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Challenges that Hinder Parturients to Deliver in Health Facilities: A Qualitative Analysis in Two Districts of Indonesia

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Abstract

Background: There are many challenges women face to be able to give birth in health facilities in many parts of Indonesia. This study explores the roles and observations of close-to-community maternal health providers and other community members on potential barriers faced by women to deliver in health facilities in two districts within The Archipelago. **Methods:** Employing an explorative qualitative approach, 110 semi-structured interviews and 7 focus group discussions were conducted in 8 villages in Southwest Sumba, in the East Nusa Tenggara province, and in 8 villages in Cianjur, in the West Java province. The participants included village midwives, *Posyandu* volunteer (village health volunteers), traditional birth attendants (TBAs), mothers, men, village heads and district health officials. **Results:** The main findings were mostly similar in the two study areas. However, there were some key differences. Preference for TBA care, traditional beliefs, a lack of responsiveness of health providers to local traditions, distance, cost of travel and indirect costs of accompanying family members were all barriers to patients attending health facilities for the birth of their child. TBAs were the preferred health providers in most cases due to their close proximity at the time of childbirth and their adherence to traditional practices during pregnancy and delivery. **Conclusions:** Improving collaborations between midwives and TBAs, and responsiveness to traditional practices within health facilities and effective health promotion campaigns about the benefits of giving birth in health facilities may increase the use of health facilities in both study areas.

Keywords: health facilities, health promotion, midwifery, pregnant women

Introduction

Indonesia is a predominately Muslim country with a diverse culture and history. With a total population of 237.5 million spread over 17,000 islands, diversity in ethnicity, religion, culture, beliefs, local languages and socio-economic backgrounds is evident both within and between provinces, districts, and sub-districts.[1] Providing maternal health services to this widespread and diverse population is challenging and remains an important public health issue within The Archipelago.[2-6] The 2013 Indonesian Demographic and Health Survey (IDHS) reported that the maternal mortality ratio (MMR) for the period between 2008 and 2012 was 359 deaths per 100,000 live births (with a lower limit of 239 and an upper limit of 478).[1] This MMR is higher when compared with other Southeast Asian countries with similar GDP per capita.[1] The 2015 Millennium Development Goals set a target to reduce the MMR to 102 deaths per 100,000 live births. However, it appears that this target will not be met.

In the latter half of the 20th century, Indonesia implemented three important health initiatives to bring health services closer to communities. These included the initiation of community health centers (*Puskesmas*), the rollout of the village midwife programme and community-based maternal and child health extension services popularly called *Posyandu*. The function of these initiatives was to provide integrated preventive, curative, and health promotion activities. The objective of these activities was to improve maternal and child health and were targeted towards mother and child health services within communities.[2-4]

The three initiatives have shown remarkable progress in several aspects of maternal health nationally.[2-4] In the 2013 IDHS, 88% of all pregnant women surveyed

reported to have made four or more antenatal visits and 90% had received care by a skilled health provider, defined as an obstetrician, gynaecologist, doctor, nurse, or midwife. Since 2007, births assisted by a skilled provider had increased to 83%; with nearly two-thirds (63%) taking place in a health facility and 80% received postnatal care. There are, however, several districts that still require improvements in maternal health services.[1]

Studies, mostly carried out in districts of Java, have identified numerous factors that may hinder attendance for child birth at health facilities by rural women.[7,8] Studies have also shown that an important factor contributing to maternal death is that rural women are less likely to give birth at health facilities.[7-10] Considering the diversity and disparities between regions in Indonesia, we included two provinces from different areas within our study to explore differences and similarities in factors contributing to low attendance at health facilities for childbirth. The two regions included were Southwest Sumba, a district in the eastern part of Indonesia where aspects of maternal health are less researched, and the Cianjur district in the West Java province, which is in the western part of Indonesia.

