

# Mobilizing for Impact

MAY 2004



*Healthcare providers counsel a woman on what to do if something goes wrong during pregnancy.*



Ministerio de Salud Pública  
y Asistencia Social de Guatemala  
Programa Nacional de Salud Reproductiva



**To learn more about this project contact:**  
**Fannie Fonseca-Becker**, Dr.PH, Sr. Research Associate, Department of Population & Family Health Sciences, [ffbecker@jhuccp.org](mailto:ffbecker@jhuccp.org) or **Oscar Cordon**, MD, Director, Programa de Salud Materno Neonatal, JHPIEGO, Guatemala, [ocordon@jhpiego.org.gt](mailto:ocordon@jhpiego.org.gt)

## Engaging Guatemalan Communities to Save Mothers

Guatemalan women, their families, and their neighbors exposed to an innovative safe motherhood program now know what to do in case something goes wrong during pregnancy, childbirth, or postpartum. Recognizing obstetrical emergencies and taking appropriate action are the goals of the Guatemalan Ministry of Health and Public Assistance (MOH) and the Maternal and Neonatal Health Program (MNH) implemented by JHPIEGO, an affiliate of Johns Hopkins University, and John Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). The U.S. Agency for International Development supports the MNH Program through its Guatemala-Central American Program. Taking action in a timely manner helps save women's lives and reduce maternal mortality.

The MOH worked to improve essential maternal services and mobilize individuals and communities to respond to obstetric emergencies in an appropriate and timely manner. Program staff promoted communication interventions as well as family and community "emergency plans" to prepare pregnant women, their families, and their

communities to take action in the event of an obstetric emergency.

While the maternal mortality ratio in Guatemala fell from an estimated 219 maternal deaths per 100,000 live births in 1989 to 153 in 2000, it remains one of the highest in Latin America. The major causes of maternal mortality in Guatemala are preventable: hemorrhage (53%), followed by infection (14%) and hypertension (12%). In the western part of the country, between 69% and 80% of women deliver at home where complications can lead to death if the family and community are not prepared.

### Promoting Quality

The MOH developed a Performance and Quality Improvement (PQI) and accreditation model to improve the quality of care at health facilities for mothers. The program team then designed the behavior change and community mobilization component to make sure women, their families, and communities were aware of the improved services and knew when and how to obtain them.

## Program Design

Early in the program, researchers identified barriers preventing women from accessing pre and postnatal care. They used in-depth interviews with community members and leaders to better understand family and community issues affecting pregnancy, childbirth, and postpartum periods. Results from this formative research led to the selection of 100 communities that local health authorities recommended for inclusion in the program. In addition, using stratified random sampling methods, research staff selected 55 of the original 100 communities for a baseline survey (1,008 women and 499 men) in 2001 and a follow-up survey in 2003. GSD Consultores Asociados conducted both surveys in three (Quiché, San Marcos and Sololá) of the seven “departamentos” or states covered by the program.

Program staff used the formative research and population survey findings to design an intervention that considered both the cultural norms and barriers to accessing health care (including a lack of transportation, lack of funds, and fear of being mistreated at the facility). Using mass media and community mobilization activities, the team promoted improved health care services and encouraged people to use them. These activities were supplemented with information provided during prenatal visits (in 2003, 80% of Guatemalan women received prenatal care during their last pregnancy).

## Emergency Plans

The team also encouraged families and communities to develop emergency plans (EPs) to help make timely decisions to seek qualified medical care in the event of an obstetrical or neonatal emergency. The plans detailed maternal danger signs and

the necessary preparations for childbirth both at the family level (knowing where to go, how much money needs to be on hand, and who will take care of the house and the other children), as well as the community level (knowing who will accompany the woman, how she will be transported, and what economic assistance can be provided).

