Exploring the Forgotten Variable

Engaging, Listening and Learning from Apostolic Birth Attendants

An Exploratory Qualitative Study of the Role of Apostolic Midwives in Mashonaland Central Province, Zimbabwe













OPHID OR Series 2014: Report 2

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Cover Caption: Apostolic Traditional Birth Attendant holding the baby she just delivered at her home in rural Zimbabwe. ~ Photo taken with permission by B. Mudzimirema during study field visits, Sept 2013

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Acronyms

ANC	Antenatal Care
AtBA	Apostolic Traditional Birth Attendant
CCORE	Collaborating Centre for Operational Research and Evaluation
C4D	Communication for Development
DCN	District Community Nurse
DHA	District Health Authority
DMO	District Medical Officer
DNO	District Nursing Officer
EPI	Extended Programme on Immunisation
HCW	Health Care Worker
монсс	Ministry of Health and Child Care
MNCH	Maternal Newborn and Child Health
OPHID	Organisation for Public Health Interventions and Development
PMD	Provincial Medical Director
РМТСТ	Prevention of Mother to Child Transmission (of HIV)
PNC	Postnatal Care
РРН	Post-Partum Haemorrhage
UNICEF	United Nations Children's Fund
VHW	Village Health Worker

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Foreword

In October 2012, UNICEF published a report exploring the influence of religion on demand for maternal health services and child immunization in Zimbabwe. The report, titled Equity and Maternal and Child Health - Is Religion the Forgotten Variable? Evidence from Zimbabwe demonstrated that religious association, namely membership to an Apostolic faith, does significantly influence demand for basic maternal and child health services in Zimbabwe.

Given the size of the Apostolic faith in Zimbabwe, their needs and belief systems must be understood, respected and accounted for within national health system policy and planning in order to meet the country's ambitious goals to reduce maternal and infant morbidity and mortality.

It is widely known that Apostolic traditional birth attendants provide services to Apostolic women during pregnancy and childbirth. However, up to now, little has been documented regarding the nature of these services or how Apostolic traditional birth attendants could be formally engaged to improve the health of women and children within their communities.

Exploratory research, by nature, is not intended to provide comprehensive answers. Rather, it is a first step in understanding the issues more clearly and providing guidance for future research and interventions. The findings presented in this report build upon a body of evidence which explores the influence of the 'forgotten' variable of religion in health service utilisation.

The aim of such efforts is to ensure equity in access to quality health services for men, women and children of every faith and to highlight the need for enhanced understanding and collaboration in achieving our common goal of improved health for all Zimbabweans. It is my sincere hope that the findings and recommendations of this report will be considered in future efforts to engage with Apostolic faith leaders and communities.

UNICEF would like to acknowledge all partners who supported this study, the Apostolic faith church leaders, and the Apostolic traditional birth attendants who participated in the study.

Reza Hossaini UNICEF Representative

Executive Summary

The *Exploring the Forgotten Variable* report provides the reader with detailed information on the foundation, methods, results, critical discussion and recommendations resulting from an exploratory qualitative research study conducted by OPHID Trust among Apostolic Traditional Birth Attendants in Mashonaland Central Province in 2013/2014.

A summary of information that the reader can expect to find in each major section of the report is provided below:

Section 1.0 – Introduction

A short abstract describing the problem addressed through this research – a lack of available evidence regarding the knowledge, attitudes, practices, and beliefs of Apostolic traditional birth attendants (AtBAs) in Zimbabwe.

Section 2.0 – Background

The introduction provides the reader with background information regarding the state of maternal, newborn and child health (MNCH) in Zimbabwe, with specific information on women and children of Apostolic faith. The finding of a literature review on the role of traditional birth attendants in MNCH and description of available knowledge regarding the Apostolic health system and role of birth attendants in this system put the current research in context.

Section 3.0 – Methods

This section provides the reader with information regarding the qualitative research methodology used including: research aims and objectives, the use of harm reduction and appreciative enquiry as theoretical underpinnings guiding methodological approach, sampling and site selecting procedures, use of multiple data collection tools, research procedures, data analysis and ethical considerations.

Section 4.0 – Findings

As a work of qualitative exploratory inquiry, the results provided in the Findings section are descriptive in nature. Responses provided by AtBAs through story-telling vignettes, structured interviews and observation are woven together in the key themes and sub-themes identified throughout the analysis. Findings are presented as descriptive summaries, with direct transcribed

quotations provided in text boxes. As the study had a small sample size, all identifying information including names and location have been removed from the findings section to maintain research participant's confidentiality. The only distinction made between AtBAs in reporting of results is whether or not they identified themselves as belonging to the Marange or Masowe Apostolic grouping, as we found this to be a primary thematic distinction between type and nature of responses.

The findings provide information on the results in sampling and identifying AtBAs in conjunction with District health authorities, success of research procedures and need to take an ethnographic approach to data collection, and items chosen by AtBAs as compensation for their time and contribution as study participants.

The institutional arrangements, organisational structures and processes and procedures of participating AtBAs are presented separately for the Marange and Masowe AtBAs. Specific practices of AtBAs explored through research procedures and reported in the results include:

- Knowledge of formal health system and any formal healthcare training received
- Care provided by AtBAs
- Management of complications during labour and childbirth
- Infection control practices
- Willingness and experiences of AtBAs to collaborate with formal health ystem
- Payments received for services provided by AtBAs

Throughout the findings section, repetitive formatting has been used to help the reader identify and navigate specific types of information provided in this report:

Red outlined text boxes with grey font provide the reader with **DIRECT QUOTATIONS** from Apostolic Leaders and AtBAs illustrating primary themes and sub-themes.

BOX 0.0

Grey filled text boxes with red font provide the reader with **CASE STUDIES OR THEMATIC DESCRIPTION** relating experiences of AtBAs and study enumerators relevant to the topic of discussion.

Section 5.0 – Discussion and Recommendations

Our discussion is framed around the original objectives of this exploratory study:

- 1) To explore the institutional arrangements of the practice of AtBAs: consistent with previous work, we conceptualise the Apostolic faith as comprised of heterogenous groups, with primary distinction being made between Marange and Masowe.
- 2) To identify the process and procedures employed by AtBAs in the care of women during the pregnancy, childbirth, and postnatal period; The services provided by AtBAs represent an approximated system of care, with similarities and differences between the biomedical and Apostolic health systems, as well as within and between Apostolic groups.
- **3)** To identify and offer insight into existing assets and needs in regards to the care provided by AtBAs; Here, we explore the important role AtBAs play in meeting the spiritual health of their clients and the valued care they provide to their communities, positive practices identified which can guide future collaboration and self-expressed needs of AtBAs primarily focusing on the need for recognition and respect from the formal health system. The pervasive challenge poverty poses to equitable access to MNCH services is highlighted.
- **4)** To provide clear recommendations for possible further intervention/collaboration and to articulate lessons learnt. Recommendations are provided as short-, mid-, and long-game strategies for collaborating with AtBAs and Apostolic communities to improve maternal and child health.
 - Short-game: focus on identified harm reduction interventions such as community-based awareness of known cost-effective interventions to improve delivery outcomes including the maintenance of the warm chain in newborns, use of standard precautions and infection control, and cord care practices;
 - *Mid-game:* work with Apostolic leaders and AtBAs to explore means of enhanced referral, advocacy and collaboration;
 - *Long-Game:* use communication for development to explore strategies for acceptable behavior change, led by voices and priorities of Apostolic leaders and communities and focusing on sharing and replication of positive practice.

Finally, as an exploratory study, we suggest findings for not only guiding future research topics, but process findings indicating appropriate methodological approaches for engaging in collaborative research with Apostolic communities. We present a proposed framework of engagement in harbouring acceptable dialogue with Apostolic Communities on Maternal and Child Health that were based on lessons learned from this study.

Section 6.0 – Conclusions

We summarise by highlighting that increasing equitable service access and utilisation in Zimbabwe is a process that requires a realistic appreciation that transformational change cannot and should not occur overnight. Simple harm reduction approaches for working with contentious abstainers of formal health services can reduce preventable morbidity and mortality among women and children in the short term. Indigenous knowledge and positive practices of Apostolic communities require both preservation and promotion, as they attend to both the spiritual and physical needs of their community members. In the medium and long term, the voices of Apostolic leaders and AtBAs recounted within this report highlight an existing willingness to collaborate and a potential for long term gains. What is required to realise such gains are concessions and mutual understanding between the traditional and formal health systems. This report establishes that a middle ground exists between Apostolic communities and the formal health system, but our willingness as public health practitioners and policy makers to recognise and make productive use of this middle ground has yet to be established.



Introduction

Disparities in maternal and newborn morbidity and mortality continue to be a global problem with enormous differences between developed and developing countries. An estimated 99% of maternal and newborn deaths occur in low to middle income countries (Pasha, et al. 2010). Decades of modernization and the growing availability of medical technology notwith-standing, births occurring in non-institutional settings and under the care of unskilled attendants remain common in much of the developing world (Izugbara, et al. 2009). The risk of maternal and neonatal mortality is greatest when deliveries occur within non institutional settings and without skilled attendance (Gabrysch & Campbell, 2009). The World Health Organization (2012) reports maternal conditions as a leading cause of death and disability within resource poor settings. Worldwide it is estimated that non institutional deliveries resulting in infant mortality account for 41% of deaths yearly among children under five (Duffy et. al, 2012). Globally more than half a million maternal deaths, over 3 million stillbirths, and over 3 million early neonatal deaths occur each year, the majority in sub-Saharan Africa (Emanuel et al. 2011; Pasha, et al. 2010; Lawn, 2010; Darmstadt et al 2009).

The rates of maternal and neonatal mortality in Zimbabwe are some of the highest in the region (WHO, 2012). In Zimbabwe, each day eight women die while giving birth, while 100 children die from childbirth and neonatal complications (ZIMSTAT, 2012). Pregnant women of the Apostolic faith in Zimbabwe are found to have a propensity to choose to deliver in non-institutional settings and often without skilled attendance. For this reason Apostolic women and their newborn children are at higher risk of mortality and morbidity during the pregnancy, delivery and postnatal periods. In Zimbabwe 38% of women identify as being part of an Apostolic denomination, 74% of which are concentrated in rural areas (ZIMSTAT, 2012; CCORE, 2011). Some Apostolic groups reject modern medical knowledge and therapeutics and have developed their own Apostolic health system that works in isolation and often in confrontation with the formal medical system (Maguranyanga, 2011). Due to this isolation many of the conservative Apostolic groupings are a hard to engage population. Within the Apostolic health system women are cared for during pregnancy, childbirth, and the postnatal periods by women that will be referred to here as Apostolic traditional birth attendants (AtBAs). AtBAs are for all intents and purposes a kin to non-skilled birthing attendants or what is often called traditional birth attendants (TBAs). Little public information, other than some anecdotal evidence, exists on the knowledge, attitudes, practices, and beliefs of Apostolic healers and specifically AtBAs. Much of the research that does exist about members of the Apostolic faith and their health seeking behaviours exist from the perspective of the beneficent of care and not that of the provider of care.



2.1 Reducing Maternal and Neonatal Mortality

Current efforts to reduce maternal and neonatal mortality focus mainly on the presence of skilled delivery attendants for every birth backed up by emergency obstetric and neonatal care (EmONC) (Pasha, et al). A skilled delivery attendant is defined by the WHO (2004) as an accredited health professional such as a midwife, doctor or nurse who has been educated and trained in the skills needed to manage normal uncomplicated pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns. Every year as many as 60 million births are estimated to occur in non-institutional settings, 45 million without skilled attendance (Darmstadt, 2009). In Zimbabwe, 61% of deliveries are managed within institutional facilities, with skilled attendants present for 60% of deliveries (ZIMSTAT, 2009). Both the rate of skilled attendance and institutional deliveries in Zimbabwe has fallen since 1999 (ZIMSTAT, 2009). The vision of the Zimbabwe Maternal and Neonatal Health Road Map together with the national health policy, the national health strategic plan, and the reproductive health policy have identified Millennium Development Goals (MDGs) 4 (to reduce Under Five Mortality), 5 (to improve Maternal Health), and 6 (to combat HIV and AIDS, Malaria and other diseases) as high priorities for improving neonatal and maternal health in Zimbabwe. Specifically, Zimbabwe has emphasized within its National Health Strategy (2009-2013) its goal of significantly reducing the rate of maternal and neonatal mortality with a specific objective to "improve access to skilled attendance at delivery including EmONC". A review of EmONC services in sub Saharan Africa shows that, although highly effective at reducing maternal and neonatal mortality, the uptake of these services remains poor even when widely available (Montagu, 2011). Moreover, in the presence of both a scale up of institutional based services, and the increase of skilled attendants, little impact has been reported on the rate of maternal and neonatal mortality mostly due to poor uptake of services (Lewin, 2008; Kerber 2007).

Systematic reviews of maternal and neonatal care services in developing countries have not been able to provide explanations for why institutional based delivery rates remain low (Lewin, 2011). Possible explanations include the impact of cost, access, perceived quality, and cultural/religious preferences in favour of non-institutional deliveries. Montagu et al. (2011) found that in sub Saharan Africa many women deliver outside of an institutional facility and without the presence of skilled attendants and they did so for reasons other than cost and access. The study found that of the women that gave birth in a non-institutional facility the reason most cited was "not necessary", "father did not think necessary", "family did not think necessary", "family did not allow", and was "not customary". Furthermore, a study conducted in Zimbabwe that interviewed women (n=1900) found that the most common reasons for not seeking health care services was due to (1) lack of access (2) opposition to care (i.e.



religion would not permit) and (3) perceptions of care (i.e. has never used doctor, nurse before; not treated well previously and embarrassed or ashamed) (NEDICO, 2008). Although it is well acknowledged that having skilled attendance and available EmONC services decreases maternal and neonatal mortality, these interventions are only useful when services are deemed acceptable and utilized. Much debate in the literature exists between what interventions would save more lives, i.e., increasing accessibility to health care facilities and skilled attendants (Bhutta, 2005; Orsin 2010; Darmstadt, 2005) or community based initiatives aimed at making non-institutional based deliveries safer (Montangue, 2011; Kidney, 2009; Bhutta, 2011).

2.2 Apostolic Women and Newborns at Risk

In Zimbabwe, women of the Apostolic faith are found to have a propensity to choose noninstitutional based deliveries. A recent study on members of the Apostolic faith in Zimbabwe and their health seeking behaviours was carried out by Maguranyanga (2011) and found that membership to more conservative Apostolic denominations is a major predictor of non-use of maternal healthcare services. The conservative groups were found to strongly dictate that pregnant women use faith related health care services and faith midwives rather than formal maternal and child care services. A study by Emmanuel et al. (2011) in Marondera district, Zimbabwe, found the rates of maternal and neonatal mortality in the district to far exceed the provincial and national rates. One independent determinant for the spike in the rate of mortality among expecting women and their newborn was membership to an Apostolic denomination. OPHID (2012) described women (n=350) in one province of Zimbabwe who had non institutional deliveries and found a majority of the participants (60.6 %) identified themselves as members of an Apostolic denomination. A study lead by NEDICO (2008) in nine provinces of Zimbabwe interviewed vulnerable women (n=1900) about their sexual and reproductive health needs. The study found that the majority of the women sampled (46%) when divided by religion identified as being part of the Apostolic faith. More than a third of the women (39%) stated that they did not access antenatal care due to their opposition to care (i.e., religion or husband/ partner would not permit). 35% of the women reported their last delivery was in a non-institutional setting and 42% reported not having skilled attendance. Perez et al. (2008) carried out a study in two districts of Zimbabwe and found that among pregnant women (n=210) lower levels of education as well as membership within an Apostolic denomination was significantly associated with the intent to deliver in non-institutional settings and without skilled attendance. A study of maternal care in rural Zimbabwe conducted by Oldie et al. (1999) found that women of the Apostolic faith were more likely to refrain from utilizing antenatal care services. While Hove et al. (1999) examined post natal care attendance of Zimbabwe women and found that women of the Apostolic faith were less likely to access postnatal services.



