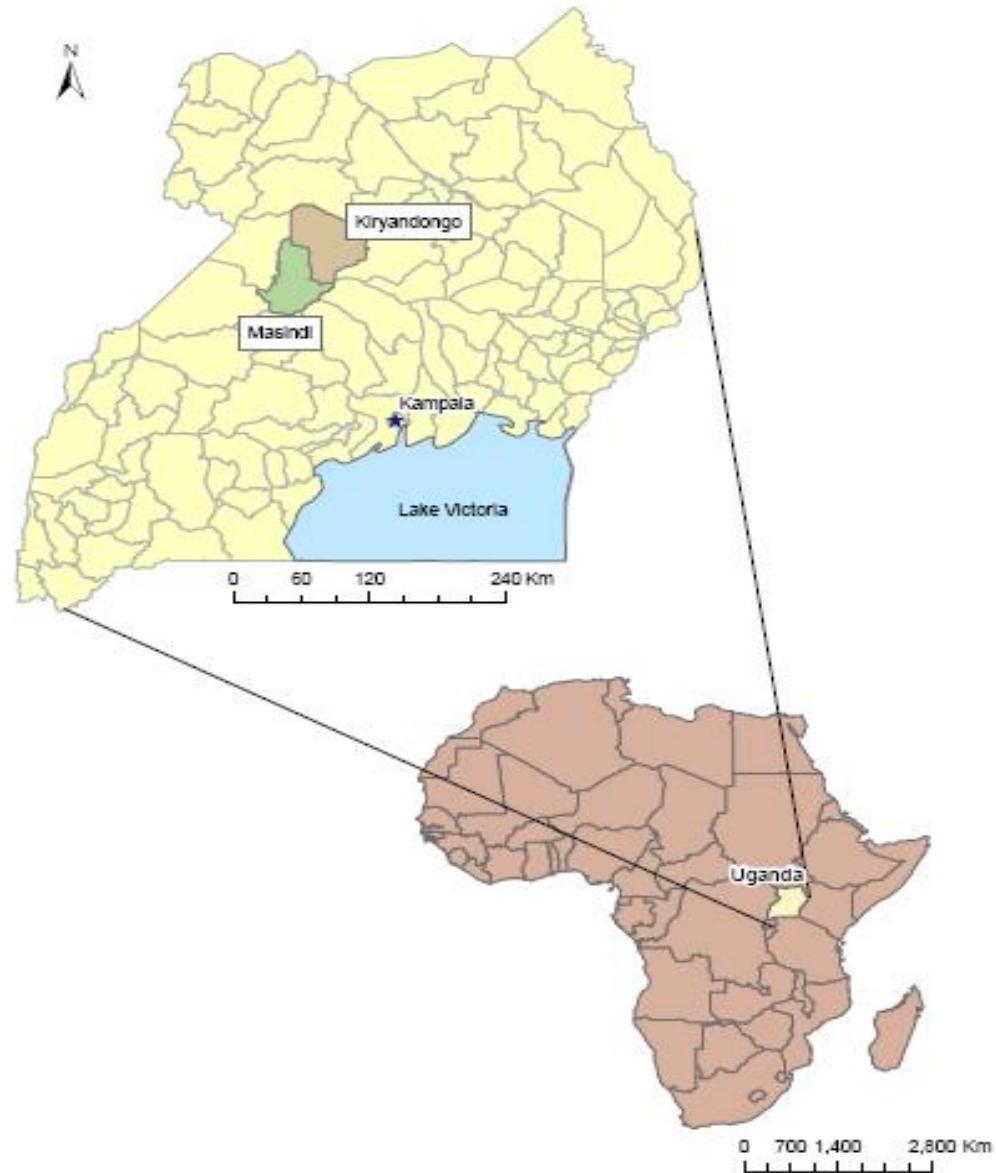


Effect of home visits and mobile phone
consultation on maternal and newborn care
practices in Uganda:
a community intervention trial

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Study location-Uganda



Background

- “ Maternal mortality still high; newborn mortality stagnated
- “ Home visits CHWs are recommended for improving maternal and newborn care
- “ Evidence from India, Pakistan, Ghana that home visiting is possible with promising results
- “ On-going work in Uganda with promising results
- “ Home visits occur far from professional health workers
- “ CHWs are semi-skilled minimal knowledge
- “ We combined home visits with mobile consultations

