[2] HMHB uses CommCare to develop a suite of applications designed to help healthcare workers (HCWs) and community leaders increase the quality of services they deliver. Data from the program flows directly into the Abt Monitoring and Evaluation Ecosystem (AMEE)'s District Health Information Software 2 (DHIS2) instance and to a server at the Republican Center for Medical Statistics and Information to expedite decision-making.

Both CommCare and DHIS2 are open-source software systems that are used in many countries across the world, known as Global Goods. HMHB has a clear vision for how the mhealth tools will be developed and used throughout the project.

HMHB's technical team identified specific indicators that reflect the HMHB Activity's priority strategic objectives as well as local and global strategies. These indicators also reflect appropriate US Government (USG) standard indicators. The Dimagi team has worked closely with the HMHB team so as to enable the collection of data that will inform these indicators using CommCare.

1 https://drive.google.com/file/d/16myiRYr8nIaO4koZ-n-W_3zJd4bCrwmz/view?usp=sharing
2 https://drive.google.com/file/d/1xy_9gMgKdMLrmf61jehM3t_h2gn2I-3T/view?usp=sharing

So far, CommCare has been used to develop the following applications for the HMHB program.

- Rapid Health Facility Assessment (RHFA)
- Continuous Medical Education (CME)
- Knowledge, Access and Practice (KAP)
- Maternal Nutrition and Child Health (MNCH)
- Community Based Education (MNCH v1)
- Antenatal and Postpartum Care (MNCH v2)
- Nutrition for Children Under 5 Years (MNCH v3)

APPLICATIONS

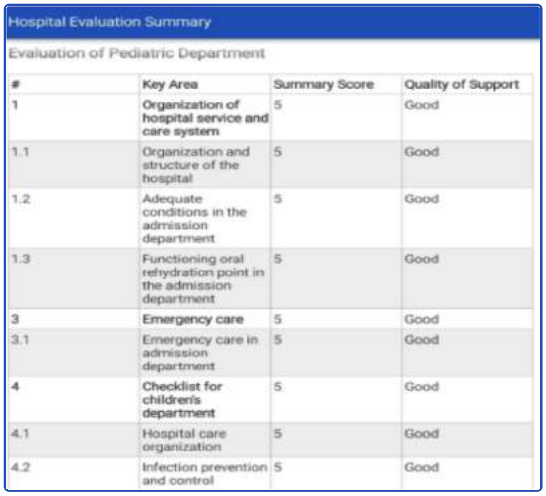
1. Rapid Health Facility Assessment (RHFA)

HMHB digitalized the World Health Organization's (WHO) Rapid Health Facility Assessment (RFHA), originally developed in 2009. The RHFA provides a standardized way to measure progress to prevent morbidity and mortality of mothers and children under two, and advance the availability and quality of lifesaving evidence-based health interventions for women and children. HMHB, in collaboration with the MoHSPP, adapted and digitalized the RHFA's 2,000+ questions using the open-source platform, CommCare. It used the assessment as a baseline to effectively plan and implement activities at the Hospital and Primary Health Care levels.

In 2021, the digitalized RHFA app was used to assess 24 health facilities in Tajikistan (12 Primary Health Care and 12 District Central Hospitals). The results obtained from the RHFA application (that became available much sooner than before when conducted through paper based tools) were used by HMHB to develop community nutrition and water, sanitation and hygiene (WASH) roadmaps following USAID and global MNCH and nutrition best practices. HMHB also provided technical support and coordinated activities to resolve clinical or service issues identified during the RHFA to the MoHSSP.

Feature Highlight

This digital tool provides a multilevel data control and management system through the implementation of a supervisor role. All the data that is submitted by surveyors or consultants from different facilities are first made available to their supervisor who can either reject the submission upon which the surveyor edits their forms and resubmits them or they can also directly edit the forms submitted and then the final data is made available for visualization on DHIS2.



Hospital Evaluation Summary

Evaluation of Pediatric Department

#	Key Area	Summary Score	Quality of Support
1	**Organization of hospital service and care system**	5	Good
1.1	Organization and structure of the hospital	5	Good
1.2	Adequate conditions in the admission department	5	Good
1.3	Functioning oral rehydration point in the admission department	5	Good
3	**Emergency care**	5	Good
3.1	Emergency care in admission department	5	Good
4	**Checklist for children's department**	5	Good
4.1	Hospital care organization	5	Good
4.2	Infection prevention and control	5	Good

