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Barriers to appropriate care for mothers and infants during the perinatal period in rural Afghanistan: A qualitative assessment

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This study, conducted in five rural districts in Afghanistan, used qualitative methods to explore traditional practices of women, families and communities related to maternal and newborn care, and sociocultural and health system issues that create access barriers. The traditional practices discussed include delayed bathing of mothers and delayed breastfeeding of infants, seclusion of women after childbirth, restricted maternal diet, and use of traditional home remedies and self-medication instead of care in health facilities to treat maternal and newborn conditions. This study also looked at community support structures, transportation and care-seeking behaviour for maternal and newborn problems which create access barriers. Sociocultural barriers to better maternal-newborn health include shame about utilisation of maternal and neonatal services, women's inability to seek care without being accompanied by a male relative, and care-seeking from *mullahs* for serious health concerns. This study also found a high level of post-partum depression. Targeted and more effective behaviour-change communication programmes are needed. This study presents a set of behaviour-change messages to reduce maternal and newborn mortality associated with births occurring at home in rural communities. This study recommends using religious leaders, trained health workers, family health action groups and radio to disseminate these messages.

Keywords: maternal health services; newborn care; perinatal health; health messages; behaviour-change communication; rural communities; Afghanistan

Introduction

Giving birth in Afghanistan has long been associated with significant risks for mothers and newborns. In 2002, the country's maternal mortality ratio and neonatal mortality rate were among the highest in the world, at 1600 per 100,000 live births (Bartlett et al., 2005) and 60 per 1000 live births (United Nations Development Programme, 2004), respectively. At that time, the Ministry of Public Health (MOPH) in Afghanistan estimated that nearly 92% of all deliveries took place at home and without a skilled birth attendant (Newbrander et al., 2003). While health system improvements since that time have greatly improved the number of health facilities, midwives and services available for

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pregnant women and newborns (Belay, 2010), the percentage of unattended births that take place in the home has remained virtually unchanged (Monitoring and Evaluation Department, Ministry of Public Health of Afghanistan, 2008).

Epidemiological data alone, however, are insufficient to explain the complex set of influences that affect maternal and newborn mortality and morbidity during the perinatal, delivery and post-natal period. A thorough understanding of conditions, practices and beliefs in the homes and communities where most of these births take place is required to address those that may be harmful and accentuate those that have the potential to improve health outcomes. These beliefs and practices include the cultural beliefs and practices of women, their families and communities; home remedies for care of mothers and newborns afterbirth; psychosocial factors that affect the well-being of mothers and infants; and geographical barriers that reduce access to health facilities and attended births.

Social support was shown to be very influential on the type of care-seeking women use in childbirth in Bangladesh. A study investigating the involvement of husbands in delivery care found that husbands who provided strong social support were more inclined to believe that using skilled birth attendants and medical intervention was important during birth (Story et al., 2012). Conversely, husbands who were less involved and hired an untrained birth attendant at home were more likely to believe that birth should take place under traditional cultural rules and at home.

In South Africa, researchers interviewed caregivers who had experienced an infant death about the factors influencing health-care-seeking during the infant's final illness. Factors identified included hierarchies of power and decision-making structures within a family, financial and physical access to health services, and perceptions of quality of care provided. This study showed that health care providers and programmes need to consider family power structures, local understandings of disease causation and cultural practices when seeking to understand the care-seeking practices of a community (Sharkey, Chopra, Jackson, Winch, & Minkovitz, 2011).

A study in Ghana described care-seeking practices for newborns in a rural area where most births take place at home. Many newborn illnesses were classified by the community as 'not for hospital', and treated at home with traditional medicine first. Further medical intervention might only be sought after seven days, a delay in care that is often fatal for babies with a serious illness (Bazzano et al., 2008).

The importance of understanding the beliefs and practices of communities and families within their sociocultural and religious context is important for introducing changes to harmful practices. In Afghanistan, it was shown that religious leaders can be a strong positive force for promoting changes in practices in communities when *mullahs* and families have accurate information on health benefits and understand that changed behaviours are consistent with religious teachings: 'Sociocultural factors – and an understanding of them – have contributed to the surge in the use of modern contraception in Afghan communities …' (Sato, 2007). This study found that understanding the sociocultural and religious context of communities resulted in having religious leaders, *mullahs*, play a key role in changing behaviours by promoting birth spacing after they had received accurate information about modern contraceptives and the benefits for mothers and families. A 2006 study determined that community social norms that determine and restrict the behaviours of mothers can have a negative impact on the health of their newborns and children (Mashal et al., 2008).