Intervention

- “ CHWs made home visits to households of pregnant women
- “ CHW and Health workers were equipped with mobile phones
- “ CHWs provided educational messages for maternal and newborn care
- “ CHWs used mobile phones to consult health workers for advice

Objective

“ To assess changes in maternal and newborn care practices of home visits made by community health workers combined with mobile phone consultation

Methodology

- “ Pragmatic Community intervention trial
- “ Randomised 16 health centres to control and intervention arms (8 HCs in each arm)
- “ In the intervention arm-5 CHWs assigned per health centre
- “ Eligibility-pregnant women gestation age 28 weeks/less
- “ No exclusion criteria
- “ Blinding was not necessary

Methods-Recruitment

- “ Eligible women provided consent
- “ Personal files were opened
- “ Background socio-demographics recorded
- “ CHW made three home visits (2 prenatal; 1 immediate postnatal)

Intervention package

- “ Information package during home visit-
 - . First visit-importance of antenatal care attendance, nutrition
 - . Second visit-birth preparation-materials, finances, transport
 - . Recommended newborn care practices
 - . Third visit-within 3-7 days of delivery to check on mother & newborn
- “ CHW consults with professional health worker on phone in case of doubts or problems
- “ Control arm- routine antenatal care at health centre

Data collection & analysis

- “ Two phases of data collection
- “ Qualitative –
- “ Latent content analysis using Nvivo
- “ Quantitative- 1,385 (control=758; intervention= 627)
- “ Analysis-intention to treat-epidata-stata –random effects
- “ Included in the model=age, religion, education, ethnicity

Analysis

“ Primary outcomes-maternal

- . completed antenatal visits,
- . birth preparation, health facility delivery,

“ Primary outcomes-Newborn

- . care-seeking for newborn illness,
- . thermal care,
- . hygienic cord care & exclusive breastfeeding

Results-quantitative

Indicator	control	intervention	uOR(95%CI)	P-value	aOR	P-value
ANC visit						
0-2	218(28.8)	92(14.7)				
3/more	540(71.2)	535(85.3)	2.31(0.73-7.26)	0.152	2.32(0.71-7.55)	0.163
Delivery place						
Home/TBA	540(72.4)	74(12.3)				
Health facility	206(27.6)	529(87.7)	13.9(3.9-49.3)	<0.001	14.1(4.32-45.90)	< 0.001
Thermal care						
Inadequate	608(82.1)	185(30.8)				
adequate	133(17.9)	416(69.2)	5.89(1.45-24.01)	0.013	5.92(1.55-22.65)	0.009

Results quantitative

Indicator	control	intervention	uOR(95%CI)	p-value	aOR(95%CI)	p-value
Cord care						
Unclean	530 (71.5)	246 (40.9)				
Clean	211 (28.5)	355 (59.1)	3.05 (1.61-5.78)	0.001	3.13(1.67-5.86)	< 0.001
Breastfeeding & pre-lacteal feeds						
Inappropriate	255(34.4)	196(32.6)				
Appropriate	486(65.6)	405(67.4)	1.09(0.55-2.15)	0.809	1.06(0.51-2.22)	0.875
Birth preparation						
Inadequate	600(79.2)	302(48.2)				
Adequate	158(20.8)	325(51.8)	2.70(0.87-8.35)	0.084	2.59(0.81-8.30)	0.109
Newborn care seeking						
Untimely	72(37.5)	21(13.5)				
Timely	120(62.5)	135(86.5)	3.57(1.12-11.47)	0.032	3.57(1.12-11.47)	0.032

Discussion/conclusion

- “ Study highlights benefits of combining home visits with mobile phone **consultations-maternal** and **newborn care-seeking**
- “ Systemic problems must be addressed-attitudinal problems with CHWs, absent health workers
- “ Collaboration/synergies between CHWs and professional health workers strengthened
- “ Proof of concept-larger trial to measure mortality and cost-effectiveness

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- “ Respondents for this study-women, health workers, CHWs