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# The evolving role of traditional birth attendants in maternal health in post-conflict Africa: A qualitative study of Burundi and northern Uganda

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Primus Che Chi<sup>1,2</sup> and Henrik Urdal<sup>2</sup>

#### **Abstract**

**Objectives:** Many conflict-affected countries are faced with an acute shortage of health care providers, including skilled birth attendants. As such, during conflicts traditional birth attendants have become the first point of call for many pregnant women, assisting them during pregnancy, labour and birth, and in the postpartum period. This study seeks to explore how the role of traditional birth attendants in maternal health, especially childbirth, has evolved in two post-conflict settings in sub-Saharan Africa (Burundi and northern Uganda) spanning the period of active warfare to the post-conflict era.

**Methods:** A total of 63 individual semi-structured in-depth interviews and 8 focus group discussions were held with women of reproductive age, local health care providers and staff of non-governmental organisations working in the domain of maternal health who experienced the conflict, across urban, semi-urban and rural settings in Burundi and northern Uganda. Discussions focused on the role played by traditional birth attendants in maternal health, especially childbirth during the conflict and how the role has evolved in the post-conflict era. Transcripts from the interviews and focus group discussions were analysed by thematic analysis (framework approach).

Results: Traditional birth attendants played a major role in childbirth-related activities in both Burundi and northern Uganda during the conflict, with some receiving training and delivery kits from the local health systems and non-governmental organisations to undertake deliveries. Following the end of the conflict, traditional birth attendants have been prohibited by the government from undertaking deliveries in both Burundi and northern Uganda. In Burundi, the traditional birth attendants have been integrated within the primary health care system, especially in rural areas, and re-assigned the role of 'birth companions'. In this capacity they undertake maternal health promotion activities within their communities. In northern Uganda, on the other hand, traditional birth attendants have not been integrated within the local health system and still appear to undertake clandestine deliveries in some rural areas.

**Conclusion:** The prominent role of traditional birth attendants in childbirth during the conflicts in Burundi and northern Uganda has been dwindling in the post-conflict era. Traditional birth attendants can still play an important role in facilitating facility and skilled attended births if appropriately integrated with the local health system.

## **Keywords**

Traditional birth attendants, post-conflict, maternal health, childbirth, health system

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# Introduction

Maternal health remains a serious global challenge in spite of decades of advocacy and investments in improving access to maternal and reproductive health. Even within countries with poor maternal health indicators, the situation is most acute in conflict-affected areas compared to those areas and countries that have not experienced armed conflict. For example,

## Corresponding author:

Primus Che Chi, Department of Public Health Sciences, Karolinska Institutet, 171 77 Stockholm, Sweden. Email: primus.chi@ki.se

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<sup>&</sup>lt;sup>1</sup>Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

<sup>&</sup>lt;sup>2</sup>Peace Research Institute Oslo, Oslo, Norway

O'Hare and Southall<sup>1</sup> reported that the proportion of skilled attended births was significantly lower and the proportion of infant mortality was significantly higher in countries that had experienced a recent armed conflict. Urdal and Che<sup>2</sup> equally found that countries that have experienced a recent armed conflict tend to have higher levels of maternal mortality and fertility. This has been partly attributed to a lower human resources for health in such settings because of difficult living and working conditions that tend to discourage the recruitment and retention of health workers. The result has been that many pregnant women undertake delivery without the presence of a skilled birth attendance like a nurse, midwife or doctor. In some conflict settings, traditional birth attendants (TBAs) have thus become the first point of call for many pregnant women, assisting them during pregnancy, labour and birth, and in the postpartum period.

