

Integrating nutrition services into mobile health teams: Bringing comprehensive services to an underserved population in Afghanistan

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The findings, interpretations and conclusions in this article are those of the authors. They do not necessarily represent the views of UNICEF, its executive directors or the countries they represent and should not be attributed to them.



Joint monitoring visit at MHT service delivery point by AADA M&E officer and UNICEF health extender, Do Abe village, Qyasar District, Faryab Province, Afghanistan, 2019

Location: *Afghanistan*

What we know: Distance between remote communities and fixed health facilities in hard-to-reach areas can greatly impede service development and coverage.

What this article adds: Mobile health teams (MHTs) were rolled out by the United Nations Children's Fund with a local partner in 2018 to implement the Ministry of Public Health basic package of health services (BPHS) in remote/hard-to-reach communities in Faryab province. Four MHTs provided monthly antenatal care, postnatal care, immunisation, nutrition education and management of uncomplicated severe acute malnutrition (SAM) at agreed delivery points between February and December 2018, covering a population of 66,590. BPHS coverage increased by 10%; 19,187 children aged 6-59 months were screened for malnutrition, of whom 1,586 SAM children were successfully treated (94% cured, 4% defaulted and 1% died). MHTs were successful in improving coverage and service demand but are unsustainable in the longer term due to cost. The programme was extended for six months while capacity of government health sub-centres was built to provide services to the same communities.

Background

Afghanistan has struggled with protracted conflict for over three decades and is prone to recurrent natural disasters. Currently, 13.5 million people are estimated to be facing emergency levels of food insecurity (levels three and four of the Integrated Phase Classification).¹ Afghanistan has one of the highest rates of stunting of children under five years old in the world at 37%,² and an alarming level of under-five wasting at 9.5%.³ Only half of Afghan infants are exclusively breastfed during the first six months of life and only 16% of Afghan children aged 6-24 months receive a minimum acceptable diet that includes the right variety of food in the quantity needed for their age.

Remarkable improvements have been made in Afghanistan's health system in the past decade. Coverage of health services has increased from 60% in 2015 to 90% in 2019; child mortality has decreased from 257/1,000 in 2003 to 55/1,000 in 2015; and maternal mortality has decreased from 1,600/100,000 to 600/100,000. However, Afghanistan still faces considerable challenges.

Rural populations pay around nine times more for a one-way trip to a health facility than urban populations. Nutrition services remain limited and healthcare providers lack training to assess and offer counselling and treatment services for the management of malnutrition. Mothers and children living in remote and conflict-affected areas often do not access the Ministry of Public Health (MoPH) basic package of health services (BPHS) (Table 1), which is reflected in very low coverage of antenatal care, postnatal care, immunisation and nutrition services in these areas (all under 50%).⁴

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¹ Afghanistan Country Overview, ACAPS www.acaps.org/country/afghanistan/crisis/complex-crisis

² Afghanistan Health Survey, 2018

³ Afghanistan National Nutrition Survey, 2013

⁴ UNICEF Afghanistan: www.unicef.org/afghanistan/nutrition

⁵ Coverage estimate based on the population being within two hours of walking distance to the closest health facility.

Table 1 Seven elements of the MoPH basic package of health services (BPHS) in Afghanistan and their components

Maternal and newborn care	Antenatal care; delivery care; postpartum care; care of the newborn
Child health and immunisation	Expanded Programme on Immunisation (EPI); Integrated Management of Childhood Illness (IMCI)
Public nutrition	Prevention of malnutrition; assessment of malnutrition
Communicable disease treatment and control	Control of tuberculosis; control of malaria; prevention of HIV and AIDS
Mental health	Mental health education and awareness; case identification, diagnosis and treatment
Disability and physical rehabilitation services	Disability awareness, prevention and education; provision of physical rehabilitation services; case identification, referral and follow-up
Regular supply of essential drugs	Listing of all essential drugs needed

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Intervention approach

Mobile health teams (MHTs) provide a vehicle to bring care closer to the homes of underserved populations living far from fixed health facilities and sensitise communities to health and nutrition services. In an effort to address outstanding challenges and to scale up the provision of the BPHS, an integrated model of mobile teams (health and nutrition) was piloted in four districts of Faryab province, northern region, Afghanistan (Figure 1). The pilot programme was implemented and funded by the United Nations Children's Fund (UNICEF) in 2018 as part of a broader emergency nutrition programme, in

partnership with the Agency for Assistance and Development of Afghanistan (AADA), a non-profit, independent, registered national organisation with expertise in implementing Afghanistan's BPHS and essential package of hospital services.