Previous qualitative research on childbirth and newborn care in Afghanistan has raised concerns about some prenatal and post-partum maternal care practices and some infant care practices that may cause physical or psychological harm (Agency for

Assistance and Development of Afghanistan, 2007; Save the Children US, 2008). While these studies highlighted some concerns, one of their conclusions was that further research was needed to clarify ambiguities and to cover additional ethnic groups. More information was needed so that appropriate behaviour-change communication (BCC) strategies and messages could be developed for mothers, families and communities to address appropriate care of pregnant women and newborn infants, taking into account the practices among different ethnic groups and communities.

Study objectives

The purpose of this study was to determine, for births occurring in homes in rural settings of Afghanistan, traditional practices of women, families and communities about maternal and newborn care. Are there harmful practices that are dangerous for mothers and their newborn infants and that should be addressed in behaviour-change programmes? Are there beneficial practices that can be built upon to improve safe birth preparedness for mothers and appropriate care for their newborns? Furthermore, what health system issues create access barriers that can compromise the availability and quality of services at health facilities for these mothers and their newborns?

To address these questions, we gathered information about deliveries in homes to learn about the delivery and immediate newborn care practices; support for the new mother from family and the community; access and care-seeking behaviour when the mother or newborn or both experience problems before, during or after delivery. Our objective was to develop a comprehensive set of behaviour-change messages to reduce the maternal and newborn mortality for births occurring in homes in rural communities, based on an understanding of prevailing beliefs and practices concerning antenatal, intrapartum and post-partum issues.

Methodology

Afghanistan, as is the case in many countries, is a mix of different peoples, ethnic groups, languages and type of Muslims – Sunni and Shi'a. Hence, it would have been too simplistic to only study one rural area of the country to ascertain beliefs and practices about maternal and newborn care. This study, in consultation with the MOPH General Directorate of Preventive Care, which oversees the Child and Adolescent Health Department, purposively selected five districts in different regions of the country. The districts, Farza in Kabul Province, Shah Foladi in Bamyan Province, Ghoryan in Herat Province, Qarqin in Jawzjan Province and Farkhar in Takhar Province, represented major ethnic, language and religious groups: Hazara, Pushtun, Tajik, Turkman and Uzbek. A district in southern Afghanistan was not selected due to significant security issues of that region. In each district, three communities were chosen to be included in the family interviews and focus groups. The communities were selected based on distance from the nearest health facility. At least one community was very far from the health facility – more than two hours walk from the health centre, and the other two were at least more than an hour's walk from the health facility. The varied distances of the communities to a health facility was done to capture differences in the rural setting of communities studied and review practices in areas where deliveries were most likely to occur in the home. The data gathering was done over two months in 2010 and allowed us to capture information about common potentially harmful sociocultural behaviours and household practices for the care of pregnant women and newborn infants that transcend specific ethnic groups'

practices, access to care and to identify potential barriers and enabling factors for changing the norms and practices in rural areas.

We used three qualitative methods to gather data in each district on community and household maternal and newborn care and practices: in-depth interviews with household members of selected families that had had a woman in the perinatal period within the last six months, focus group discussions with a cross-section of community members, and direct observation of community infrastructure and available resources that impact access to health services for expectant mothers, newborns and their families. This research yielded a total of 30 in-depth household interviews, 6 in each district; 29 focus group discussions; and 15 direct observations.

The study participants were members of households and the community. The inclusion criteria for the households selected in the study was the existence of a woman of childbearing age who had been in a perinatal period within the previous six months. The household study participants included the women who were or had been pregnant and their family members, including the woman's husband, mother-in-law, grandmother and other family members. The focus group participants included a cross-section of members of social structures in the community, including influential community and religious members, such as *mullahs*, representatives of local community health committees (*shura-e-sehi*), other community members especially mothers and older women and local community health workers (CHWs).

The in-depth household interviews and focus groups discussion information were collected by five teams of two investigators. A male and female formed each data collection team. The pair of investigators had to be related – a husband and wife, a brother and sister, or a father and daughter – due to cultural gender sensitivities so as to ensure openness of households and community members in the focus groups. In each community, the focus groups consisted of a female discussion group and a male discussion group so that the female investigator could gather information from the female participants and the male investigator from male participants.