Attendance to either antenatal or postnatal services has been found to be correlated with a higher likelihood of having an institutional delivery with skilled attendance (MOHCW, 2007). The Zimbabwe national maternal and perinatal mortality study (2007) found that a major determinant affecting access and uptake of maternal health services was the use of traditional/spiritual healers. Moreover, the study concluded that the risk of maternal death was increased significantly if the woman belonged to the Apostolic faith (MOHCW, 2007). These studies when combined describe a clear and present trend that woman of Apostolic faith in Zimbabwe are more likely to deliver outside of institutional settings and often without skilled attendance. These practices are shown to increase the rates of maternal and neonatal mortality and therefore put Apostolic women and children during the pregnancy, delivery, and postnatal periods at greater risk of death.

2.3 Traditional Birth Attendants

The WHO (2004) describes the term TBA as traditional, independent (of the health system), nonformally trained and community-based providers of care during pregnancy, delivery, and the postnatal period. Globally, 45 million women each year deliver without skilled attendance, two thirds of whom are assisted by TBAs (Byrne & Morgan, 2011). TBAs are shown to be the main provider of care during delivery in settings where mortality rates are highest (Byrne & Morgan, 2011). 60% to 90% of deliveries in rural areas are estimated to be assisted by TBAs (Perez et. al, 2008). In a Zimbabwean study Perez et al. (2008) found no significant difference between the knowledge and practices of TBAs that claim to have had formal training and TBAs that have received no formal training. The study reports that non-institutional deliveries assisted by TBAs in Zimbabwe are common and on the rise. Perez et al. (2008) go on further to suggest that encouraging and utilizing TBAs in public health initiatives in Zimbabwe could help to increase the coverage of maternal and child health interventions. Despite the current lack of evidence supporting TBA training as a single intervention to decrease maternal and neonatal rates of mortality, there is data to support the inclusion of TBAs within an improved and collaborative health care system (Pasha, et al. 2010; Perez et al, 2008).

One main reason that TBA based programs of the past have failed in reducing maternal and neonatal mortality may be due to the failure of linking TBAs to the formal health care system (WHO, 2004). Moreover, a number of studies have illuminated the shortcomings of TBA training (Davis-Floyd, 2002; Jahn et al., 2000; Smith et al., 2000; Walraven & Weeks, 1999). According



to Pigg (1995), the international perspectives and the knowledge of professionals overshadowed the local knowledge leading to the development of culturally insensitive training programs that are inappropriate to local circumstances and realities. Others criticize the tendency by professionals working in resource poor countries to blame local knowledge for the situations among the people they serve (Crewe & Harrison, 1998; Nygren, 1999). Some studies have advocated for the re incorporation of TBAs into the formal health care system in order to make non facility births, which appear to occur regardless of the scale up of formal services, safer for women and newborns (Nair, 2010). In India, a 62% reduction in neonatal mortality was achieved through a community-based approach that included training of TBAs and local women to treat sick newborns at home (Bang, 1999). Furthermore, a trial in Pakistan reported substantial benefits in the reduction of maternal and neonatal mortality by training and integrating TBAs into the health system (Jokhio et al. 2005). A systematic review by Ray and Salihu (2004) found that substantial reductions in maternal mortality can be achieved through the inclusion of TBAs within multi sectorial initiatives. Hove et al. (1995:29) state that the most important argument in favour of greater collaboration between TBAs and the formal health system "is that it's a way of bridging a gap between what are often two different cultures". Many experts believe that the ideal role for TBAs in the health care system is to serve as advocates for skilled care thereby encouraging women to seek care from skilled attendants (WHO, 2004). TBAs will only accept and perform this role effectively when good working relations exist between TBAs, skilled attendants, and staff in referral facilities (WHO, 2004; Izugbara, et al. 2011). For this to become reality efforts towards collaboration between TBAs and the healthcare system need further consideration.

In Zimbabwe, TBAs are able to register with a governing body called the Zimbabwe Traditional Healers Association (ZINATHA), the members of which cover a wide range of traditional healers, herbalists, spirit mediums, diviners, prophets, herbalists, and midwives (Mathole et al., 2005). A study by Mathole et al. (2005) explored TBAs practice and uncovered a number of variations in the role of the TBA in Zimbabwe. The study found that TBAs are a diverse group, which include: 1) TBAs who are women who acquired their skills through learning from others and may not only provide antenatal care but also have knowledge of special herbs known to be important for cervical dilation; 2) TBAs who are traditional healers/diviners who describe themselves as having supernatural powers to protect pregnant women against witchcraft. Traditional healers/ divinerscan prescribe herbs known to be effective in stabilizing early pregnancy; and, 3) TBAs known as prophets, whom are most often associated with the Apostolic faith, and use faith healing through prayer and holy water.



2.4 Apostolic Health System and Birth Attendants

In a seminal piece of research on Apostolic religion and maternal health care in Zimbabwe, Maguranyanga (2011) documented that some groups of the Apostolic faith believe that modern based health care services are non-compatible and unacceptable with the Apostolic doctrine, rules and regulations and utilization of services of either institutional based facilities or skilled attendance is unlikely and even forbidden. This research also clearly established that the Apostolic faith is not a homogenous group of faiths and considerable differences in practices exist between groups. Therefore, a general assertion that all Apostolic groups refuse modern health services is incorrect as some of the less conservative groups provide a measure of leeway that enables members to seek modern healthcare services. Maguranyanga classified the Apostolic groups of Johanne Marange, Madhidha, Mughodhi, and some segments of Johanne Masowe as the most conservative denominations who thereby preach against the use of modern healthcare services.

The conservative groups believe that modern healthcare services and therapeutics are deemed "heathen", "of the devil" and secular. Members that do access formal medical services are perceived of as "weak faith", defiled and elevating the medical system above God and thus taking away God's glory. Illness is deemed to have a spiritual root cause, and thus a "manifestation of a spiritual rather than biological pathology" (Campbell 2010:18; Maguranyanga, 2011). In cases of child illness or obstetric complications, the child's parents are expected to confess their sins to ward off disease or affliction. Some anecdotal reports documented by Maguranyanga described that Apostolic women, who fail to deliver normally, or experience breach presentations, are then beaten while in labour and forced to confess their sin or adultery. Sin is viewed as the source of illness or complications, and confession is a prerequisite for healing and/or normal delivery to occur. Due to the objections towards modern medical care pregnant women resort to isolated Apostolic makeshift or "bush maternity" centres for delivery where they are assisted by untrained Apostolic midwives who are deemed to have special anointing, healing powers, and divine appointment (Maguranyanga, 2011; Chimuka and Cheru-Mpambawashe 2011). The Apostolic "health system" is embedded in religious beliefs that the Holy Spirit has given the church healing powers and spiritual gifts, and the church has internal capacity through its midwives to carry out deliveries and addressing child related health problems. The Maguranyanga study also revealed the pervasive use of AtBAs as the dominant healthcare provider for Apostolic women during the pregnancy, delivery and postnatal periods. The study goes on to suggest that due to the non-utilization of modern medical services by the conservative Apostolic groups there is a need for community based interventions that target the Apostolic alternative healthcare system, particularly the elements dealing with pregnancy, delivery and the post natal periods.





Apostolic birthing camp in Mashonaland East – women awaiting labour under care of an AtBA stay in tents until time of delivery. *photo taken with permission by A.McLellan



3.1 Qualitative Inquiry

The research described in this report is that of an exploratory qualitative study of the role of AtBAs in Mashonaland Central. The methodology was most suitable for this study as qualitative inquiry is a leap into the unknown, and little was known about the 1) processes and procedures, 2) existing capacity, and 3) acceptable areas for collaboration with AtBAs.

3.2 Research Aims and Objectives

The research aims were to explore the institutional arrangement, knowledge, practices, and accountability of AtBAs in Mashonaland Central and to assess their existing capacities and limitations.

The objectives of the research were:

- 1. To explore the institutional arrangements of the practice of AtBAs;
- 2. To identify the process and procedures employed by AtBAs in the care of women during the pregnancy, childbirth, and postnatal periods;
- 3. To identify and offer insight into existing assets and needs in regard to the care provided by AtBAs; and,
- 4. To provide clear recommendations for possible further intervention/collaboration and to articulate lessons learnt.

3.3 Research Team

The Organization for Public Health Interventions and Development (OPHID) Trust has a long standing history of working in partnership with the Zimbabwe Ministry of Health and Child Care at the district and provincial level. OPHID is a dynamic interdisciplinary team that focuses on innovative approaches to strengthen family and child health services in Zimbabwe. OPHID strives to strengthen health systems by working collaboratively with the government, communities and other key partners to develop and support relevant, sound and sustainable public health policies and practices.



3.4 Theoretical Underpinning

The theory of harm reduction coupled with the process of appreciation from the theory of appreciative inquiry guided the research through the data collection phase. Harm reduction is a pragmatic response that focuses on keeping people safe and minimizing death, disease and injury associated with higher risk behaviour, while recognizing that the behaviour may continue despite the risks (Inciardi & Harrison, 2000). Harm reduction does not insist on or object to the use of accepted medical practices, protocols, or guidelines; it only strives to make what is currently being practiced safer using whatever means possible (Inciardi & Harrison). The process of appreciation theorizes that one can create change by paying attention to what one wants more of (desired capacities) rather than paying attention to problems and limitations (Bushe, 2011). The process of appreciation strives for a change in the problem oriented, deficiency focused consciousness to an appreciative one that believes that there is an abundance of good people, processes, intentions and interactions, just waiting to be uncovered and strengthened (Bushe, 2005).

BOX 1.0: Harm Reduction 101: A public health approach for "meeting people where they are" rather than judging where they should be

A simple definition of harm reduction used by WHO is, a strategy directed toward individuals or groups that aims to reduce the harms associated with certain behaviours.

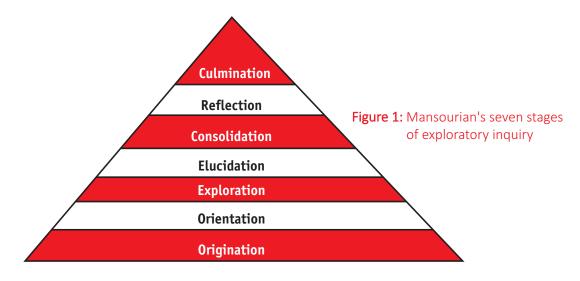
"Harm reduction is a way of preventing disease and promoting health that "meets people where they are" rather than making judgments about where they should be in terms of their personal health and lifestyle. Accepting that not everyone is ready or able to stop risky or illegal behaviour, harm reduction focuses on promoting scientifically proven ways of mitigating health risks associated with high risk behaviours.

Emphasizing public health and human rights, harm reduction programs provide essential health information and services while respecting individual dignity and autonomy. Harm reduction programs focus on limiting the risks and harms associated with unsafe behaviours." From: http://www.nchrc.org/harm-reduction/what-is-harm-reduction/



3.5 Conceptual Framework

The seven stages of exploratory inquiry described by Mansourian acted as the conceptual framework in guiding the study (Mansourian 2008).



3.6 Sampling & Site Selection

A population is 'hidden' or 'isolated' when two characteristics are present: first, no sampling frame exists, therefore the size and boundaries of the population are unknown; and second, there exist strong privacy concerns, because membership involves stigmatized or illegal behaviour, leading individuals to refuse to cooperate, or give unreliable answers to protect their privacy (Heckathorn, 1997). Targeted sampling (Watters and Biernacki 1989) is a widely employed response to the difficulties in sampling a hard to reach population. Targeted sampling involves two basic steps: first, the research team maps a target population; and second, the research team recruits subjects at sites identified by the mapping, ensuring that participants from differing geographical areas appear in the final sample (Heckathorn, 1997).

The province of Mashonaland Central was chosen based on recent reports indicating a higher rate of non-institutional deliveries than the national average, with 48.9% of children in Mashonaland Central recorded as being delivered in a non-institutional setting (ZIMSTAT, 2009). In addition, a recent study conducted by OPHID (2012) found that a majority of women who had non-institutional deliveries in this province were of the Apostolic faith. The province represents an area where OPHID has existing capacity in improving child and maternal health through its support in the implementation of the national PMTCT programme, and working partnerships with the Ministry of Health and Child Care, Provincial and District Health Authorities, and local stakeholders. Inclusion criteria for participation in the study were that participants



be (a) members of a recognized Apostolic group (Johanne Marange, Madhidha, Mughodhi, or Johanne Masowe) (b) deemed or self-described as having healing powers, and/or divine appointment; (c) currently providing care within the province during the pregnancy, delivery and postnatal periods; (d) have two or more years of experience in providing such care; (e) capable of communicating in either language of Shona or English, and (f) willing to participate in the studies exploration of their practice. The multi-district approach allowed for cross-location comparability of the data.

3.7 Mapping Procedure

Large scale physical maps supplied by OCHA for each district in Mashonaland Central were used in the mapping process. Under the guidance of the provincial health authority the research team worked with the district health authority in identifying and mapping AtBAs in each district. For each identified AtBA marked on the map, a structured questionnaire was administered to capture known information such as estimations of the number of women the AtBA may see in a month and/or knowledge of referrals made by the AtBA to formal health services.

The in-depth and on the ground knowledge of each district by its health authority and community nurses were an asset in the mapping process.

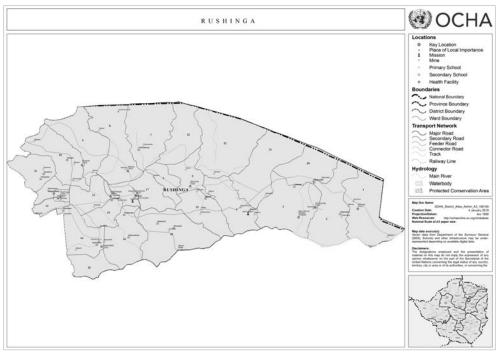


Figure 2: Sample of base map (Rushinga District) provided for manual mapping on large scale physical maps



3.8 Data Collection Tools

Data for the study was collected from: 1) semi-structured interviews; 2) discussions of clinical vignettes; and 3) non-participant observation of practice.

Semi structured interview - The semi structured interview allowed for qualitative exploration by providing the research team with flexibility to deal with novelty (Fritzpatrick & Boulton, 1994). The research team guided the participant into particular areas, but what path is actually followed is decided by the participant. The participants were encouraged to talk freely and to discuss whatever they believed to be important in their practices of caring for women.

Vignettes - Hypothetical case scenarios or vignettes are partial descriptions of life situations used in research as a strategy to elicit participants' attitudes, practices, beliefs, knowledge, opinions or decisions (Hughes and Huby, 2002). Vignettes offer a relatively low cost and flexible strategy for describing and understanding hypothetical capacity. The storytelling vignette method involves the creation of 'typical' or 'illustrative' scenarios used to initiate discussion of practice among healthcare providers (Brauer et. al. 2009). Vignettes are a valuable tool in eliciting information when topics are potentially sensitive and when the situations under study may otherwise present an ethical dilemma (Hughes and Huby, 2002). The storytelling vignettes were presented to each participant to explore their knowledge and practices in the areas of common clinical complications that can occur during the pregnancy, childbirth, and postnatal periods.