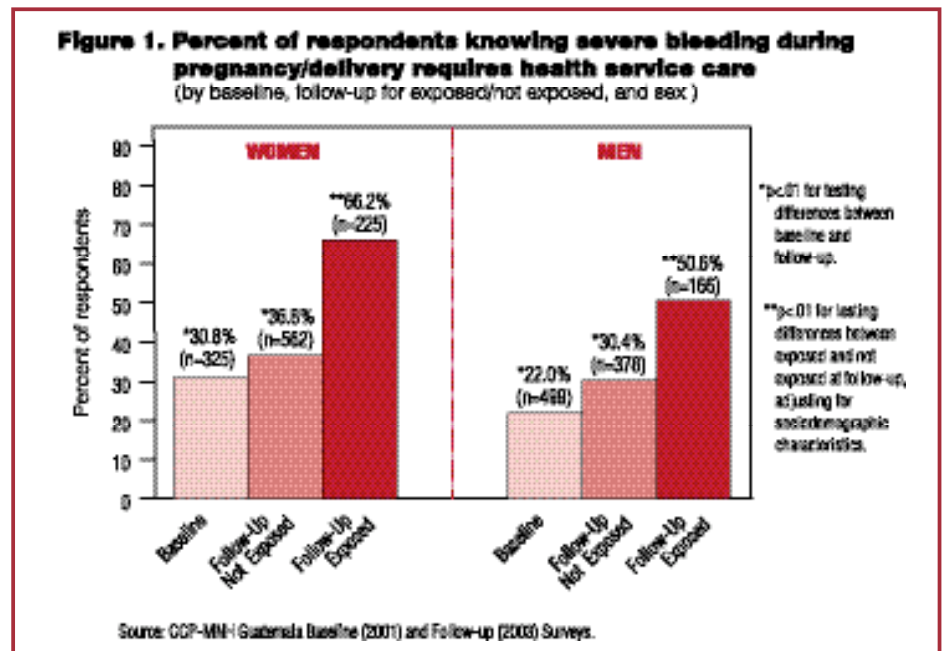
MOH staff and the program team developed a strategy to actively engage communities in preparing emergency plans and to promote maternal and neonatal health. With the help of local leaders and health personnel, the team identified communities to be included in the intervention. According to program monitoring data, by March 2004 in the seven states included in the program, 99 communities had started the mobilization process, 90 committees had been formed, and 44 pregnant women from 11 of these communities had been successfully referred to a health care facility.

The program team developed materials including individual EPs, posters for prenatal care, and handouts

with pictorial descriptions of emergency signs and steps to seek care. The team also produced and broadcast a series of radio spots on maternal danger signs, available community organizations, and the importance of prenatal care. In addition, they published a manual to help communities develop a community-level EP. The MOH printed and widely disseminated the manual and other program materials to health care facilities across the country.

## Methods

The impact evaluation began as a quasi-experimental design with a comparison group, but it evolved into pre/post cross-sectional surveys as a result of the MOH institutionalization and dissemination of the program materials in 2003. Researchers surveyed women of childbearing age and their partners and used a standard method of analysis that not only compared baseline and follow-up data for changes, but also individuals exposed with those unexposed to program messages at the follow-up,



adjusting for socio-demographic characteristics. For the purpose of this report, they compared only those women who had a child in the 12 months prior to the survey in both baseline (n=325) and follow-up (n=787).

Additionally, researchers obtained qualitative and quantitative information through in-depth interviews of community leaders and group interviews of health committee members. Researchers also collected case histories of women who experienced obstetrical complications in one of the communities with an active health committee.

**Impact**

The evaluation showed significant improvements in knowledge, attitudes, and practices among women exposed to program interventions when compared to those in the baseline survey. The results attest to the efforts made by the MOH and other agencies to improve maternal and neonatal survival in Guatemala. Community mobilization efforts, however, were slow getting off the

ground. Nevertheless, evidence suggests community health committees can be quite effective in improving maternal survival.