Selection of the teams of investigators was done carefully. Ten pairs of investigators were trained for two weeks including the rationale for the study, how the information would be of help in designing messages to change harmful behaviours, familiarity with the survey instruments, role-playing and practice sessions in communities that were not part of the sample. The pairs were evaluated using written exams and observing them in the role-playing situations and field-testing of the instrument in communities. From the 10 pairs of potential investigators that were trained, five teams with the highest scores from the evaluation of their knowledge were selected and each team demonstrated knowledge and understanding of the maternal and newborn care issues, ability to establish rapport with community members, skills in interviewing families, and capability in conducting focus group discussions. An interview guide was used for the household interviews, focus group discussions and community observations after the revisions based on the field-testing of the instrument. The guide for the focus groups is provided at Annexure 1.

In each province involved with this study, the MOPH Provincial Health Director was informed of the study by the central MOPH and then in person about the study for which districts were selected, so if there were any issues with the selected districts they could be resolved. The MOPH and Provincial Health Office were supportive and introduced the investigator to the supervisor of the health facility closest to each community. The health facility person accompanied the team on its visit to the community. They discussed with community leaders about the purpose of the study, the benefit that would be gained from

the messages to change harmful behaviours that were developed based on the study, and the criteria for selection of families and focus group participants. The leaders helped select families and participants and introduced the interview team to them. Informed consent of each family and community members was obtained before the initiation of the in-depth interviews and focus group discussions which were tape-recorded for each session.

To ensure consistency and quality of the data gathered, after all the in-depth interviews and focus group discussions had been conducted in each village, the field supervisor listened to the audio recordings of the sessions and checked the data gathering forms for accuracy and consistency across groups. If there was lack of clarity or omission of data or a question, the interview team returned to the community to obtain the missing data or clarified the notes taken during the interviews or group discussions. The audio recordings of the interviews and focus group discussions were transcribed in Dari or Pushtun, the two national languages. Once the field data collection was completed in each district, the data forms and transcription of the interviews and discussions were translated to English and coded. To synthesise the extensive amount of data gathered, the information from the data forms and recordings was organised by content themes from the in-depth interviews, focus group discussions and direct observations.

Findings

The various beliefs and practices that have a bearing on the health of the mother and newborn infant fall into three categories: (1) post-delivery maternal and newborn care practices; (2) care-seeking practices and access to health services when the mother or newborn or both experience problems before, during or after delivery; and (3) family and community support for the new mother.

Post-delivery maternal and newborn care practices

Bathing of mother and baby

> The new mother waits to take a bath on the third day. However, a basin may be brought to the mother so she can wash her breasts and discard her first milk. She does not start breastfeeding right after birth because the milk is fetid. If she does not breastfeed during the first three days, the baby will be given butter or soup mixed with butter or sweet tea instead. (Women during focus group discussion in Farza District)

Participants reported that women usually bathe three days after delivery, and newborns are washed immediately afterbirth, although there were some variations both within and among the districts. Bathing of mothers can take place immediately after the delivery or be postponed for as long as one month if the mother is not feeling well. A clear link between bathing and breastfeeding emerged from the information collection: women do not start breastfeeding until they clean their breasts. Sometimes women will take a half-bath afterbirth to start breastfeeding and take a full bath a few days later, or breastfeeding may be delayed entirely until after the woman's first bath. Hence, the longer the delay in the mother's first bath, the longer the time until a newborn is breastfed.

The practices when newborns are bathed do not vary by season of the year in which the birth occurred. For the newborn, bathing immediately afterbirth, especially during cold winter months, can be dangerous. Newborn infants should be kept warm, since it is difficult for them to regulate their body temperature afterbirth. Practices concerning bathing can create serious challenges for maintaining the newborn's body temperature during this critical period.

Forty days of seclusion after giving birth

> To avoid jinns [evil spirits or evil eyes], the new mother stays indoors and does not leave the house. To avoid evil eyes she is expected to have a solitary life for forty days. (In-depth interview with a mother in Ghoryan District)

It has been assumed that throughout the country, post-partum women have 40 days of seclusion as standard practice after giving birth. During this period, the women only rest and sleep and do no work because they are tired, have lost blood and need time to recover. In addition to this post-partum resting period, there is a cultural expectation that post-partum women will reduce contact with men other than their husbands. This study found that, in reality, the practice is far more varied. First, the duration of this resting period after delivery varied from 2 to 40 days, with the majority of respondents citing a resting period of 5–10 days after delivery as the norm. One of the factors influencing the duration of this period is the availability of other family members who can help with chores in the house or harvest. Fewer family members means a shorter resting period. In the absence of a rest period, it is believed that women could develop back pain, headache, oedema and even paralysis.