Non-participant observation - Non-participant observation allowed the research team to remain as accepted outsiders, watching and recording the interactions as a "fly on the wall." The main advantage of the observation phase was to allow the research team to "see for themselves," thus avoiding the biases inherent in participants' reports, such as selective perception, poor recall, and social desirability (Fritzpatrick and Boulton, 1994). Field notes and an observation checklists guided the research team in recording the findings.

3.9 Research Procedures

Two graduate students from the University of Zimbabwe, College of Health Sciences, were selected and acted as the OPHID research team study enumerators. The enumerators underwent instruction and training regarding the research framework, theoretical underpinnings, and qualitative exploratory methodology. The enumerators worked in tandem during the data



collection phase at each study site. One of the two data collectors was from the Masowe Apostolic faith, this was done intentionally in an attempt to increase inter-rater reliability and data validity (Keyton, et al, 2004) and to engender trust more readily (Garfein et. al, 2007). The semistructured interview guide and vignettes were administered in Shona.

The data collection tools were piloted with one AtBA in Mashonaland Central, no changes in the tools were made following the pilot and therefore the pilot was included in the final sample. Data was collected over a period of two to five days with each participant, depending on availability and level of commitment of the participating AtBA. All field visits were conducted between March 2013 and December 2013. The semi-structured interview and vignettes were audio recorded when consent for this was obtained or notes were taken if and when consent for audio recordings were refused. At the end of each field visit the enumerators and the research team met for a debriefing meeting to review the experience and the findings.

Two key informant interviews with mid-level church leaders were conducted to help situate the AtBA within the church hierarchy, to explore the institutional arrangements of both the Johanne Masowe and Johanne Marange groups, and to further illuminate acceptable methods for future engagement and collaboration.

3.10 Data Analysis

Using qualitative methods the research team intensively reviewed the findings and in this manner common themes emerged. The interview guides, transcribed interviews, field notes and checklists were coded, organized, and grouped within their common themes. During this process it became evident that the Masowe and Marange AtBAs were clearly distinguishable in terms of belief and practice and thematic analysis from qualitative data from each group needed to be grouped separately for further within-group analysis of key themes. This is how the findings section of the report is formatted and allows for a comparison and contrast of the two groups.

3.11 Ethical Considerations

The AtBA study protocol was reviewed through the UNICEF-CCORE Regulatory group and protocol submitted to the Medical Research Council of Zimbabwe (MRCZ) and Research Council of Zimbabwe (RCZ) for necessary IRB review. The protocol was approved and registered with the Medical Research Council of Zimbabwe in under the registration number MRCZ/A/1706.



3.11.1 Protection of Human Rights

All participants were asked to provide informed consent prior to participating in the study. The request for consent was based on the Medical Research Council of Zimbabwe Informed Consent Forms for Adult Research Participants. The informed consent described the scope of the demands on the participant's time. As well, it included information on the study's goals, type of data to be collected, procedures for data collection, possible risk of discomfort, potential benefits of participation, confidentiality of data, and contact information for the research team. The research was based on participants volunteering their time and experiences in the hope of better understanding their practice and creating space for collaboration.

Each participant had the right to withdraw their participation at any phase of the research with no penalty. The OPHID research team applied and was granted research and ethics approval from the Medical Research Council of Zimbabwe.

3.11.2 Methods of Dealing with Adverse Events

No adverse events due to this research occurred, as no drugs or biologic agents were used. In the event of an obstetrical complication during the non-participatory observation phase of the data collection, the research team was instructed to call an ambulance for transportation to the district hospital.

3.11.3 Methods of Dealing with Illegal, Reportable Activities

No illegal or reportable activities (e.g. child abuse) were encountered through implementation of this study. If they had been encountered the appropriate authorities (e.g. Zimbabwe Republic Police, Ministry of Social Welfare, etc.) would have been notified, in accordance with existing policy and protocol in health institutions for management of such events.

3.11.4 Risks to Participants and Confidentiality

No harm to the participant was/is foreseeable as an outcome of participation in this study. Confidentiality was secured and names of participants will not appear in this or any report or publication as a result of this research.

3.11.5 Compensation

The participants were informed that compensation for their time would be awarded by choosing items on a list that total 15.00 US dollars for each day of participation (to a maximum of 75.00 US dollars for five days of participation). The list of items included dual purpose items that could either be used on a personal basis or consistent with a harm reduction approach – to overcome immediate risks to infection control as a result of their role in the community.



3.12 Intended Use of Results

The short-term goals of the proposed research were to identify acceptable intervention areas, within the current practices and behaviours of Apostolic midwives, which would make deliveries under their care safer for women and newborns. The notion of community based engagement for later intervention is central to this study. The research findings may inform further intervention with this isolated population. The longer-term goals were envisioned to help create a dialogue regarding collaboration and/or integration between the public health system and AtBAs in Zimbabwe, with an overarching goal of contributing to the achievement of Millennium Development Goals (MDG) 3, 4, and 5. Results will be additionally disseminated on an international level (abstracts for international conferences, manuscripts for peer reviewed journals) in order to contribute to a larger debate and exchange regarding innovative community based interventions to reduce maternal and neonatal mortality.

4 Findings

The findings from the study are two fold, first there are the findings from the process of the mapping, sampling, and engaging of AtBAs and secondly the findings gathered from the data collection tools regarding the institutional arrangements, process, procedures, and existing capacities of AtBAs. Thirty seven (n=37) AtBAs were identified in Mashonaland Central Province by the mapping procedure. Eight (n=8) AtBAs participated in the study from 5 of the 7 provincial districts. The research team conducted a total of 28 days of field work. The enumerators stayed with each AtBA participant (either in their homestead or in a tent at the birth camp) for an average of four days. Five AtBA participants were from the Johanne Marange group and three from the Johanne Masowe group. During the field work a total of two live deliveries, twenty nine antenatal care examinations, and six postpartum interactions were observed. As our sample was small, and AtBAs and health care workers may be identifiable by the district in which they participated, all quotes have been de-identified by area.

4.1 Research Process

4.1.1 Sampling Procedure Results

4.1.1.1 Engaging Health Authorities in Mapping AtBAs

The mapping phase revealed that there are no existing formal procedures for recording the number or location of AtBAs in Mashonaland Central Province. The District Community Nurse (DCN) and District Nursing Officer (DNO) are the health care workers most familiar with the AtBAs in each district. In general collaboration between the District Health Authority (DHA) and AtBAs are reported to be minimal.

District	Number Midwives Identified
Mazowe	5
Shamva	3
Centenary	2
Mbire	3
Mt. Darwin	2
Rushinga	3
Guruve	5
Bindura	14
TOTAL	37

Table 1: Number of known/identified Apostolic midwives by District



Health care worker perceptions about engaging in a mapping exercise of AtBAs and other known non-users of health services are variable (ranging from highly interested to resistant). A total of 37 AtBAs were identified in the the province, with an average of 5 AtBAs known to each DHA.

Knowledge about the number and location of AtBAs was variable across districts and appeared to be linked to current engagement levels and/or historical interventions. For example, in districts where there had been destruction of AtBAs birthing camps, imposed outreach immunization campaigns, and/or general tension with the Apostolic community - information regarding their activities was limited. In all districts, specifically little information was known about the practices of AtBAs of the Johanne Marange group. Even in the districts that had good information in terms of location of the AtBAs, little was known regarding specific AtBA practices.

4.1.1.2 Impact of Historical Interventions upon Current Relations with Apostolic Communities

Many health care workers described historical public health interventions with Apostolic communities in their District led by health authorities. Such interventions included the treatment of water sources during typhoid/cholera epidemics, the promotion of immunization during EPI outreach, investigation of birth camp activities following a reported maternal or infant death, and the physical destruction of tents and the dismantling of birth camps. The vast majority of such interventions were reportedly met with resistance and often through overt rejection.

There was a reported recognition that the approaches of past interventions may have contributed to the AtBAs being "forced underground" and creating an environment of secrecy and fear regarding religious practices, including the delivery of babies by AtBAs. While such approaches were not promoted by the majority of health care workers, the residual impact of historical tension between the biomedical health system and Apostolic health practice was noted by many.

It is not about destroying religion, but understanding and engaging with Apostolic communities – District Nursing Officer

4.1.2 Research Procedure Findings

4.1.2.1 Process of Engagement

Sampling and recruiting of AtBAs for participation in study activities took a methodical approach, described in Figure 3.



An Exploratory Qualitative Study

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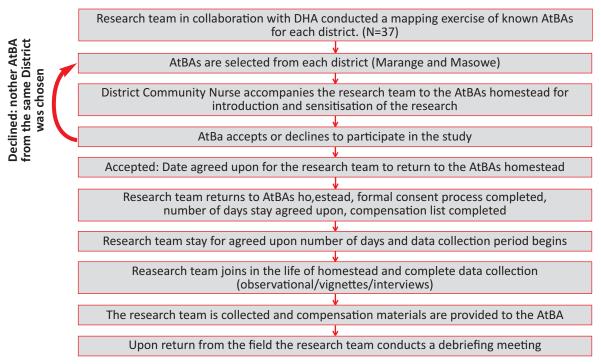


Figure 3: Process of engagement for sampling AtBAs

4.1.2.2 Ethnographic Approach to Field Work

Once permitted to stay at the AtBA homestead or birth camp, the enumerators described being required to take a participatory rather than observational approach and became part of the community. This included taking on culturally appropriate roles in the community, including helping to collect water and firewood, assist women with washing at the river, meal preparation, and cooking. This process helped build rapport and trust not only with the AtBAs, but with the other women in the community. Enumerators describe the experience of emersion into community life as both culturally and contextually necessary. To exist 'separately' from the AtBAs and the other women in their community would have fostered power difference and mistrust.

The emersion of the enumerators into study communities is best exemplified by the need to amend the food pack provided to enumerators to go into the field as captured in Box. 2.0. A further mark of this ethnographic approach is that despite being provided with canvas tents to use as shelter to sleep in during field activities, the enumerators slept separately from the community at only one site (a Marange AtBA). Rather, the two female enumerators slept in the same household as AtBAs in 6/7 sites - receiving accommodation arrangements that would be afforded to any female guest.

During daylight hours, between discussions with the AtBA, the enumerators contributed to the daily tasks of rural community life such as collecting water and firewood, cooking and washing



as a collective. In debriefing sessions, enumerators described how this not only helped build rapport and trust, but helped them to understand not only AtBAs, but also to speak candidly to their family members and the pregnant women who seek out their services. AtBAs very clearly operate within a close-knit community, where all members contribute to that community's functioning and survival.

BOX 2.0: Enumerators Assume Ethnographic Approach to Field Work – The case of sharing food provisions

Original study procedures involved the purchase of a food pack for each enumerator to cover their meals during field work. During pre-test activities in Guruve District, enumerators realised that part of their integration into community life included the sharing of food and utensils with the homestead as would be culturally appropriate for any visitor or guest to a rural homestead. The individual ration packs were insufficient for making a community-level contribution.

Consequently, in subsequent field work rather than arranging individual food rations, enumerators were provided with a food pack (i.e., 10kg mealie meal, cooking oil, kapenta (dried salted fish), salt) that could be shared communally throughout their fieldwork as they cooked by fire beside AtBAs and other homestead members. Any excess food at the end of field activities was retained on site with the AtBAs, as customary for 'guests' and embodied their role as contributors.

4.1.2.3 Participant Compensation findings

The compensation of AtBA participants for their time and expertise during the data collection phase of the research was offered as a sign of appreciation due to time commitment and need for AtBAs to accommodate enumerators in their homestead during the time of data collection. It was thought that the compensation would honour the participant as an equal and professional. In addition, having the AtBAs choose from a list of items that could be used to augment their respective practices was thought would provide the research team 'a window' into what AtBAs use, might want, or need to inform future harm reduction strategies. However, all five of the Marange AtBA participants refused to choose anything from the compensation list and therefore received no compensation. The Marange AtBAs stated that they did not need anything and that they would not take anything without prior approval from the Marange church leadership. The Masowe AtBAs on the other hand did choose some items from the list provided in Box 3.0. Among the 3 AtBAs that requested items from the compensation list, items to improve infection control during delivery chosen by all included liquid disinfectant (Jik), sterile razor blades, latex gloves, plastic aprons and hand sanitizer. None of the AtBAs requested items specifically to be provided to mothers or infants such as baby wraps, cloth nappies or blankets.



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4.2 Institutional Arrangements

The institutional arrangements described in this section are 1) a presentation of some of the literature describing the origination of the Marange and Masowe Apostolic groups (as part of the consolidation and elucidation phase of the theoretical framework) and 2) a synthesis of the narratives provided during the interviews with, the AtBAs and the key informant Apostolic leaders.

As a qualitative exploration, the presented data have been analysed for trend and are not intended to be presented as a penultimate historical documentation of the institutional arrangements of the Apostolic faith. Rather, the information provided in Section 4.2.2 and 4.2.3 should be interpreted as the understanding/interpretation of the Apostolic faith and their role within that faith by study participants.

4.2.1 Apostolic Groupings

There are many Apostolic groupings in Zimbabwe, but the two Apostolic groups that command sizable following are the: Johanne Marange and Johanne Masowe groupings (Machingura, 2011). The original leaders of each group Johanne Marange and Johanne Masowe were both from eastern Zimbabwe and both had deep religious experiences in the early 1930s (Ranger, 1999; Jules- Rosette, 1997). As a result, both assumed the role of a modern-day John the Baptist by preaching repentance and baptism among African peoples (Mukonyora, 1998). Both traveled far and wide establishing groups of followers, first in Zimbabwe, then throughout southern, central, east Africa, and beyond (Ranger, 1999). These groups are collectively known by some as the vaPostori or the Apostolic. They are characterized by their appearance: men shave their heads and grow beards, while women wear white dresses and head scarves. Both groups conduct their church ceremonies outside often in fields or under trees (Machingura, 2011).



The Masowe and Marange groups began during the height of colonialism. Both men preached in reaction to white domination, promising a better situation for Africans without white influence (Ranger, 1999; Jules- Rosette, 1997). While they incorporated some African traditions, they insisted that other traditions be stopped, thus creating a new kind of religious movement, containing a mixture of both old and new (Engelke, 2005). Their beliefs consist of a blend of African traditional religion and Christianity. Old Testament practices are prominent mostly in the Marange grouping with polygamy being well accepted (Machingura, 2011). Johanne Masowe initially rejected the Bible because Africans did not originally have books (Machingura, 2011; Mukonyora, 1999; Engelke, 2005). The Bible in book form implied the need for European education and money in order to know what God wanted (Ranger, 1999). The Masowe grouping later fractured into a number of smaller groups primarily based on their rejection or acceptance of the bible and disagreements regarding the actual day of Sabbath (Engelke, 2005). One of the largest Masowe groupings the Chishanu (Friday) group have Friday as their day of Sabbath and reject the Bible; they claim that the church prophets have a "live and direct" connection with the Holy Spirit and thereby speak the unaltered words of the Holy Spirit (Engelke, 2005). In comparison to the fracture Masowe groupings the Marange group have stayed more cohesive. The Masowe and Marange groupings are good examples of what is sometimes referred to in the academic literature as African Initiated Churches or African Independent Churches (Mpofu et. al, 2011; Engelke, 2005; Jules-Rosette, 1997).

Holy Spirit as guiding force in Apostolic faith healing

- "We have spiritual guidance. The holy spirit shows us the problems and provides solutions to problems".
- "Training is not necessary as I am a prophet and get my inspiration from god himself".
- "If the holy spirit has said so or directs a person it will be no problem".
- "This is a spiritual thing if you believe in something it happens. Its Faith based".