Methods

The study was conducted in two districts in two different provinces, Southwest Sumba, a district in the East Nusa Tenggara province, and the Cianjur district in the West Java province. These areas were selected to provide a diverse sample group in the study. These two provinces are among the five provinces which contributed to 50% of all maternal deaths in Indonesia between 2007 to 2012.[1] Factors influencing maternal mortality such as antenatal care coverage, health facility accessibility and skilled birthing staff attendance differed between the sites. In West Java, there was, however, health provider in attendance at 80% of births and 56% of births in East Nusa Tenggara.[1] Additionally, there are differences between socio-economic status and cultural factors within the two regions. Ease of access for study operation was taken into account when selecting the districts.

The district of Southwest Sumba is divided into 11 sub-districts with 131 villages. There are 12 *Puskesmas* and one non-governmental hospital that serve a population of 302,864 people. This newly created district is predominantly Catholic, 85% of the population live rurally and primarily subsist by farming. The Cianjur district has 32 sub-districts and 354 villages; there are 45 *Puskesmas* and two government hospitals. This is an older district with a predominately Muslim community; the total population is 2,171,280 people.[1]

Study sites and sampling. A purposive sampling method was used to select the sub-districts and villages after consultation with district health officials.[11] The theoretical selection frame used a combination of extreme case sampling to select well performing and under performing villages and villages close to the facility (10 km or less) and far away (11-20 km).[11] Tables 1 and 2 outlines the maximum variation design used to select participants within the villages and districts. The study was conducted in 16 villages, 4 villages in both the Palla and Radamata sub-districts of Southwest Sumba and 4 villages each in the Sindangbarang and Ciranjang sub-districts of Cianjur. The sub-districts were selected based on the percentage of deliveries within health facilities and their distance to the main referral hospital in the district capital.

Participant selection. Interviewees selected provided a diverse perspective on how and where childbirth usually occurs within their district and the main reasons behind this, as well as outlining potential barriers to delivery within healthcare facilities. The participants from the

Table 1. Villages Selected in Southwest Sumba and Selection Criteria

Criteria for villages	Radamata sub-district: Close to the district's capital	Palla sub-district: Far from the district's capital
Well performing and close to *Puskesmas*	Village A: Health facility delivery 63% 1 km, tarmac road to the facility	Village B: Health facility delivery 90% 1 km, tarmac road to the facility
Well performing and far from *Puskesmas*	Village C: Health facility delivery 65% 20 km, tarmac and non-tarmac roads to the facility	Village D: Health facility delivery 89% 12 km, non-tarmac road to the facility
Under performing and close to *Puskesmas*	Village E: Health facility delivery 41% 10 km, tarmac road to the facility	Village F: Health facility delivery 53% 7 km, tarmac and non-tarmac roads to the facility
Under performing and far from *Puskesmas*	Village G: Health facility delivery 48% 15 km, tarmac and non-tarmac roads to the facility	Village H: Health facility delivery 37% ~10 km tarmac and non-tarmac roads to the facility

selected villages and sub-districts fell within the following categories:

Health care providers. Village midwives or nurses and *Posyandu* volunteer, who are village health volunteers, were selected from each village using age, gender, and years of experience as criteria. Whilst the majority of volunteers are women, particular effort was made to also include male volunteer. In addition, traditional birth attendants (TBA), known to be active in home deliveries, were recruited. Health managers and village stakeholders, Heads of the *Puskesmas*, midwife coordinators, District Health Officials relevant to Maternal Health and Village Heads were also recruited by the researchers.

Health service users. Women who had given birth, at home and health facilities, in the previous two years were selected in equal numbers.

Data collection. We collected data using semi-structured interviews (SSI) to obtain in-depth information, and focus group discussions (FGDs) to gain an insight into common maternal health misconceptions and issues faced by service providers. In total 65 SSIs and 3 FGDs were conducted in Southwest Sumba and 45 SSIs and 4 FGDs in Cianjur. The breakdown of participants and the number of interviews conducted are outlined in Table 3.