A number of studies have explored the role of TBAs in maternal health, including childbirth within some countries in Africa. A national survey in 2008 in post-war Sierra Leone showed that 45% of women undertook delivery with the assistance of TBAs, with up to 77% of women in some rural areas giving birth at home without a skilled attendant.<sup>3</sup> Apart from their main role as TBAs, they equally exercise other roles such as providing advice on family planning, nutritional requirements, recommendations, screening of high-risk mothers, fertility/infertility treatment, determination of ailments or abnormalities relating to reproductive organs and reproduction in western Nigeria.<sup>4</sup> Imogie et al.<sup>4</sup> also found that TBAs provide care for childbearing mothers during pregnancy, labour and post-natal periods, as well as the infants in health and disease/sickness; recruitment of new acceptors into TBA practice; counselling responsibilities; and preservation and conservation of herbal plants and their derivatives. Their actions are largely motivated by a desire to help the women in their community.<sup>5</sup> While there has been a drive for the past decades to promote facility delivery and skilled attendance at birth especially in the context of the United Nations millennium development goals (MDGs) and sustainable development goals (SDGs), the role of TBAs in maternal health has received relatively little attention. This has further been compounded by the abolition of user-fees for maternal health services at health facilities and the prohibition of delivery by TBAs in some countries.<sup>6,7</sup> In countries where TBAs have been prohibited from undertaking deliveries, the level of engagement of the formal health system with the TBAs varies. While some countries have integrated the TBAs into the local health system and assigned them different roles within their communities, others have had little or no interaction with existing TBAs, with some TBAs engaged in clandestine childbirth-related activities.<sup>7,8</sup> This may be the case, especially in conflict-affected and impoverished settings where access to routine quality health care is a challenge.

Burundi and northern Uganda experienced protracted armed conflicts that were characterised by a breakdown of the local health systems, resulting in poor access to and quality of maternal and reproductive health care. One of the major barriers to access to quality emergency obstetric care was an acute shortage of skilled attendants and other health care providers, as many health workers fled the conflict-affected areas as they were targeted by the warring parties. A huge vacuum was therefore created that was in many cases filled by unskilled providers.

The aim of this study is to explore the role played by TBAs in maternal health in the two post-conflict settings of Burundi and northern Uganda from the perspectives of women of reproductive age, local health providers (LHPs) and staff of non-governmental organisations (NGOs) working in the domain of maternal, sexual and reproductive health (MSRH). Stakeholders involved in the conception and delivery of health care to women in crisis settings need to understand the evolving role of TBAs in maternal health, including childbirth. This information could help key stakeholders better develop and implement health interventions aimed at improving MSRH in such settings. The choice of the study areas was to provide a useful contrast between the two cases. This study is part of a larger research project titled 'Armed Conflict and Maternal Health in Sub-Saharan Africa'.

## **Methods**

A detailed description of the study methodology has been presented elsewhere.<sup>11</sup> The study received ethical approval from ethics committees in Norway, Burundi and Uganda, and all participants gave their informed consent (written or verbal) before participating in the study. Brief highlights of the methods used are described below.

# Setting

The study was conducted in Burundi (BDI) and northern Uganda (NU). The specific areas in Burundi were the cities of Bujumbura and Ngozi and the communes of Kinama and Ruhororo, while in northern Uganda it was the sub-counties of Koro, Bobi and Bungatira and Gulu municipality (made up of four sub-counties), all within the district of Gulu.

# Data collection

This is a qualitative study involving semi-structured in-depth interviews (IDIs) and FGDs. The sample size for the study was guided by 'Sample size policy for qualitative studies using in-depth interviews'. <sup>12</sup> Based on this, we aimed at having a minimum number of 25–30 IDIs, while ensuring that the maximum sample size is determined by saturation; the point at which the data collection process no longer offers any new or relevant data. Participants were recruited among women of reproductive age, LHPs and staff of NGOs working in the domain of women's health. The participants were purposely sampled to include those who have lived or worked in the study area prior, during and/or immediately

Table I.	Number of	f interviews and	fGDs, by	study site and	participant categor	у.