4.2.2 Organisational structures Marange

Instructions from the church national leadership are disseminated down to mid-level church leaders in the province then further down to the individual church groupings in the wards and villages (the top-down approach). The midlevel church leaders in the provincial ranks include groups of preachers, prophets, healers and baptisers. AtBAs are classified as or act under the authority of the healer within the church. Healers have been anointed or vetted by either the church or the Holy Spirit. They are thought to have a connection with the Holy Spirit and therefore can carry out deeds or instruction on behalf of the Holy Spirit.



The healer is described as someone that can channel the will of the Holy Spirit and perform divine intervention. Some healers in addition to acting as the AtBA can be responsible for the treatment of all illness and disease. However, the specific role of AtBA can also be confined to providing care for women in the pregnancy, delivery and post-partum periods.

MARANGE AtBAs:

On Role of Apostolic Birth Attendants: "My rule is I have to be with them through the end of their pregnancy to provide spiritual guidance and correction of problems as directed by the Holy Spirit through scans (visions)".

"If the Holy Spirit has said so or directs a person it will be no problem. This is a spiritual thing if you believe in something it happens. It is faith based".

On HIV: "In our church we want people marrying within to stop such problems. If a man is infected he should confess his sins to the healer who will then spiritually heal him and then the virus cannot be spread to his partner after this. There is complete healing".

Women seeking care from Marange AtBAs are reported in some cases to travel across the country and internationally. During one of the field visits the research team encountered a woman that had traveled from the Democratic Republic of Congo to seek services from one Marange AtBA participant. Marange women are referred through their church to an AtBA once it is known they are pregnant. The AtBAs are informed by the husband of the wife's pregnancy early and when the woman approaches the end of pregnancy she then will go and stay with the AtBA to await delivery. Some AtBAs operate what appears to be birth camps (areas where waiting women camp in tents before and after childbirth), where others operate out of their homestead or place of residence and there is no purposeful area designated for groups of women to stay while awaiting labour. At birth camps, the waiting women form a community atmosphere, they at times have other young children accompanying them, and some assist the AtBA with her duties. AtBAs operating out of their homes allow women to stay and live with them before and after the childbirth. The Marange AtBAs strictly follow the instructions given to them by their church leadership and fear excommunication as a consequence of operating outside of the permission of church leaders.

MARANGE AtBAs:

On importance of guidance and support from church leaders: "If the leaders say that there is nothing wrong it means it is good. For the leaders to know I would have done it secretly and then it would become an issue. You may see me here and give me things and we agree. The issue will go to the leader [...] they will think I am selling out. I will be told to stop doing the work here and go to the clinic. I don't know about the clinic, and then what will I do?



4.2.3 Organisational structures Masowe

MARANGE AtBAs:

On spiritual healing as 1st line treatment: "We allow people to go to the clinic that is where we are different from Marange. For example if the child is sick the mother can take the baby to the clinic but one has to be prayed for before going to the clinic."

"What happens in this world is that there are evil spirits and witchcraft so if you rush to the clinic you will have problems so one has to be prayed for by the appointed midwife and one can go to the clinic afterwards."

The Johanne Masowe Chishanu grouping is generally decentralized. The church leadership is known as the Vashanu (five) and they are found in and around Harare. The Vashanu organize the national conference that takes place every August in Harare (all capable church members are expected to attend). Each congregation has a Vadare (traditional court consisting of men) that works to lead the congregation membership and problem solve issues before consultation is sought from the Vashanu. There is no district, ward, or provincial leaders. There are no pastors but rather there are prophets. Prophets are appointed by the Holy Spirit and then vetted by other prophets and they are believed to have the ability to take instruction directly from the Holy Spirit. AtBAs are generally female prophets and are also believed to have the ability to treat other aliments or conditions. At times AtBAs can conduct care for women during the pregnancy, child birth and post-partum periods under the direction of a prophet and not be a prophet themselves. AtBAs main duty is to work against or neutralize witchcraft and evil spirits that may affect the woman or the fetus. The care provided by AtBAs is seen as instrumental because the spiritual care that is delivered is not something that could be offered at a clinic or hospital. AtBAs work in collaboration with the Holy Spirit in the care of women. Women are reported to travel from across Zimbabwe and internationally to seek care from Masowe AtBAs. Some Masowe AtBAs operate from their homes and others operate birth camps where women come and stay prior and after their delivery. The Masowe Chishanu grouping is not against medications or the seeking of care from the formal health system they believe only that one should seek spiritual care first, prior to biomedical treatments.

4.3 Processes and Procedures

During interviews, AtBAs were asked specific questions concerning their experiences, practices and beliefs regarding the care they provide to women. Specific inquiries regarding what is done



if women in their care experienced complications were discussed through the use of vignettes. The information provided with regard to processes and procedures of AtBAs is a synthesis of trends in responses to interview questions and through discussions and observations. While some commonalities exist between the participants, the practices of AtBAs are highly dependent on previous training, experience and beliefs. The practices described in this section are not intended to, and should not be, generalised as practices observed by all AtBAs.

4.3.1 Practices of Marange AtBAs

4.3.1.1 Previous experience and knowledge of formal health care

None of the participating Marange AtBAs reported having received formal healthcare training. The Marange AtBAs state that they are trained by the Holy Spirit and the Holy Spirit provides them with direction regarding the care of women during the pregnancy, delivery and post-partum periods. The Marange AtBAs reported their life experience as a source of knowledge. Three of the five Marange AtBAs reported currently training other women from their church on how to care for women through the pregnancy, delivery and post-partum periods. The Marange AtBAs reported knowing of HIV/AIDS. They state that it is spread through sexual contacts. The spread of HIV/AIDS is reportedly not a big issue within the Johanne Marange church as they employ protective mechanisms such as marrying virgins and marrying within the church. HIV was said to be cured through baptism or confession of sins.

4.3.1.2 Practices and Provision of Care

Marange AtBAs report their care to consist of:

- monitoring foetal lie (and correcting it if need be)
- preparing birth canal through stretching the vagina/vaginal wall
- dealing with retained placentas
- treating preterm babies
- dealing with postpartum bleeding
- treating dehydration
- treating jaundice
- treating tetanus
- treating fertility problems
- treating spiritual problems.



MARANGE AtBAs:

On use of medications: "We don't believe in medication. Last time (last year) children in this community were forcibly immunized and 16 died. Our bodies are used to working without treatment so any introduction of a drug disturbs the system. We believe and live by our faith only. Our clients book with us. We are directed spiritually to help pregnant women."

Women are reported to be referred through their church to the Marange AtBAs. Referrals can also be made from other Marange church leaders in other areas. Some of the field visit sites were birth camps with numerous tents and women waiting to give birth, while others were homes where women could come and stay and give birth. Three of the Marange AtBAs reported that at any given time between 4-6 women waiting for labour would be under their care and that they conducted between 6-8 births per month. Two of the Marange AtBAs reported accommodating upwards of 12-15 waiting women at any given time and delivering between 10-15 births per month.

BOX 4.0: Holy Water and prayer - central tools for provision of care by AtBAs

AtBAs from both the Marange and Masowe groups described the importance of prayer and use of holy water as primary treatments for ensuring health during all stages of pregnancy and treating illness and complications.

This trend provides an appreciation of the importance of spiritual health and cleansing to the physical wellbeing of those belonging to the Apostolic faith.





Antenatal Services: During the antenatal periods women could start consulting the Marange AtBAs as early as 2 months gestation. The Marange AtBAs used visions or scans of the abdomen with their hands to view inside the uterus. These scans are reported to allow one to assess the fetus size and identify any problems such as abnormal lies and/or if the umbilical cord was around the neck of the fetus. During the pregnancy the Marange AtBAs report using prayer to counteract evil spirits that are believed to cause complications in pregnancy. Management of physical problems or spiritual problems (evil spirits) are reported to be treated through prayer, the administration of holy water (either ingested or applied to the abdomen), and the ingestion of thin porridge for energy.

Intrapartum Services: The start of labour is announced through visions from the Holy Spirit or through scans of the abdomen. The Marange AtBAs report that as the time for delivery nears the vagina must be prepared for delivery through stretching. The stretching consisted of inserting the hand or fingers into the vagina. Lubrication used during the stretching of the vagina is reported to be soap, oil, or holy water. In addition to visions and scans, the Marange ATBAs monitor progress, identify complications, and conduct vaginal exams (using bare hands) to assess the process of labour. The depth of the insertion of the finger through the cervix and into the uterus was described as the method for assessing if the labour was progressing. The Marange AtBAs report that they observe, support, and encourage women through the process of labor. If the labor is long the Marange AtBAs reported providing thin porridge to the women to provide them energy.

Postpartum Services: In the immediate post-partum period the Marange AtBAs reported providing women with water to bath and food to eat. The infant is bathed soon after birth. Women are reported to stay at the birthing camp or the Marange AtBAs home until the umbilical cord falls off the new born, this is reported to be between 5 and 10 days. During this period the Marange AtBAs monitor the women and the newborn for any problems. The Marange AtBAs reported providing instruction during this time to the new mothers regarding care of infants, breast feeding, and hygiene. Women are advised to abstain from sexual intercourse for one month and to decrease house hold chores in order to recover fully. The use of medications or herbs is strictly forbidden within the Marange church.

4.3.1.3 Marange AtBA Management of Complications

The management of complications in pregnancy, childbirth and postpartum described by Marange AtBAs attributed both spiritual and biological reasons as possible causes for illness. The primary treatment for all complications described was ingestion of holy water, prayer and confession of sins. The following are specific descriptions of the causes, signs and treatments for complications as explored through vignettes:



MARANGE AtBAs: Provide a Spectrum of Maternal Care

The care provided to pregnant women described by AtBAs can be said to parallel the biomedical system of maternal health care. Care begins in early pregnancy and extends through labour and delivery, through to postnatal care for women and infants.

On when women should present to them during pregnancy: "You pray for a pregnant woman who is at her home and the Holy Spirit tells her to leave her home and go to stay with the midwife. We call it the `promise`. The woman goes to the midwife`s home and she prays for her until she gives birth. We would have seen something wrong at her home. ...Just like how you have come here if you were pregnant you have been said that you are at grandmother MuXYZ's (AtBA's name) for the promise. This place is the promise."

On how living conditions of pregnant women awaiting labour is structured: "The pregnant women live in rows. There is a row for women who are 9 months pregnant. Followed by those who are 8 months pregnant so that when the other is in labour the one who is 8 months pregnant can help her because she is not yet due for labour. I cannot see anything (AtBA is blind). When she is in labour she takes her to me. That is the purpose. Those who are not yet far gone with their pregnancies will be in their own rows. Those who are being treated and other things will also be in their own rows if the place is big...We have tents because we don`t have a house. We make them (the tents) strong when building them such that the wind will not enter and property is not damaged. I know that when a person gives birth someone will also need to use the room in the afternoon or in the evening. We cannot put those who have given birth and those who are about to give birth together. She takes the baby and we put her in her tent.

On the birthing process: "When a person comes to give birth she sits there. We check to see if she is ready. We tell her to take her bags and sit nearby. Ask her if the bag has strings to tie the umbilical cord when the baby is born, razor blade, soap for bathing the baby because when she is in labour she will not be able to unpack the things. We use any kind of razor blade that is new that has never been used to cut anything. We take a sack like that one and fold it. That is where she sits. We take a rag and put it so that it can be soft. She sits there. We put the placenta in the buckets that we will be using. If someone does not have a bucket we use that one (mine)."

On postnatal care: She may know how to take care of her child but if she is young she does not know anything. We give her someone who will care for them. We see through the spirit a person who is good who will not be cruel to the baby. We also give her water and instructions on how to give the water to the baby. We pray for the water and say this is water for the baby. When born he is given nothing else except water. He won't cry and will sleep soundly when I give him the water. We don't give a lot we give a certain number of teaspoons when the child is born. Some of them have an appetite so if we give him 3 spoons and he continues licking his lips we give him some more. Some may take 6 teaspoons. If he does that he will sleep easily. He won't go to her mother early he will sleep and spend the day without crying if the water is good for him.?



- **1. Woman is bleeding during pregnancy:** Bleeding during pregnancy is reported to be caused by evil spirits. It is also said that bleeding in pregnancy can be normal and may resolve with rest. If swelling of the ankles occurs egg yolk can be put on the body to help decrease it. A scan can be performed (laying of the hands) to assess the foetus. When a woman is actively bleeding holy water is given. The woman is prayed for and encouraged to confess her sins. The woman could be asked to sit or be submerged in cold water.
- **2. Woman is bleeding too much after baby born:** Post-partum haemorrhage (PPH) is reported to be caused by delayed delivery, retained pieces of the placenta, or evil spirits. The lack of bleeding after pregnancy is believed to be bad because the blood will be trapped inside and cause problems later. The signs of PPH are reported to be sweating, fainting, pallor and heavy bleeding. The treatment was described as the administration of prayer and holy water (up to 2 L at a time), the ingestion of tea with sugar, and having the woman sit in a bowl of cold water.
- **3. Post-delivery sickness with pain and fever:** Postpartum sepsis is described as being caused by dirt or pieces of the placenta that stayed or were caught inside the uterus. Evil spirits are also reported as a cause of this complication. The signs of postpartum sepsis are reported to be fever, chills, distended abdomen, delayed bleeding post-delivery, foul odour from the vagina, and the inability to care for the infant. The treatments include ingestion of holy water, sitting in holy water, holy water rubbed on abdomen, prayer, cool sponging of the head, and manual exploration and removal of retained pieces of placenta. Women with post-partum sepsis are reported to be kept under the care of the Marange AtBA until they recover.
- **4. Birth delay:** The causes of birth delay are reported to be the woman's infidelity, witchcraft from her enemies, evil spirits, baby's position causing obstruction, the woman is bearing down to early during labour and/or the foetus is dead. The signs are described as delay in progression of labour, the woman's breathing becomes laboured, and the foetus does not descend. The treatment consists of prayer and holy water and the woman is encouraged to confess her sins. If the issue is with the foetal position the Marange AtBAs describe attempts at external cephalic version and or delivering the baby breach. The outcomes of this complication were reported to be positive if the woman confesses her sins; if not however, the outcome could be death. A detailed description of an AtBA experience in presiding over a breech delivery resulting in still birth is provided in Box 5.0.
- **5. Prevent birth delay:** The key to preventing birth delay is reported to be having the woman assessed prior to the time of delivery. The antenatal period is described as having many



spiritual problems as well as physical problems that should be dealt with in order to prevent problems in delivery. Prayer and holy water are reportedly used to correct spiritual problems and abnormal foetal lies thereby preventing birth delay. It is also reported that woman should push at the right time and not before to avoid birth delay.

MARANGE AtBAs

On premature infants: "We put a lot of cooking oil only in a dish. We take a soft cloth and wrap him leaving the mouth and eyes unwrapped. If there is a cardboard box we put him in there. If it is not there I use my dish which is long and looks like a trunk. You lay him in a dish. I take a blanket, those blankets that have air vents or cloths made of moss. We put the dish by the wall. He will be okay like that. We put a real blanket in the evening when it is in the evening we put that cloth that is a see through. The dish is will be in the house.

He is not breastfed. We give him holy water. He will be fed that water we would have prayed for. If you hear him crying then you know, you uncover it and then you see that he will be sucking his lips. Then you take as spoon and put water he will drink. He won't cry now. There will be no milk. If the mother's milk is coming out she will express it. If the milk is not coming out we give goat's milk. He can now suckle.

