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Maternal and Child Survival Program

AGA KHAN FOUNDATION

LEARNING PAPER

Women's Use of Community Midwifery Services in an Isolated District in Pakistan

A community-based midwifery practice model shows promise in providing accessible, acceptable, and affordable health services in a difficult-to-reach location.

Project Overview

Location
- Chitral District, Pakistan

Population covered
- Intervention area: 200,000
- Target area: 88,889 (women, children and infants)

Timeline
- July 2011-September 2013

Funding
- USAID contribution: $1,599,176
- Aga Khan Foundation contribution: $809,385

Implementers
- Aga Khan Foundation
- Aga Khan Health Services
- Aga Khan University

Introduction

Access to health services is difficult for people living in remote, isolated areas. High costs and long distances limit their ability to travel to obtain essential services from trained health providers. Women, who may be disenfranchised, often face additional hurdles in receiving quality care before, during, and after childbirth. As a result, many mothers perish due to preventable pregnancy-related causes and newborns needlessly die in the first week of life. The main contributor to maternal and newborn deaths in developing countries is unskilled home deliveries. Community-based midwifery is being promoted as a way to deliver accessible, acceptable, and skilled maternal newborn care services and reduce maternal newborn mortality.

The Challenge

The Chitral District in the Khyber Pakhtunkhwa (KP) Province in northwest Pakistan is a mountainous, geographically isolated impoverished area with persistently high neonatal (42 deaths/1000 live births) and maternal (275 deaths/100,000 births) mortality ratios, with many deaths due to preventable causes. Access to maternal and newborn care (MNC) services is restricted by a scarcity of emergency obstetric and newborn care (EmONC) facilities, the high costs of reaching and using facility care, lengthy travel time over rugged terrain with poor roads and extreme weather conditions, and cultural and religious restrictions on women's movement outside the home. Because of these factors, 82% of deliveries in Chitral take place at home with only 20% assisted by a skilled birth attendant (SBA). This project aimed to extend the reach of MNC services to the most isolated and impoverished areas of Chitral District through a well-trained and supported community midwife (CMW) workforce, linked with Ministry of Health (MoH) programs and services.

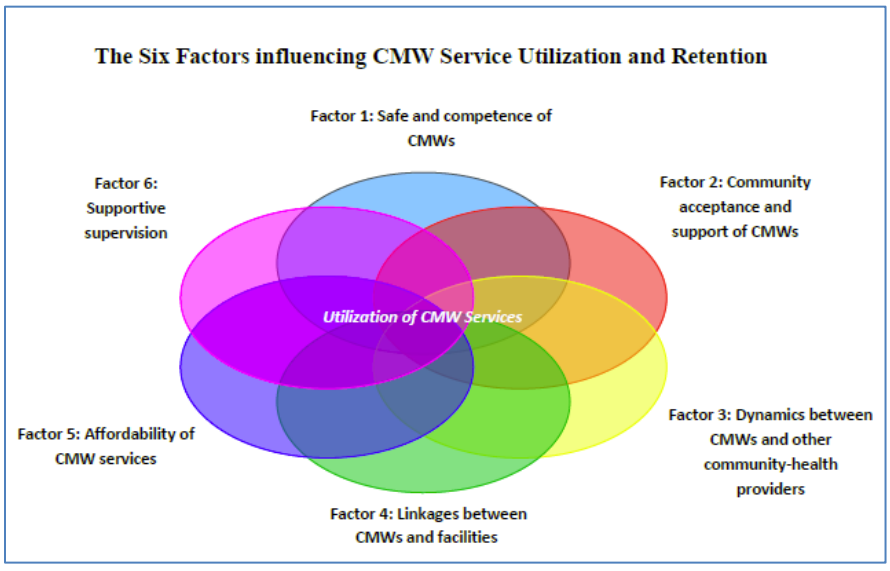
AUGUST 2015

Overall Project Strategy

Between October 2008 and September 2013, the Aga Khan Foundation and partner agency Aga Khan Health Services, Pakistan (AKHSP), implemented the Chitral Child Survival Program (CCSP) aimed at reducing maternal and neonatal mortality by increasing access to and use of obstetric and neonatal care. A CMW model was developed that aligned with the Government of Pakistan's 2006 maternal, newborn, and child health (MNCH) program strategy to expand community-level CMW services. CCSP aimed to 1) increase women's awareness of maternal and neonatal complications and use of MNC services, 2) strengthen CMW referral linkages to basic and comprehensive EmONC facilities, 3) increase the availability of CMWs, and 4) reduce financial barriers to EmONC. The target population was 24,000 primarily illiterate poor women of reproductive age (14-49 years) living in 28 community clusters of Chitral that covered 57% of the mountainous district.