Table 2. Villages Selected in Cianjur and Selection Criteria

Criteria for villages	Ciranjang sub-district: Close to the district's capital	Sindangbarang sub-district: Far from the district's capital
Well performing and close to *Puskesmas*	Village K Health facility delivery 80.1% 1 km, tarmac and non-tarmac roads to the facility	Village L Health facility delivery 74.25% 300 m, tarmac and non-tarmac roads to the facility
Well performing and far from *Puskesmas*	Village M Health facility delivery 77.4% 5 km, tarmac and non-tarmac roads to the facility	Village N Health facility delivery 56.6% 20 km tarmac and non-tarmac roads to the facility
Under performing and close to *Puskesmas*	Village O Health facility delivery 57.7% 2 km, tarmac and non-tarmac roads to the facility	Village P Health facility delivery 51.02% 1.3 km tarmac & non-tarmac roads to the facility
Under performing and far from *Puskesmas*	Village Q Health facility delivery 53.3% 6 km, tarmac and non- tarmac roads to the facility	Village R Health facility delivery 48.89% 8 km, tarmac and non-tarmac roads to the facility

Table 3. Number of informants in Southwest Sumba and Cianjur in SSI and FGD

Participant Category	Number of SSIs		Number of FGDs	
	Southwest Sumba	Cianjur	Southwest Sumba	Cianjur
Village Midwives	7	8	1	-
Village Nurses	2	-	-	-
Posyandu Volunteers	11	8	-	-
Traditional Birth Attendants	8	-	-	2
Village Heads and Heads of Family Welfare Movement (PKK)	9	-	-	-
Village Heads	-	8	-	-
Head of *Puskesmas*	-	2	-	-
Head of PHCs	2	-	-	-
Midwife Coordinators	2	2	-	-
Heads of District Maternal Health Section	1	-	-	-
Mothers	23	16	-	-
Men	-	-	2	2
Total	65	45	3	4

Prior to conducting the SSIs, data collectors completed a five-day workshop about obtaining informed consent, conducting interviews and transcribing data. Senior research staff with extensive experience in qualitative research carried out this training. During the training workshops, key terms were translated into the local languages and translated back to confirm that the meaning of terms used was understood in a universal way. The study instruments were field tested during the training and were adapted as necessary.

Staff fluent in Sundanese, the local language of West Java including Cianjur, conducted the FGDs for the TBAs in the Cianjur region. Research assistants, who were aided by site supervisors that were conversant in local dialects, conducted the other FGDs. The SSIs were conducted in a safe and confidential environment, usually within the participant home. Interviews with health managers and district health officials were conducted in their offices. The FGDs were conducted in the site research office, and all interviews were digitally recorded.

Data quality assurance. The research assistants reviewed all field notes and recordings at the end of each day and held debriefing sessions with the data collectors. The recordings were transcribed and rechecked against the original recordings for consistency. Independent translators translated the transcripts from Indonesian Language to English, a research assistant who was not involved in data collection, had not previously listened to the audiotapes, or seen the transcripts further cross-checked them. Data validity was judged through sources triangulation i.e. comparing data from different participants and triangulation of data collection methods i.e. comparing data collected through different means.

Data management. Topic Guides: Data was collected for a context analysis study on close-to-community maternal health workers in the above-described sub-districts. As such data collection was targeted to include topics about motivation, job satisfaction, supervision, monitoring and evaluation, community involvement, service quality, regional expansion, and the mother and child health revolution policy (Southwest Sumba region only). Furthermore, we tailored additional questions on topics that were specific to our study objective to service providers, service users, and managers. These questions included topics on the use of health facilities for antenatal, postnatal and delivery care, service quality, general perceptions of village midwives, *Posyandu* volunteers, TBAs and their level of cooperation. Certain topics on the tasks of village midwives and volunteers, health policies and systems, and possible suggestions on improving relationships between midwives, volunteers, and TBAs were also covered.

Framework and analysis. The translated transcripts were entered into the qualitative data analysis software NVivo (v10) software. They were stored on a password-protected computer and only staff working on the data was given permission to access the information.