We don't remove the cover. We cover him until he reaches his months. When he reaches term he will show that. He will start defecating and then you know that he has reached term. Yes and also urine. You can also hear his voice when he is crying. When you uncover him his eyes will be open. You say that the baby is now awake. You give him water until you stop that and the mother's milk will be coming out. When you reach the days or the 1st you remove him from there. You don't give the mother at first you bath him first. You warm water a little bit and bath him after that you wrap him and give the mother. The mother washes her nipples and then she is told to give him. However I test on my own. I test to see. I take him and put him on my mouth and if I see that he is suckling his lips i know that he can suckle and then I give to the mother."

- **6. Pregnancy headaches and fits:** Some of the Marange AtBAs reported encountered this complication others did not. The causes are reported to be anger, disappointment, and evil spirits. The treatment is reportedly prayer, the confession of sins by the affected women, and having the woman dip her feet in and ingest holy water.
- **7.Baby has trouble breathing:** The Marange AtBAs described this complication to be caused by cord being placed around the foetus's neck during delivery, evil spirits and /or the mother is possessed by witchcraft. The signs are reported to be: delay in crying after birth, being weak, not breathing and/or having a blue complexion. The treatment for this complication



consist of beating/ slapping the baby, hanging the baby upside down, sprinkling cold water on the baby, immersing the baby in warm water, rubbing oil onto the baby's skin, applying the placenta to the babies chest to keep the baby warm.

- **8. Baby born too small:** The cause of premature birth is reported to be something that can happen without reason, the presence of twins, and/or the work of evil spirits. The signs of premature birth are reported to be that the baby's appearance will not be normal. The finger/toe nails will be very pink, the hair will be sparse and silky, nipples will be light in colour, the scrotum will be red rather than brown, the cry will be feeble and the baby will have trouble sucking and/or feeding at the breast. The reported treatment for premature birth is to rub the baby with oil and wrap the baby in a blanket and put them in a box/basket. The baby is kept like this in isolation until it reaches the expected full term gestational period of 9 months. During this time the baby is fed only holy water, goat's milk or breast milk by cup or spoon. Only the Marange AtBA and the mother are allowed in the room where the baby is kept.
- **9.Baby who is sick:** Newborn illness is reported to be caused by either a disease that the mother passed to the baby, the baby was handled by a father that was promiscuous, evil spirits from the paternal side are effecting the baby, the mother is a witch, the baby was not properly wrapped, the umbilical cord was not healing well, and/or the baby swallowed too much amniotic fluid in utero. The signs of this complication are described to be a red umbilical region, cold peripheral extremities, febrile twitching, difficulty breathing, and/or not feeding well. The treatment is to apply cool compress to the baby, administer prayer and holy water, and give a tablespoon of warm coca cola three times a day to the baby.

MARANGE AtBAs

On acceptability of AtBAs to receive and use infection control materials: "A glove is not a hospital, a bicycle is not a hospital, jik (disinfectant) is not a hospital, a towel is not a hospital. It is healthy for a baby to be wrapped in a towel after birth. You can give us what I told you towels, jik, protective clothing, gloves, whatever. We need all those things. We want that from you, yes. There is nothing wrong with that."

4.3.1.4 Infection control practices

Observational checklists completed regarding equipment available for use during the delivery process consisted of a razor (often non sterile), cotton threads for the tying of the umbilical cord, plastic bags (usually old fertilizer bags applied to the floor for the women to lie on), a



bucket (for water) and a dish (for the placenta). Placentas are reported to be discarded in a latrine. The equipment can be brought by the women or provided by the Marange AtBA. The equipment is washed with soap and water or with jik (antiseptic) and often reused. Standard precautions for cleanliness and infection control practice as recommended by WHO as part of its Integrated Management of Pregnancy and Childbirth (IMPAC) described in Appendix A (wash hands, wear gloves, protect yourself from blood and other body fluids during deliveries, practice safe waste disposal, deal with contaminated laundry, sterilize and clean contaminated equipment, clean and disinfect gloves, sterilize gloves) were completely absent and the knowledge thereof very limited.

BOX 5.0: Case Study: When Complications Arise Transcribed story related by Marange AtBA of experience presiding over breech delivery and still birth

When I came here I saw 4 pregnant women. There was one who was heavily pregnant. As we were praying I asked the other midwife why she was only looking at the other 3 women and not the 4th one. I asked her what she could see about the 4th woman who was heavily pregnant. She said she was not sure if she was going to give birth well or not. She said she was glad that I had come because she said the doctor had come. I told her that I was not a doctor. We started praying, I told that woman that her baby was breech and that every time she walked she ended up limping. The child is not sitting well but your days are due. However that woman was proud.

I told the midwife that she should be careful when she was assisting the woman at birth. She should change her so that you remove the legs. The baby was going to come out legs first. I went back home and she began to have labour pains and it was raining. The other midwife is proud she does not want to insert her hands inside she only wants to get the baby when it is outside. There was no progress. The baby was big. The buttocks were the ones that were on the way. We could hear her scream. She was lying down, she would twist and turn and put her legs up. How could a grown woman do that?

I asked her (the mother) and she said she was about to die. I asked her what would happen to the baby if she did that. I told her to stop doing that, stop that so we could take a look at the baby. She acted like a possessed person. I told her I wanted to have a look at the baby but she refused saying she was in pain. She told me not to touch her. I went outside and left them struggling with her. I said to myself the baby is already dead. She went outside and slept on her belly. My sister in law said she had never seen such behavior before. She then told me that I should help her because she might die.

They took her (the mother) inside and I was called back inside. I told them to bring her water to drink and she drank. I told her that the baby had already died so if she continued struggling, the baby would not come out. When they held her I started removing the legs and turning



them. I could not turn her to come with the head first. I continued turning the legs. I managed to remove the other and the other one was still stuck on the knees. When I was pulling she began to scream that we should stop. I told them she was possessed and that they should hold her. I held the other leg and began to turn it. She was now pushing. She (the baby) was stuck here on the shoulders. I put my hands and touched the elbows. They were on the mother's hip. I did this bit by bit and the hand went down. I did the same thing to the other hand it went down. I began to pull and turn until she reached here. Aah she (the baby) was meant to die. I held the neck. I pulled but she was not moving. I put my hands and touched the cheek bones. I held the ears and unhooked them, held the other ear and unhooked it. The chin was also stuck so I held and pushed it up and it came out. She came out. She was a big baby. She was dead and still warm a bit. I asked them to look for a winnowing basket so that we could give her some air. We were blowing the air in the nose and ears but it did not help. I will be like this moving it up and down. I will be blowing in the ears, nose and mouth. It did not help. The baby died.

She (the mother) said that is what you wanted and I asked her who she meant. She asked why I came late to help her. I asked her if she had made an appointment with me. I let her scold me and when she finished I told her that the evil spirit of witchcraft that we were talking about is the one that killed the baby because it wanted meat. I was told that she (the mother) had given birth three times to still born babies. All of them had come legs first. You are the one who will kill your babies because you will be twisting and turning. The spirit is killing your children. You are accusing me of coming late. Did you ever ask me to come? You are a devil. The husband had been called so he arrived. He is a brother to me. He asked me what was wrong and I showed him what had happened. He said that was her (the mother's) habit. She was killing his children. His children were born big but she killed them. The woman has an evil spirit. I told him that she had scolded me and pushed me. He said she did it because she did not want you to save the baby because she would not have meat to eat. She is the cause. We buried the baby. He said that when they got home he would have sex with her and she would be pregnant again soon.

4.3.1.5 Willingness to collaborate with formal health system

The Marange AtBAs state that they would never refer or accompany a woman to the clinic or hospital. The formal health care system is seen as incapable of providing divine intervention and therefore avoided. If complications during the pregnancy, delivery or post-partum period cannot be dealt with by the Marange AtBA the women would then be sent to a more senior church leader.

Death notification: When maternal or neonatal deaths occur the bodies are buried in wetlands and the headman of the area is informed. The assumption was that the headman would subsequently inform the district administrator who could record the deaths and provide death certificates.



MARANGE AtBAs

On what happens following an infant death: "When she dies? She is useless what can we do? So we can bury her. We wrap her with a cloth and she is buried. Men dig the grave and after that they go away. The women carry the baby and bury her. She is buried in the fields. Women cannot dig it. It is dug by men. You can't go without telling the headman. You inform him that the woman who was at home gave birth to a still born baby and he will show you places that others go. He will tell you where babies are buried and where adults are buried. The adults know where the babies are buried so they go with the baby and bury her"

On notifying authorities following an infant death: "No they are not informed even in Harare people just go to bury in the wetlands silently. You go there quietly. They will not know where you are going they will think you are going to fetch firewood. You wrap her like a cloth for firewood. You can't go to pay to the government offices for something that is useless that can no longer help you. They will tell you to look for a car so that you can bury her at the graves. They don't care about you. Here you tell the headman only and if there is a place they will tell you to go there. At the church meetings they will tell the preacher at the meeting and the elders will tell you to go and bury her.

Training in safe deliveries: In terms of training the Marange AtBAs saw no need for additional training as they are guided by the Holy Spirit. If any training were to occur the Marange AtBAs would participate only if permission was granted from the head of the church, if it was not conducted at a clinic/hospital, and if medications are not present.

Equipment needs: When asked if they had any need to make their work safer for themselves and their clients the Marange AtBAs unanimously responded that they "needed nothing". The Marange AtBAs reported that they would only accept things that have been approved by the head of the church. Some did mention that they needed infrastructure items such as latrines and water wells and that they may accept latex gloves. The church was reported to condone the use of infection control material as these are not considered something unclean like medications.

Willingness to collaborate with local health authorities: Willingness to collaborate was present, though not among all Marange AtBAs. Among those expressing willingness to collaborate was the stipulation that any collaboration had to be approved by the head of the church and to occur at community level, not at the local clinic. A fear of excommunication from the church is present if collaboration is undertaken without approval. The Maranage leader interviewed emphasised that approaches intended to improve maternal and child health should not stigmatise Apostolic leaders and followers as a 'problem group', but rather approach the desire to improve the health of women and children of all faiths, as a priority for all.



MARANGE AtBAs

On willingness to collaborate with health authorities: ""If they agree that it is okay to work together and teach each other there will be no problem. That is when we call each other and say that we have been allowed to work together. What is not possible is for me to go to the clinic. Not because I am not allowed but because I personally don't want to go to the clinic. I don't go there to learn anything. I am not used to it. I have never been there. They can come to me if they want to come and we will teach each other and doing all things. But they should not give me anything. I don't want them to put pills or anything. When I am working I will be working with my water and you will be working with what you use when you are there."

On refusal to collaborate: "We do not use the same principles in treating the sick or managing pregnancy so we cannot work together. We do not use drugs- but Faith".

MARANGE Leader

On appropriate way to collaborate with Apostolic leaders and communities: "When you go...what you do is this. You don't fight. You go to the leader of the area. To the headman. When you go to the headman you ask for leaders. Don't say in particular that you want an Apostolic faith sect leader. No no. I want leaders. Leaders from Anglican, the Apostolic sect, and so on will come. That is when you ask to see him in your office. He will not refuse. That is what we are supposed to do. You are not supposed to say what you said with certain person (about problems in that community). It is supposed to be confidential."

4.3.1.6 Payment for AtBA services

All five of the Marange AtBA stated that they get no compensation for their services. The church reportedly does not allow a fee to be charged. They however can accept gifts such as soap, sugar, or cloth, but that it was not necessary or expected for care.

4.3.2 Practices of Masowe AtBAs

4.3.2.1 Previous experience and knowledge of formal health care

Unlike Marange AtBAs who reported no formal health care training, each of the Masowe AtBAs received some form of training in the past focusing on the care of women during the pregnancy, delivery, and postpartum period, although training was received up to 30 years ago. Two received short courses in the 1980s at district clinics, and one was a trained nurse/midwife and was later appointed as a prophet and healer. The Masowe AtBAs had good knowledge of the modes of transmission of HIV and reported that HIV was spread through sexual contact, razor blades and



mother to child. Like Marange AtBAs, the Masowe AtBAs believed that HIV/AIDS was less prevalent within their church. One of the Masowe AtBAs described actively promoting HIV testing and the use of ART. The Maoswe AtBAs also expressed fears of contracting HIV during the course of their duties as AtBAs.

MASOWE AtBAs:

On HIV testing and treatment: "Firstly I know that HIV is there. I also know that it kills but help is needed amongst people so that they get tested. That is what we are encouraging mostly as mothers and fathers, that as man and woman they should go and get tested....If they get tested each person will know their status. This will help the person to live according to how they are supposed to. Be it food, what he can eat that goes well with his blood and or what will make them healthy. Or, what kind of medication they should get so that the virus weakens. Also I know that if a person has been found that their status is not good having protected sex will help the virus not to continue."

On checking HIV status of pregnant women: We now look at them because we want to see those written OI. You will be aware that this person is ill. You will help to deliver knowing she is ill. That is when you make sure she takes her pill for strength so that the child can be born, brown nevarapine syrup."

4.3.2.2 Practices and Provision of Care

The services provided by the Masowe AtBAs described consisted of:

- Serving women during the pregnancy, delivery and postpartum periods
- Fertility treatment (during observation of care sessions, enumerators witnessed removal of cervical polyps of two different women as a treatment for infertility),
- Counselling regarding domestic issues
- Dealing with problems of ancestral spirits, and
- Treating dehydration.

Unlike Marange AtBAs that reported only providing services to women belonging to the Marange Apostolic faith, Masowe AtBAs reported providing services to women from other churches and other faiths. Masowe AtBAs receive referrals from within their church or from Masowe prophets from other regions. Women were reported to come from across Zimbabwe and from other



countries in order to get services from Masowe AtBAs. Box 6.0 provides an explanation by a Masowe Apostolic leader key informant on the roles and limits of Masowe AtBAs in providing care for women and children.

Two Masowe AtBAs report conducting between 30-50 deliveries per month with an average of 10-15 women staying at their homestead at one time. The remaining Masowe AtBA report delivering approximately 5 per month with 1 or 2 staying at her homestead at one time.

BOX 6.0: Case Study: The role of a Masowe AtBAs from the perspective of a Masowe Apostolic Leader

"Let me explain it in detail. Yes the midwives in our church are there, but their work is different from other midwives and nurses. Most of the time, like at our church we cried to the Holy Spirit to give us grace for Holy Spirit from heaven to appoint a women who can work with pregnant mothers and when they deliver. But we do not stop all the mothers who are pregnant to go and register to the clinic/hospital.

So what happens is that before a woman goes to register the midwife appointed by the Holy Spirit will pray for the woman, for example a doctor may say that the foetus is breach the Spirit would have told the midwife already. So the woman is prayed for and the midwife does not insert anything into body of the woman and the Holy Spirit will touch the mother stomach slowly and work on the baby to be in the correct position.

What happens in this world is that there are evil spirits and witchcraft so if you rush to the clinic you will have problems so one has to be prayed for by the appointed midwife and one can go to the clinic afterwards. It's like HIV - the Holy Spirit can diagnose it, for example if you come to our church when you have HIV, the Spirit can tell you that *"unechirwere chenyika"* (disease of this world) and we will know that its HIV.

We allow people to go to the clinic that is where we are different from Marange. For example if the child is sick the mother can take the baby to the clinic but one has to be prayed for before going to the clinic. Even measles children should go to the clinic and all the other immunizations.

"Kumasowe hakufe munhu usati watsanangururwa" (In our places of prayer (Masowe) no one dies before being given explanations).

