


# Exploring the perceptions, practices and challenges to maternal and newborn health care among the underprivileged teagarden community in Bangladesh: a qualitative study

Animesh Biswas <sup>a</sup>, Sathyanarayan Doraiswamy,<sup>b</sup> Abu Sayeed Md. Abdullah,<sup>c</sup> Nabila Hossain Purno,<sup>d</sup> Fazlur Rahman,<sup>e</sup> M. A. Halim<sup>f</sup>

a Senior Scientist and Associate Director, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh  
Correspondence: ani72001@gmail.com

b Chief of Health, UNFPA, Dhaka, Bangladesh

c Deputy Team Leader, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh

d Research Associate, UNFPA, Dhaka, Bangladesh

e Executive Director, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh

f Director, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh

**Abstract:** *Poor health care-seeking behaviour, access to services and availability of service delivery have implications for the health of the community. This study explored the perceptions, practices and challenges related to maternal and neonatal care in the teagarden community in Bangladesh. The study also identified service gaps and problems prevalent in teagarden health facilities. A qualitative study was conducted in five teagardens in the Moulvibazar district of Bangladesh. Six focus group discussions (FGDs) were completed with individuals from the teagarden community, and twelve in-depth interviews (IDIs) were performed with health facility staff working in those teagarden facilities. Misconceptions and harmful traditional practices were found to exist among the families in the teagardens, restricting them from accessing quality health care. Pregnant women are not aware of antenatal care, and deliveries are being conducted at home by untrained birth attendants. Unhygienic and harmful postnatal practices are used. Teagarden health facilities are not well equipped or prepared to provide good care. Inequities exist within the teagarden communities, with unregistered workers having even poorer access to care. Improvement of the quality of maternal health care for this marginalised community is needed to progress maternal health.*

DOI: 10.1080/26410397.2020.1758443

**Keywords:** maternal health, neonatal health, perception, practice, challenge, underprivileged, teagarden community, Bangladesh

## Introduction

Globally, 303,000 maternal deaths occur every year due to maternal complications, of which more than 90% occur in developing countries.<sup>1,2</sup> Sustainable development goals (SDGs), especially SDG 3 for good health and wellbeing, include aims to reduce maternal and neonatal mortality and ensure universal access to reproductive health services by 2030.<sup>3</sup> Bangladesh had made remarkable progress in maternal and child health during the last few decades,<sup>4</sup> when maternal mortality declined by 40% between 2001<sup>4</sup> and 2010,<sup>5</sup> from 322 to 194

per 100,000 live births. Furthermore, estimates published by the United Nations in 2015 indicated maternal mortality of 176 per 100,000 live births.<sup>6</sup> The lifetime risk of maternal death due to pregnancy and delivery-related complications is 1 in 500 in Bangladesh, with two-thirds of these maternal deaths occurring in the post-partum period.<sup>5</sup> In relation to child health, Bangladesh experienced a dramatic decline in infant mortality from 87 to 43/1000 live births and under-5 mortality from 133 to 53/1000 live births from 1991 to 2011. The reduction in neonatal mortality has

been rather slower, from 52 to 32/1000 live births.<sup>5,7</sup> To achieve the SDGs, Bangladesh has to bring its maternal mortality ratio (MMR) down to 70 from the current level of 176 per 100,000 live births. Under-5 mortality should be reduced by 46% to achieve the SDG target of 25/1000 live births and newborn deaths reduced by 57% to meet the SDG target of 12 or less per 1000 by 2030.<sup>8</sup> To achieve these reductions, attention needs to be given to pockets of marginalised communities so that no one is left behind and access to health care is secured for all by 2030.<sup>8</sup>

The teagardens in Bangladesh are mostly located in the Moulvibazar district, with some situated in the Sylhet and Habiganj districts.<sup>9</sup> Of the 1.9 million population of Moulvibazar district, about 320,000 people live in the 92 teagardens.<sup>10</sup> Many teagarden workers are descendants of tribal labourers brought from central India by the British a hundred years ago. The majority of women living in the teagardens are involved in tealeaf plucking. Teagarden labourers are mostly female, their situation often characterised by poverty, illiteracy and deprivation,<sup>10</sup> with the majority of pregnant women in the teagardens delivering babies at home, attended by untrained birth attendants.<sup>11</sup> Lack of knowledge, poor health-seeking behaviour and difficult access make it challenging to reach appropriate health services in the area.<sup>11</sup>

