

## Maternity Care Model during Natural Disaster or Humanitarian Emergency Setting in Rural Pakistan

**Authors :** Humaira Maheen, Elizabeth Hoban, Catherine Bennette

**Abstract :** Background: Globally, role of Community Health Workers (CHW) as front line disaster health work force is underutilized. Developing countries which are at risk of natural disasters or humanitarian emergencies should lay down effective strategies especially to ensure adequate access to maternity care during crisis situation by using CHW as they are local, trained, and most of them possess a good relationship with the community. The Minimum Initial Service Package (MISP) is a set of universal guidelines that addresses women's reproductive health needs during the first phase of an emergency. According to the MISP, pregnant women should have access to a skilled birth attendant and adequate transportation arrangements so they can access a maternity care facility. Pakistan is one of the few countries which has been severely affected by a number of natural disaster as well as humanitarian emergencies in last decade. Pakistan has a young and structured National Disaster Management System in place, where District Authorities play a vital role in disaster management. The District Health Department develops the contingency health plan for an emergency situation and implements it under the existing district health human resources (health workers and medical staff at the health facility) and infrastructure (health care facilities). Methods: A mixed methods study was conducted in rural villages of Sindh adjacent to the river Indus, and included in-depth interviews with 15 women who gave birth during the floods, structured interviews with 668 women who were pregnant during 2010-2014, and in-depth interviews with 25 community health workers (CHW) and 30 key informants. Results: Women said that giving birth in the relief camps during the floods was one of the most challenging times of their life. The district health department didn't make transportation arrangement for labouring women from relief camp to the nearest health care facility. As a result 91.2% women gave birth in temporary shelters with the help of a traditional birth attendant (Dai) with no clean physical space available to birth. Of the 332 women who were pregnant at the time of the floods, 26 had adverse birth outcomes; 10 had miscarriages, 14 had stillbirths and there were four neonatal deaths. Conclusion: The district health department was not able to provide access to adequate maternity care during according to the international standard during the floods in 2011. We propose a model where CHWs will be used as frontline maternity care providers during any emergency or disaster situations in Pakistan. A separate "birthing station" should be mandatory in all district relief camps, managed by CHWs. Community midwives (CMW) would and the Lady Health Workers (LHW) would provide antenatal and postnatal care alongside, vaccination for pregnant women, neonates and children under five. There must be an ambulance facility for emergency obstetric cases and all district health facilities should have at least two medical staff identified and trained for emergency obstetric management. The District Health Department must provide clean birthing kits and regular and emergency contraceptives in the relief camps. Methods: A mixed methods study was conducted in rural villages of Sindh adjacent to the river Indus, and included in-depth interviews with 15 women who gave birth during the floods, structured interviews with 668 women who were pregnant during 2010-2014, and in-depth interviews with 25 community health workers (CHW) and 30 key informants. Results: Women said that giving birth in the relief camps during the floods was one of the most challenging times of their life. Nearly 91.2% women gave birth in temporary shelters with the help of a traditional birth attendant (Dai) with no clean physical space available to birth, and the health camp was mostly accessed by men and always overcrowded. There was no obstetric trained medical staff in the health camps or transportation provided to take women with complications to the nearest health facility. The rate of adverse outcome following disaster was 22.2% (95% CI: 8.62% - 42.2%) amongst 27 women who did not evacuate as compare to 7.91% (95% CI: 5.03% - 11.8%) among 278 women who lived in relief camp study participants. There were 27 women who evacuated on pre-flood warning and had 0% rate of adverse outcome. Conclusion: We propose a model where CHWs will be used as frontline maternity care providers during any emergency or disaster situations in Pakistan. A separate "birthing station" should be mandatory in all district relief camps, managed by CHWs. Community midwives (CMW) would and the Lady Health Workers (LHW) would provide antenatal and postnatal care alongside, vaccination for pregnant women, neonates and children under five. There must be an ambulance facility for emergency obstetric cases and all district health facilities should have at least two medical staff identified and trained for emergency obstetric management. The District Health Department must provide clean birthing kits and regular and emergency contraceptives in the relief camps.

**Keywords :** natural disaster, maternity care model, rural, Pakistan, community health workers

**Conference Title :** ICRCRC 2016 : International Conference on the Red Cross and Red Crescent

**Conference Location :** London, United Kingdom

**Conference Dates :** November 24-25, 2016