Antenatal Services: During the pregnancy period the Masowe AtBAs report offering prayer and holy water. One of the Masowe AtBAs reports that she organizes a weekly antenatal care day and tends specifically to pregnant women on this day. Spiritual examinations are conducted to



help against evil spirits that might adversely affect the pregnancy. The Holy Spirit was reported to guide treatments through the use of holy water, holy stones, holy oil, blessed salt and/ or special instruments such as belts and staffs. As also described by Marange AtBAs, Masowe AtBAs have visions and perform abdominal scans through the laying of the hands on women's abdomens to monitor foetal growth and to identify any problems within the womb.

Intrapartum Services: During the delivery the Masowe AtBAs describe instructing the woman when to push, observing, encouraging, and carrying out instructions given to them by the Holy Spirit (which may include referral to the clinic). The Masowe AtBAs reported checking ANC cards for indication of complications, including HIV infection. AtBAs examine the placenta after its delivery for tearing or missing pieces. During the postpartum period women stay for observation with their newborn for between 1 to 7 days at the birthing camp or the Masowe AtBAs home. Box 7.0 provides a case study describing observations during a live birth observed during field work with a Masowe AtBA.

BOX 7.0: Case Study: Observed Masowe AtBA assisted delivery (as documented in transcribed field notes of study enumerators and during debrief session)

At 10PM on the first day a women arrived in labour- she lived approximately 7-8 km away (however 18 km from clinic) and arrived by foot.

The AtBA prophesised that the infant was big and stated the measurement of cervical dilation. The dilation of the cervix was later checked and confirmed as correct by the AtBA. The mother had booked (for delivery) at the clinic and had an ANC card with her. The AtBA asked for and examined the card. The woman was noted to be taking iron and folic acid supplementation tablets.

The delivery room was an empty room with a soil floor in round hut. There was a plastic tarp on the floor in one area with a blanket and pillow. The AtBA had one bucket for the placenta and two small bowls: one with water the other with soil.

The AtBA used one pair of gloves for the entire procedure even at some points taking soil with her gloved hand to cover blood on the ground then returning to doing procedures. The baby was delivered at 02.30. The baby was left unwrapped and placed on the side of the plastic tarp. The placenta was then delivered by the AtBA- minimal traction was exerted on the cord while she supported the uterus. Cord was then tied off with sowing thread before being cut with a clean razor blade that the mother had brought. The cord was folded off and tied with thread.



The baby was then washed in cold water. The mother had brought clothing and a blanket for the baby and the baby was dressed and wrapped. The placenta was disposed of in a very full Blair toilet. The bowl of water that was used throughout (it was soiled with blood and dirt) was then used to wash the mother.

Tea was served afterwards. The mother and the newborn stayed the night and we all slept in the same room. The mother and baby left in the morning. The AtBA advised the mother to go to clinic to get a BCG vaccination.

Postpartum services: The Masowe AtBAs report postpartum care to consist of: newborns umbilical cord care; monitoring and teaching breastfeeding; and observing the new mother for the development of any complication. Unlike Marange AtBAs interviewed who reported no referral of women under their care to formal health services, all women seen by Masowe AtBAs were reportedly advised and encouraged to report to the clinic post-delivery to have the baby weighed and to receive immunizations. Mothers are encouraged to exclusively breastfeed their newborns until three months and then to start feeding them porridge and some cooking oil to prevent constipation. The Masowe AtBAs report that they don't recommend medications however they are allowed to take "western medications" but not traditional herbs.

MASOWE AtBAs

On advice provided to women in their care: "Breastfeeding should be soon after delivery. Keep the baby warm and clean. Clean the cord with soap and the women must go to the hospital for immunizations".

4.3.2.3 Masowe AtBA Management of Complications

As with Marange AtBA responses to vignette scenarios regarding the management of complications in pregnancy, childbirth and postpartum - Masowe AtBAs attributed both spiritual and biological reasons as possible causes for illness. The primary treatment for all complications described was ingestion of holy water, prayer and confession of sins. However, secondary intervention described by Masowe AtBAs and not reported by Marange AtBAs was the referral of mothers showing no progress to health facilities. The following are specific descriptions of the causes, signs and treatments for complications as explored through vignettes:

1. Woman is bleeding during pregnancy: The cause of bleeding during pregnancy is reported to be related to the position of the foetus, the cervix opening at the wrong time, evil spirits,



and an impending miscarriage. The signs of this complication are described as one of two possibilities such as bleeding with pain and bleeding with no pain. The treatment was the administration of holy water, blessed salt, lemon water, or boiled cooking oil. The woman may have her feet prayed for and she then may be asked to ingest some soil her feet have touched. The woman may also be asked to bath her genitalia.

2. Woman is bleeding too much after baby born: The causes of PPH are reported to be that the woman did not push at the right time during labour, the woman was not eating the right foods (and may need to correct this with iron supplementation), the woman had inserted herbs into her vagina to help with cervical dilation, placenta parts are retained and/or tears have occurred during the delivery process. The signs of PPH were described as copious amounts of blood with clots from the vagina and the woman feeling weak or faint. The treatment is to encourage the woman to ingest holy water with salt, prayer, and to decide through consultation with the Holy Spirit if the woman needs to be transferred to the hospital or clinic. The issues of a retained placenta is also mentioned and are described to be manually removed (with gloves) from the uterus if the placenta did not deliver on its own. Also a practice of tying the cut umbilical cord to a stone to help exert pressure on the placenta to detach, descend, and deliver was described.

MASOWE AtBAs

On PPH and retained placenta: "I pray and then I tell her to lie down whist I am wearing gloves and I touch the placenta and remove it. I insert my hand and remove the placenta; I see where it will be attached. But that is not what we usually do. The big issue is that a person should sit on the bucket and you press her stomach or to insert a wooden spoon so that she feels like vomiting. It will detach on its own. I examine the placenta if there are missing pieces I take them to the clinic".

On combining spiritual and biomedical treatment through referral: "If we see that the illness is not responding through prayers we take her to the hospital she will be treated with pills and the doctor will examine her. The bacteria will die. The reason is that there will be all types of bacteria in her body that causes fever. Amen."

3. Post-delivery sickness with pain and fever: The causes of post-partum sepsis are described to be due the presence of bacteria. Bacteria are described to be present if the place of delivery is not clean. It is also reported that post-partum sepsis could be due to HIV infection, hypertension and evil spirits. The treatment consists of prayer.



4. Birth delay: The cause of birth delay is reported to be due to evil spirits, jaundice and/or the position of the foetus. The signs of birth delay are reported to be fatigue in the labouring women, inability to push, and dilated veins. The reported treatments are to help direct the women when to push, provide prayer, and wait/monitor. The use of muchacha leaves in boiled water is described to help labour progression. If no progression of the labour is noted transport is arranged for the woman to be brought to the clinic or hospital.

MASOWE AtBAs

On breech presentation: "I pray if there is a person who has a complication I am told what to do about it. I have my belts that I use if a person has a breech baby, I tie it for 3 days and the baby turns. It seems like labour but the baby then gets into the correct position."

- **5. Prevent birth delay:** Birth delay is reported to be caused by hypertension and therefore the treatment of this condition with anti-hypertensive medication is encouraged. A woman with high blood pressure during delivery is reported to act as if she is having a seizure. Prevention of birth delay is said to be most successful if women present in the prenatal period so that problems can be identified and treated early.
- **6. Pregnancy headaches and fits:** The Masowe AtBAs report the cause of headaches and fits as related to hypertension. The signs are swollen tonsils and nose bleeds. Reported treatments consisted of squeezing the tonsils to empty them of pus, the administration of prayer and holy water, the use of muchacha leaves in boiled water, and/or the ingestion of lemon and sugar drinks. Headaches are said to be serious complications and could result in death. The Masowe AtBAs report either referring a woman with this complication to a clinic/hospital or to another prophet that specializes in the treatment of seizures.
- **7. Baby has trouble breathing:** Trouble breathing in the neonate is reported to be caused by the mother being sick and passing the illness to the baby, the cord being wrapped around the baby's neck during delivery and/or the baby having asthma. The signs described by the Masowe AtBAs are: a rapid respiration rate, struggling to breathe, not crying, blue tinged palms and the amniotic fluid not appearing clear. The treatment is described to be prayer, slapping the baby's back, and sprinkling water on the baby to try and promote arousal. If the above treatments do not work the woman and her newborn are reportedly brought to the clinic or hospital.
- **8.Baby born too small:** The cause of prematurity is reported to be that the mother is ill, mother has HIV, and/or the cervix opened early. The signs of this complication are described



as the newborn has a weak cry, the skin is thin, blood vessels are readily visible and the baby has trouble feeding. Prematurity can be reportedly avoided if the Masowe AtBAs tie a string around the woman's waist in the antenatal period. The treatments for prematurity is described as keeping the newborn warm, rubbing oil on the newborn and bringing the newborn to the clinic or hospital for assessment.

9. Baby who is sick: Illness in a newborn soon after birth is reported to be caused by the cord being cut on one of the bumps, the cord not being properly tied off, and/or the mother is sick possibly with HIV. The signs are described as a red and swollen umbilical region, restlessness, struggling to breathe, bluish fingers and disinterest in feeding. The treatment is described as the oral administration of an egg with cooking oil and milk that has been prayed for. If this treatment fails the newborn is then referred to the clinic or hospital. If the newborn is sick the Masowe AtBAs reportedly encourages the mother to have an HIV test. Umbilical cords are reported to be cleaned with alcohol and salt until they fall off.

MASOWE AtBAs

On cord care: "When you bath with salt you use spirit so that it quickly heals, some may not have spirit so we use salt and water"

4.3.2.4 Infection control practices

The equipment used by the Masowe AtBAs are reported to be sterile razors, cotton thread, plastic sacks such as old fertilizer bags or tarps for the floor, gloves, buckets with clean water and a dish for the placenta. The placenta is disposed of in the latrine. The equipment is either brought by the women or the Masowe AtBA can provide it. Equipment is washed with soap and water or antiseptic Jik and often reused. As with Marange AtBAs, standard infection control equipment and practices were either completely absent or rudimentary at best as recorded during observational checklists.

4.3.2.5 Willingness to collaborate with formal health system

The Masowe AtBAs report encouraging new mothers to present to the local clinic post-delivery with their newborns. The Masowe AtBAs at times accompany the new mothers post-delivery to the clinic and if and when complications arise. The Masowe AtBAs report looking at women's government issued ANC cards; they deny ever writing on them but admit they do check the woman's HIV status. The Masowe AtBAs express a belief that accompaniment into the labour and delivery room at a clinic/hospital is not allowed and that this policy at times affects their decisions to refer. The Masowe AtBAs reported that negative attitudes towards them by hospital



staff also contribute their reluctance to accompany women to hospital or clinics. When deaths occur the Masowe AtBAs report that the bodies are brought to the clinic. The Masowe church would inform the headman of the death. The headman would report the death to the district administrator. The Masowe AtBAs expressed a willingness and eagerness for training. They wish to keep up with new trends and developments. One Masowe AtBA specified that she would like more training in the care of people with HIV/AIDS and in nutrition. When asked if they needed anything that could make their work safer the Masowe AtBAs described a need for training and equipment such as razor blades, gloves, aprons, plastic for the floor. They also mentioned that their toilet facilities were in need of repair and clean water was at a distance to fetch. Overall the Masowe AtBAs welcomed further collaboration and were willing to further a possible collaborative relationship with the formal health care system.

MASOWE AtBAs

On desire for increased knowledge and skills: "It is very important because nurses are knowledgeable and can help me enhance care for the women and babies especially the HIV positive women on self-care".

On referral for care after delivery: "We help deliver. I help to deliver. I go with them to the hospital when we finish. They get strong first. When able to carry their baby, I give her my identity card and she registers at the clinic and is given a health card. We don't record birth weight, we don't have scales to weight at the moment that the baby is born so that you can know how much she weighed. So we say a person should go after 2, 3 days to be weighed at the clinic."

On health care worker attitudes towards AtBAs: "Yes- I would like them to take spiritual guidance seriously and not frown or scold us when we visit women in hospital. Because we are all helping each other".

4.3.2.6 Payment for AtBA services

The Masowe AtBAs reported that their services are provided at no cost, no fees are charged, they did however report that they can at times accept gifts such as soap or sugar. Masowe church members are reportedly expected to provide white cloths to the AtBAs when possible. The level of poverty of their clients was frequently described by AtBAs. Often, rather than receiving any form of token for their services, the AtBAs described expending personal resources on women who come for their care. Such descriptions underscore that regardless of spiritual beliefs, many of the woman seeking care from AtBAs would likely face resource-based barriers (service/transport fees) to uptake of health services.



MASOWE AtBAs

On vulnerability of some of their clients: "There are those that stay who will be orphans who do not have anyone to take care of them. Maybe they would have been impregnated and they don't like it there. She may spend some time a week or 2 weeks but according to our rule we say that a person spends 3 days. If she is able to bath the baby, able to bath herself, able to wash then she can get back to her home."

On using personal resources to assist pregnant mothers: "Most do not have a blanket to cover themselves in the homes they come from. When she comes to maternity you will take your children's blankets because you cannot leave her with nothing. Sometimes they spoil the blankets but it is bad for you to give it back to the children. (Silence) And house to sleep in, if 2 or 3 people sleep in a room there will be no air to breathe when people are crowded."

4.4 Existing Capacity

There are a number of areas of existing capacity within the process and procedures of the AtBAs found in this study. Firstly, AtBAs hold a position of respect within their communities as either a healing prophet or a helper of one. AtBAs have inherent legitimacy through their religious standings. Pregnant women are referred to AtBAs within or by their church. There is a certain level of trust in AtBAs abilities either ascertained by past experience, word of mouth, and/or family support to seek this type of care. AtBAs are flexible and welcoming providers that accommodate women at their homes and help women through their birth experience. AtBAs are able to merge spiritual and medical needs together in providing a service that Apostolic women are seeking. The AtBAs provide culturally and spiritually appropriate care for Apostolic women. In the case of the Marange, due to their strict rejection of modern therapeutics and medical practices, women are restricted to seeking care exclusively within the Apostolic health care system. In the case of the Masowe, AtBAs are seen and promoted as the initial provider to be consulted during pregnancy. The services provided by AtBAs appear to promote some level of care that extends from the pregnancy period to the postnatal period. Women are encouraged to start consulting AtBAs beginning at about 2 month's gestation right until the partum period. Although the management of complications are not ideal in most cases some of the management options described could help save lives if one was not in a health facility (for example holy water and salt administered orally during heavy bleeding- Oral Rehydration). AtBAs were able in most cases to identify the correct signs and symptoms of present or developing complications. AtBAs also provided their services at minimal or no cost.

Our discussion will be framed around the original objectives of this exploratory study:

- 1) To explore the institutional arrangements of the practice of AtBAs;
- 2) To identify the process and procedures employed by AtBAs in the care of women during the pregnancy, childbirth, and postnatal period;
- 3) To identify and offer insight into existing assets and needs in regards to the care provided by AtBAs; and,
- 4) To provide clear recommendations for possible further intervention/collaboration and to articulate lessons learnt.

5.1 Arrangements and practice of AtBAs

The findings from this study are not meant to be generalized but are meant as a snap shot of what AtBA care during pregnancy, childbirth, and postpartum periods may look like. The research is an exploration of AtBA practice and thereby provides some context within which AtBAs operate, but is by no means an exhaustive account of the institutional arrangements and practices of this highly heterogeneous religious faith. The findings, however, do provide clear evidence that AtBAs are present and active throughout Mashonaland Central Province. At the time of the study there was no meaningful direct engagement between provincial and district health authorities to identify or collaborate with AtBAs within their respective areas. Reference to other AtBAs during field work that were not identified during District mapping exercises, indicates the number of AtBAs operating is much larger than is documented/known by health authorities.

