



**Global Challenges Research Fund
Final Report**

**Building Bridges to Improve Birth across the Borders: an in-depth
study of maternal healthcare in remote and contested areas of
Myanmar**

Professor W George Kernohan, Professor Marlene Sinclair

Dr Lesley Dornan, Dr Nonglak Chaloumsuk,

Professor Susanha Yimyam

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Building Bridges to Improve Birth across the Borders: an in-depth study of maternal healthcare in remote and contested areas of Myanmar

Background

Poor maternal health outcomes and an increased risk of maternal mortality have a significant and lasting outcome on the health of mothers, children and families. Global maternal mortality rates have fallen almost 50% in the last three decades, due in part to the successful implementation of international policies such as the Millennium Development and Sustainable Development goals but mortality rates remain fourteen times higher in low income countries (United Nations 2016). The risk increases within countries experiencing ethnic conflict where there is less infrastructure and an increased potential of marginalisation. Myanmar, as a DAC listed, least developed country with a long history of ethnic conflict and a devolved system of care under the recent peace agreements, is susceptible to the risk of marginalisation and unequitable care. The Karen Department of Health and Welfare (KDHW) oversees the health and social welfare including care of over half a million internally displaced people (KNU 2017) but understanding the contextual and cultural challenges is an important step in creating effective and culturally relevant interventions to address maternal health issues in low income, conflict countries such as Myanmar.

Aim: Identify risk factors leading to maternal and infant mortality and barriers to care in remote and contested areas of Eastern Myanmar.

Objectives:

1. Complete scoping review of maternal health interventions in low income countries to identify contextual factors related to maternal mortality
2. Design a conceptual framework to guide the research and gather baseline data
3. Identify contextual risk factors and barriers to care in maternal and infant health through the application of a survey and focus groups
4. Analyse and collate all findings to inform next stages of project and future funding applications
5. Identify and form partnerships and resources for next stages of project

Research Outcomes

A scoping review of maternal health interventions in low income countries was completed during the project. The aim of the review was to complete a comprehensive mapping of maternal health interventions in low income countries with a focus on contextual factors. A protocol was written and agreed (see Appendix 1). A total of six databases were searched with agreed inclusion and exclusion criteria, search terms and Boolean phrases. 58 articles were selected for final inclusion (See Appendix 2). The selected articles covered a range of local, district and national interventions and revealed the complexities that exist within maternal health in low income countries.

Contextual challenges evident in a high number of the articles included a lack of infrastructure and resources, difficulties in access to high quality, evidence-based care and effective training of skilled birth attendants. Common themes within the review were interventions to address the need for increased antenatal care, emergency obstetric treatment and services and access to facility-based care to address critical maternal risks such as post-partum haemorrhage and eclampsia which increase the risk of maternal mortality. The recent Lancet series (Miller 2016) highlighted the dilemma between ‘too much, too soon’, high level interventions which may be implemented too early or ‘too little, too late’, which reflects poor access and inadequate maternal care. A significant number of interventions appeared to focus on voucher systems to encourage women to deliver in medical facilities. However, sustainability of this approach and issues with scaling up of these interventions were apparent within the review. Several identified interventions focused on training skilled birth attendants or the implementation of maternity waiting houses as mid-level services but there appeared to be gaps of both training and resources and a lack of a systematic policy or process within this approach. This highlights the risk of focusing services on high cost intervention services without a systematic supportive approach for ‘normal’ deliveries and a recognition and referral system for higher risk cases which may increase the risk of marginalisation and poor maternal health services for the vulnerable women in these communities.

Further concepts within the review were local and national challenges of implementation, an awareness of contextual factors affecting good maternal health practice but limited cohesiveness of approaches within the different countries and significant limitations in capacity, which is not surprising when examining the overall development challenges which exist within low income countries. Several studies did identify and implement projects to enhance community or local government or health authority participation as a way to increase access to quality maternal education and care. A further development was the use of technology, particularly around mobile phone applications. However, despite the international health recommendations for maternal health and a high level of research there are still considerable challenges in resolving maternal health issues in low income countries, which are complicated even further in conflict settings.

Methodology

Study Design

This research was an exploratory descriptive study. It was a follow-on to a short 3-month GCRF project and was designed as a feasibility study prior to a larger GCRF application for a national study of maternal healthcare in Myanmar. This study allowed us to gain a deeper understanding of the context of Myanmar, begin to identify and develop the process of applying for permission and establish partnerships, test the data collection tools and identify potential challenges in Myanmar. There were two main elements to this study: data collection through a maternal health survey and focus groups and the further establishment of required permission and partnerships in preparation for the next nationwide study. Research assistants from Karen state in Myanmar were identified from two partner non- governmental organisations working within Eastern Myanmar who were recognised and approved by the Karen Department of Health and Welfare. Training in research, ethics and data collection methods was completed by a Research Fellow from Ulster/Chiang Mai University and a senior health advisor from one of the partner organisations.