Data analysis. The framework that was developed for this generic, context analysis study focused on factors that influenced the performance of health providers. This information was subsequently used to develop topic guides and the coding frame for our analysis. Barriers to effective service delivery and motivations behind health seeking behaviours for maternal health services within Indonesia were added as a specific focus. This framework, together with an impartial review of the transcripts, led to the identification of additional themes and a further developed coding framework. Two people coded each transcript and fed them into the N vivo (10) software. We employed thematic analysis of the raw data and its themes and sub-themes and summarized the relevant information to barriers in childbirth within health facilities.[11,12]

Ethical approval. Ethical approval was obtained from the ethical committees of the Eijkman Institute for Molecular Biology, Jakarta, Indonesia and the Royal Tropical Institute (KIT), Amsterdam, The Netherlands.

Results

Southwest Sumba. The village midwives and nurses were younger in age (22-40 years) when compared with the *Posyandu* volunteer (25-57 years) and TBAs (33-57 years). Over half, (55.5%) of the midwives had completed a one-year midwifery diploma whilst the rest had graduated from the three-year course. Their work experience ranged from three years to more than eight years. The majority of the midwives (86.0%) resided outside their assigned village of the 11 *Posyandu* volunteer, 54.5% had finished high school whereas 75.0% of TBAs had only completed elementary school.

We interviewed a total of 23 women (mothers), and 90.0% of them were literate. 22% of the women were primigravid, 26% were secundigravid, and the remainder were multigravidae (>3 pregnancies). Just over half (52.0%) had delivered at home with a TBA and the others had delivered either at a health facility or with a skilled birth attendant. The men that were interviewed ranged between 25-48 years.

Cianjur. The midwives were aged between 17 and 41 years, all had completed a three-year midwifery course and resided in their assigned village. The volunteers were aged between 17 and 48 years, 50% had completed junior high school while the other half had graduated from high school. The TBAs were an older demographic, ranging between 41 and 47 years, with 80% of the group completing elementary school whilst the remainder had no formal schooling.

The mothers so that between 17 and 40 years. 45% of this group were primigravida, 27% were secundigravida, and the remainder were multigravidae. 82% had delivered at home with a midwife in attendance, and the remainder delivered with a TBA present. All the men interviewed in the Cianjur region were literate and age between 17 and 48 years.

Common themes emerged regarding potential barriers and low attendance at health facilities for childbirth between the two study districts. They can be broadly categorised into four themes; 1) preference for TBAs and traditional beliefs; 2) practical measures relating to access to care; 3) decision makers and decision processes related to delivery; 4) collaborations between village midwives and TBAs.

Preference for TBAs and traditional beliefs. The most common responses given by all groups within the two districts for their preference of a TBA assisted delivery were their age, their experience, a perception of trust in the TBA knowledge, the comfort of delivering their child in the privacy of the home, and adherence to traditional practices.

She is good. She helps the labor in the pregnant woman house, so it could be in their own room, and the room door is closed. She also lets the pregnant woman wears a sarong (SSI, Mother, Southwest Sumba).

We cannot ignore the fact that they have a bigger trust from the society. The community tends to consider the TBA as a mother (SSI, Midwife Coordinator, Cianjur).

The proximity of TBAs to the home of a pregnant woman was another important factor. This was the case in remote areas of Cianjur, despite more village midwives including private midwives being available in Cianjur when compared to Southwest Sumba. My wife gave birth in the night, and the midwife was not there at night, and there was no transportation. So she finally gave birth at home assisted by the TBA (FGD, Men, Cianjur).

Traditional beliefs and cultural practices. The Southwest Sumba and Cianjur districts both respect and revere the traditional practices of the TBAs. However, their beliefs differ. In Southwest Sumba, the traditional religion is rooted in *merapu,* a belief in which ancestors are perceived as sacred and that ancestral powers can influence practices in the traditional village. As such attendance at health facilities for antenatal care, delivery, and use of modern medical practices can be considered offensive to sacred ancestral wishes and many believe that this may cause harm to the current or any future pregnancies. Our ancestor will not allow it. It can cause miscarriage, or they (women) can get pregnant (SSI, Village Head, Southwest Sumba).

In Cianjur, giving birth outside the home is a considered a taboo by many women particularly those with limited formal education. Additionally the TBAs conduct Islamic prayers during the pregnancy and birth, which is thought to protect pregnant mothers from black magic and plays an important role in choosing TBA care over health facilities. Pregnant mothers with a low level of education usually still have many taboos, like the taboo of going out the house (during pregnancy). Because of this, they prefer to use TBA services (SSI, Village Midwife, Cianjur).