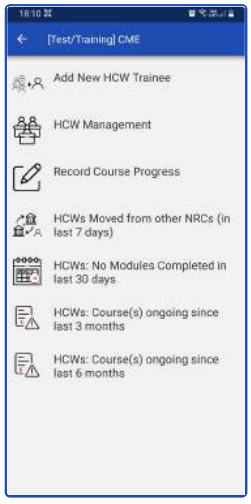
Rapid Health Facility Assessment (RHFA) Application

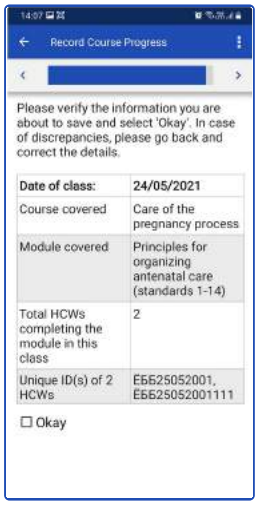
2. Continuous Medical Education (CME)

The CME application supports the program's investment in training and upskilling health care workers. It enables trainers, facility managers, and HMHB staff to track learning events and skills development milestones from in-person trainings to online workshops. The app simplifies the process for MoHSPP Nutrition Resource Center (NRC) trainers to register and track the courses and trainings taken by health care workers, generating lists of trainees who have not completed modules or sub-topics by set dates. The application also makes it easier for NRC trainers to track, analyze and visualize CME performance of health care workers.

Feature Highlight

This digital tool provides workflows for tracking education and trainings provided to Khatlon districts' health staff, and tracking of topics trained at each PHC and Hospital NRC. It works as a digital job aid for NRC trainers, enabling them to digitally collect and see trainees' training progress through tablets. The data collected is instantly available on DHIS2 for program administrators' reporting and analytics needs.





Record Course Progress

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Date of class:	**24/05/2021**
Course covered	Care of the pregnancy process
Module covered	Principles for organizing antenatal care (standards 1-14)
Total HCWs completing the module in this class	2
Unique ID(s) of 2 HCWs	ЕББ25052001, ЕББ25052001111

☐ Okay

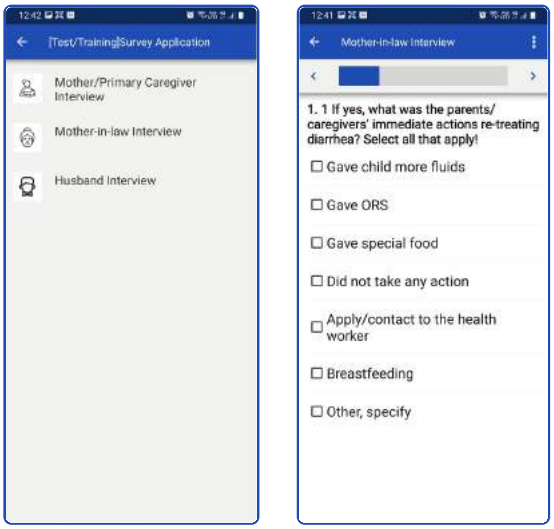
Continuous Medical Education (CME)

3. Knowledge, Access and Practice (KAP)

HMHB led a household-level survey to collect baseline data on the community knowledge, attitudes, and practices (KAP) of Tajik families, with the aim of measuring HMHB's program impact over time and informing decision-making at the MoHSPP. To implement this wide-scale household survey, HMHB built a KAP Survey application using CommCare. The app ensures household anonymity and segments inputs received from individual interviewees for deeper analysis. The insights generated by the KAP survey were particularly useful in understanding the distribution of decision-making responsibilities, regarding nutrition and WASH in the household, which would in turn help in defining the social behavior change (SBC) audience for different behaviors.

Feature Highlight

This digital tool provides workflows for conducting Knowledge assessment surveys of husbands, mothers of children under 2 years, and mothers-in-law within the community on various health topics like Maternal and Newborn Child Health, Sanitation and Hygiene, COVID-19 protocols etc. Responses from the community were anonymously collected, and made available on DHIS2 for reporting and analytics.