Country	Study areas	Participants/infor	Total		
		Women	Local health providers	NGOs	
Burundi	Bujumbura Marie and Ngozi provinces	II Interviews and 2 FGDs	9 Interviews and I FGD	II Interviews and I FGD	31 interviews and 4 FGDs
Uganda	Northern Uganda	10 Interviews and 2 FGDs	12 Interviews and I FGD	10 Interviews and I FGD	32 interviews and 4 FGDs
All countries		21 Interviews and 4 FGDs	21 Interviews and 2 FGDs	21 Interviews and 2 FGDs	63 Interviews and 8 FGDs

Source: Chi et al.11

after the conflict. The women mainly lived in rural or semiurban areas and were recruited from their communities while the LHPs and staff of NGOs were recruited from their places of work. The study was conducted from June to September 2013.

# Data management and analysis

All interviews and FGDs were audio-recorded and transcribed verbatim and later translated into English, where applicable. Transcribed audio files were imported into the QSR Nvivo (QSR International, 2012). The transcripts were open-coded on Nvivo. The codes were mainly descriptions and labels of specific concepts as the transcripts were read. Related codes were then collapsed into different categories, and the categories were subsequently grouped into specific themes. The data were analysed using the framework approach.<sup>13</sup>

# **Results**

# Characteristics of study participants

A total of 63 interviews and 8 FGDs were conducted involving a total of 115 participants. The 63 interviews were equally distributed among the various participant categories (21 women, 21 LHPs and 21 NGO staff). We had four FGDs with women, two with LHPs and two with NGO staff. The overall distribution of the study participant categories by location is presented in Table 1.<sup>11</sup> The total number of participants within each categories is as follows: 46 'women', 32 'local health provider' and 37 'NGO staff'.

Role of TBAs during the conflict. In all the sites, TBAs played a more prominent role in childbirth during the conflict compared to the pre-conflict era, where access to facility and skilled attendants was relatively better. With little or no access to facility deliveries due to the prevailing state of insecurity during the conflict, the TBAs were embraced as an alternative to skilled birth attendants (SBAs). Working with NGOs, the ministries of health in both countries had to identify, train and provide some basic supplies to TBAs to assist

in childbirth in their various communities as access to health facilities was severely compromised due to the prevailing state of insecurity coupled with insufficient human resources at the level of health facilities. Many were even provided certificates after such trainings and later received subsequent trainings:

During the conflict, the TBAs had been trained because the personnel were insufficient and some had fled. They had even been given equipment so that they could attend to deliveries at home. (LHP Policy Maker, IDI – Ngozi, BDI)

... we have used them (TBAs) in the worst situations where you don't have the skilled health workers to conduct deliveries. (NGO Policy maker, IDI – Gulu, NU)

This beneficial and influential role played by the TBAs in childbirth was equally acknowledged by the women in both Burundi and northern Uganda, who said in many of the settings the TBAs were highly respected as they were the only 'community doctors'. During the conflict, the TBAs were the only hope for many women and their influence and prominence grew exponentially:

In the past, they (TBAs) were given materials ... Nobody could dare go to the health centre. No nurses were there because of insecurity. So, they were the only ones who could help pregnant women. (Woman, FGD – Ngozi, BDI)

... during the conflict the government felt it was necessary to identify and give them training so that they could help deliver mothers in their localities who may be in labour and could not access medical assistance from the health unit due to insecurity. (Woman, FGD – Koro, NU)

Women from both settings recounted situations during the conflict that they became pregnant and had only the TBA as the main attendant at childbirth. Others even had to be delivered by people who had no previous delivery knowledge or experience and at times they had to delivery alone. Some of the deliveries were done at home and others in bushes where they were running and hiding for refuge from the armed groups:

When I gave birth to my first child, I had to run with blood on me to the bush. While giving birth to another child, rebels ambushed me but one lady carried my child and ran to the other side and I almost died from bleeding ... (Woman, IDI – Bungatira, NU)

One of the women who served as a TBA during the conflict period also narrated incidents where some TBAs put their lives at risk in order to help women in childbirth:

People were running. I (TBA) told her (pregnant woman) to come to my house. Things became terrible. We ran and after a period of two hours, we stopped. I tried to help her and she delivered. The child was crying and we were afraid it will attract attention from the rebels. As such, we closed his mouth. We continued our way looking for a refuge, with the child in my hands. It was very difficult. (Woman, FGD – Kinama, BDI)

Overall, all participant categories in both of the study settings acknowledged that TBAs played a prominent role in childbirth during the conflict.