Project strategies focused on establishing CMW practices and developing community-based mechanisms to provide support for CMW services. Twenty-eight local, educated (≥10th grade education) women aged 18-35 were trained as CMWs[1] and deployed during mid 2011 to provide accessible, affordable MNC services to their home communities in the valleys of Chitral District. Each CMW was provided with a maternity center workspace equipped with medications and supplies and supportive supervision to become a viable self-supporting service provider. CCSP paid CMWs a monthly stipend for the first year with the expectation each CMW would support themselves with user fees thereafter. Project staff networked to strengthen linkages between CMWs and EmONC facilities to facilitate prompt referral and treatment of pregnancy complications.

To facilitate the uptake and sustainability of CMW services, change agents, village health committees (VHCs), and community-based savings groups were established in line with government health financing and social protection schemes (such as the Benazir Income Support Program). Local behavior change communication agents, including male motivators, were trained to do health education in communities, first to introduce the local CMW and motivate women to use their services, and then to create awareness of maternal danger signs and recommended newborn care. The CMWs participated in the VHCs, which set fee structures for CMW services considering traditional birth attendant (TBA) fees and MoH pay schedules, conducted health events to mobilize villagers to use CMW services, and arranged for acceptable lower-cost emergency transportation options. Savings groups (421 groups with 7,988 female members) were established to help sustain the CMW program by pooling community funds for delivery fees and emergency care and transport. Savings groups also served as channels for CMWs to promote their services and provide health education.[2]



Assessment

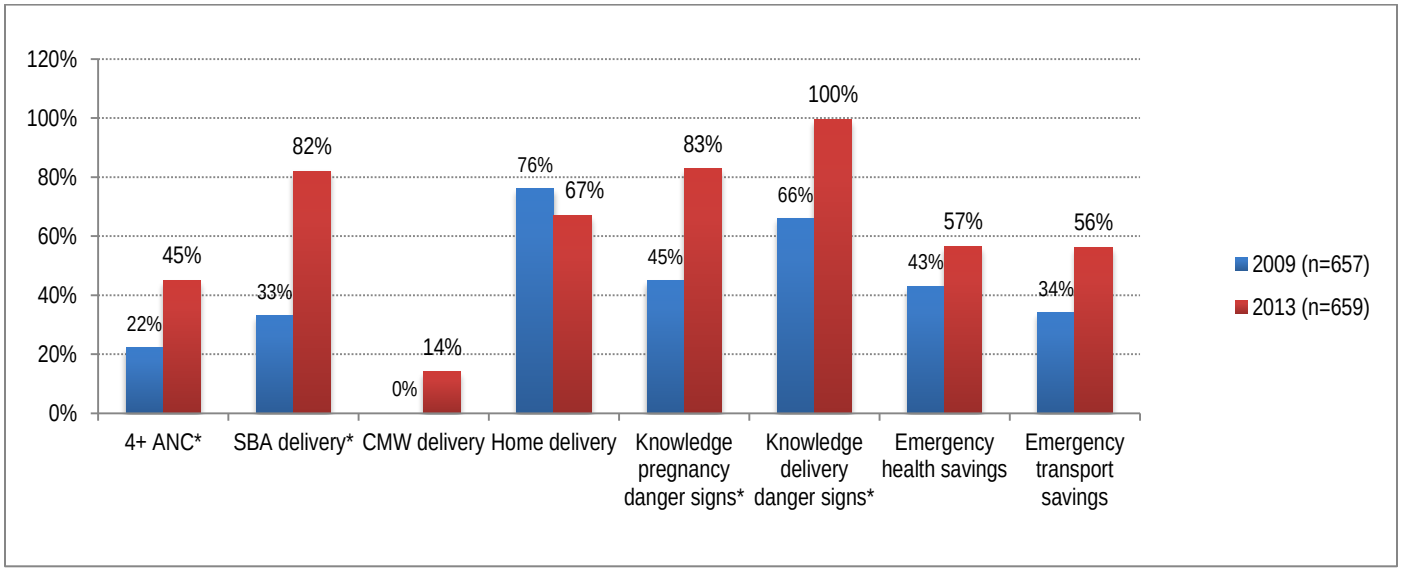
The project implemented an innovative CMW model, in which local, educated women were trained in an accredited CMW program and deployed to their communities with physical, financial, supervisory, and community-based support to provide accessible MNC care services to isolated, poor village women. The uptake of CMW services and sustainability of CMW practices were assessed in the