In 2014, a total of 120 maternal deaths were reported in the Maternal and Perinatal Death Review programme in Moulvibazar, 39.1% (47 maternal deaths) of which occurred in teagardens with a comparatively smaller population. Neonatal deaths in the teagardens were also high.<sup>12</sup> The Sylhet division as a whole suffers from poor maternal health indicators in comparison with other divisions.<sup>13</sup> In general, Bangladesh has an excellent health care delivery system between district, sub-district (*Upazila*), union (a small unit of the sub-district) and village levels. Community clinics are the lowest primary health care facility at grassroots level, providing antenatal care, delivery and post-natal care.<sup>6,8</sup> However, the teagardens are in very hard to reach areas and have limited access to government facilities. Each teagarden has a small health structure, called either a dispensary or a hospital.<sup>14</sup> A female paramedic, a medical assistant, and two dressers (responsible for helping the medical assistant, doing dressings, bandages and so on) are usually posted to provide services for the patients in the teagardens.<sup>14,15</sup> The female paramedics provide pregnancy care and conduct

normal deliveries, mostly in the community. They refer complicated maternity cases to district hospitals or medical college facilities.<sup>15</sup>

Maternal and neonatal health (MNH) in the teagarden communities is neglected and weak compared to other areas in Bangladesh, particularly the plains.<sup>14</sup> Teagarden populations are isolated from the mainstream of society due to poverty, tribal lower caste status and the attitude of owners.<sup>16</sup> Inequalities are a global concern and there is a need for better awareness and advocacy on local challenges in Bangladesh.<sup>17</sup> This study focuses on the perception, practices and barriers to MNH services among selected teagarden communities. It explored service delivery in MNH care, limitations of teagarden health facilities and ways forward to improve MNH care services in teagardens.

## Methods

The study was conducted in the Moulvibazar district of Bangladesh. Five teagardens were chosen randomly from two purposively selected Upazilas for data collection. A qualitative approach was used with focus group discussions (FGDs) and in-depth interviews (IDIs) for data collection. The study was conducted from March to May 2016. Participants were selected in accordance with the purposive sampling method<sup>18</sup> and until data saturation was obtained.

Six FGDs were conducted among the teagarden community, involving two different groups. The first type of group involved male participants from the panchayat (village) committee, union Parishad members (elected local government), and religious leaders. The second type of group was with female participants, including traditional birth attendants, teachers, female union Parishad members, community leaders and midwives of the study areas. Each focus group consisted of 8–10 participants.

The 12 IDIs were conducted with the health facility staff working in the teagardens, via face-to-face interviews. Each teagarden facility has one paramedic (midwife), compounder, dresser and a doctor is assigned for three to five gardens. The selected respondents willingly participated in the interview and provided detailed information from five teagarden facilities (Table 1).

The discussion and interviews included topics relating to quality of services in health facilities, awareness of maternal and neonatal health services and expectations of service facilities, opinions

**Table 1. Distribution of participants by methods and objectives**

Instruments	Age	Types of participants		Objectives
FGD ( <i>n</i> = 6) 8–10 participants in each FGD Total participants = 54	18–50 years	Male group ( <i>n</i> = 3) Participants = 29	Panchayat Committee UP Member UP Chairman Community leader Male guardian Labour association leader Religious leader	<ul style="list-style-type: none"> <li>• Perception on MNH among the teagarden community</li> <li>• Existing practices in teagarden</li> <li>• Challenges</li> <li>• Way forward (how can MNH be done in a better way)</li> </ul>
		Female group ( <i>n</i> = 3) Participants = 25	TBA Teachers Female UP members Community leader Female guardian	<ul style="list-style-type: none"> <li>• Perception &amp; practice in teagarden community</li> <li>• Challenges</li> <li>• Way forward</li> </ul>
IDI ( <i>n</i> = 12)	25–50 years	Health care providers Doctors Paramedic (Midwife) Health supervisor Compounder Dresser		<ul style="list-style-type: none"> <li>• Existing practice in teagarden on MNH issues</li> <li>• Challenges at teagarden facilities</li> <li>• Way forward</li> </ul>

on the existing maternal and neonatal health situation, violence against women, the role of community members and stakeholders as well as expectations and suggestions. The IDIs with health facility staff consisted of topics related to MNH service delivery (Table 2).