**KNOWLEDGE & EXPOSURE** - Almost a third of women (29%) and men (31%) in the follow-up were exposed to some aspect of the program’s activities and messages. Significant improvements were seen in the percentage of women and their partners who recognized that severe bleeding during pregnancy and childbirth required immediate attention at a health care facility (Figure 1). Sixty-six percent of exposed women recognized that severe bleeding is dangerous, compared to 31% in the baseline, and 51% of exposed men recognized the danger of severe bleeding, compared to 22% in the baseline. No significant changes between baseline and follow-up were reported for those not exposed: 37% for women and 30% for men in the follow-up.

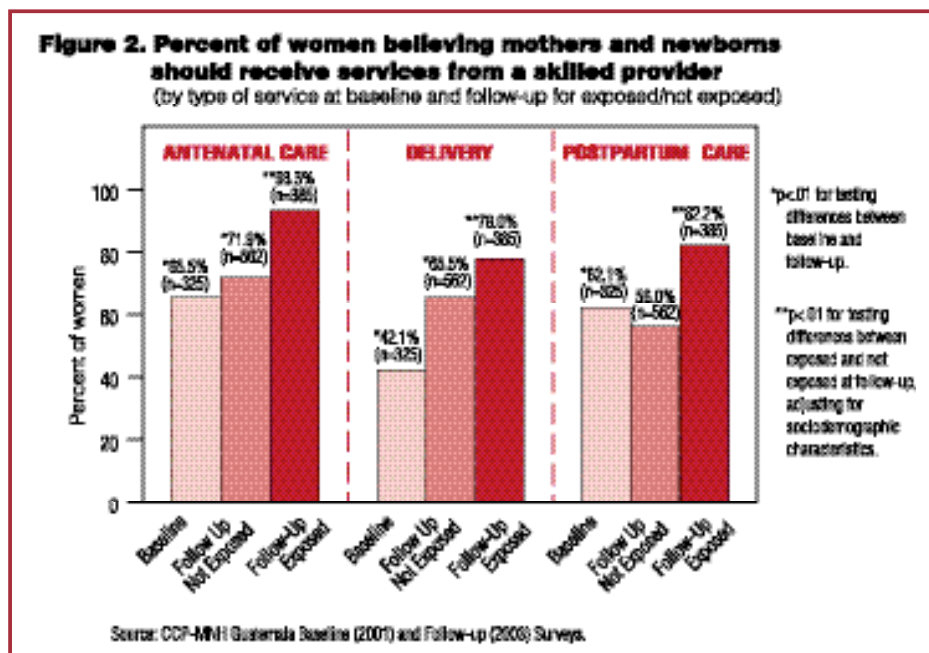
Results for knowledge of severe bleeding during postpartum were similar to the ones for pregnancy. Both women

and men showed significant increases in knowledge of other danger signs during childbirth, including knowing that the mother should be taken to a health care facility if the placenta has not been delivered within 30 minutes after birth: 9% at baseline vs. 24% at follow-up for women exposed and 6% for those not exposed; and 5% for men at baseline vs. 19% for those exposed in the follow-up and 7% among the non-exposed.

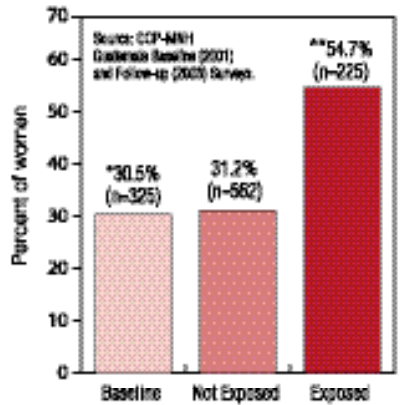
**BELIEFS** - In the follow-up survey, researchers found significant changes among women exposed to the interventions regarding their beliefs on whether a woman should seek care during pregnancy, delivery, and postpartum (Figure 2). Exposed women (93%) in the follow-up were significantly more likely to believe that a woman should receive prenatal care from a skilled provider than non-exposed women (72%), and women in the baseline (66%). A similar pattern was seen regarding women’s beliefs that a mother should receive skilled care for childbirth (42%) and postpartum (62%) at baseline compared to those exposed in the follow-up (78% and 82% respectively). Men in the study reported similar changes.

