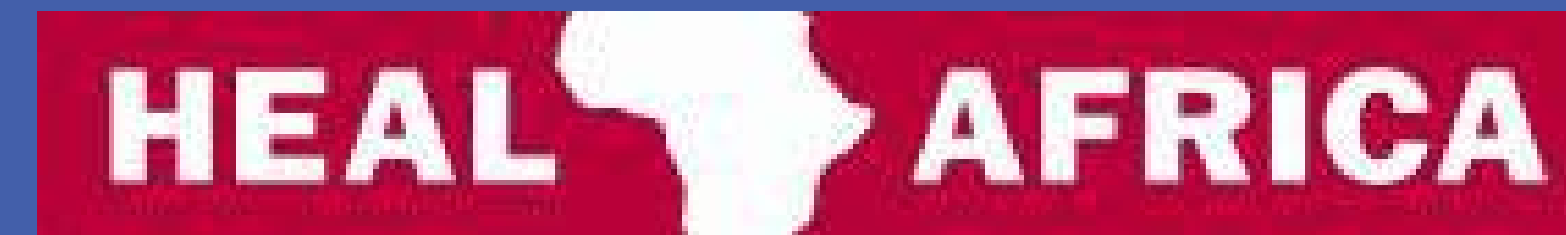




Exploring the complex contributions of a community based safe motherhood program to comprehensive primary health care

Examining the Safe Motherhood program in North Kivu, Democratic Republic of Congo



Dr Jean Robert Likofata Esanga, MPH, Mrs. Gwendolyn J. Lusi, Dr. Richard Bitwe MPH, PhD

Introduction

Within the multitude of problems, interventions and possible causal relationships affecting maternal mortality and morbidity in rural Africa, this study will attempt to isolate the added value of the community components of a safe motherhood program in North Kivu, Democratic Republic of Congo, that attempt to address the social determinants of this health problem, and identify the specific contribution of the safe motherhood solidarity groups to better outcomes in obstetrical care.

The Democratic Republic of Congo has implemented a health system based on Alma Ata principles since 1985, with significant sustained funding from USAID (1981 - 2006), the World Bank and other donors. The coverage is based on the Health zone, ideally serving a population of 150 000, divided into roughly 15 *aires de santé*. A zone will have a general referral hospital able to do emergency surgery, and each *aire de santé* has its Health Centre, staffed and equipped to minimal standards, able to provide preventive and curative medicine.

The east of Congo has seen war without end since 1992. The effects of the war on health are seen in:

- Destruction and looting of health infrastructure;
- Flight of trained personnel;
- Continual displacement of populations with attendant poverty, illness, malnutrition, war injuries;
- Disruption of vaccination programmes;
- Unchecked spread of communicable diseases, in particular sexually transmitted diseases and HIV, often related to sexual violence;

Disproportionately high rates of maternal and child mortality in a context with already disastrous health indicators exist: life expectancy at birth m/f (years): 46/49, healthy life expectancy at birth m/f (years, 2003): 35/39, probability of dying under five (per 1000 live births): 205, probability of dying between 15 and 60 years m/f (per 1000 population): 454/382, total expenditure on health per capita (Int\$, 2005): 17).

Within this context, can the community involvement that we see in HEAL Africa's safe motherhood programme make a significant difference to maternal health outcomes?

Objectives

- 1) To measure the contribution made by the Safe Motherhood solidarity groups in improving the utilization of maternity services in Kayna and Birimbizo health zones.
- 2) To identify the experience and perceptions of project stakeholders regarding the value of the Safe Motherhood solidarity groups.
- 3) To identify the constraining and facilitating factors in the operation of the safe motherhood programme as reported by the project stakeholders



Community Awareness

Methods

Research questions:

How effective is the maternity insurance scheme in making maternity services available and accessible in an area of conflict and displacement?

Do TBAs understand and accept their role within the scheme, with regard to solidarity group leadership, referrals, family planning?

Do health professionals understand and respect their role? To what degree did the program facilitate this? Illustrate the value of everyone's role in this process.

Have the hospitals and health centres perceived any positive impact in terms of cost recovery for obstetrical care (CPN, delivery and EOC) as a result of the maternity insurance program?

Have women of childbearing age a better understanding of health factors related to maternity as a result of the program?

Do they feel more in control of their reproductive health?

Do community leaders and men understand the purpose of the solidarity groups and support women in their power of decision over their own maternity?

What specific role do faith-based leaders play in the program?