### Data collection

Two research officers, recruited from Dhaka, were anthropologists who had completed master's level education from a reputed public university with previous experiences in conducting community-based qualitative studies. A two-day training on qualitative data collection was organised at the CIPRB head office for orientation on guideline and data collection techniques. The research officers identified selected groups to interview with the support of the local community and fixed the time and venue for interviews. All FGD participants were interviewed in the community, whereas IDIs were completed at health facilities when the staff became available. Both research officers conducted the FGDs, one facilitating the discussion and the other making notes. Each of the research officers conducted two IDIs every day to complete data collection.

Each FGD took from 45 minutes to one hour. The research officer requested written consent before starting the session. FGDs were conducted in a neutral setting in the local language and kept open-ended to allow follow-up of unanticipated topics relevant to the research. However, it was important for the moderator to continue the discussion within the framework of the issues of concern. Some probes were used to obtain the desired information and audio voice recordings were done with permission from the respondents.

IDIs were conducted face-to-face following a topic guide. Each interview took from 20 to 30 min. Audio recordings were captured with permission from the respondents and notes also taken by the research officer.

### Data analysis

This qualitative research study used a content analysis approach<sup>19,20</sup> for subjective interpretation of the interview content. Recordings and notes were transcribed by the research officers, and the transcripts were read several times and coded, using a systematic classification of coding and identifying the concepts or patterns. A preliminary set of codes, categories, and subcategories was

Group	Area of discussion	Types of Prompts used
Male and female community members (for FGDs)	Knowledge and practices on MNH services	Idea and practice of birth planning? Idea and experience of antenatal checkup? Where delivered and how? Who assists delivery? Why the responder didn't receive PNC? Habit of food intake during pregnancy? Process of referral of mothers? Problem faced while taking MNH services?
	Barriers at community level and practices to overcome	What are the social and family barriers at community level in MNH services? Practices to overcome the barriers? What else can be done for the improvement of MNH?
Health care providers (for IDIs)	Services delivery	Either ANC, PNC provided? Maternal and neonatal complications? Delivery conducted?
	Referral of mothers	Referral of mothers with complications? Where and how to refer mothers? Barriers to referral of mothers?

formed from the first interview, and the emerging codes were considered as the results.<sup>18–20</sup> Similar codes were grouped and re-grouped as the study progressed. Groups and sub-groups were named as themes and subthemes according to the key findings.<sup>21</sup>

Ethical approval was obtained from the National Ethical Review Committee, Centre for Injury Prevention and Research Bangladesh (ERC/CIPRB/2016/10). All participants provided written informed consent. Participation was voluntary and anonymity and confidentiality were maintained throughout the process.

## Results

### Community perspectives

People in the teagarden communities do not know who to approach or where to go for maternal health care. They expressed that they did not have much understanding of who needs to be informed in case of any maternal complications. Instead, they believed it is their fate should

complications occur. Financial constraints, family culture and previous bad experiences on seeking care are barriers. Pregnant mothers have a tendency to hide their pregnancy until delivery. Discrimination against workers not formally registered with the teagarden authorities and working as “casual” labourers means that those who are pregnant are deprived of earnings and using health services. Ignorance about services was one of the primary reasons for poor utilisation of maternal health care services during pregnancy and childbirth.

### *Knowledge and attitudes*

During their pregnancy, most of the women received advice from their relatives such as mothers, mothers-in-law, and traditional birth attendants, rather than from health workers. They also perceived that at hospitals, there was always a tendency to conduct caesarean sections. Pregnant workers often worked at the teagarden for the whole day, which impeded them from learning more about maternal services, and some

were not even able to receive immunisation for tetanus. Women were usually too busy in the field plucking leaves during the daytime when health workers are providing services, counselling and health education. Unable to attend during the daytime, working women missed the opportunity to learn, resulting in retention of cultural beliefs and practices, some of which could be harmful.