project's final two years. It had been projected that the use of CMW services would be greater in communities with a clinically competent CMW and where there were acceptance of the CMW, positive dynamics between the CMW and other community health providers, affordable services, and supportive supervision/ongoing education (Figure 1). The establishment of self-supporting CMW private practices was dependent upon CMWs collecting adequate service fees from clients.

Aga Khan University assessed the project between 2011 and 2013 in the CCSP intervention area in Chitral District. A single group longitudinal mixed-methods design was used to examine factors that affected the CMW model's success.[3] The assessment examined how CMW competencies, community satisfaction, other community health providers' perceptions of CMWs, market share of CMW services, CMW payment, and CMW attrition influence CMW utilization and retention.

Health indicator data were obtained from the CCSP Knowledge Practice and Coverage (KPC) survey conducted in March 2009 and September 2013 using randomized cluster sampling of mothers with children under two years old (657 mothers at baseline and 659 at endline). CMW competency was assessed with a test for midwifery knowledge and skills[4] that was administered to 28 trained CMWs prior to their deployment in 2011, and one to two years later in 2012 and 2013. Other factors were assessed via focus group discussions in 14 of the 28 CCSP intervention village clusters in 2012 and 2013. Focus group data were collected from the CMWs, savings groups, married community women using and not using CMW services, and community MoH Lady Health Workers. Additional information about the use of CMW services and savings group lending was obtained from a household survey of 892 community women, of which 35% were members and 65% non-members of savings groups.[5]

FIGURE 1: PECERCENTAGE CHANGES IN ANTENATAL AND DELIVERY PRACTICES, CCSP KPC SURVEY. Note: * = statistically significant difference between baseline and endline at the α=0.05 level.



Findings

MNC practices. The CMW model implemented during the CCSP was associated with significant ($p \leq 0.05$) improvements in antenatal care, delivery by a skilled birth attendant, and knowledge of MNC danger signs (Figure 2). The program also saw increases in CMW deliveries and decreases in home deliveries. CMWs accounted for 38% of all birth assistance provided by SBAs.

CMW competencies. CMW performance and knowledge, as well as confidence in their ability to deliver quality care, increased. Performance test scores reached 98% and knowledge scores increased from 38% to 58%. Continuing education was part of the ongoing supportive supervision provided by the project.

Satisfaction with CMWs. Communities that reported accepting CMW services also reported being satisfied with CMW attitudes, health education sessions, skills, and accessibility. CMWs were recognized as being better trained and more skilled than TBAs. Over half (53%) of the women that knew about CMWs had attended CMW educational sessions, and most said the information received at these sessions affected their decision to seek care during pregnancy.

CMWs' fit with other community providers. The MoH Lady Health Workers and many TBAs established reciprocal working relationships with the CMWs and perceived them as a positive addition to the public health workforce, while several TBAs saw the CMWs as a threat to their business. Fifty percent of CMWs made referrals to EmONC facilities. Although financial barriers to accessing referral care persisted, 40% of those referred reported using VHC-arranged emergency transport systems.

Market share for CMW services. CMWs provided ANC to 40% of women during their last pregnancy and PNC to 37%, as well as assisted with 14% of deliveries. Although CMW work stations were equipped for deliveries, most CMW-assisted deliveries occurred in the home. Reasons for these use patterns included traditional restrictions on female mobility, low knowledge levels of MNC's importance, religious and cultural misconceptions about the project, and the inability or unwillingness to pay for CMW services.

CMW payment. CMWs' service fees were minimal (ANC US$0.20 to US$0.50, delivery US$5 to US$10), yet the majority of the people were unable or unwilling to pay for CMW services. CMW service earnings were US$10 to US$20 per month. In addition, CMWs received a monthly stipend during the CSSP, which increased from US$20 to US$50 to keep up with the government's CMW pay scale. Despite this, compensation was perceived to be inadequate to establish self-sustaining practices.