The changing fortune of TBAs post-conflict. Following the end of the conflict in both Burundi and northern Uganda, the role and prominence of TBAs in maternal health and childbirth-related activities has been fading, as the governments have actively dissuaded and prohibited them from attending to deliveries. This has been largely facilitated by improvements in the general state of security in the country and improvements in access to facility and skilled attended deliveries through the construction of more health facilities and the training and recruitment of more staff. Also, fees associated with facility delivery have been scraped in both of the settings. In northern Uganda, there is a universal health care policy, while in Burundi, there is a selective health care policy and result-based financing scheme that ensures free health care for pregnant women and children below 5 years.

Another reason advanced for the prohibition of birth attendance by TBAs was that for the number of years that they had been attending to deliveries, significant improvements in maternal and neonatal mortality and morbidity were not observed:

... we used to train them, equip them but officially it wasn't helping the numbers (for maternal and neonatal morbidity and mortality) and we couldn't pinpoint where the problem was. And as long as we kept supporting the TBAs, women increasingly preferred to go to them ... but unfortunately the more we supported TBAs, the more the numbers stagnated, the more women died. So we decided that if the women insist they want the TBAs, let's do away with them and try to force the women to the health centres. (NGO Policy maker, IDI – Gulu, NU)

Respondents across the study sites associated the stagnation in maternal and newborn health indicators with the lower level of professional competence of TBAs in child-birth-related issues.

This lower professional competence was linked to issues such as their inability to detect early and manage complications, delays in referring complicated cases, discouraging women from undertaking facility delivery, inability to update their knowledge on pregnancy and childbirth among others. Many respondents felt that TBAs tended to delay in referring women with complicated deliveries because upon delivery a fee or something was given to them for the service. As such, referring the women before delivery affected their economic gains:

TBAs do not have the means to know all pregnancy danger signs. They wait until they see physical signs, for example haemorrhage, but they are not able to know if the child in the womb is still alive or already dead ... She knows that there is a danger sign if she sees for example the arm of the child coming out first but the doctor can examine the women and notice that the presentation of the child is not normal and decide to refer her ... (NGO, FGD – Bujumbura, BDI)

I think over the period so many of the patients who came with complicated deliveries or what seems were people who were remaining with the traditional birth attendants, so it seems either they sat on the patients either ignorantly or because of the fees that they pay, as such it became more of a danger to them (the women) because they (the TBAs) sit on the patients for too long. (LHP, IDI – Gulu, NU)

As a result of this, some health providers in northern Uganda expressed complete dislike for TBAs, accusing them of making the work of skilled personnel more difficult, by gambling with the lives of mothers and their newborns:

... personally I don't like the TBAs. They keep the mothers for long. Sometimes you could have done something to save this baby but because she kept the mother for long the child was lost. And sometimes they know this is a primigravida and then they still want to struggle with the delivery ... (LHP, IDI – Gulu, NU)

Others also felt that TBAs had poor skills in infection control, especially in the context of HIV/AIDS. This was because without the appropriate infection control skills they could not manage cases of HIV transmission from the mother to the child. Also TBAs could predispose themselves to infection or even serve as a vector for transmission.