*“Pregnant mothers can’t come to receive care at facilities during pregnancy as the father and mothers in law prohibit it. They even do not allow the mother to sleep more during pregnancy as they believe that a lazy baby will be born due to more sleep during pregnancy.”* (P4, FGD5, Female community leader)

*“We do not allow pregnant mothers to drink more water to avoid swelling of leg and face during pregnancy. We also avoid providing egg, vegetables, and shrimp to pregnant mothers as these are responsible for maternal complications. We even restrict them in taking more food as more food may cause a large size baby which will require an operation.”* (P6, FGD4, female UP member)

*“We prefer to conduct delivery by traditional birth attendants. We have some traditional practices at the time of delivery which can’t be possible at the facility. Moreover, at facilities, there is a tendency of doing delivery by the operation which we are scared of.”* (P2, FGD5, female group)

*“Sometimes, mothers know about her pregnancy very late; we suggest pregnant mothers practice eating salt with tea as we believe the raw salt is better for health.”* (P3, FGD1, Panchayat Committee member)

#### *Care-seeking behaviours, beliefs and practices*

People in the community, including pregnant mothers, are not aware of needing to seek health care during pregnancy. They stated a preference for delivery with traditional birth attendants or relatives, and not by an unknown person from the hospital. Some of their practices include providing warm food such as rice, tea and water during delivery as they think these will increase progress in labour, diminish pain and lower the time required for delivery. Examples of other practices are provided below. These factors made people feel comfortable when having a delivery at home.

*“We are tied in the lower abdomen during delivery to encourage the baby’s movement downwards rather than upwards. We are even tied after the delivery for smooth removal of the placenta.”* (P6, FGD6, traditional birth attendant)

*“The pregnant mothers are not allowed to eat egg, shrimp and vegetable as the egg is responsible for white discharge during pregnancy. The delivery mostly occurs at home which is dark inside and fumed artificially; the mothers are allowed to deliver on the floor. After the delivery, the mothers are not allowed to feed on protein for up to seven days.”* (P9, FGD2, community leader)

*“Pregnant mothers are not allowed to sleep during the eclipse as community people believe it may cause blindness of newborn baby. If mothers cut themselves, then the baby may be born without an organ.”* (P5, FGD1, community leader)

#### *Maternal complications*

There was limited comprehension of maternal complications during pregnancies. If difficulties arise, people primarily depend upon traditional birth attendants. In addition, they also seek support from village doctors (unqualified) and *kabiraj* (traditional healer). They do not want to go to the health facility due to misperception about the services available, including fears of an operation as indicated earlier. Insufficient money and transportation difficulties also play a significant role in discouraging women from going to the facility. In case of retained placenta, the traditional birth attendants put a hand on the mother’s mouth or provide hair to eat to induce vomit which in turn helps to remove the placenta. If the traditional birth attendants fail to manage, it is only then that steps will be taken to go to a health facility.

*“There are some traditional practices during delivery, like providing hot food and tea to increase labour intensity and also feeding hair to cause vomiting for removal of the placenta which is not possible at the facility.”* (P2, FGD2, community leader)

*“I doubt that many pregnant mothers know about maternal complications. There is no birth planning during pregnancy, and when any complication arises, it needs much time to decide whether to go to the facility due to difficulties in managing money and transportation.”* (P8, FGD1, male group)

*“Men have a limited role during maternal complications. We first communicate with the traditional*



*birth attendants and village doctors and then call hospital staff for their advice. If they fail or say we need to take to the Upazila or district hospital, then we decide to take them there, but it is often difficult to manage money and transport.”* (P1, FGD3, labour association leader)

#### *Neonatal care and complications*

In the community, people bathe neonates immediately after birth and provide honey and sweets to neonates shortly after birth. They put hot garlic mixed with mustard oil in the neonatal umbilicus. They depend on traditional health providers for treatment of neonatal complications.

