









Care seeking behaviors and hypothermia risk factors in deceased neonates born at home

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Background

- In developing countries nearly 1/2 of all mothers and newborns do not receive skilled care during and immediately after birth.¹
- Circumstances of community deaths are not well known, many having no contact with health system
- Rwanda has 3 Community Health Workers (CHWs) per village
- Interventions to combat neonatal hypothermia are being promoted, mainly in facilities
 - CHWs trained on taking neonatal temperature and weight



Understanding what is happening in the community

- Verbal and Social Autopsy (VSA) research to study circumstances and probable causes of under 5 (U5) deaths – facility and community
- Insight into community deaths, and how interventions like KMC can promote neonatal survival

Objectives

To describe:

- hypothermia risk factors
- care seeking pathways of families

in deceased neonates born at home

Methods: VSA

- VSA is structured interview to explore signs, symptoms and context of death
 - Rwanda VSA based on WHO 2012 Verbal Autopsy Tool
 - + MOH death audit, DHS questions
- U5 deaths identified over a 1 year period in two rural districts in Rwanda (Kirehe and S. Kayonza)
 - Triangulated community and facility data sources
 - Quantitative data collected on tablets, and narrative recorded for qualitative analysis



Study Sample: neonatal home births

604 VSA interviews conducted for U5 deaths

169 Neonatal

178 Infant

257 Child

42 deceased neonates born at home

127 deceased neonates born in transit or in facilities



Study sample: neonatal home births

- A sub-sample of neonatal deaths born at home assessed for
 - Hypothermia Risk Factors: Preterm (<34 weeks), Smaller than normal size, Cold to touch before dying
 - Care seeking patterns
 - Site of death
- Qualitative analyses focused on pathways and barriers to reaching care

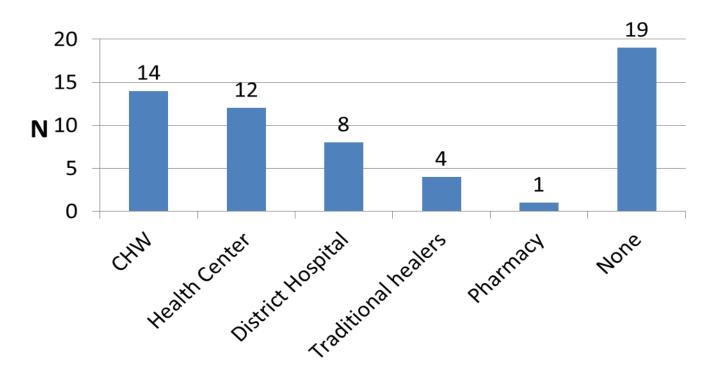


Results: Reported hypothermia risk factors in deceased neonates born at home (n=42)

Risk Factor	N	%
Prematurity (<34W)	15	36
Small size at birth	11	26
Cold before dying	18	43
Either premature and/or small	20	48
Any of 3 Risk Factor Present	29	69



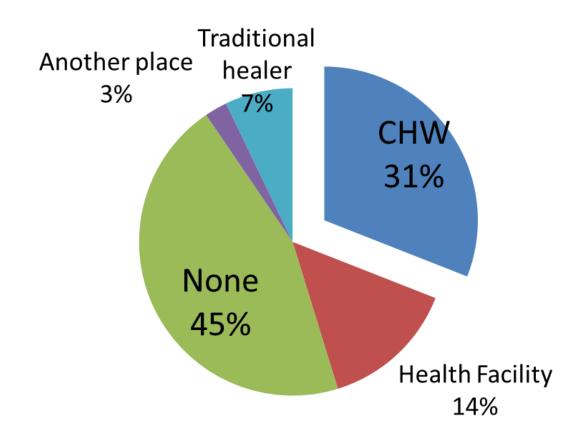
All providers visited for deceased neonates born at home (n=42)



7 families only sought care from a CHW

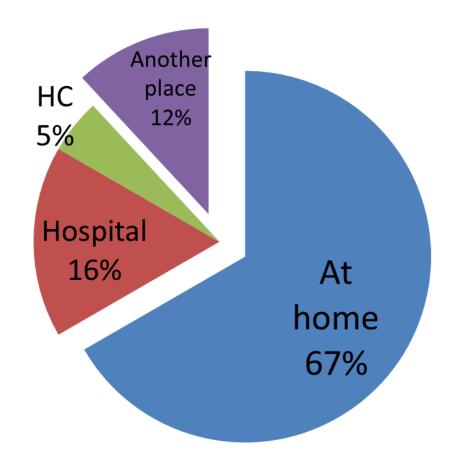


First provider visited for deceased neonates born at home





Location of deaths for neonates born at home





Obstacles to care and opportunities for intervention

"It was at night, I called the CHW so that she can take me to the health center. ... I felt a huge contraction then the first baby was born. No one helped me because I knew what to do. Meanwhile I was waiting for the placenta to came out, but I had to wait 2 hours. Then I had kind of the same contraction the second baby was there and I was surprised. She wasn't moving at all with so little breath. We didn't do anything because it was at night and we weren't seeing much; the light wasn't enough. Then later when I was clean, an hour later, I went to check on her. She was too cold, the CHW told me she is dead"

- Mother



Conclusions

Given the

- Prevalence of hypothermia risk factors among deceased neonates born at home,
- Increased chance of premature deliveries outside of facilities,
- Varying travel times to facilities,
- Presence of CHWs in every community

CHWs are well-placed to promote KMC and contribute to neonatal death reduction