Do women of childbearing age perceive any ripple benefits from the program that impact other areas of health?

Description of the Safe Motherhood programme: the intervention is made through a community approach with two facets: medical and community.

Regarding the medical approach, Safe Motherhood works with health structures such as health centres and general reference hospitals. Activities which are carried out include: Capacities improvement of medical staff regarding Safe Motherhood, equipping health structures, renovating maternity centres.

The community facet includes the following: training of TBAs in SM techniques, training of agents who will carry out mobilisation sessions in the community, training of local leaders (religious and tribal).

The community is also impacted through socio-economic assistance such as: training in IGAs, creation of Solidarity Groups to implement maternity insurance groups, rotation credits to lower poverty within the members' household.

We use the same tools in all study areas. Tools have been pre-tested by researchers. Interviewers and focus group leaders have been recruited from the community, to avoid bias by using the project staff. Interviewers were high school graduates, with knowledge of local languages. The interviewers were trained in the administration of questionnaires, and the facilitation of focus groups.

Between the four project zones, we chose two, Birimbizo, where the programme has been functional for three years and Kayna where the programme will be implemented for the first time. To calculate the sample size for the population survey in the two zones, we used EpiInfo 6.04 for Windows; we have administered the survey to 87 women members of solidarity groups and 87 who are not members of solidarity groups in each zone.

We held 2 focus groups for women in solidarity groups and 2 for women who are not in solidarity groups. We held 2 focus groups for Traditional Birth Attendants in solidarity groups and 2 for TBAs who are not in solidarity groups. We held 2 focus groups for men in Nehemiah committees in areas where solidarity groups are functioning, and 2 in areas where solidarity groups are not functioning.



Kayna solidarity group

In order to ensure credible, transferable and dependable information, we paid attention to the following points.

The research team is made up of people with experience in qualitative methods, who can provide adequate training to new researchers and interviewers recruited from the community. We will ensure adequate supervision during data collection, and a systematic data archive. Coding, thematic analysis and quantitative data analysis were supported by the best available computer program (SPSS). Data entry and analysis were performed by two or more researchers from the team.

Analysis has focus specifically on the context, to isolate transferable and non-transferable information from the study.

The survey was conducted following two different approaches, quantitative and a qualitative:

-Quantitative analysis: survey of 352 respondents 40% members of Solidarity Groups, 60% non-members
48% of surveyed people in Birimbizo and 52% in Kayna

-Qualitative analysis: semi-structured interviews of stakeholders and 20 Focus groups in 2 zones, including: 2 Médecins Chef de Zone (MCZ), 4 Supervision Nurses, women of childbearing age, members of MMR Solidarity Groups (SG), women of childbearing age, non members of MMR SG, TBA (Traditional Birth Attendant) members of MMR SG