*“Colostrum is not normally provided to neonates. We even allow feeding of honey and sugar water to the newborn baby before breastfeeding as they believe the sweet food may make the baby take nicely in future. Hot fomentation is placed on the umbilicus for quick healing.”* (P10, FGD3, male group)

*“We don’t allow cutting of the umbilicus by a person from a lower caste, although they are allowed to conduct a delivery. We wait to cut the umbilicus after removal of the placenta by a higher caste person. The neonates have oil put in their ears up to 21 days, for better hearing in future.”* (P8, FGD5, traditional birth attendant)

#### *Barriers faced*

Community members mentioned the following obstacles to MNH: distance from the facility, financial crisis, early marriage, malnutrition, limited transportation and lack of knowledge. Addiction to alcohol is also a prevalent issue within the community, resulting in deteriorating health and lack of finances for health services.

*“Teagarden communities drink alcohol a lot. Females also drink, including pregnant mothers. Therefore, there are difficulties in living a healthy life sometimes. They spend 50% of their earned money on alcohol, so they can’t buy nutritious food due to lack of money.”* (P6, FGD2, community leader)

*“We are not aware of care during pregnancy from the hospital; pregnant mothers stay at home, they don’t have the willingness to seek advice or care from any health care providers.”* (P4, FGD4, female group)

#### **Health facility staff**

Health facility staff observe a lack of equipment and poor logistics at facilities for antenatal and

delivery care. There is also a scarcity of qualified birth attendants to conduct normal deliveries. Health facilities limited care for unregistered women workers as they do not provide referral support or bear the cost for a health emergency. Registered and permanent workers, on the other hand, have access to support and referral to facilities during any complications.

#### *Existing services*

Antenatal care and postnatal care are usually provided by health care providers in the hospital. Pregnant mothers are often booked by health workers relatively late in pregnancy.

*“A few pregnant mothers come to receive treatment. We provide medicine only to registered workers (mothers) due to the lack of supplies of medicine. We give advice on medicine to the non-registered mothers so that they can buy medicine from a pharmacy outside.”* (P1, IDI, teagarden doctor)

*“In the teagarden, services are only provided from 6 to 8 am, 11 am to 1 pm, and lastly 4 to 7 pm. Doctors only come in the morning to visit the hospital as they are often responsible for at least three or more teagardens. Only in an emergency do doctors come outside routine times.”* (P3, IDI, paramedic [midwife])

*“Only primary treatment is provided to pregnant mothers. Weight and blood pressure is checked during antenatal care; iron tablets are provided to mothers weekly.”* (P12, IDI, dresser)

*“We record the pregnant mother’s name after five months of pregnancy although it needs to be done immediately a pregnancy occurs. Abortion is common in the early pregnancy period as mothers work intensively like others. At 5–6 months of pregnancy the chance of abortion is reduced and we then book them as a pregnant mother.”* (P4, IDI, paramedic [midwife])

#### *Limitations at the facility*

In the teagardens there are no facilities available to manage maternal complications. Supplies of medicine are scarce at the teagarden dispensary, especially for pregnant mothers.

*“There is no facility for normal delivery in our teagarden hospital. The traditional birth attendants conduct delivery at home. If any complication starts, they communicate with me. If I fail to handle it then I refer to the Upazila Health Complex.”* (P5, IDI, teagarden paramedic)

*“Essential medicines are available for permanent workers and their dependents, with limited scope for unregistered workers.”* (P9, IDI, compounder)

*“There are limitations of essential medicine supplies for maternal health care. There is a limited supply of calcium tablets, vitamins and surgical instruments at the hospital. Only iron tablets are available.”* (P11, IDI, dresser)

*“Maternity leave is provided for four months for the first two babies. In the teagarden dispensary or hospital, there are very few who can manage maternal complications, only one person can give management for neonatal complications.”* (P1, IDI, doctor)

#### *Referral of mothers*

Registered workers in pregnancy who develop complications and attend the teagarden dispensary are referred to the central hospital of a tea estate. From there, they are referred to a medical college hospital if needed, with the garden authority’s full financial and transport support. Unregistered workers who are pregnant are referred to the government Upazila health complexes or district hospitals, and their families have to bear the costs of treatment.