The goal of the project was to reduce maternal and child mortality among the most vulnerable, underserved and highest-risk communities in Faryab province by increasing access to integrated health and nutrition services. Faryab province was chosen due to its remoteness and the serious challenges that parts of its population face in terms of access to services. Functional health facilities do exist in Faryab; however, due to population distribution in very remote areas, the facilities are inaccessible to a portion of the population.

The MoPH approved two types of MHT to be integrated into the BPHS: reproductive, maternal and newborn child health (RMNCH) MHTs and 'all-age' MHTs. RMNCH MHTs target pregnant women and children under five years of age to provide reproductive, maternal and newborn child health and acute malnutrition services. 'All-age' MHTs provide the same services, but have additional components for adults, including mental health services, management of communicable and non-communicable diseases,

Figure 1 Location of Faryab province, northern region, Afghanistan

and trauma care.⁶ Four RMNCH mobile teams were established in Faryab province that aimed to cover around 20,000 people each. The MHTs are comprised of four health workers: a midwife; a vaccinator for the expanded programme on immunisation (EPI) and polio eradication initiative; a nurse or doctor to provide integrated management of neonatal and childhood illness (IMNCI) to children under five years old; and a nutrition counsellor. The nutrition counsellor supports the delivery of nutrition services, such as maternal and infant young child nutrition (MIYCN) counselling; iron-folic acid (IFA) supplementation for pregnant and lactating women (PLW); growth monitoring; uncomplicated severe acute malnutrition (SAM)/moderate acute malnutrition (MAM) case management according to the national community-based management of acute malnutrition (CMAM) protocols; vitamin A supplementation; and deworming. Complicated SAM cases are referred to one of the two inpatient service units in the province; although, given the remoteness of the location, it is estimated that only 50% of referred cases reach inpatient services.

For this pilot project, MHTs visited designated service delivery points (SDP) on a monthly basis between February and December 2018. SDPs were identified in a mapping workshop with local government, community leaders and implementing partners, and are located at village level in areas at least 10km from the nearest fixed health facility. Community groups (health shuras) were established in each SDP area, made up of six members representing the local population. MHTs regularly engaged with these community groups, who provided assistance to staff, including accommodation and security, and helpful feedback on the performance of MHTs to improve service delivery. The groups also helped to sensitise their communities to the services that the MHTs provide and supported MHT health-awareness activities concerning, for example, timely health-seeking behaviours, child health, safe drinking water and personal hygiene. To address the issue of treatment intervals in the context of CMAM, a mini nutrition team consisting of a small vehicle, a nutrition counsellor and supplies visits each SDP every



Almar MHT team members, Khoshbay village, Almar District, Faryab Province, Afghanistan, 2019

⁶ The Government has since unified the approach so that all MHTs in Afghanistan provide all-age services (including RRMNCH services).

two weeks to ensure continuation of SAM case management between MHT monthly visits.

All mobile teams operating in Afghanistan are registered in the Health Management Information System (HMIS) of the MoPH and provide regular reports to the HMIS for health services and to the online nutrition database for nutrition services. MHTs enter daily indicators into the BPHS record system and receive monthly supportive supervision from a BPHS coordinator. MHT staff were initially recruited and trained by the implementing non-governmental organisation (NGO) AADA using national certified master trainers. MHT staff also receive annual refresher trainings.

Results

Estimated baseline coverage of health services at the start of the project was around 70%. In the past year, HMIS shows that coverage of the BPHS in the four districts covered by MHTs has increased by 10-15% (2018). Districts with MHTs have roughly 10% more coverage than those without.

Over the pilot period a total of 66,590 people were reached with health and nutrition services; over half (57%) of whom were children under five years old. Active screening was not conducted by the MHTs due to the security situation and rough terrain. However, community sensitisation through the established community groups enabled passive screening of 19,187 children under five years old. Of these, 1,586 children aged 6-59 months were identified as having uncomplicated SAM (610 male and 967 female) and admitted to the MHT outpatient treatment programme (OTP). This surpassed the target caseload of 831 SAM children. Of these cases, six were identified as having SAM with medical complications and referred to the nearest inpatient treatment facility. By the end of the programme, 94% of the children who entered OTP treatment had been cured, 4% defaulted and 1% died.