Second, women are not entirely isolated in this period: they may rest in a separate room or have special, separate meals, but they are not left alone and are with other family members in the same compound. Third, we found that although husbands and female family members may visit them, other men will usually not be allowed to see post-partum women. The reasons given for men not visiting during this period are varied: women's shyness around men; the stigma and shame men may experience for visiting a woman after delivery because she may still be considered unclean; the possibility that women may smell bad due to delayed bathing after delivery; the protection of the mother and baby from evil spirits; and the need to reduce transmission of illnesses.

Diet for post-partum women

> They cannot eat melons, watermelon or tangerines. No beans or peas are taken as they are considered hard to digest after giving birth. New mothers do not eat beef either as we believe it will cause a stomach ache. (In-depth interview with a mother-in-law in Farkhar District)

Perceptions regarding characteristics of different foods – whether the food is cold or hot, acidic, easy to digest or causes flatus – strongly influence dietary intake of the mother during her post-partum period. For example, beef and watermelon are considered cold foods, which cause body pain, stomach ache and navel twist; beans are seen as hard to digest, causing flatus and abdominal pain; and pickles and yogurt are perceived as acidic, causing body pain and navel inflammation. The most typical meals for post-partum women, though there are variations, appear to be *aash* (local noodles), soup, soft rice, lamb or mutton, chicken, eggs, *leetee* or *halwa* (sweet dishes make from flour, oil and sugar) and yellow oil (melted butter). Generally, respondents reported that women avoid eating beef, goat, beans, peas, pickles, pepper, onions, watermelon, melon, cold water, sour milk and yoghurt for several days to a few weeks after the delivery. A balanced diet needed by a post-partum mother is difficult to achieve with these and other dietary limitations.

Care-seeking practices and barriers to access of health services

Care-seeking for maternal and newborn problems

> We are also ashamed of going to male doctors. How can we tell the problems we have to a strange or non-family male?

> Mothers-in-law say, 'We stayed indoors and did not go to doctors for our problems, so you should not go to doctors'. (Mothers in focus group discussion in Farza Districts)

When a woman or her baby develops a problem during the post-natal period, the families resort to one of four sources of help: self-medication or home-made medicinal remedies, going to a spiritual person, such as a *mullah*, seeking care from a health worker, such as a traditional birth attendant or CHW or going to a health facility.

Older female household members often advise using home-made remedies as the care of first choice. Households may resort to self-medication because it is considered less expensive, readily available in most villages or recommended by elders. Other reasons given for families relying on self-medication were they cannot afford formal health services, they live too far from health facilities or they cannot travel at night when an emergency occurs. Families may self-medicate by buying medicine from local shops. Participants in the study gave a long list of different types of self-medication and remedies common in their communities for treating various types of maternal and child health problems, including opium, eggs, nuts, oils and plants. Opium is used to treat a range of both maternal and newborn conditions.

People turn to a *mullah* for care when the problem is considered spiritual, emotional or linked to evil spirits. *Mullahs* are viewed as readily available, trustworthy, effective, affordable and accessible.

Formally trained health providers, including community health workers, midwives, nurses and doctors, are sought when the problem is perceived as totally clinical or the other forms of care have not worked. The health care provider is chosen based on a variety of considerations including availability, accessibility, perceived quality of care and the socio-economic status of the family. Use of formal health services is sometimes perceived as shameful by the woman, her husband or older household members because it demonstrates publicly the need for help during a vulnerable period. A majority of participants stated that the accompaniment of a female by her husband or a male relative is necessary if a woman seeks care at a health facility. Some women do not receive necessary care because a male relative, a *maharam*, is not available or they are not permitted by their husbands or family to visit a health facility. Other issues creating access barriers cited were acceptability and affordability of formal health facilities and providers.

Barriers to access

> We do not seek out care for mothers or sick babies because of the absence of nearby health facilities, lack of money, or no of vehicles for transport to a health centre. It is not the question of shyness, but the problem of getting to the health facilities or problems we face once we get there. For example, at distant clinics there are long waiting time at the clinics or the expense of obtaining such care keep most of us from seeking out this kind of care when needed. (Family member during in-depth interview in Qarqin District)

The increasing availability of health services is changing for the better for care-seeking practices of families during obstetric or neonatal emergencies throughout Afghanistan: many respondents reported that in the case of an emergency afterbirth, a woman or newborn should be taken to the health facility. However, we identified a number of cases from in-depth interviews and focus groups where a woman did not seek care even in an emergency. The causes ranged from not having her husband's permission to leave, not having a *maharam* (male relative) to accompany her away from the home, to emergency transport being unaffordable, to distances being too great. A number of community members stated that they were frustrated by being asked to make under-the-table

payments for services or doubted the quality of care available at health facilities. These reasons contribute to delays in seeking appropriate care for obstetric emergencies or very ill newborns.