*“The permanent workers (mothers) are referred to Central Medical Hospital in any complications, the company provides all the necessary support. But for unregistered and non-workers, we advise them to go to the Upazila Health Complex for management.”* (P6, IDI, paramedic [midwife])

*“The key problem during referral is the transportation of referred mothers. There is only one car used by the doctor, and he uses the car to visit several gardens. There is no specific vehicle or an ambulance to transfer the patient.”* (P7, IDI, health supervisor)

#### *Improving services*

Health facility staff felt that improving the quality of care in teagarden facilities is essential for pregnant mothers. Referral pathways need strengthening, disparities between registered and unregistered workers need to be minimised, especially for maternal and neonatal complications. Health seeking behaviours need significant improvement. Qualified, skilled human resources are required and continuous mentorship is essential to retain the skills of existing health workers in the teagarden facilities.

*“Training of the staff on maternal and neonatal care is essential. It is also essential there are adequate supplies of medicine and equipments for the MNH services. Readiness of teagarden facility is needed for normal vaginal delivery.”* (P2, IDI, teagarden hospital doctor)

*“Obs-Gynae consultants, skilled nurses and midwives are essential in teagarden hospitals to ensure quality maternal health care. It is also necessary to develop capacity of existing staff on maternal health care. Medicines should also be available for registered and unregistered pregnant mothers.”* (P8, IDI, health supervisor)

#### **Discussion**

The study found gaps in knowledge, poor health-seeking behaviour and superstitions, myths and malpractices related to maternal and neonatal care in teagarden communities. Teagarden facilities are unprepared to provide quality maternal health care services, due to the limited availability of skilled health care providers, poor supplies of medicine, and inadequate logistics and referral systems.

These factors affect the ability of teagarden communities to obtain optimum maternal and neonatal health care in Bangladesh. The geographical context and poor health-seeking behaviour in these marginalised communities result in pockets of deprivation and underscore inequities. The Sylhet division is still behind other divisions of Bangladesh, and recent data show high maternal mortality in Moulvibazar district, with teagarden catchment areas accounting for about 39% of all the maternal deaths in the district.<sup>13</sup> The Bangladesh Demographic and Health Survey (BDHS) 2014 reported significant increases in antenatal care overall, with 79% of mothers attending for at least one antenatal care visit during pregnancy. Yet antenatal care uptake remains lower in Sylhet, at 62.5%. National rates for home delivery are still high at over 62%, but in Sylhet, over 76% of mothers still deliver at home, and most of these are attended by untrained birth attendants or relatives.<sup>8</sup>

Even within these underprivileged teagarden communities, disparities exist, and our study revealed barriers and discrimination against unregistered and casual workers. In teagarden families, only one family member is registered as the permanent worker; the rest of the family members

work as casual labourers. The study identified many gaps in providing MNH support, especially for unregistered and casual workers. Most of the teagardens offer medicine to registered pregnant mothers and also refer them to higher health care facilities, with transportation and financial support if required. Expectant mothers who are casual workers are mostly deprived of these facilities. This increases the risk of health complications among pregnant women who are unregistered workers. The teagarden women are very low paid, which inhibits their capacity to spend enough money on their wellbeing, nutrition and on health care.<sup>14</sup>

This study highlighted many barriers and challenges faced by teagarden communities. Other studies give additional insights. For example, it was observed that child marriage and adolescent pregnancy seemed higher in the teagardens. However, these issues were not widely discussed. It is known that early pregnancies among adolescents are common in Bangladesh, and adolescents experience more complications, putting them at twice the risk of dying from pregnancy and child-birth-related complications compared to adults.<sup>22</sup> Another study found inadequate birth planning among a rural population in Bangladesh and often decision-makers in the family were not held responsible for taking appropriate measures for birth.<sup>23</sup> A different study conducted in teagarden communities concurred with ours and found widespread misperceptions and malpractices related to MNH, also demonstrating that males have a lack of knowledge about maternal complications, while the mothers and mothers-in-law of women who died during pregnancy traditionally believed that complications are normal phenomena during pregnancy.<sup>11</sup> Another very recent study in the teagarden community showed that timely referral of mothers with complications

through midwifery-led service delivery in the gardens saved 72 mothers.<sup>15</sup>

### Conclusions

Despite having stable economic growth, Bangladesh is still challenged with disparities across wealth quintiles, geographic terrain, territoriality and culture that results in gaps for achieving equity, coverage, and quality of care. The teagarden community in Bangladesh is marginalised and hard to reach, and within this community unregistered and casual workers suffer the most. The study highlighted the gaps in services and challenges to accessing quality care from health facilities. Concurrently, community misperceptions, beliefs, myths, and practices are vital contributors to not seeking health care. Bangladesh is making advances towards reaching sustainable development goal 3 by 2030 and universal health coverage. Yet timely initiatives and intervention are much needed for the teagarden community, which will contribute toward ensuring health for all and no one being left behind.