Furthermore, the use of herbal medicines, commonly named *jamu* in Cianjur, and the provision of tamarind infused hot water baths post-delivery in Southwest Sumba along with antenatal and postnatal massages performed by the TBAs was cited as a preference for their use. The community still believes strongly in the TBA because TBA sends the prayers for the safety of both the mother and the baby. Another thing the mothers like is because they also give massage and *jamu* (SSI, Village Head, Cianjur).

I felt nauseous when I was pregnant. I also lost my appetite. After getting the massage from a TBA, I felt better and got my appetite again. She (TBA) always gave a massage at my belly. After I had got the massage I felt more relaxed (SSI, Mother, Southwest Sumba).

Both communities reported the advantages of TBAs and village midwives, and those in Southwest Sumba also felt that there was a lack of responsiveness to traditional beliefs and practices at the formal health facilities. My wife gave birth at home, not in the *Puskesmas*. The *Puskesmas* was limited, for example, no warm water. Here we believe in the custom for mothers to have a bath with warm water after delivery. They frequently cannot do that in the *Puskesmas* (FGD, Men, Southwest Sumba).

Practical measures related to access to care. There were several practical reasons for why women were less likely to use health facilities to give birth, such as long distances between home and the health facility, poor road conditions, and cost of transport. If the mother house is far, it takes the time to get a motorbike taxi to go to the *Puskesmas*. The TBA usually live close to her house, so it is easier for her just to call the TBA (FGD, Village Midwife, Southwest Sumba).

There are some measures in place to alleviate possible transport difficulties for parturient women, such as the provision of an ambulance service by the *Puskesmas*, however, there are several factors that hinder the use of these transport services. These problems were seen in both the Cianjur and Southwest Sumba regions. Sometimes we face difficulties like the ambulance had no fuel or the driver refused to come. I tried to ask the

driver to find another vehicle but no money for that. If I ask the villagers to hire a vehicle many cannot do this because the cost is high (FGD, Village Midwife, Southwest Sumba).

In some parts of rural Southwest Sumba and Cianjur, if a pregnant woman wishes to give birth in a health facility she will need to travel before the onset of labour and stay with relatives or friends that live closer to the health facility. Many families feel embarrassed about such situations and fear it may be a burden on their relatives. The government health insurance scheme does not cover the cost of accommodation or food for accompanying family members. The difficulty in covering these indirect costs is another reason why women often prefer to deliver their babies at home. Even if the mother wants to deliver in *Puskesmas*, the family usually concern about the cost of accommodation and food for their family. Even if they have a relative close to the *Puskesmas*, they are reluctant to come to the house of somebody else without carrying things like rice, bananas or chicken (SSI, Village Midwife, Southwest Sumba).

Decision makers and the decision making process. Women reported that their husband or elder female family members often made the decision about where the birth would take place and if they would seek the help of a TBA. It was my husband decision. If my husband has already called the TBA, I do not (refuse) (SSI, Mother, Southwest Sumba).

This situation was also commonly reported in Cianjur. The midwife made a delivery date prediction and assignment about who will assist the delivery. The mother obeyed. However, on the due date she was not the one who made the decision, but the husband, mother in law or mother. If their husbands insist on having the baby with the TBA service, she will just obey (SSI, Manager, Cianjur).

When a referral is made to attend the health facility, the lengthy decision process complicates the situation and leads to delays. Prolonged discussions usually start within the family about the cost, who will accompany the mother to the facility, and organizing transport. In addition, a mother perceptions of a normal pregnancy and or previous experience of an uncomplicated delivery can also influence the decision on where delivery will occur. I went to the *Posyandu* and found out that I am OK. When my delivery time came, I did not feel much pain, so we decided to call TBA, and I delivered my baby at home (SSI, Mother, Southwest Sumba). In their experience in giving birth at home with TBA for the first child, it was fine. So they just delivered at home (SSI, Volunteer, Cianjur).