Distance and transportation barriers

> The clinic is far away, so we cannot get there by walking. We cannot rent a car to go because there is not enough money, not even 5 Afs [US$ .10], in my husband's pocket. So how I can go to the clinic when walking such a long distance is impossible and no car is available. (Household member during focus group discussion in Farza District)

In maternal and neonatal emergencies, to go to a clinic or hospital, families usually borrow money to rent a car from someone in their village. Those who cannot find a car in their own village have to take the patients to the neighbouring villages where cars are available for rent to go to health facilities. The various means, other than auto, used by community members for getting a mother or newborn in need of emergency care to a health facility included carrying the patient on a bed or transporting by wheelbarrow, donkey, motorbike or rickshaw. In addition to the non-availability of autos for transport, participants reported that poor roads and heavy snow also prevent people from seeking care at health facilities.

Family and community support practices for the new mother

Post-partum depression

> I want to burn my house and all my life, and throw myself and my baby in the river. My mother and some other women tell me to be patient. But I say 'I should die; death is better than life for me.' (New mother during in-depth interview in Farkhar District)

Post-partum depression emerged as a significant health issue faced by many of the women interviewed. The participants identified the main causes of 'extended sadness' or depression after the delivery as poor or abusive treatment by husbands and in-laws, a difficult delivery, disappointment of the father or mother about the newborn's gender if it is a girl, the baby's poor health or death, the mother's young age at time of marriage and delivery, and poverty or inability to meet basic needs of an expanded family. All the participants responded that the absence of a post-partum visit from the husband after delivery can be a significant source of concern and anxiety for the mother. There were several accounts of violent and abusive treatment by husbands because the new baby was a girl.

Common coping measures used by women are consoling themselves, talking with family members, going to the *mullah* to obtain *tawiz* (an amulet or charm) and visiting doctors for advice and medicine. Self-consolation was presented as developing patience, praying to God, keeping busy with the baby, crying, and for some, substance abuse. In a number of study districts, respondents reported the abuse of substances such as *naswar* (snuff), *chelam* (hookah), opium and cigarettes by depressed women. Some women, when depressed, may stop breastfeeding their baby because they believe the baby will also become unhappy.

Community support for mothers and their newborn

> If the mother or baby is not doing well after delivery or has a medical problem but doesn't have a close relative to accompany her to a clinic or a doctor, then the neighbors or some local elders might be asked for help by accompanying her and the baby. If such help is not

> available, the mother and baby stay at home and submit themselves to destiny. (Mother during in-depth interview in Ghoryan District)

CHWs were considered as good support for the mothers of the community on health issues. Community members reported that the CHWs provide advice, give health education, weigh children and refer complicated cases. In some communities, they also visit the pregnant women and assist with deliveries. A few participants did not know what CHWs were doing or said they did not have any in their community.

In many villages, family health action groups or community health committees exist. Where such groups existed, respondents often said they were more involved with activities other than maternal and neonatal health or were inactive. In communities where family health action groups were active, the participants said the group members were involved weighing children, assisting the CHWs and providing mother-to-mother advice.

Mullahs are perceived as the most influential individuals in their communities, followed by heads of local committees and government officials. Most people believe those influential people have not brought about much change to improve maternal and neonatal health in their communities.

Discussion

This study reveals some harmful delivery and immediate newborn care practices that take place outside the formal health system. One practice that has been overlooked is the delay of the mother's first bath, which seems to be linked with delayed breastfeeding. The timing of baths for both mothers and babies is an issue that needs to be addressed as part of the BCC efforts related to maternal care. This issue is especially critical because so many births continue to occur in Afghan homes rather than with skilled attendants in health facilities.

Other sociocultural barriers to better maternal and newborn health include family and community perceptions and practices related to seclusion of mothers, shame about the utilisation of maternal and neonatal services, the inability of women to seek care without a *maharam*, care-seeking from *mullahs* for serious health concerns and the utilisation of homemade remedies for treatment of serious conditions. Since these problems are entrenched and will be difficult to overcome, the need for universal, targeted and more effective BCC programmes and messages is clear.