### Disclosure statement

*No potential conflict of interest was reported by the author(s).*

### Funding

*No specific funding was received for this study. The project in the marginalised teagarden community of Bangladesh is named Bagan Mayer Jonno and implemented through funding support from UNFPA, Bangladesh.*

### ORCID

Animesh Biswas  <http://orcid.org/0000-0003-2496-0818>

### References

1. Arifeen SEI, Hill K, Ahsan KZ, et al. Maternal mortality in Bangladesh: a countdown to 2015 country case study. *Lancet*. 2014;384(9951):1366–1374.
2. Anwar I, Kalim NKM. Quality of obstetric care in public-sector facilities and constraints to implementing emergency obstetric care services: evidence from high- and low-performing districts of Bangladesh. *J Heal Popul Nutr*. 2009;27(2):139–155.
3. Groveemail J, Claeson M, Bryce J, et al. Maternal, newborn, and child health and the sustainable development goals—a call for sustained and improved measurement. *Lancet*. 2015;386(10003):1511–1514.
4. National Institute of Population Research and Training (NIPORT), ORC Macro, Johns Hopkins University and ICDDR, B. 2003. Bangladesh maternal health services and maternal mortality survey 2001. Dhaka and Calverton



- (MD): NIPORT, ORC Macro, Johns Hopkins University, and ICDDR,B. Available from: <https://www.dhsprogram.com/pubs/pdf/FR142/FR142.pdf>
5. National Institute of Population Research and Training (NIPORT), MEASURE Evaluation, and icddr,b. 2012. Bangladesh maternal mortality and health care survey 2010. Dhaka: NIPORT, MEASURE Evaluation, and icddr,b. Available from: <https://www.measureevaluation.org/resources/publications/tr-12-87>
  6. DGHS. Bangladesh maternal mortality and health care survey 2016. Daily Prothom Alo. 2017.
  7. NIPORT, Mitra and Associates, ICF International. Bangladesh demographic and health survey, 2011; 2013. p. 1–458.
  8. NIPORT. Bangladesh demographic and health survey 2014. Dhaka: Mitra Assoc; 2016.
  9. DGHS. Health bulletin 2016. In: MIS, DGHS; 2016.
  10. Anderson I, Robson B, Connolly M, et al. Indigenous and tribal peoples' health (The Lancet–Lowitja Institute Global Collaboration): a population study. *Lancet*. 2016;6739 (16):345–347.
  11. Biswas A, Dalal K, Abdullah ASM, et al. Maternal complications in a geographically challenging and hard to reach district of Bangladesh: a qualitative study. *F1000Research* [Internet]. 2016;5:2417. Available from: <https://f1000research.com/articles/5-2417/v1>
  12. DGHS. Health bulletin 2015. MIS, DGHS [Internet]; 2015. Available from: [http://www.dghs.gov.bd/images/docs/Publications/HB&per;202015\\_1st\\_edition\\_31122015.pdf](http://www.dghs.gov.bd/images/docs/Publications/HB&per;202015_1st_edition_31122015.pdf)
  13. UNFPA. Tackling teagarden dangers to mothers [Internet]; 2017; [cited 2018 Apr 26]. p. 2–5. Available from: <http://bangladesh.unfpa.org/en/news/tackling-tea-garden-dangers-mothers>.
  14. Biswas A, Abdullah AS, Ferdoush J, et al. What's need for maternal and neonatal health service delivery in the marginalized tea garden community of Bangladesh? – a qualitative study. *Integer J Glob Health*. 2018;2(1):2.
  15. Biswas A, Anderson R, Doraiswamy S, et al. Timely referral saves the lives of mothers and newborns : midwifery led continuum of care in marginalized teagarden communities – a qualitative case study in Bangladesh. version 1. *F1000Res*. 2018;7:365.
  16. Hussain D. Reflection of tea garden laborer's as marginalized community: a study. *Literary Herald*. 2017;2 (4):114–120.
  17. WTO. Global problems, global solutions: towards better global governance. *WTO Public Forum*; 2009.
  18. Malterud K. Qualitative research: standards, challenges, and guidelines. *Lancet*. 2001;358 (9280):483–488.
  19. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004 Feb;24 (2):105–112.
  20. Elo S, Kynga SH. The qualitative content analysis process. *J Adv Nurs*. 2008;62:107–115.
  21. Miles MB, Huberman AM. *Qualitative data analysis: an expanded sourcebook*. Thousand Oaks (CA): Sage; 1994.
  22. Mulligan J, Nahmias P, Chapman K, et al. Improving reproductive, maternal and newborn health: reducing unintended pregnancies evidence overview. A working paper. DFID, London, UK. 2010;(1):1–89. Available from: <https://assets.publishing.service.gov.uk/media/57a08b1e40f0b652dd000ae4/RMNH-Evidence-Overview-Reducing-Unintended-Pregnancies.pdf>
  23. Biswas A, Abdullah AS. Perceptions, practices and challenges on birth planning in rural Bangladesh. *Int J Public Health Res*. 2015;3(6):384–389.