CMW attrition. There was no dropout of CMWs when they received material, supervisory, and financial support from the project. However, most said they could not continue working after the project without a monthly stipend because the communities could not afford to adequately pay them for services provided.

Savings groups and CMWs. Savings group membership surfaced as an important factor in promoting CMW services; however, group funds were primarily used for income generation rather than payment for MNC services. Savings group members were receptive to learning about MNC from the CMW and more members (75%) than non-members (55%) used the CMWs for ANC, delivery, and PNC services. Limited numbers of savings group members (16%) received loans to help pay for MNC and transportation. The savings group turned out to be a good place to promote CMW services, but the groups did not fulfill their goal of providing money to help pay for MNC services.

Conclusions

The CMW model of the CCSP that trained local women to provide community-based midwifery services in a mountainous, isolated district provided acceptable and accessible MNC health services to impoverished isolated women. In two years, the CMWs established practices within community support structures that linked well with MoH facilities and providers. CMWs provided skilled maternal and newborn education and care services that were used by local women, especially those involved in savings groups. The area saw marked improvements in ANC, delivery practices, and knowledge of maternal and newborn danger signs. However, the sustainability of the CMW model was not proven. The impoverished rural communities served were unable to generate adequate resources and reimbursements to sustain CMW private practices. Although there was no comparison group, the findings provide useful information about factors contributing to the use and retention of CMWs.

Recommendations

Although CMW practices established during the project were not self-sustaining and did not receive community, government, or organizational support beyond the life of the project, experience from this CMW model can still inform future work around the provision of maternal and newborn care in difficult-to-reach, impoverished locations. As long-term success would require sustainable provider income and support structures, embedding the provider practices within VHCs and savings groups, as done here, deserves further attention. Links with interrelated government MNCH programs should be maximized to support collaboration and contribute to sustainability.

Use of Findings

Project results and implementation of the CMW model were presented to district and national audiences in Pakistan. Briefs about community perspectives on the roles of CMWs and women's savings groups in facilitating access to care were shared with the government and peer organizations. Additionally, the Aga Khan Foundation has published articles titled, the "Role of community based savings groups (CBSGs) in enhancing the utilization of community midwives in Chitral district of Pakistan,"[2] and the "Emerging role of traditional birth attendants in mountainous terrain: A qualitative exploratory study from Chitral District, Pakistan."[6]

The Chitral Child Survival Project (CCSP) in Chitral District, Pakistan, was supported by the American people through the United States Agency for International Development (USAID) through its Child Survival and Health Grants Program. The CCSP was managed by the Aga Khan Foundation, Pakistan. This publication is made possible by the generous support of the American people through USAID under the terms of Cooperative Agreements No. GHN-A-00-08-00010-00 and AID-OAA-A-14-00028. The contents are the responsibility of the Maternal and Child Survival Program and the CCSP and do not necessarily reflect the views of USAID or the United States Government.

[1] *In 2010, Aga Khan Foundation collaborated with the government to establish the first midwifery school in Chitral District, accredited by the Pakistan Nursing Council, with an 18-month CMW curriculum followed by a 6-month practical training in local health facilities.*

[2] *Noorani et al. (2013). BMC Pregnancy and Childbirth, 13:185. Available at http://www.biomedcentral.com/1471-2393/13/185.*

[3] *A comparison group comprised of CMWs from the government MOH MNCH program was in the original research design; however, comparison of CCSP-supported CMWs with MOH CMWs was not possible because of delays in implementing the MOH CMW program.*

[4] *Harvey, S. A. et al., (2007). Are skilled birth attendants really skilled? A measurement method, some disturbing results and a potential way forward. Bulletin of the World Health Organization, 85 (10), Available at http://www.who.int/bulletin/volumes/85/10/06-038455/en/#.*

[5] *Women who were savings group members were younger, more literate ($p<.001$), and had fewer children than non-members ($p<.05$). Additional information is available about the household survey from Rafat Jan PhD, RN, RM, Professor Midwifery, Aga Khan University, and about the savings groups in the CCSP Final Evaluation Report, Annex XIX, available at http://pdf.usaid.gov/pdf_docs/pa00k2gc.pdf.*

[6] *Shaikh, B.T., Khan, S. Maab, A. & Amjad, S. (2014). BMJ Open, 4(11). Available at http://bmjopen.bmj.com/content/4/11/e006238.full?rss=1.*