Key findings regarding institutional arrangements and practices of AtBAs revealed through our research include the following:

- The institutional structures of AtBAs vary *between* Apostolic Groups (Marange and Masowe) and *within* groups.
 - Both groups indicated the choosing of AtBAs was made by appointment of the Holy Spirit, with Church leaders vetting the appointment of AtBAs. No formal training was undertaken to enable an AtBA to practice, though all AtBAs reported training other female church members in their methods.
 - **Marange AtBAs** follow a more hierarchical leadership structure, with arrangements and practices of AtBAs as healers within the church guided by church leaders at local, district, provincial and national levels. Arrangements and practices approximate those of ultraconservative Apostolic groups as described by Maguranyanga (2011).

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- □ Masowe AtBAs leaders described a more decentralised leadership structure. Arrangements and practices of AtBAs appear to be more self-deterministic, with leadership involvement in individual practice of AtBAs less evident. The group's acceptance of pluralistic utilisation of Apostolic and biomedical health services is consistent with the semi-conservative and liberal Apostolic groups described by Maguranyanga (2011).
- AtBAs provide services to women throughout the pregnancy, childbirth, and postpartum periods, not just at the time of delivery.
- At the time of delivery, AtBAs provide care and accommodate women within their homes or at birth camps.
- Masowe AtBAs reported providing services to more women than Marange AtBAs. This may be due to the confinement of Marange AtBAs to Marange women only, whereas Masowe AtBAs appeared to treat a range of women. Given the small sample size, this is an observation only made within this studies context.

5.2 Processes and procedures of care provided by AtBAs

5.2.1 The AtBA cascade of maternal care is an approximation of the biomedical MNCH cascade

All AtBAs participating in this study described providing a comprehensive range of maternal health services not confined to attending births. Rather, the services provided by AtBAs began in pregnancy and extended through postnatal care of mothers and infants. This cascade of maternal health care approximates the biomedical maternal health cascade of services (Figure 4) though the nature of services provided can be said to differ from those described by AtBAs.

5.2.2 There are similarities and differences in belief systems and care provided between AtBAs

AtBA's description of their belief systems and the nature of the care they provide to women revealed both similarities and differences between groups (Table 2). While clearly very different in their institutional arrangements and the manner in which AtBAs serve their communities as healers, there was a thread of similarities between the groups. It should be noted that Table 2 provides a summary of themed responses in our exploratory study and is based upon the described practices of only 8 AtBAs. While there were trends among AtBA responses, the comparison provided in Table 2 should not be interpreted as indicative of generalised practice among Marange and Masowe AtBAs in Zimbabwe.

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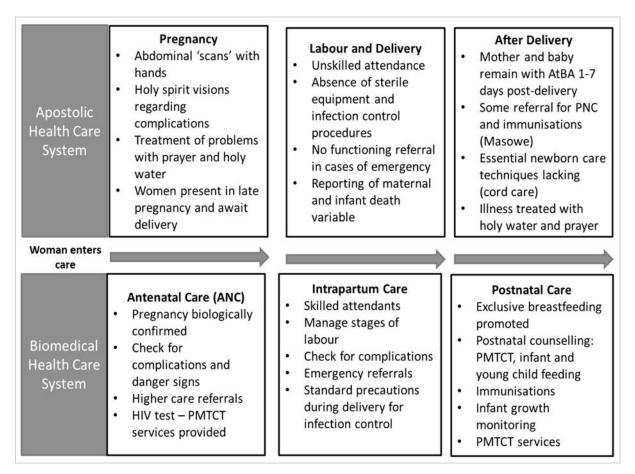


Figure 4: Maternal health services provided by health facility and AtBAs

5.3 Assets and Needs of AtBAs

5.3.1 AtBAs provide important and valued care to the populations they serve

5.3.1.1 Spiritual health is a valued 'variable' to overall health among Apostolic communities

It is hoped that this research could help reframe engagement efforts from a problem focused approach to one that is solution focused. AtBAs are well accepted members of Apostolic communities and serve a respected function in the care of Apostolic women. Apostolic women have a propensity to choose AtBAs over those of the formal health system. There are no indications that AtBAs will cease providing care in the near future. Similarly, there are no indications that women of Apostolic faith will decline the services of AtBAs in favour of receiving maternal health care from health facilities. Apostolic membership in Zimbabwe apears to be on the rise and therefore it can be argued that services provided by AtBAs will continue unabated.

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MARANGE AtBAs

On the important spiritual healing provided by AtBAs: "Have you ever thought of why the nurses wear white clothes? This was said by the Holy Spirit to wear white clothes like us because they are people who have to show love and compassion as a gift and the spirit will bless them work well. It is unfortunate that these people no longer have love and compassion so their gift was taken by the spirit that's is why if you go to the clinic now you may not get treatment before you pay because they now work for money and their blessing was taken away."

The women who seek care from AtBAs clearly value the services they provide, though their perception of the value of these services was not part of this study, the area is in need offurther understanding. The description of the methods and belief systems behind AtBA practice highlights the important role that spiritual health is seen to play in physical health. AtBAs not only use prayer and holy water as prevention of illness and complications, but described the belief that treatment for physical ailments through biomedical processes would not be successful at relieving illness as the 'source' of the infection (bad spirits, witchcraft) would remain undiagnosed and 'untreated' without spiritual care.

5.3.1.2 As a growing population, greater understanding and sharing of knowledge is required During the field visits the research team were often told by both the DHA professionals and the AtBAs themselves that the exploratory nature of the study had created space for positive dialogue. A dialogue that neither side previously reported believing would be constructive and/or possible. However, not all AtBAs indicated they would be willing to collaborate not only with the formal health system, but with other AtBAs within their own, or other Apostolic faiths.

MARANGE AtBAs

On sharing knowledge and experiences with other AtBAs: "I don't know any of them. I have never had a meeting with my fellow midwives like the one we are having here. I work alone. I have never worked with anyone telling each other things are like this and that. No there isn't any."

5.3.1.3 Build upon positive practices of referral and collaboration

Based upon the descriptions of AtBAs in this study, it can be suggested that for many women of the Apostolic faith, maternal and child health-seeking behaviours are directed exclusively to AtBAs and not the biomedical health system. Accordingly, the important role of AtBAs as the primary link between formal health services and Apostolic women should be noted and acknowledged, with positive practices identified and shared between Apostolic communities.

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Care Aspect Both Marange and Masowe AtBAs Masowe AtBAs Marange AtBA only Beliefs and Experience Source of healing power from Holy Spirit ✓ Previous healthcare training HIV related beliefs Acknowledge existence of HIV infection HIV is less prevalent among Apostolic communities HIV can be cured by prayer 1 HIV status of women checked influences nature of care provided Promote exclusive breastfeeding Demonstrate degree of biological ~ understanding of modes of transmission, PMTCT and use of ARVs. When to present for When referred by church leader treatment ✓ When guided by Holy Spirit Methods for detecting Scans with hands over abdomen complications in pregnancy, Visions labour and delivery ✓ Consult client-held health cards Knowledge from historical health 7 care training ✓ Evil spirits/witchcraft Causes of complications in pregnancy and childbirth ✓ Biological problems Treatment for complications ✓ Prayer in pregnancy and childbirth ✓ Holy water ✓ Medicine ✓ Referral to health facility Delivery context Absence of standard precautions for \checkmark safe childbirth Unsafe birthing practices 1 No emergency referral mechanism for birth complications Willingness to collaborate Only with permission of church leaders Preference to meet with health officials in community vs. at clinic ✓ Willing to accompany women to clinic Will accept infection control equipment ✓ Willingness to receive training 1 Refer to clinic when spiritual healing unresponsive/condition worsening

Table 2: Similarities and differences in belief systems and care provided by AtBAs

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Many individual AtBAs reported 'progressive' practices in their care for women which combined spiritual healing with referral to health facilities for medical care. Masowe AtBAs reported referrals in the case of HIV infection, perceived possible delivery complications and even accompanying their clients to facility for postnatal care. The system of information sharing of such 'positive practice' for providing comprehensive care and referral for improving maternal care deserve sharing and dialogue within the Apostolic community. We suggest that experiences and practices of progressive AtBAs of all Apostolic groups, who are working with their communities to improve maternal and child health and address causes of illness and death should be celebrated and shared both in neighbouring communities and among Apostolic leaders at all levels.

5.3.2 Self-expressed and identified needs of AtBAs and the women in their care

5.3.2.1 There is a need for less antagonism and greater collaboration between AtBAs and health care workers – "Apostolic friendly health service" concept

In order to collaborate meaningfully, AtBAs and Apostolic leaders expressed the need to have their faith and their role as healers recognised and respected by the formal health system, and health care workers. At present, the often antagonistic relationship described between the two health belief models resulted in AtBA refusal to refer or collaborate with health care workers based at health facilities in any manner. Health care worker's negative attitudes of AtBAs and the Apostolic women who choose to use their services over the formal health system's were described as deterring complementary uptake of AtBA and biomedical health services.

The services provided by AtBAs hold within them rich and meaningful indigenous knowledge retained and passed inter-generationally. The recognition of the role of AtBAs as keepers of indigenous knowledge systems could provide an entry point for collaboration and foundation for shared understanding which respects and acknowledges the role of AtBAs within the communities they live.

MASOWE Leader

On conflict between the law and the Apostolic belief system: "We have problems with the laws of the country that say they do not allow people to deliver at their homes and the nurses say it is not acceptable for people to do that. This brings additional problems to the mothers who would have been helped by the congregation through prayers the midwife to deliver well and the baby is fine. The nurses will ask the mothers who helped them deliver the midwives are afraid of being arrested if they hear such from the nurses because they sometimes ask them if they have any letters/certificates for delivering the women and this creates problems. The deliveries in our congregations could be increasing because people have financial difficulties and people just deliver at home and may not go to the clinics because of fear. I have seen this and it was painful. I do not know if there is anything that can be done."

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5.3.2.2 There are currently missed opportunities for harm reduction

A realization that AtBAs will continue to operate in Zimbabwe despite their inherent risks is required to move forward in improving their care. Superior outcomes provided by skilled birth attendants backed up by emergency obstetric and neonatal care equipment are only effective if and when pregnant women access these services. The incorporation of community based interventions designed to target what is acceptable, culturally competent, feasible and safe for those who refuse to use the formal health care system is in need of further consideration.

5.3.2.3 Poverty is causing challenges to maternal and child health

It must be accepted that poverty is a pervasive hindrance to the achievement and access to appropriate maternal child care services or health seeking. Therefore, barriers to uptake of maternal health services faced by mothers described by AtBAs and echoed by women in OPHID's Home Delivery Study (OPHID, 2012) such as fees, distance and social support must be put into context as feasible interventions are collated and undertaken. AtBAs provide care at a minimum or at no cost and this must play some role in Apostolic women accessing AtBA services.

MASOWE Leader

On user fees and poverty as deterrents to maternal health seeking: "I have seen the problem, many times people just want to blame the midwives from our churches. The husband or wife may not have money to go to the clinic so she goes to get help to deliver from the midwife because the clinics will not allow the mothers to leave the clinic without any payment they arrest them because the people have nothing and cannot pay. So when the mothers go to the clinic with the new baby delivered at home because she could not pay, the clinic should receive these women because they are forced to go to the midwife."

5.4 Recommendations for further collaboration with AtBAs

5.4.1 Short Game: Reducing Harm

A harm reduction mindset during the design phase of future intervention with AtBAs will help focus on the most acceptable ways to improve what is currently being done. While investing in behavioural change interventions to help eliminate harmful practices by AtBAs is important and necessary, this endeavor will take time for a trustworthy relationship to develop. Interim feasible and acceptable interventions that can save maternal and neonatal lives should be undertaken in

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the short term. Averting neonatal and maternal mortality and morbidity while under the care of an AtBA will require solutions to be integrated within the context of AtBAs existing practices.

BOX 8.0: When do maternal and neonatal deaths occur most often?

The birth of a baby should be a time of celebration. Yet during the entire human life span, the day of birth is the day of greatest risk of death:

- Mothers—approximately 50% of maternal deaths take place within 1 day of childbirth.
- Stillbirths—approximately 30% of stillbirths occur during labour.
- Newborns—between 30 to 50% of newborn deaths are on the first day of life. (Lawn et. al, 2009)

The examination of the process and procedures of care by AtBAs have uncovered a number of areas for possible targeted interventions. For example, simple, known and cost effective interventions demonstrating impact on reduction of maternal and infant morbidity and mortality should be communicated as part of rural community awareness of MNCH. A list of possible interventions for the reduction of harmful practices described by AtBAs in this study could include:

- **Care of pre-term infants:** Recent investigations have shown that certain emollients are effective for strengthening the skin barrier of preterm infants, reducing neonatal sepsis and, in turn, increasing neonatal survival (Duffy et. al, 2012). AtBAs have been found to already use oil on the skin of some newborns. Therefore reinforcing this practice and/or sharing the most evidence based emollients mixtures with AtBAs may improve outcomes.
- Maintaining the 'warm chain' in newborns: The World Health Organization recommends delaying bathing until the second or third day post-partum. Warm water, a warm room and ensuring the infant is thoroughly dry afterwards (elements of the 'warm chain') are identified as key safe practices. AtBAs generally strayed from this recommendation, commonly bathing infants soon after birth and within the first 24 hours (sometimes with cold water). Skin to skin contact between the mother and newborns, particularly in low birth weight and premature neonates, maintains warmth, encourages nursing, discourages over-handling, and reduces infection rates (Darmstadt, 2008). The AtBAs in the study especially the Marange did not report this practice for preterm infants describing instead an approach where the infant is kept in a box/basket often away from the mother until they reach term. Considerable improvements in terms of survival would be expected if AtBAs adopted kangaroo care practices (Conde-Agudelo, Belizan & Diaz-Rossello, 2011).

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- **Promotion of exclusive breastfeeding:** Breast feeding immediately after birth and exclusively has been shown to reduce neonatal death (Lawn, 2009). AtBAs report often encouraging delayed breastfeeding especially in premature infants and promoting mix feeding options. Interventions targeting best evidence options regarding breast feeding with AtBAs could modify practice.
- **Clean cord care:** The umbilical cord is a significant potential entry point for infection. AtBAs reported applying substances of unknown toxicity and possibly containing bacteria to the freshly cut surface of the umbilical cord. Chlorhexadine is a simple and inexpensive antiseptic that has been shown to reduce neonatal mortality (Lawn, 2009). Some AtBAs reported already cleansing the umbilical cord with spirits (alcoholic beverage) therefore they may be amenable to using Chlorehexadine.
- Standard precautions during labour and delivery: Infection control plays an important part in preventing infection in both the neonate and the mother. Clean childbirth practices such as clean hands, clean birthing surfaces, and clean cord cutting instruments can prevent neonatal death and can reduce neonatal tetanus (Darmstadt 2008). Simple infection control materials used as part of standard precautions have the capacity to reduce preventable infections in both the mother and the infant. AtBAs and key informants from both the Marange and Masowe groups expressed that they would use or need infection control material such as latex gloves, sterile razors and the like. AtBAs report that the equipment for childbirth is expected to be supplied by the pregnant women. A small kit of essentials for infection control (i.e., gloves, sterile razor, sterile clamp, antiseptic for cleaning umbilical stump and cotton wool) could be provided to pregnant rural women for use in the case of unplanned (or planned) home delivery to reduce preventable infection.
- **Treatment of PPH:** Bi manual uterine compression in the management of post-partum hemorrhage (PPH) was universally absent from the AtBAs accounts of PPH management. This simple technique is an effective intervention in the treatment of PPH (American College of Nurse-Midwives, 2010).
- Infection control for PMTCT in absence of ARVs: PMTCT focuses on medications to prevent HIV transmission; however, adherence to standard practices during delivery can reduce or minimize exposure to maternal blood and secretions to the neonate thereby reducing the chance of transmission. These practices if incorporated into the care provided by AtBAs could be seen as an attempt at PMTCT when medications are seen as unacceptable.