Collaboration between village midwives and TBAs. Data revealed that a certain degree of collaboration between village midwives and TBAs does exist in some villages in both study districts. This collaboration is aimed particularly at encouraging pregnant mothers to attend a *Posyandu* for antenatal care and to give birth in health facilities. This collaboration is stronger in Southwest Sumba as their local government has implemented maternal and child health reforms that are particularly aimed at increasing births within health facilities.

Now TBAs are not allowed to help pregnant women to deliver, and they must advise the pregnant woman to go to a health facility to deliver. Before delivery, if there is any pain or uneasiness in their pregnancy, TBA roles together with us as volunteers is to suggest the pregnant mother to go to *Puskesmas* for examination, as we suggest in the delivery month that they deliver at the health facility (SSI, Volunteer, Southwest Sumba).

Financial incentives for TBAs who collaborate with village midwives have been put in place, and this is an important scheme. Additionally, initiatives to increase awareness about current regulations that states it is the midwife's responsibility to assist in the delivery. However, the contributions of the TBAs are still very much respected.

Some TBAs are good. If somebody reported that they (pregnant mothers) missed their period, some TBAs inform me. If there is somebody about to deliver they also report to me, and some come with me (to the house of the pregnant mother). Sometimes they take the pregnant woman to the *Puskesmas*. Now they also can have some incentive if they accompany the pregnant mother to the *Puskesmas* (SSI, Village Midwife, Southwest Sumba).

Similar collaborations between midwives and TBAs can also be found in Cianjur. If there is delivery, TBA will call us (midwife). Because the villagers trust the TBA more, we should collaborate with them (SSI, Village Midwife, Cianjur).

There are, however, difficulties in some cases especially those where TBAs believe their traditional roles may be phased out completely and age and language barriers can pose further challenges for them. At the beginning when we said that TBAs cannot assist delivery anymore, just collaborate with us, they were worried that they will not be used anymore. But then we gave explanation that they can remain to do their tasks like massaging or taking care of the baby (SSI, Village Midwife, Southwest Sumba).

Some TBAs do not want to cooperate. Some do not understand what we said due to their old age and some do not really understand the (official) Indonesian language that we use (SSI, Manager, Southwest Sumba). A summary of the study results, similarities and differences are outlined in Table 4.

Table 4. A Comparision of Challenges to Health Facility Deliveries in Southwest Sumba and Cianjur

	Southwest Sumba	Cianjur
Preference for TBAs and traditional beliefs	Infuenced by Merapu and Catholic beliefs	Infuenced by Sundanese and Islamic beliefs
	The existence of taboos related to pregnancy and delivery	The existence of taboos related to pregnancy and delivery
	Geographical and cultural proximity of TBAs	Geographical and cultural proximity of TBAs
	Deep rooted trust to TBAs	Deep rooted trust to TBAs
	Tamarind infused warm water baths post-delivery	Herbal medicine
	Antenatal and postnatal massage	Antenatal and postnatal massage
	Merapu and Catholic prayer recitation	Islamic prayer recitation
	Lack of sensitivity of health facilities to traditional beliefs and local practices	Lack of sensitivity of health facilities to traditional beliefs and local practices
Practical measures related to access to care	Long distance between home and health facility	Long distance between home and health facility
	Poor road conditions	Poor road conditions
	Lack of transportation	Lack of transportation
	Cost of transport	Cost of transport
	The cost of accommodation and food for the family members who accompany the parturient mother that is not covered by health insurance (indirect cost)	The cost of accommodation and food for the family members who accompany the parturient mother that is not covered by health insurance (indirect cost)
		More village midwives including private midwives being available in Cianjur compared to Soutwest Sumba
Decision makers and decision making process	The decision of where a woman will give birth is often made by her husband and family members (mother and mother in law)	The decision of where a woman will give birth is often made by her husband and family members (mother and mother in law)
Collaboration with TBAs	Limited collaboration between village midwives with TBAs	There is more collaboration between village midwives and TBAs
	Financial incentives for TBAs who are willing to collaborate	Financial incentives for TBAs who are willing to collaborate