Most of the women across the study sites knew that TBAs had been prohibited from undertaking deliveries and acknowledged the technical shortcomings of TBAs and the dangers associated with TBA-assisted deliveries. While some avoided TBA-assisted births because the government has outlawed them from attending deliveries, others felt that the TBAs could not provide help should a complication arise during delivery and they could actually transmit infections to the mother and the newborn:

Giving birth nowadays has become complicated, you might think of giving birth at home but when it becomes difficult, how will you remove certain things like the placenta. Secondly,

sometimes the opening at the cervix can be narrow and needs cutting, what can you do? So that needs the health unit. (Woman, IDI – Bungatira, NU)

They say nowadays there are many diseases, so a TBA can cut her hand while helping a mother deliver and this can infect the child. (Woman, IDI – Bobi, NU)

However, across the study sites, it was acknowledged that women would occasionally use the services of TBAs for delivery as a last resort. This mostly happened when women could not access services at health facilities especially at night when some facilities are closed or when labour proceeds so fast allowing little time for the woman to make it to the health facility. Also, others felt the services of the TBA are also requested when a women in labour has to walk to the health facility, where the TBA serves as a companion. This practice serves as a contingency plan should childbirth happen before she reaches the facility:

They (TBAs) only accompany us but help us only when we give birth on the way to health centre ... More so, after delivery, they continue to the health centre to update the health personnel of the situation. (Woman, FGD – Rohororo, BDI)

In northern Uganda, a number of women even had negative experiences of delivering with the assistance of TBAs in their local communities and such incidents have dissuaded many women from considering home or TBA-assisted deliveries. This was not a common situation in Burundi as the TBAs hardly attended to deliveries:

Women now fear to give birth in their hands for in case of complications, they can't handle. One day a young woman gave birth in the hands of her grandmother who was a TBA and afterwards she got complications and died. (Woman, IDI – Bobi, NU)

Other women mentioned that the personnel at health facilities frown seriously and may not even attend to women who undertake deliveries at home and then come to the facility to seek complementary services such as newborn immunisation and weighing. The desire to easily secure these important services for their newborns has also dissuaded some women from considering home deliveries.

The role of TBAs following prohibition from childbirth. Following the prohibition of TBAs to assist in deliveries in both Burundi and Uganda, the various governments have engaged with these TBAs in different ways.

In Burundi, especially in the rural areas, they have been integrated within their local health centres to serve as 'birth companions', where they accompany women in labour to the health facility for delivery. They also play a role in health promotion by sensitising pregnant women on pregnancy danger signs and encouraging those within their communities/catchment areas to attend antenatal care (ANC) services

and undertake childbirth at the health facility. This integration of TBAs into the local health system has been made possible through the performance-based financing programme, where TBAs are remunerated based on the accomplishment of the tasks assigned to them:

Nowadays the TBAs are not allowed to attend births but are encouraged to accompany pregnant women to the health facility. A pregnant woman looks for a TBA to accompany her in case there is any complication or if labour starts on the way. The TBA knows everything but she is encouraged to accompanying them to health facility. Even if it happens that the woman delivers on the way, the TBA must continue and bring her to the health facility so that the health personnel make sure everything is okay and gives permission to go back home. (NGO, IDI – Ngozi, RDI)

They are now integrated together with community health workers to sensitize any pregnant woman to go for ANC checkups in time and help in discouraging the habit of delivering at home but rather visiting midwives, by showing clearly the importance of delivering at the health facility ... they (TBAs) accompany them (women in labour). TBAs too are motivated. We look at how many women they have accompanied to discourage attending births at home. (LHP Policy maker, IDI – Ngozi, BDI)

Most women also felt that in addition to the government policy prohibiting TBAs from assisting in deliveries, the introduction of the free health care policy for pregnant women and children under 5 years has equally played a major role in reducing the influence of TBAs in home deliveries. Historically, many women sought the services of TBAs mainly because they were more affordable compared to facility delivery. Prior to the introduction of the health care policy that scraped fees for pregnancy-related services, many women were detained in health facilities following delivery because they could not pay the bills:

Before the [introduction of the] free treatment policy for pregnant woman, many women were assisted by traditional birth attendants. This was because they were afraid of the cost involved at the level of the health facility. Some were detained at the health facility after delivery because they couldn't pay their bills. They had to stay at health facility until they get the money but with the free treatment policy things have changed. (Woman, FGD – Kinama, BDI)

On the other hand, in Uganda, the prohibition of TBAs from undertaking deliveries was not accompanied by a re-orientation of their tasks in a manner that will safeguard their economic well-being. While the government at the time issued a communique encouraging the integration of the TBAs who could read and write into the Village Health Teams (VHTs), a voluntary community-based organisation serving as the first point of contact between the community and the health system, many observers felt this was not effective as most of the TBAs were largely middle- to old-aged

women without any formal education. This meant that on the ground of illiteracy, many could not be integrated within the VHTs. A more crucial issue was that the VHT activities are largely voluntary in nature without any regular form of remuneration. Other concerns about the TBA 'phasing-out' process in northern Uganda was that it was limited by funding to allow the key stakeholders within the formal health system to appropriately engage with TBAs and key community leaders deep within the rural communities on the prevailing government policy and the rationale for the change. As such, some TBAs especially in remote areas may continue to assist in deliveries because they are unaware of the policy change:

The only problem that I realized with the current TBA policy is that the government brought that policy and wanted TBAs to stop delivering but they did not fund the phase-out. We have never really gone out to engage the TBAs except for a few subcounties that we got some small funding to go and mobilise those women. We talked to them and we paid their transport back. The rest are just hearing about the policy from rumours. Some also say that 'we are just hearing but we don't know if it is the truth'. (LHP-Policy maker, IDI – Gulu, NU)

When pressed on the possibility of adopting the 'Burundian style' of engagement and integration of TBAs within the local health system, where the TBAs are motivated for orientating and accompanying pregnant women to the health facility for delivery, it was much admired by some LHPs and policy makers in Uganda. However, concerns regarding availability of financial resources and sustainability were raised as possible drawbacks to the adoption of such a policy:

... we are saying that if the government starts such a policy here, is it sustainable? Do we have enough money to pay TBAs to refer or accompany mothers to the health facility for delivery? If we did that I am sure we will get almost a 100% delivery but it is not sustainable. (LHP-Policy maker, IDI – Gulu, NU)

With divergent government policies in Burundi and Uganda towards the integration and re-orientation of the role of TBAs in the health system, most participant across all the categories in Burundi strongly felt that home deliveries with the assistance of TBAs are very rare. Participants in Uganda, on the contrary, reported that a good number of women, especially in the rural areas, continue to deliver at home with the assistance of TBAs.

# **Discussion**

This study has explored the evolving role of TBAs in childbirth and their relationship with the local health systems in conflict-affected Burundi and northern Uganda, both during conflict and in the immediate post-conflict era. We found that TBAs had been major players in childbirth in Burundi and northern Uganda, especially during the period of conflict. However, their involvement in childbirth over the past years has been dwindling. This is due not least to important reforms within the countries following the end of the armed conflicts. In Burundi, such reforms have included the introduction of free health care for pregnant women and children under 5 years, removing the financial barrier that pushed some women to seek services from TBAs; increased construction of new health facilities in rural areas, reducing the geographical barriers that discouraged access to health facilities in some rural areas; official prohibition of TBAs from undertaking deliveries, with some threats of legal action; and the re-assigning of new roles to the TBAs in their communities within the Performance-based financing (PBF) programme. In northern Uganda, however, TBAs have not been engaged with in the same manner, possibly explaining why TBAs continue to attend to deliveries in many rural settings as this constitutes a vital source of livelihood and recognition for many.