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• Water, sanitation and hygiene (WASH) campaigns: Access to safe, clean water is central to the health of all community members, but particularly for those in vulnerable health states, such as pregnant women, neonates and infants who face additional risks from exposure to water-borne illness. Harm reduction efforts should support Apostolic communities to identify and problem-solve barriers to WASH using acceptable methods.

All of the above examples are by no means exclusive or comprehensive but are presented to show that there are a number of feasible and acceptable solutions that offer important complementary opportunities to introduce safer practices. Many of these interventions exist in ready-made packages such as the WHO-Essential Newborn Care package or the American College of Nurse/Midwives - Home Based Life Saving Skills package. Many of the concepts of essential newborn care do not include the use of medications and therefore would not compromise the religious beliefs of the AtBA and/or the Apostolic recipient of care.

5.4.2 Mid Game: Revisiting modes of referral, advocacy and collaboration

Between the 1970s and 1990s, the World Health Organization promoted traditional birth attendant (TBA) training as one strategy to reduce maternal and neonatal mortality (Sibley et al. 2007). Following this TBAs fell out of favour as facility based deliveries under skilled attendance were found to have superior outcomes when compared to the poorly supported community cadres of TBAs (Sibley et. al, 2007). It is argued here that these superior outcomes in regards to maternal and neonatal mortality are only realized if and when women present to health care facilities. For woman that do not access care from the formal health system outcomes have either remained the same or suffered. There is growing support in the literature that TBA training can decrease mortality and morbidity when combined with improved health services (Sibley et al. 2007; Pasha et al. 2010; Perez et al. 2008). Achieving the coverage and uptake levels of maternal health services required to reach the goal of elimination of new pediatric HIV infections will require 're-engagement' with TBAs in Zimbabwe. This being said we (the authors) are not advocating for women to discontinue seeking care from skilled attendants within facilities, we are only advocating that if women object to the use of the formal healthcare system that the options available to them (such as care from an AtBA) have the best likelihood for a positive outcome. As a first step, productive, non-antagonistic collaboration with AtBAs to engage in more formal reporting of births and promotion of increased birth registration among Apostolic communities. For example, an environment where an AtBA reporting births will simultaneously fear reprisal by legal or health authorities for assisting in a non-institutional delivery is unlikely to be conducive to collaboration. AtBAs in the current study described how previous 'interventionist' approaches by health authorities such as destruction of birth camps had acted to create mutual distrust and foster secrecy in the location and practices of AtBAs.

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Collaboration between the formal health system and AtBAs is reported by AtBAs to be possible if and when the proper avenues for approval are undertaken. This underlines the need for the formal health system and public health actors to start the process of engagement with Apostolic faith leaders. The Masowe AtBAs are eager to receive training to keep up with current trends and improve their practice. The Marange AtBAs also state they would accept training. The Marange AtBAs stipulate that the training should take place outside of clinics and hospitals and within their communities.

Areas for collaboration are evident with the Masowe AtBAs in terms of accompaniment of pregnant women to hospital or clinic. Preventing the first delay of maternal mortality revolves around appropriate recognition of complication and the subsequent quick transfer of women to clinic or hospital (this may be a good training for Masowe AtBAs). Interestingly health care workers negative perception of AtBAs is reported by the Masowe AtBAs to subsequently affect their willingness to accompany women to formal health care facilities.

Village Health Workers (VHWs) are reported to visit AtBAs as they would to other women in the village. They are reported to give helpful ideas to AtBAs to apply during their deliveries. The Home Based care givers also visit AtBAs and sometimes reportedly provide them with gloves and antiseptics. The use of VHWs for distribution of supplies and or health information is interesting as it seems that the VHWs have good access or are a better trusted health workers cadre (as opposed to nurses). The Marange key informant reported that the Marange group would welcome all forms of help from the formal healthcare system except pills and injections which are deemed unacceptable.

5.4.3 Long Game: Acceptable Behavior Change

We agree with Machingura (2011) that in addressing challenges for Apostolic women- the way forward is for the government, civic organisations and various ministries to put their heads together and socially engage Apostolic groups in relation to their beliefs in polygamy, child marriages, acceptance of formal health care services, and family planning. Awareness campaigns must involve Apostolic groups in the consequences of such beliefs on mortality and morbidity. The awareness must help clarify that, by targeting Apostolic groups it is not a fight against their belief system as done in the past by missionaries and colonial administrators, but it is a matter of working within the context of saving the lives of women and children within an independent nation.

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Communication for Development (C4D) is key to improving AtBA maternal child care, however it must be done with the whole purpose of creating awareness and instilling knowledge that will elicit trials (Trials of Improved Practice-TIPs) which document how improvements in practice can improve the health of women and children as measured by AtBAs. C4D, in this case could be a systematic attempt to positively influence the attitudes and practices of both AtBAs and Apostolic church members to collaboration and referral with the formal health system through sharing of information (that is, ideas, emotions, knowledge and skills). Interventions must therefore attempt to win the networks or somehow neutralise negative views to the adoption of new behaviours. Any forthcoming inventions must therefore plan for visible involvement of AtBAs and church leaders in the generation and acceptance of the new behaviours and practices.

BOX 9.0: What is Communication for Development?

C4D involves understanding people, their beliefs and values, the social and cultural norms that shape their lives. It involves engaging communities and listening to adults and children as they identify problems, propose solutions and act upon them. Communication for development is seen as a two-way process for sharing ideas and knowledge using a range of communication tools and approaches that empower individuals and communities to take actions to improve their lives.

For more information go to: http://www.unicef.org/cbsc/

5.4.4 Future Research

5.4.4.1 Ethics of working with hard to reach populations

The ethics of working with hard to reach populations engaged in 'illegal activities' such as illicit drug users and sex workers to reduce harm is well documented (Fry et al, 2008). The use of the harm reduction approach as a guiding approach to our research was extremely valuable in the success of the depth and quality of information provided by AtBAs in this study. Yes, non-institutional delivery in the presence of unskilled birth attendants is a threat to maternal and child health, this is not disputed by the use of a harm reduction approach. Rather, through this approach in the current research, we sought not to judge but to understand the practices of AtBAs, as to also understand the mechanisms for collaboration which could ultimately reduce harm associated with those practices, and specifically highlight positive practices for engendering collaboration through C4D that will involve permissible use of both allopathic and biomedical health services by all members of the Apostolic faith.

5.4.4.2 Lessons from current research for application in future research with Apostolic groups on maternal and child health

The methodology used in the study provided both insight into future research and knowledge sharing required to develop acceptable and feasible interventions for improving the health of rural populations in Mashonaland Central, and other provinces of Zimbabwe.

First, our research initiated a form of non-judgemental collaboration between district health authorities and AtBAs. AtBAs commented being appreciative that it was the first time they had been approached to discuss their own belief systems and practices, rather than being targeted for an 'intervention' (either to cease conducting deliveries, encourage immunisation or some other specific public health initiative). Being provided the opportunity to dialogue with an arm of the formal health system was a positive step forward for many AtBAs who indicated if under 'similar conditions' (i.e., in their own community, without any specific agenda other than discussing and sharing) they would like to continue discussing matters affecting their community, including maternal and child health and HIV.

Second, the ethnographic approach to field research, during which enumerators joined community life and passively observed the work of AtBAs proved to gain a rapport and trust that enabled the collection of rich data and detailed descriptions provided in this report. Both enumerators described coming away from field work having developed a greater appreciation and respect for AtBAs as strong individuals serving a challenging role. This demonstrates lessons for our practice as public health practitioners – that there is reciprocal benefit to in-depth qualitative work that helps to ease the polarisation of views of all stakeholders.

Third, as repeatedly stated throughout this report, this research was exploratory qualitative research with a small sample. Accordingly, the findings can and should not be generalised to AtBAs within and between the Masowe and Marange groups. Our research indicates, that perhaps generalisation is not a feasible or desirable goal for working with Apostolic communities, and the variability in practice and beliefs indicates there is little to be gained through 'large scale' research attempting to create specific typologies of Apostolic health care systems in Zimbabwe.

Finally, our research has provided valuable lessons regarding a framework of engagement that was found to be acceptable to AtBAs who participated in the current study (Figure 5). The proposed framework requires further study and refinement, however, the focus of such refinement should involve the leadership and direction by Apostolic communities. Facilitated dialogue sessions provide communities with pertinent information about select MNCH topics (including but not limited to: family planning, service utilisation during pregnancy, childbirth and

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postpartum, HIV and PMTCT, WASH, warning signs in pregnancy and early childhood). Apostolic leadership and community members could then prioritise their own actions on each topic to ensure that community interventions are self-directed, thereby embedding an acceptability and sustainability.

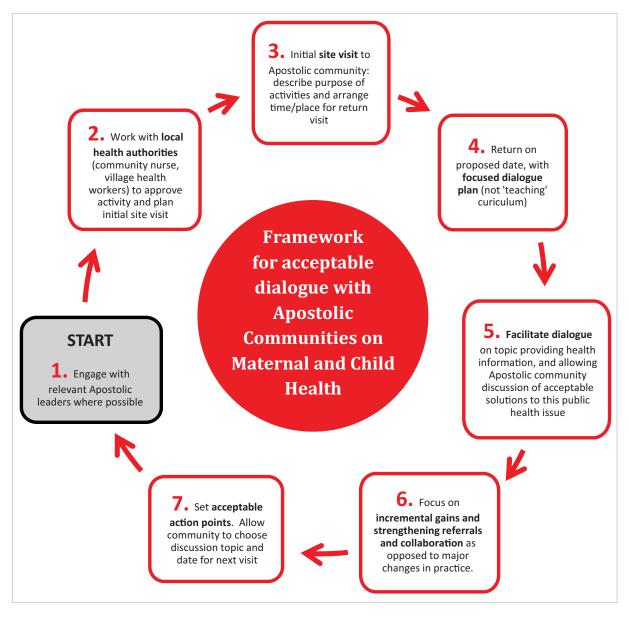


Figure 5: Cycle of engagement for dialogue with Apostolic communities



The current focus on the scale up and increase of institutional facilities and skilled attendants is commendable and necessary within the Zimbabwean context of high maternal and infant mortality; however, this strategy alone appears to be falling short in obtaining substantial decreases in maternal and neonatal mortality. In *Exploring the forgotten variable: Engaging, listening and learning from Apostolic birth attendants* we have provided some important indications as to the important role of religion for achieving the pace of gains we desire for women and children in Zimbabwe.

Apostolic membership in Zimbabwe appears to be on the rise and given the demonstrated preference for traditional birth attendants among some women of Apostolic faith, it can be argued that increases in non-institutional deliveries will continue unabated within the foreseeable future. Therefore, it must be accepted that AtBAs, and the women that seek their care, will continue to operate despite the inherent risks. The qualitative findings presented in this report provide information about the subtleties and complexities of the care delivered by AtBAs; information that is essential for the future construction of effective, acceptable, and culturally sensitive interventions.

By exploring the forgotten variable of religion together with AtBAs in this study, rather than on opposite sides of an epistemological divide, we find a number of feasible and possibly acceptable solutions that offer important complementary opportunities to introduce safer practices to improve maternal and neonatal survival and productive engagement with the Apostolic health system. The incorporation of community-based interventions designed to target what is acceptable, culturally competent, feasible and safe for those who refuse to use the formal health care system (especially during pregnancy, childbirth, and post natal periods) is in need of urgent consideration in order to reduce immediate harm(s). High level engagement and involvement of church leadership was described as paramount by all participating AtBAs for any future successful collaboration. The notion of community-based engagement for later structured intervention was central to this research.

The voices of AtBAs have traditionally been ignored; their voices have been woven within this report and tell the story of two groups that may be amenable to collaboration. Whether it be the strategies described in the recommendation section of this report (entitled the short game, the mid game, or the long game), or other externally suggested strategies, the proverbial ball appears to be in our (the formal health system, public health practitioners and policy makers) court for action.

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Appendix A

Integrated Management of Pregnancy and Childbirth Guidelines (WHO, 2009)

STANDARD PRECAUTIONS AND CLEANLINESS

Observe these precautions to protect the woman and her baby, and you as the health provider, from infections with bacteria and viruses, including HIV.

Wash hands

PRINCIPLES OF GOOD CARE

- Wash hands with soap and water:
- → Before and after caring for a woman or newborn, and before any treatment
- procedure → Whenever the hands (or any other skin area) are contaminated with blood or other body fluids
- → After removing the gloves, because they may have holes
- → After changing soiled bedsheets or clothing.
 Keep nails short.
- Wear gloves
- Wear sterile or highly disinfected gloves when performing vaginal examination, delivery, cord cutting, repair of episiotomy or tear, blood drawing.
- Wear long sterile or highly disinfected gloves for manual removal of placenta.
- Wear clean gloves when: → Handling and cleaning instruments
- → Handling contaminated waste
- \rightarrow Cleaning blood and body fluid spoils
- Drawing blood.

Protect yourself from blood and other body fluids during deliveries

- → Wear gloves; cover any cuts, abrasions or broken skin with a waterproof bandage; take care when handling any sharp instruments (use good light); and practice sale sharps disposal
- → Wear a long apron made from plastic or other fluid resistant material, and shoes
- → If possible, protect your eyes from splashes of blood.

Practice safe sharps disposal

- Keep a puncture resistant container nearby.
 Use each needle and syringe only once.
- Do not recap, bend or break needles after
- giving an injection. Drop all used (disposable) needles, plastic syringes and blades directly into this container, without recapping, and without passing to another person.
- Empty or send for incineration when the container is three-quarters full.

Practice safe waste disposal

- Dispose of placenta or blood, or body fluid contaminated items, in leak-proof containers.
- Burn or bury contaminated solid waste.
 Wash hands, gloves and containsers after
- Indication of infectious waste.
 Pour liquid waste down a drain or
- flushable toilet.
- Wash hands after disposal of infectious waste.

Deal with contaminated laundry

- Collect clothing or sheets stained with blood or body fluids and keep them separately from other laundry, wearing gloves or use a plastic bag. DO NOT touch them directly.
- Rinse off blood or other body fluids before washing with soap.

Sterilize and clean contaminated equipment

- Make sure that instruments which penetrate the skin (such as needles) are adequately sterilized, or that single-use instruments are disposed of after one use.
- Thoroughly clean or disinfect any equipment which comes into contact with intact skin (according to instructions).
- Use bleach for cleaning bowls and buckets and for blood or body fluid spills.

Clean and disinfect gloves

- Wash the gloves in soap and water.
 Check for damage: Blow gloves full of air, twist the cuff closed, then hold under clean water
- and look for air leaks. Discard if damaged.
 Soak overnight in bleach solution with 0.5% available chlorine (made by adding 90ml water to 10lm bleach containing 5% available chlorine).
- Dry away from direct sunlight.
- Dust inside with talcum powder or starch.

This produces disinfected gloves. They are not sterile.

Good quality latex gloves can be disinfected 5 or more times.

Sterilize gloves

Sterilize by autoclaving or highly disinfect by steaming or boiling.