**BEHAVIOR** - Whereas at baseline only 5% of women reported having made a plan for transportation in case of obstetrical emergencies, 37% of women exposed to the program made a plan, a sharp contrast to only 12% among the non-exposed. The percentage of women who reported setting aside money increased in both groups from a baseline of 5%, but to a far higher level among those exposed (74%) than among those not exposed (26%).

Researchers found a significant increase in the proportion of women



**Figure 3. Percent of women delivering in the health system**  
(by baseline and follow-up for exposed and not exposed)



\*p<.01 for testing differences between baseline and follow-up.  
\*\*p<.01 for testing differences between exposed and not exposed at follow-up, adjusting for sociodemographic characteristics.

giving birth in the health care system (Figure 3). More than half (55%) of the exposed women in the follow-up delivered at a facility, compared to 30% at baseline and 31% for unexposed women at the follow-up.

**COMMUNITY MOBILIZATION** - Only 23 of the 55 communities surveyed initiated any community mobilization activities. Of those 23, 12 had an active community health committee to improve maternal survival. Only two of the community health committees included a traditional birth attendant among its members.

Very few of the interviewees reported that their community had a transport plan (7% of the women, 8% of the men, and 8% of the community leaders). Approximately 3% of the women, men, and community leaders reported that their community had a funding plan. However, the majority of interviewees agreed that the creation of a health committee and the use of an emergency

plan for obstetric complications would be a positive activity.

**Conclusion**

Findings from the impact evaluation on improving maternal survival through behavior change communication and community mobilization showed significant improvements in knowledge, attitudes, and practices among those exposed to program activities.

Specifically:

- Women exposed to the program were significantly more likely to give birth in a health care facility.
- Almost a third of the women and men in the follow-up survey were exposed to the program’s activities and messages.
- Knowledge of danger signs such as severe bleeding improved significantly among both men and women.
- Women exposed to the program were significantly more likely to believe in the value of using a skilled provider at childbirth.
- Women exposed to the program were significantly more likely to have a plan for transportation in the event of an obstetrical emergency.
- Knowing that a woman should be taken to a health care facility if the placenta has not be delivered 30 minutes after birth improved significantly among women and men.
- Women exposed to the program were also significantly more likely to set aside money for an obstetrical emergency.

These impact results provide evidence that collaboration among public and private entities can lead to increased

knowledge, improved attitudes, and behavior change that can subsequently contribute to improved maternal and neonatal survival. Continued efforts are needed to reinforce the community mobilization component of the MNH Program in Guatemala as well as to ensure that more women and their partners continue learning how to prepare for an obstetric emergency. Future programs should consider including traditional birth attendants in community health committees because of their key role in identifying and referring obstetrical complications.

**Mobilizing for Impact**

summarizes key research findings from the Maternal and Neonatal Health Program of JHPIEGO, an affiliate of Johns Hopkins University, in partnership with the Center for Communication Programs of the Johns Hopkins Bloomberg School of Public Health.

**Johns Hopkins University  
Bloomberg School of Public Health  
Center for Communication Programs**  
111 Market Place, Baltimore, MD 21202  
Tel: (410)659-6300, Fax: (410)-659-6266  
Website: <http://www.jhuccp.org>  
Fannie Fonseca-Becker, Dr.PH  
Robert Ainslie, MA  
Gwen Bergen, MPH  
Maria Borda, MPH  
Brandon Howard  
Kim Martin, CCP Editor  
Rita Meyer, CCP Graphic Designer

**JHPIEGO - An Affiliate of Johns Hopkins University**  
Catherine Schenck-Yglesias, MHS  
Oscar Córdón, MD, MPH  
Patricia de Leon Toledo, Lic  
Carol Tumaylle, MPH  
Demetrio Margos



Funded by the U.S. Agency for International Development.