Knowledge, Access and Practice (KAP) Application

4. Maternal Nutrition and Child Health (MNCH)

The MNCH app is divided into three versions, each with a different function and target audience:

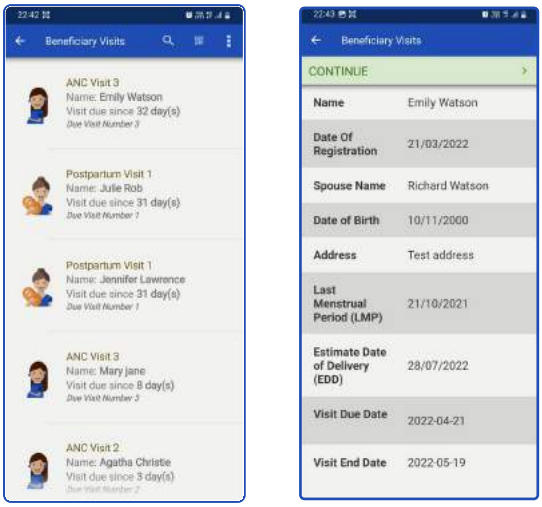
1) MNCH v1 - Community Based Events (CBE) tracks HMHB activities, including community social behavior change events such as workshops for community workers, community leaders, women and youth trainings; and peer mentoring sessions, at the district and village levels. The app is designed for HMHB facilitators and at the time of this writing has 463 users across 380 villages and facilities.

2) MNCH v2 - Antenatal and Postpartum Tracking captures pre-and post-natal data to monitor and track pregnancies. The application helps facilitators and health care workers better support pregnant people to make healthier choices before and after their pregnancies. The app includes a personalized visit scheduler enabling primary health care and village facility users to track patients, remind them of upcoming visits, and provide follow-up if visits are missed.

3) MNCH v3 - Children Under Five Tracking, currently in its design phase, will enable health care workers to capture and analyze nutrition and child development data for children under five. By capturing key health indicators (e.g., height, weight) for individual patients, health care workers can track progress towards improving MNCH and nutrition outcomes. They can also identify children most at risk of malnutrition to ensure they receive immediate attention. By aggregating data collected at the facility level, the app further supports the MoHSPP and HMHB to make data-driven decisions to improve health and nutrition interventions.

Feature Highlight

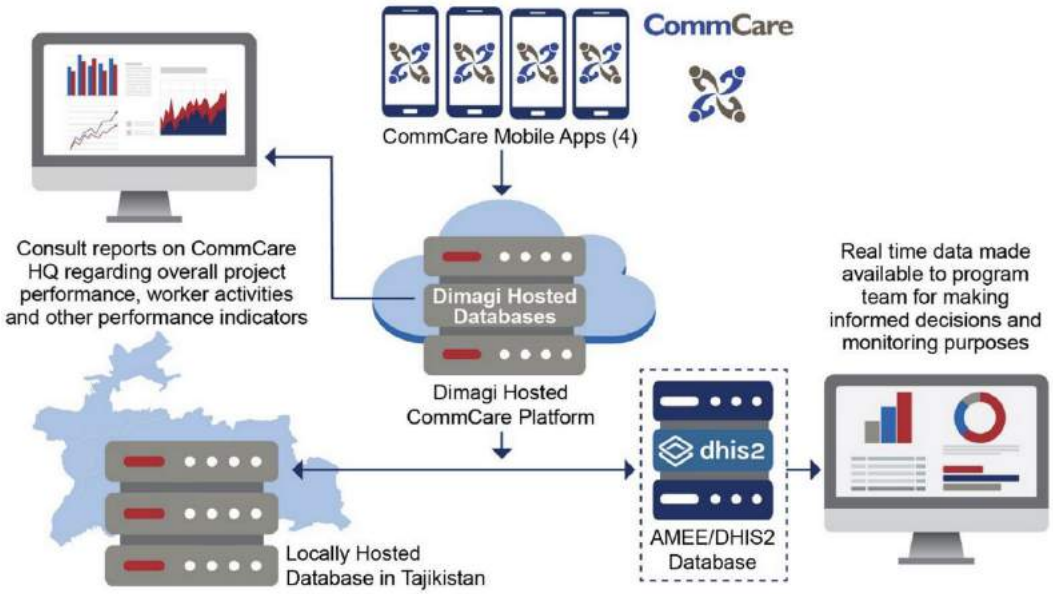
This digital solution has a variety of customized features, one of those being the visit scheduler. All pregnant and lactating people, as well as children under 5, have a visit scheduler that is fixed based on their last menstrual period or delivery date/date of birth. They are required to be visited by facilitators for check-ups and also counseling on these dates. The application digitalizes this schedule so facilitators see a prioritized visit list with the name of the patient along with the date of the next visit and therefore becomes a powerful tool to support their work.



Maternal Nutrition and Child Health (MNCH) Application

DHIS2 Integration

All the applications built on CommCare are also integrated with the DHIS2 system for easy data visualization and reporting. Integrating the widely used DHIS2 platform with CommCare, HMHB enables the MoHSPP to build a digital ecosystem to strengthen the skills of healthcare workers and managers, place healthcare data in the hands of decision-makers, and link communities to the healthcare system to increase service use and improve health outcomes.