## Résumé

Les mauvais comportements de demande de soins de santé ainsi que l'insuffisance de l'accès aux services et de la disponibilité de services ont des conséquences sur la santé de la communauté. Cette étude s'est intéressée aux conceptions, aux pratiques et aux obstacles relatifs aux soins maternels et néonataux dans la communauté des plantations de thé au Bangladesh. L'étude a aussi identifié les lacunes des services et les problèmes prévalents dans les centres de santé des plantations. Une étude qualitative a été réalisée dans cinq plantations de thé du district de Moulvibazar au Bangladesh. Six discussions par groupe d'intérêt ont été menées avec des individus de la communauté

## Resumen

Quando los comportamientos relacionados con la búsqueda de servicios de salud, el acceso a los servicios y la disponibilidad de prestación de servicios son deficientes, esto tiene implicaciones para la salud de la comunidad. Este estudio examinó las percepciones, prácticas y retos relacionados con la asistencia materna y neonatal en las comunidades de plantaciones de té en Bangladesh. Además, el estudio identificó brechas en los servicios y problemas predominantes en las unidades de salud de esas comunidades. Se realizó un estudio cualitativo en cinco plantaciones de té en el distrito de Moulvibazar, en Bangladesh. Se llevaron a cabo seis discusiones en

des plantations de thé alors que 12 entretiens approfondis étaient réalisés avec du personnel de santé travaillant dans les centres de ces plantations. Des idées erronées et des pratiques traditionnelles nuisibles ont été observées chez les familles dans les plantations de thé, ce qui restreignait leur accès à des soins de santé de qualité. Les femmes enceintes ne sont pas informées des soins prénatals et les accouchements sont pratiqués à la maison par des accoucheuses non formées. Des pratiques postnatales insalubres et dangereuses sont employées. Les centres de santé des plantations de thé ne sont pas bien équipés ni prêts à assurer des soins de qualité. Des inégalités persistent au sein des communautés des plantations de thé, les travailleurs non enregistrés ayant un accès encore plus réduit aux soins. Il est nécessaire d'améliorer la qualité des soins de santé maternelle pour cette communauté marginalisée afin de faire progresser la santé de la mère.

grupos focales (DGF) con personas en las comunidades y 12 entrevistas a profundidad (EAP) con el personal de las unidades de salud. Los hallazgos indican que existen ideas erróneas y prácticas tradicionales perjudiciales entre las familias en las plantaciones de té, lo cual les restringe el acceso a servicios de salud de calidad. Las mujeres embarazadas no son conscientes de la disponibilidad de atención prenatal y los partos están ocurriendo en los hogares con la asistencia de parteras sin formación. Se aplican prácticas posnatales antihigiénicas y perjudiciales. Las unidades de salud no están bien equipadas ni preparadas para proporcionar buenos servicios. Existen inequidades en las comunidades, donde trabajadores clandestinos tienen aun peor acceso a los servicios. Para que la salud materna progrese, es imperativo mejorar la calidad de los servicios de salud materna en estas comunidades marginadas.