Another finding from this study is the surprising extent of post-partum depression and related perceptions and practices for dealing or not dealing with it. Post-partum depression can be a reason for not seeking care. Recognising and addressing post-partum depression needs to become a routine aspect of maternal health care at health facilities and, more important, of outreach services, since many women do not seek care during their post-partum period. Substance abuse and the practice of giving opium to babies to keep them quiet and make them sleep require specific attention from community leaders as well as health care providers. Some common dietary practices, including the avoidance of certain nutritious foods such as beans and meat, have a negative effect on the nutritional status of lactating mothers and their newborns. Although previous studies have highlighted nutritional needs in the perinatal period and the MOPH and stakeholders are working on this area, the findings of this study can be used to refine existing interventions and messages related to post-partum care as well.

As this study demonstrated in seeking information from rural households and communities, increased availability of health facilities and services by the formal health system as well as improved infrastructure roads and means of transport alone will not

necessarily increase the utilisation of health services by pregnant and post-partum women. Despite immense investment and efforts to establish a network of public health facilities across the country, physical access to these facilities remains a challenge for many families. Walking distances to the nearest facility are too great for many people, and emergency transportation is unavailable or prohibitively expensive. The lack of affordable transportation is compounded by poor roads in the most rural areas and heavy snowfall in cold regions, where routes are blocked during the winter. Consequently, utilisation of maternal and neonatal services remains very low in rural households, despite the availability of emergency services and the presence of ambulances in some of the health facilities. Some of the sociocultural behaviours also create access barriers, such as families' concerns about women seeking care at facilities without permission from their husbands or without being accompanied by a *maharam*.

To overcome the barriers to access, participants suggested establishing more health facilities in nearby villages, training and better equipping more CHWs and midwives, improving the supervision of providers, increasing the number of staff (particularly female) at facilities to decrease waiting time and increasing the amount of equipment and medicine in the health facilities. These suggestions underscore the importance of measures already taken by the MOPH, such as establishing health sub-centres, training community midwives and nurses, and expanding the network of CHWs, especially females. Increased maternal and child health outreach services to remote communities by health facilities would also help address these issues. Implementation of these valuable measures needs to be further accelerated and scaled up.

Possible solutions for lack of affordable transportation include vouchers for use with private vehicles, community funds for emergencies, and a budget for health facilities to reimburse patients for the cost of emergency transportation. Increased availability of ambulances and road improvements would also help. Examination of the extent of informal charges levied by health providers at the facility should become an integral part of monitoring and evaluation activities in the health sector.

Harmful practices and sociocultural barriers for care of pregnant women and newborns in these rural communities will need to be addressed through context-focused BCC interventions. BCC should use various channels, including media, information given by health care providers, and messages transmitted by *mullahs* at mosques. Training for all levels of health care providers should be updated to draw awareness to these issues and provide the means for counselling and other communication of key messages for mothers.

Given the perception of limited accessibility and low utilisation of formal health facilities, BCC interventions through person-to-person contact at facilities alone will not make a deep enough impact; alternative channels of delivering targeted and evidence-based health messages to the public must be explored. Even in rural areas, most participants surveyed had access to mass media, particularly television and radio, which have not yet been used extensively for the delivery of health messages. This kind of delivery mechanism could reach the pregnant women and new mothers, as well as husbands, relatives and community leaders, to change perceptions about the needs of mothers and maternal and newborn care. BCC through television and radio has now become a more prominent part of the MOPH's health promotion and communication programme and the basic package of health services. But significant scale-up of these efforts is required to make a real impact.

This study indicates that *mullahs* play a pivotal role in many communities, shaping the knowledge and practices of the households through sermons, particularly on Fridays.

Mullahs occupy a central role in the community; they have constant contact with the men of the communities and are trusted by most households, who seek their advice and care even in emergencies. It is worth exploring the possibility of designing a special health communication training programme for *mullahs* or training them as CHWs.

Finally, the presence of local community health committees and family health action groups is encouraging. However, the extent of their activities in maternal and neonatal care, at least in the communities visited, seems to be limited. Study participants confirmed that community structures can play an influential role in improving the accessibility, affordability, acceptability and sustainability of maternal and newborn services. These community structures should be encouraged to engage more actively with these issues through community mobilisation, heightened awareness of their roles, provision of resources and incentives, and regular supervision and monitoring.

Conclusion

This study provides valuable information on maternal and newborn care practices and sociocultural barriers to delivery and post-partum care-seeking and access to health services in rural Afghanistan. The findings should contribute to improving existing behaviour-change initiatives, informing new health projects, and increasing awareness of cultural barriers, all with the goal of improving maternal and newborn health.