Ethical Approval

Following commencement of the project the research team began the ethical approval process in early October. The process highlighted some of the challenges of doing international research within a strict timeline in conflict contexts with limited resources. The process was beneficial in identifying and addressing ethical challenges such as contextual informed consent in areas of ethnic mistrust and within community cultures, developing training for research assistants and the need for the provision of care of participants during and after the research. Outcomes have included a quality training programme for research assistants in Karen State, Eastern Myanmar, the development of a distress protocol and a follow-up programme which is deliverable and acceptable in line with international ethical standards.

Under the current peace agreements between the ethnic groups Karen state has a devolved system of care and so is separate from Myanmar Department of Health. There are no current university institutions in Karen State, but permission was granted for the study by the Karen Department of Health and Welfare (KDHW) following meetings with the Director of the KDHW and head of the reproductive health department.

Ethical recommendations and approval for the project were given by Ulster University in Northern Ireland. Ethical recommendations included adjustments to the focus group participant information sheets and consent forms, focus group questions and the development of a distress protocol for women who may have experienced infant loss or complications, particularly following the focus group data collection process. All recommendations were implemented as required. The following section contains the methods and results of the study.

Conceptual Framework

Sociological, maternal health and conflict models were examined to form a theoretical framework for this study. However, there were limited frameworks which incorporated both the protective and risk factors, healthcare practices in rural maternal and infant health, cultural beliefs and practices and contextual challenges in conflict countries. Through the implementation of an ecological approach the Context, Maternal and Infant Health and Culture Framework (see Appendix 3) was designed and tested to guide this and future research studies in this region. This model is designed to identify the legacy and challenges of remote and conflict areas and incorporates the recommended actions for care from the World Health Organisation (WHO) Integrated Management of Pregnancy and Childbirth Guidelines: IMPAC (WHO 2018) and the Maternal Mortality Near Miss Framework (WHO 2011). The cultural and contextual components are based on findings from a recent Global Challenges Research Fund maternal mortality literature review (Kernohan et al, 2017) and the Three Delays Model (Thaddeus & Maine 1994).

Development and Implementation of The Context, Maternal, Infant and Culture (CMIC) Survey

A literature review completed to identify relevant maternal health surveys, revealed a wide range of available surveys but limited resources to examine cultural and contextual factors in remote areas of conflict countries. As a result, a 54-item survey incorporating the four CMIC domains was designed to identify key cultural, maternal and infant risks and contextual factors in delays to care. The four domains considered significant within this survey were:

1. Contextual factors related to community strengths and weaknesses and access to care within communities
2. Availability and quality of maternal healthcare during pregnancy, birth and the early postpartum phase
3. Care of the infant during pregnancy and birth and the post-natal stages
4. Cultural factors influencing maternal health.

Translation of the survey into the Karen language was completed in line with World Health Organisation recommendations (WHO 2014). An expert panel of Karen and Native English speakers with relevant health and language experience was convened. Using a culturally acceptable, community-based approach the group translated the survey, discussing and agreeing translation for each item. Back translation was completed by a Karen native speaker from an alternative international organisation. There were limited changes made during the back translation and the feedback was that using a group approach to translation had been beneficial and efficient. The same process was implemented for the focus group questions without back translation to ensure clarity of language and meaning.

Results

Using a priori sample size calculation 260 surveys were calculated to be an adequate sample. The research implementation stage was delayed due to the ethical approval process. Data collection began in early January and was completed in mid-March 2018. A total of 248 surveys were collected from 22 remote communities in Eastern Myanmar. Over 90% of women give birth at home. Early analysis suggests a lack of access to skilled medical care including antenatal services, skilled birth attendants and increased risk to life due to lack of infrastructure and resources. This includes travel restrictions and high travel risks due to poor roads and jungle paths in remote areas as well as ethnic mistrust between the Karen and Burman groups. Communities appear to have a strong community ethos with recognised leadership and decision making shared between the leadership and family members. Additional support is given from neighbours and community members, particularly during crisis events. The analysis also suggests attending clinics or hospitals outside their communities may cause additional financial and psychological stress on the mothers and families. Cultural practices common following birth include breastfeeding, dietary restrictions and worship practices. Further reporting will include statistical analysis. Results from the survey analysis will be collated and incorporated into a full-scale national study.