Current digital architecture of HMHB program

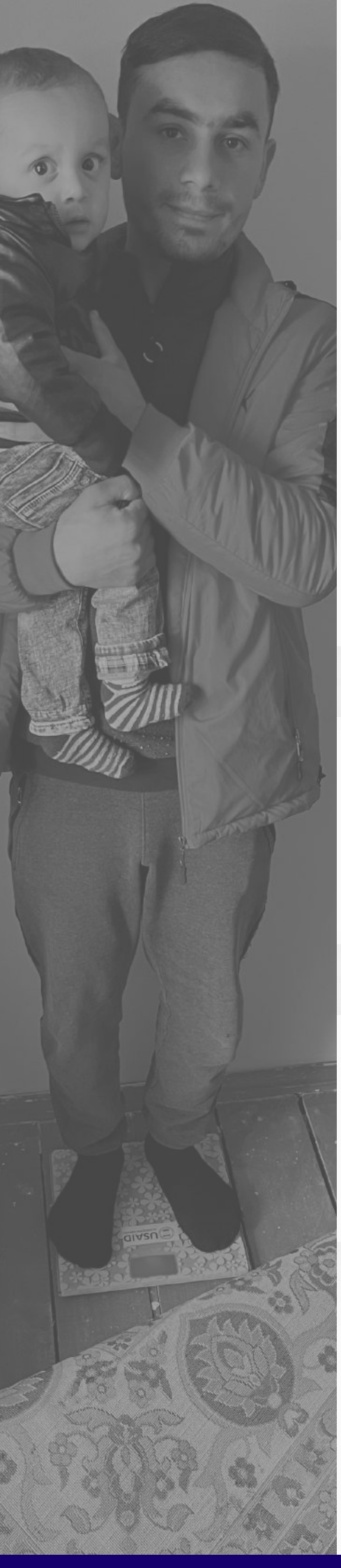
IMPLEMENTATION

To address MNCH and nutrition issues, USAID awarded Abt Associates the five-year HMHB Activity. In partnership with the MoHSPP, HMHB adapts, develops, and implements an approach based on global best practices. HMHB uses CommCare for data collection and as a job-aid tool for the targeted users and DHIS2 to manage and analyze routine data. The project started in September 2020 and so far has had 4 applications launched in the field: RHFA - launched and live, CME - launched and live, KAP - launched and live in November 2021, MNCH v1 - launched and live. MNCH v2 and v3 will be launched in the second quarter of 2022.

So far, Dimagi, through CommCare, is supporting HMHB for routine facility assessments, training and attendance tracking of health care workers, recording community-based events (such as community meetings, awareness-raising sessions, training and social behavioral change communication (SBCC)) and will soon start tracking pregnant people and children under five years of age. While the current number of users stands at around 600 (and is expected to increase to approximately 1800 by the end of 2022 in Khatlon region alone) the systems are built for scale such that they can be spread across all the regions of Tajikistan.

IMPACT

HMHB has a clear vision for the mhealth tools to be developed and used throughout the project. The tools developed as part of the Activity have been built such that they can be scaled. In order to get to full-scale implementation both at a project- and national level, it's important to be aware of and control the challenges that ultimately come with such plans. Through years of experience implementing and scaling digital systems, Dimagi brings a wealth of experience to HMHB that will be leveraged as the project plans for a sustainable path to full-scale adoption of the systems. While the project currently is only in its second year of implementation, the coming years will see the HMHB team, including Dimagi, further pushing our impact to improve the nutrition and health outcomes specifically of our target population - mothers and children, and also continue supporting the overall digitalization efforts in Tajikistan.



WHAT THEY HAVE TO SAY

"Partnering with Dimagi on the HMHB Activity in Tajikistan made sense. The Dimagi team brings decades of experience designing technology for frontline programs and truly cares about the outcomes of HMHB. We have been able to digitalize paper forms, increase the speed and accuracy of analysis to support decision making, and utilize CommCare for capacity building to improve performance quality of health workers. Together with Dimagi, HMHB is pushing the frontiers of impact in the digital health landscape of Tajikistan."

Clifford Lubitz
CHIEF OF PARTY, HEALTHY MOTHER, HEALTHY BABY

"Wow, application calculated the Expected Delivery Date is matching with what we have calculated"

A healthcare worker working with a Village Health Center in Khatlon region

"Applications is really helping us to keep records digitally as well as automatically calculated information that we have spend lots of time and thus we maintain the high quality of services delivered"

A medical professional using CME application at her NRC in Khatlon Region

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