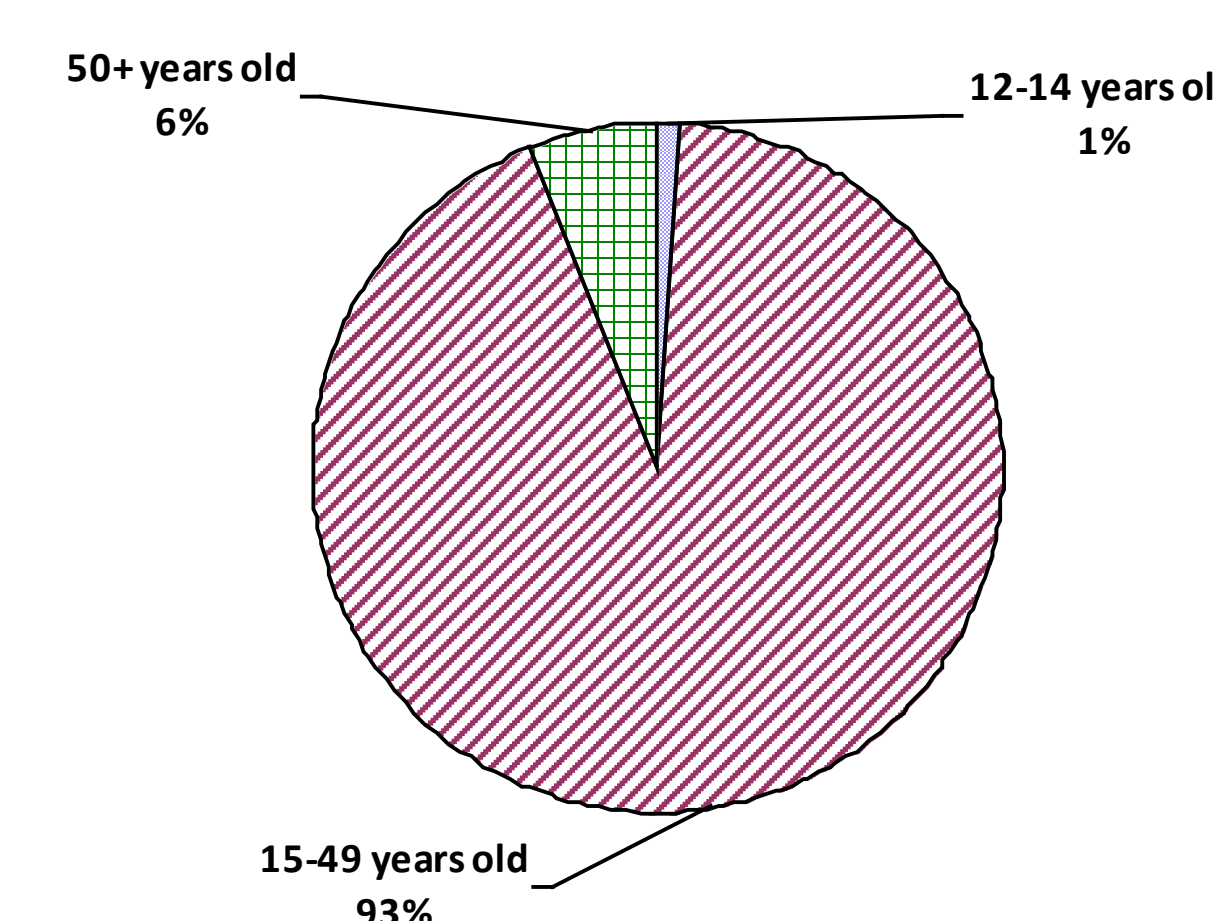
A pre-test of the semi structured interviews and Focus Group were conducted in the Kirotshe Health Zone with a MCZ, members of the Nehemiah Committee Group and women of child bearing age. The household questionnaire, a tool of this study, was tested in Bwerema and Kihindo.

Results

There is a significant statically association between usage of maternity services and the belonging to solidarity groups (See Table 1). Likewise, there is a significant statically association between delivery by a health professional worker and the belonging to solidarity group and also between detection and management of obstetrical complication detection and treatment.

There is a significant statically association between usage of maternity services and the belonging to maternity liability and usage of maternity services and the lead delivery by a health professional worker.

Female respondents division by age category



45% of women of child bearing age (from 15 to 49 years old) are part of the Safe Motherhood Programme (MMR).

Comparison of utilization and accessibility of maternity services by members and non members of solidarity groups

Table 1 : Utilization and accessibility of maternity services by members of solidarity groups

Comparison indicators	Solidarity group members	Non solidarity group members	RR	p
Utilization				
Yes	168	31	3,71	0,0001
No	3	86	1	
Delivery with health workers				
Doctor	26	17	1,96	0,0006
Nurse	119	103	1,17	0,0005
TBA	13	13	1,95	0,01
None	62	24	1	
Complicated obstetrical detection and treatment				
Abortion	6	3	5,85	0,003
C-section	8	10	2,36	0,04
Hemorrhage	14	3	11,38	0,0001
Threat of abortion	5	11	1,46	0,46
Others	60	34	2,78	0,0001
None	34	114	1	

The Motivating elements to joining the SM programme are:

- financial support (antenatal consultation, deliveries and post natal fees partially funded by SG members,
- training through IGAs, rotation credit allowances,
- information on family planning,
- gender and justice,
- HIV information,
- literacy training, and
- social support

The women in health areas where Safe Motherhood is operating recognize the positive impact of the programme on maternal health.

The women in health areas where Safe Motherhood is operating think that the programme has a positive impact on knowledge and access to information about reproductive health.

The members of solidarity groups use birth control thanks to products made available though the SM programme.

The SM programme constraining factors are: nudity , staffing, languages, gender, fatalism and family pressure.

The SM programme facilitating factors are: men are involved, tribal elders are involved, religious leaders are involved , team work and community awareness.

Conclusions

The Safe Motherhood programme, through its approach of maternity insurance of Solidarity Groups, is a reply to the need for availability, accessibility, use and quality of maternal care.

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