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Focus Groups

The aim of the focus groups was to gain a deeper understanding of women's lived experiences of pregnancy, birth and the early postpartum stages in remote areas of Eastern Myanmar. A semi structured interview protocol was developed in line with the maternal health recommendations and the Three Delays model (Thaddeus & Maine, 1994). Questions included what experiences have you had when having children and what challenges do you face? The focus group design was for 2-3 women to attend each session with a maximum of 8 focus groups. Research assistants were trained in data collection methods including communication skills, managing unexpected events and conflict within group settings.

Results

Eight focus groups were held in remote communities of Myanmar. The process of implementing focus groups within a community culture brought some important cultural insights. The ethical approval process suggested inviting 2-3 participants per group. However, during the data collection process it became clear that within these community-based cultures the women's stories were also community experiences and there was a desire for community members including the women, mothers, leaders and birth attendants to attend. To exclude them may have caused offence or conflict. As such, a discussion was held in each community prior to the focus groups and the women and community chose who would attend. The individual consent forms were then adapted to become community consent forms, but care was taken to ensure that confidentiality and bias were managed appropriately in each session. Translation of the focus group is on-going with three transcripts completed. Early analysis suggests the following themes:

Too Far, Too Foreign: for many women going outside their own communities means going into a world that they do not feel comfortable with and are not familiar with. This may include language, medical practices and travelling long distances which feel like a greater risk than staying at home.

Cost Too High: travelling outside communities costs a lot both in time and finances which often families and communities cannot afford. If women experience problems during birth the community rallies together to carry the woman on bamboo stretchers to the local clinic.

Life as We Know It. Within the data there are several experiences which are accepted as normal. A lack of access to contraception, accepting practices such as fundal pushing or experiencing complications are the norm and appear to be simply accepted. The data suggests that women are reluctant to ask for help or do not appear to recognise the dangers, often preferring to find local solutions to potential risks. In one case this included a mother losing sensation in her legs during labour, being tied by her arms to the roof of a house and 2-3 men pushing on her abdomen to try and deliver the baby. In one focus group the participants suggested that life was easier now that they no longer had to run for safety from the Burmese army or give birth in the jungle.

During the data collection process birth attendants, families and leaders in the communities shared the stories and experiences of pregnancy and birth. Participants commented that they had never been asked for information about their experiences before and that they valued this process and that it gave them a sense that they had not been forgotten. Feedback suggested that this had encouraged not just individuals but communities, particularly through the participatory process of the focus groups.



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This process allowed the data collectors to get different perspectives of the stakeholders which offered an interesting insight into the realities of maternal health in remote, conflict areas. All data collected from this research process will allow a better understanding of maternal health in the context of remote areas of Myanmar and will be incorporated into the next project application.

Project Development and Partnerships

This research was designed to gather data and important contextual information and form partnerships in preparation for a larger GCRF funding application for a national project. The project proposal for this next application has now been written. The aim of the project will be to explore the cultural and contextual challenges of maternal healthcare between ethnic groups in remote areas of Myanmar through a policy and needs analysis, an evaluation of current maternal healthcare practices across five of the main ethnic groups and the implementation of the CMIC survey and focus group research tools to complete ethnographic research within five of the ethnic groups. Following the data collection and analysis outcomes may be the design of an education programme in emergency obstetric and maternal health for skilled birth attendants and midwives based in remote areas and a maternal health education programme designed to identify common cultural values and distinct ethnic beliefs and practices which may be incorporated to increase relevancy and knowledge and to reduce poor maternal health outcomes. For more information see Appendix 4.

Approval was given for the project from the Myanmar Ministry of Health and Sport in December 2017. However, during this project it became clear that applying for and completing research in Myanmar is complex with multiple layers of permission and agreement from many departments including the Ministries of Health, Nutrition, Public Health, Maternal Health and Nursing. Meetings were held between Ulster staff, members of the research team from Chiang Mai University and Rectors and staff from the University of Nursing, Yangon, and University of Public Health, Yangon as well as a number of international non-governmental organizations. Partnerships have been agreed with several

organisations, but more work is required to gain permission to establish partnerships with local Universities in Myanmar. This is due, in part, to the fact that meetings with Ministry officials are required and permission from the Ministry of Health prior to any formal meetings with University staff. This process is now being explored.

A Memorandum of Understanding is being processed with Chiang Mai University, Faculty of Nursing, Thailand to formalise an established relationship and allow a high level of regional knowledge and expertise through team members from Midwifery and Nursing. An international advisory team is also being formed with members from social policy, conflict and reconciliation, medicine, anthropology, motivational instruction and education, nutrition and global and maternal health. The Ulster team is also in the process of being further developed to reflect the multi-disciplinary nature of the project. Once all data from this study has been analysed and local partnerships identified and established a formal application will be made to the Global Challenges Research Fund under the Global Health call in agreement with the Research and Impact Department, Ulster University.

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