During screening 2,451 children were identified as having MAM; however, there were no MAM services in Faryab province. To fill this gap, MHTs provided nutrition counselling and monthly follow-up growth monitoring to MAM children. Infant and young children feeding (IYCF) counselling and nutrition education reached 4,529 caregivers of children aged 0-23 months.

Other services provided by the MHTs also proved successful. A total of 2,070 children aged 0-11 months (82% of the project target) and 1,035 children aged 12-23 months were immunised with pentavalent-3;⁷ 1,931 children received the first measles vaccine; 1,194 children received the second measles vaccine; and deworming tablets were provided to 3,858 children aged 24-59 months. Reproductive health services were provided to many women who otherwise would not have had access to these services. A total of 3,486 women registered for the first antenatal clinic (ANC) visit; 1,737 for the second visit; and 1926 for subsequent visits. This translates to 89% of the project target for ANC2. Addi-



MHT vaccinator vaccinating children, Charkhi village, Almar District, Faryab Province, Afghanistan, 2019

tionally, 2,198 mothers received one postnatal care visit within 28 days of delivery.

Discussion

The MHT pilot was successful in raising awareness on and improving the coverage of health and nutrition services to remote populations in one province of Afghanistan. The main enablers of this success were the integration of health and nutrition service delivery into a single platform; community engagement to identify acceptable locations for service delivery; and good coordination with government authorities at provincial level. Another key factor was the support that communities provided to MHTs in the delivery of health-promotion activities and accommodation of MHT staff. While effective in the short term, there are still challenges to mobile service provision in this context, including:

- High cost: Bids for BPHS services that include MHT services are rarely accepted by the MoPH due to their high cost. On average, one integrated MHT costs around USD70,000-80,000 per year (there is no clear data on the cost of a fixed health facility against which to compare this).
- Limited coverage: The number of target villages exceeds the capacity of existing MHTs. Additionally, challenges such as rugged mountainous terrain, harsh weather conditions during the prolonged winter, insecurity and time taken for teams to move between villages remain barriers to greater coverage.
- Limited support to adult groups for communicable and non-communicable diseases: As RNMCH MHTs were delivered, rather than 'all-age' teams, the health kit included medicines to treat childhood diseases only (e.g. amoxicillin powder oral suspension, co-trimoxazole tablets and syrup, paracetamol, oral rehydration salts, and IFA for pregnant women). Adult communicable and non-communicable diseases were therefore left untreated.
- Exit strategy: Communities become reliant on these services, making it difficult to withdraw once funding or programming has finished.

To address some of these issues, UNICEF, in consultation with government and the imple-

menting NGO, agreed to extend the programme period by six months, during which time efforts were made to scale up SAM treatment services in health sub-centres (HSCs).⁸ HSCs are health facilities located closer to communities that cover a population of about 7,000 people, thus improving access to SAM treatment services in remote villages. Efforts to extend SAM treatment services through HSCs and phase out existing MHTs are ongoing. During the first three months of 2019, with Common Humanitarian Fund (CHF) funding, AADA built the capacity of HSC staff through formal trainings and provision of anthropometric equipment and other supplies. A total of 11 HSCs in the same catchment area as the pilot MHTs were upgraded to provide SAM, MAM and IYCF services. CHF support concluded on 30 August 2019 and the programme was at that point handed over to a new BPHS implementer (Sanayee Development Organization) to be continued with government funding. This strategy will allow remote villages to be reached without the high costs associated with MHTs.

Conclusion

MHTs have been an important vehicle in the immediate term to improve coverage of health and nutrition services in hard-to-reach areas of Afghanistan. They have also served to increase awareness among remote populations of the importance of health and nutrition services, sensitising them to seek services in future. However, considerable challenges remain in the use of this model, including high costs, impediments to physical access to certain pockets of the population and supply chain issues. Despite these limitations, this pilot programme demonstrates that MHTs can be a useful way of providing critical services in the immediate term while the capacity of the existing system is built up to achieve a more sustainable model of accessible healthcare.

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⁷ A five-in-one vaccination against diphtheria, tetanus, pertussis, hepatitis B and Haemophilus influenza B.

⁸ Vaccinations and deworming of children with clinical signs of gastrointestinal worms are already provided by HSCs as part of the BPHS. Other children also receive deworming on national immunisation days (NIDs).