Discussion

Our data revealed that both study districts reported similar barriers to accessing health facilities for the delivery of their child. The major factor reported was the high regard for traditional beliefs and TBAs, coupled with the lack of adherence to traditional beliefs and practices at health facilities. The risks of home delivery and awareness of the benefits of delivery within health facilities were low amongst the interviewed women, especially those with a previous experience of an uncomplicated delivery at home. Our findings are

comparable with similar studies undertaken in Indonesia and other developing countries, despite our inclusion of Southwest Sumba, a site that has not previously been included studies.[6-8] These findings suggest the need for more intensive health promotion programs for pregnant mothers and their families on maternal health issues such as birth preparedness and the benefits of delivery within health facilities.[13,14]

The existing TBA culture and the high regard for them within these communities were strong factors influencing home deliveries. TBAs are perceived as extremely valuable both for their physical services such as massages they give during pregnancy and their respect of traditional practices. The close proximity of TBAs to the village homes, and the limited availability of village midwives in their assigned villages, as addressed in several studies, also contribute to a preference for TBA assisted delivery.[6-8] These factors show the crucial role of TBAs among rural populations and indicate the importance of maintaining a collaboration between TBA, volunteers, and village midwives.

Currently, there are collaborations between village midwives and TBAs in several of the villages we studied. A respect for each other and a willingness to work in the partnership are important factors that influence relationships between traditional and modern health workers and improve workplace motivation.[15,16] In Indonesia several studies have advocated strategies to reduce the number of deliveries by sole TBAs, such as establishing a TBA-midwife partnership that respects local beliefs and the cultural importance of TBAs and allows TBAs to be present at delivery to provide psychological support to parturient women whilst the delivery is conducted by a trained midwife.[6-9] Additionally, TBAs are encouraged to refer pregnant women to midwives or health facilities, and in return, they receive a financial incentive. Successful transition from TBAs to skilled birth attendants has been shown in West Java where deliveries attended by TBAs reduced from 80% in the 2007 IDHS report to 17% in the 2013 IDHS report.[1]

Several practical difficulties that affected referral and communications such as transport and travel to the health facilities due to road conditions and distance were identified. These are not new findings and have been highlighted in several studies.[6,7] A previous study that addressed the distance from homes to health facilities found that 66% of women delivered with a skilled attendant when their village was close to the health facility (<5 km), whereas only 9% of deliveries were attended by a skilled provider when the residents village was more than 60 kilometers from the health facility.[17]

The indirect costs, such as the cost of accommodation and food for family members who accompany women when they deliver in health facilities, were also factors that influenced whether women attended health facilities for delivery. It is these factors combined with a lack of birth preparedness and a poor understanding of the benefits of delivering at health facilities that lead to poor attendance by mothers. Support from village stakeholders plays a crucial role in higher antenatal attendance and facility deliveries and increases the enthusiasm of village midwives.[18-20]

These findings are important in ensuring higher attendance rates at health facilities. However, we acknowledge that whilst our findings are common across our sample population, as a qualitative study it cannot be generalized to the general population. Additionally, although every care was taken to translate correctly from Bahasa Indonesian to English, subtle nuances and details of meaning may have been lost during the translation. We believe these limitations did not affect the results, which were comparable to previous studies in Indonesia and elsewhere.

Conclusions

There is a strong influence of traditional culture woven into the decision-making process of where women should deliver their babies and a great respect and trust placed in TBAs. Concerns amongst the interviewees were similar in both Southwest Sumba and Cianjur including practical barriers, despite many differences between the sites. These challenges that were identified provide opportunities to improve education about the benefits of giving birth within health facilities and to strengthen community engagement in birth preparedness and the decision process for referrals. Strengthening the partnership between village midwives, *Posyandu* volunteers, and TBAs could also contribute to an increase in deliveries in health facilities at both study sites. In addition, providing a supportive environment within health facilities that respects traditional practices during childbirth should be considered in these regions to encourage women to give birth in health facilities.

Conflict of Interest Statement

The authors declare that they have no competing interests.

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and middle-income countries in rural and urban areas in Asia and Africa.

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