Training and in-service education of health workers, especially midwives and community midwives, should also incorporate addressing sociocultural barriers to proper care of the mother and newborn. Since religious leaders have a strong influence in rural communities, it is necessary to improve the knowledge of *mullahs* about safe birth practices, the importance of prompt and timely use of health care facilities and how to change traditional practices that are dangerous to newborns and their mothers.

Using the results from this study, in cooperation with the MOPH, we developed six key messages to promote improved maternal and neonatal health in rural communities. The MOPH Department of Health Promotion then reviewed the study and the messages in consultations with other MOPH departments, such as Reproductive Health, provincial health departments and its partners to develop a consensus and finalise the messages. The agreed upon messages are shown in Table 1.

Table 1. Health messages to promote good maternal and newborn practices in rural communities of Afghanistan.

- Breastfeed your baby immediately, since the first milk contains medicine which is Allah's gift for the newborn baby.
- Mothers need health care during pregnancy, delivery and after delivery. Going to the health facility is not shameful.
- Go to health facilities, rather than non-medical people, when seeking health care services during pregnancy, for delivery, or after delivery.
- Community health workers, your proper care of the mother and newborn is essential when mothers cannot go to a health facility.
- Families, whenever mothers feel sadness after delivery, they need kindness and more support from each of you.
- Administering opium is very harmful and dangerous for children.

The MOPH has adopted these messages as the key to its BCC efforts related to maternal-child health in rural areas since one of the findings of this study showed that most communities are reached by radio, the MOPH plans to use short radio spots to reach a wide audience with these key messages. The nine-step process the MOPH uses to develop effective health messages and broadcast those messages is: (1) developing priority messages for targeted audience and health issue; (2) determining the profile of the audience needing to hear each message; (3) determining appropriate media to reach this audience; (4) designing and writing scripts for a radio or television spot that will convey the important message succinctly and effectively; (5) pre-testing the message with a sample audience and then revising; (6) having the message professionally recorded or artistically rendered; (7) arranging with television, radio and print media outlets when and how often the message will be broadcast or disseminated; (8) monitoring the broadcasts or dissemination; and (9) evaluating the effect of the message. Working with the MOPH, this study was able to accomplish the first three steps. The Ministry is now working on completing the remaining steps for dissemination of the messages by radio.

The MOPH is using these messages in a number of other ways, as well. It is telling its partners that are involved with BCC that they must use these six messages as part of any strategy focused on rural areas and maternal and newborn health. The messages are now included in the training of CHWs. Finally, with the increasing number of family health action groups being established, they are being involved to share these messages with women and communities during their monthly meetings. These groups are also meeting with local *mullahs* to ask them to promote the messages during their sermons and counselling.

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Annexure 1. Discussion guide for in-depth interviews and focus groups.

Issue for discussion	Objectives of the questions	Questions to learn about common practices on this issue
Topic 1: Post-delivery maternal and newborn care practices		
1.1 Bathing of mother and baby after delivery	To learn when mothers bathe and restrictions that may apply until she does so fully and practices of when newborns are bathed and cleaned	• At what point after delivery does the mother first bathe? • Is there any earlier partial bathing of the mother before a full bath? • Are there restrictions on what the mother can do until her first bath? (e.g. can breastfeeding commence before the mother bathes?) • At what point after delivery is the newborn first given a bath? • If bathing is usually done soon after delivery, is it possible to delay the baby's bath? • Is when the baby is first bathed affected by the season in which he or she is born (e.g. winter compared to summer)?
1.2 Forty days of seclusion for new mothers	To explore the seclusion of mothers during the period of 40 days after delivery, the nature and length of the seclusion and the contact new mothers may have with family and others during this period	• Are new mothers in seclusion after delivery? If so, for how long? What is the purpose of this seclusion? • What may the new mother do or not do during this period of seclusion? (e.g. cook, work in the garden or fields, tend to the house, look after other children) Who insists that women should stay at home for 40 days after delivery (without visiting a health worker even in case of emergencies)? • During this period of seclusion are there particular restrictions on the women, such as diet, washing, contact with family or other women? • Whom may the mother see during this period of seclusion? o Does the new mother see her husband during this period of seclusion? If not, why not? o Does she visit with other family members in the same compound? In the same village? o Only female or male and female?