Studies exploring the role of TBAs in childbirth have also been reported in other conflict-affected settings, including Angola,14 Mozambique,15 eastern Burma,16 refugee settings in Tanzania and Kenya,17 Sierra Leone18 and the Darfur region of Sudan<sup>19</sup> among others. In Angola, Schaider et al.14 observed that during the war, the International Medical Corps-trained TBAs undertook deliveries, resulting in a reduction of maternal mortality. In post-conflict Mozambique, Gloyd et al. 15 observed that the training of TBAs had no substantial impact on perinatal mortality, one of the reasons mentioned in our study for the abolition of TBA-assisted deliveries. The use of TBAs in childbirth in conflict-affected settings is not surprising as the Safe Motherhood Initiative that seeks to reduce morbidity and mortality from pregnancy-related causes recommends the use of TBAs in labour and childbirth for women in areas affected by conflict and displacement.<sup>17</sup> However, in the post-conflict era, the focus must shift to ensuring that all pregnant women have access to a SBA, which explains why the governments of both Burundi and Uganda have banned TBAs from childbirth. Our findings have shown that the manner in which these TBAs are phased-out in childbirth-related activities can affect compliance with government policy.

The criticism of involvement of TBAs in childbirth by personnel within the formal health sector is not limited to Burundi and Uganda. TBAs have been implicated in unsafe practices and the late referral of women who suffer from complications during pregnancy, labour and delivery in other settings. 18,20 One of the reasons highlighted in our study for the abolition of TBAs from undertaking deliveries was the risk of transition of HIV between the TBAs and the women they are assisting, due to poor infection control practices. Although this issue has not been widely explored in the literature, a recent qualitative study in rural Zambia found that following a ban of TBAs from undertaking deliveries, one of the main positive effects on maternal

health has been enhanced HIV/AIDS prevention.<sup>21</sup> Such claims might be further supported by other studies that have found that a substantial proportion of TBAs lack basic information on HIV and safe delivery practices<sup>22</sup> as well as on prevention of mother-to-child transmission (PMTCT) of HIV.<sup>23</sup>

However, Oke<sup>24</sup> has observed that when TBAs undertake delivery with the collaboration of skilled personnel, the incidents of injuries and deaths among women and newborns have been shown to decrease. In northern Uganda, we observed some limited, informal level of collaboration between SBAs and TBAs, where TBAs undertook delivery in some facilities under the guidance and supervision of SBAs. While awaiting an improvement in the skilled human resources for health, this is a model that can be explored by the formal health sector in northern Uganda. Relatedly, in areas where access to lifesaving maternal health services is problematic and TBAs are involved in service provision, Essendi et al.25 have recommended their training and involving them in the referral process in order to improve timely access to services. This seems to be the choice Burundi has embraced within the context of the PBF scheme, resulting in improved timely referral of pregnant women to the health facility. In this regard, Byrne and Morgan<sup>26</sup> have found that the integration of TBAs within the formal health system increases skilled birth attendance and this integration is optimised when prevailing barriers that prevent contact among SBAs, TBAs and women are removed. For example, in Somaliland, a recent study found that women and TBAs accepted a change of the role of TBAs from attending deliveries to birth companions and promoters of skilled birth attendance, following an intervention that led to the creation of an enabling environment at the health facility, acceptance of TBAs by health facility staff and monetary incentivisation of the TBAs.<sup>27</sup> This resulted in an increase in deliveries at the health facility. On the other hand, in Sierra Leone, Dodgeon<sup>3</sup> observed that the loss of a source of livelihood (financial incentive) by TBAs following an abolition of user-fees for pregnancy and childbirth-related services at the facility level led to fewer TBAs referring and accompanying pregnant to the facility and represented the single biggest obstacle for increasing skilled birth attendance. While these barriers have been largely addressed in Burundi, no sustained engagement between the formal health system and the TBAs exist in northern Uganda.

While not advocating for a reversal of prohibiting the involvement of TBAs in home deliveries, the health authorities in northern Uganda can identify existing TBAs in rural and remote areas and re-orientate the role they play in maternal health coupled with a basic incentive scheme. These new roles could include community sensitisation on obstetric danger signs, pregnancy and ANC visits monitoring, and accompanying women to the facility for delivery among others as is currently the case in Burundi. In many rural settings in Asia and sub-Saharan Africa where access to health care is limited, TBAs have been trained to monitor

and provide post-natal care including the management of common perinatal conditions. In rural Zambia, this has been shown to reduce neonatal mortality.<sup>28</sup> Still in the domain of childbirth, Ana<sup>29</sup> has suggested that they could be 'very helpful as "counsellors," comforting frightened rural women with complicated labour, often in the middle of night, in difficult to reach remote villages without electricity, water, or transport and no skilled health worker' (p. 2). Although the Ugandan government banned TBAs from undertaking deliveries in 2010, a local newspaper article revealed that 80% of rural women still prefer TBAs to skilled attendants and 10% undertook deliveries with the assistance of TBAs.<sup>30</sup> This has prompted some local observers to call for a revisiting of the policy especially in rural areas to integrate them into the formal health system and training them on referrals when complications arise. TBAs could be drafted to serve as community change agents by promoting change in societal attitudes towards birth and providing care.30 In Gulu, some stakeholders had raised concerns about the banning of TBAs without filling the gap that will be created by their absence: 'The traditional birth attendants have been doing something to fill gaps that government could not fill. It might be unfair to just remove them before qualified midwives have been recruited to fill the gap'. 31 Otherwise, TBAs can be re-oriented into other remunerated non-delivery-related roles. While the availability of monetary incentives for TBAs in Burundi to refer cases has been relatively successful with few cases of TBA attended deliveries, the absence of such a policy in Uganda had the opposite effect. These incentives are important for the effective implementation of any policy that prohibits TBAs from undertaking home deliveries and participating in the referral of women to the facility. A similar policy lacking monetary incentives for TBAs to refer has been introduced in Sierra Leone without much success. 18

It is, however, important not to lose focus of the long-term goal of ensuring that all deliveries are undertaken by SBAs. This is in line with a systematic review which found that the introduction of SBAs in areas where deliveries have traditionally been attended by TBAs generally led to improvements in maternal health outcomes.<sup>32</sup> Also, a 2012 Cochrane systematic review found insufficient evidence to establish the potential of training of TBAs on improving peri-neonatal mortality.<sup>33</sup>

## Limitations

A limitation of the study was that the women participants were mainly staying within the catchment areas of some local health centre or had regular weekly access to basic health care services through mobile outreach clinics. We were unable to recruit women participants in much disadvantaged remote areas that were not regularly served with basic health services. As such the perspectives of that group of women are not well captured in our study.

## Conclusion

TBAs played a major role in assisting in childbirth during the conflict in Burundi and northern Uganda. However, this role has been dwindling in the post-conflict era, where the countries have adopted different approaches with respect to integrating TBAs within the formal health sector. While Burundi has integrated TBAs within the formal health sector, especially in the rural areas, and re-assigned them new roles as birth companions and maternal health promoters, no such level of integration has been undertaken in Uganda. The successful integration of TBAs within the local health system and repositioning them to be involved in maternal health promotion within a model that addresses that economic concerns as has happened in Burundi is an interesting approach that can be explored in other post-conflict contexts including northern Uganda. This is most likely to reduce the proportion of home deliveries by TBAs and incidents of late referrals of women by TBAs. The effectiveness and sustainability of such initiatives to integrate TBAs into the formal health sector and re-assigning them different remunerated roles needs to be further researched.

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The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

### Ethical approval

Ethical approval for this study was obtained from The Regional Committee for Medical and Health Research Ethics, South-East, Norway (2012/2299/REK Sør-Øst); Le Comité National d'Ethique pour la Protection des êtres Humains Participant à la Recherche Biomédicale et Comportementale, Burundi; and Gulu University Institutional Review Committee, Uganda (GU/IRC/03/08/13).

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#### Informed consent

Written or verbal informed consent was obtained from all subjects before the study.

## **ORCID iD**

Primus Che Chi https://orcid.org/0000-0002-2727-2693

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