Annexure 1 (*Continued*)

Issue for discussion	Objectives of the questions	Questions to learn about common practices on this issue
1.3. Diet of the mother during the post-partum period	To understand any beliefs about diet and dietary restrictions for post-partum mothers and its impact on maternal health and well-being	• Does the period of seclusion cause any problems for new mothers? • What kinds of foods are given to the mother to eat after delivery? • What is a normal diet for a mother after giving birth? • Are there any types of foods that are not allowed for the mother after giving birth? For what reason are mothers discouraged from consuming these foods? • Is the post-partum diet different than what her normal diet would be when she is not pregnant or a later period after the birth? If so, how?
Topic 2: Care-seeking practices and barriers to access of health services		
2.1 Care-seeking for maternal and newborn problems	To understand the health seeking behaviour of the community members including when and what type of care is sought for mothers and newborns when there is an emergency or significant health problem	• In case of an emergency for a mother or her baby after delivery, what is the first source of care that a family is likely to seek first? • Does the family seek out care or remedies in the village first? • How often do families use self-medication or known medicinal remedies instead of taking the mother or newborns to a provider or health facility? • What kinds of self-medication are used and for what conditions are they used? • Are traditional healers or religious persons consulted before seeking care at a health facility? When they are sought out, what type of care or advice do they offer? • When will families seek out a skilled health provider, such as a doctor, midwife, nurse or CHW for a health problem of the mother or newborn? • If a family does not seek immediate care from a skilled health provider or clinic for a mother or newborn in need, what is the reason? • Is going to a doctor or a clinic ever considered shameful?
2.2 Barriers to access	To ascertain the factors that keep families from seeking care when	• If you do not use the nearest health facility when the mother or newborn has an emergency, what are your reasons for not going there?

Annexure 1 (*Continued*)

Issue for discussion	Objectives of the questions	Questions to learn about common practices on this issue
	mothers or newborns have an emergency or a significant health problem	• If a husband or male relative is not available to accompany a mother to a clinic, are there others in the community who would take her? • Is the cost of care from a doctor or clinic ever cause anyone from the village to not seek care, even for an emergency condition? • How does cost of care at a clinic or health provider compare to the cost of consulting a *mullah* or traditional healer in the village?
2.3 Distance and transport barriers	To understand the distance and transport problems that may prevents mothers and newborns from seeking care when there is an emergency or significant health problem	• How far is the nearest clinic or hospital located from your village? • Do people in the community utilise these health facilities? If not, why not? • How do people from your village get to these facilities or providers in case of an emergency? • Are there any seasonal factors that determine if you can go to a health facility or not?
Topic 3: Family and community support for new mothers		
3.1 Post-partum depression of new mothers	To understand how widespread post-partum depression is in rural communities and its manifestations	• What is the usual outlook or disposition of mothers after they have given birth? • Do any new mothers 'feel sad' after giving birth? If so, how many of the new mothers feel this way? • What are some of the ways you know a post-partum mother is 'feeling sad'? • What causes post-partum mothers to 'feel sad'? • Which kind of remedies might be used for a mother who 'feels sad'? Who is advising them in this? • Does the husband or family help a mother feeling sad after delivery or are they part of the problem? If so, how? • How does a sad post-partum mother care for her baby? Are there any problems, such as stopping breastfeeding if she is sad?

Annexure 1 (*Continued*)

Issue for discussion	Objectives of the questions	Questions to learn about common practices on this issue
3.2 Community health workers (CHWs)	To understand the role of CHWs and services provided by them for improving the health of new mothers and newborns in their community	• Does your community have a CHW? If so, what is his/her role in the community? • What activities does the CHW undertake related to maternal and newborn health and care during pregnancy, delivery and post-partum? • Are the CHWs able to help if new mothers are feeling sad (post-partum depression)? If so, how?
3.3 Family health action group or community health committees (*shuras*)	To understand the role of family health action group or community health committees in improving the health of new mothers and newborns and community perceptions about their effectiveness	• Does your community have a family health action group or community health *shura*? If so, what is its role in the community? • What activities do the family health action group or community health *shura carry* out? • Are there activities of these groups that are specifically aimed at improving the health or care of mothers and their newborn? • How effective is the family health action group or community health *shura*? • Do these group's members help new mothers if they are feeling sad (post-partum depression)? If so, how?
3.4 Influential community members	To understand who the influential members of the community are and their role, if any, in improving the health of new mothers and newborns in the community	• Who are the influential members of the community – those that can influence attitudes, opinions, beliefs and behaviours? • Are these influential members concerned about or involved in the community with regard to improving the health of new mothers and newborns in the community? If so, how? • Can these influential community members change attitudes or behaviours concerning community practices dealing with pregnant women, new mothers or newborns? • Do the community's influential members help new mothers if they are feeling sad (post-partum depression)? If so, how?