



MARIE STOPES  
INTERNATIONAL

## Reducing maternal mortality among repatriated Guatemalan refugees

AUGUST 2004

# interview

A significant impact on  
behaviour can be achieved  
by improving awareness  
of, and access to, sexual  
and reproductive  
healthcare.



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## acknowledgements

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## contributors

**Cristina Alonso, MPH:**  
External consultant

**Sally Hughes:**  
Programme Support Manager - Latin America/Africa, Marie Stopes International

**Julie Pörksen:**  
Research, Monitoring & Evaluation Manager, Marie Stopes International

**Alan Sadler:**  
Communications Manager, Marie Stopes International

For further information about this research please contact the research department on +44 (0)20 7574 7400 or email [research@mariestopes.org.uk](mailto:research@mariestopes.org.uk)

# abstract

Marie Stopes: Mexico had a significant impact by improving awareness of, and access to, SRH services.

## Introduction

Guatemala has one of the highest maternal mortality rates in Latin America at 270 per 100,000 live births (2002). Indigenous returned refugees, repatriated since peace accords were signed in 1998, comprise some of the poorest and most marginalised communities in the country.

In order to raise awareness of, and improve access to, sexual and reproductive health (SRH) services among these returned refugee communities, a mobile team from Marie Stopes: Mexico worked across the border in Guatemala from June 2001 to October 2003. During this time the team worked with 22 returned refugee communities in the state of Huehuetenango, Guatemala, training over 28 health promoters and 45 traditional midwives, and providing almost 2,800 SRH services.

## Research methodology

To measure the impact of the project, baseline (June 2001) and endline (June 2003) knowledge, attitude and practice surveys were conducted among twelve communities. Some 388 baseline and 400 endline interviews were conducted with representative samples of men and women aged 14 to 49.

## Results

Many of the changes in statistics from baseline to endline were found to be statistically significant:

- knowledge of problems during childbirth increased from 53% to 67%
- antenatal and childbirth care by midwives increased from 71% to 89%
- knowledge of all modern family planning methods increased. Knowledge of injectables for instance, increased from 41% to 89%

- intention to use family planning methods increased from 36% to 68%
- use of modern family planning methods increased from 9% to 30%.

Only half of the women interviewed could speak Spanish, while the literacy rate of women was 37%. Illiterate women or those without knowledge of Spanish, were less likely to know about, or use, family planning methods. However, these women knew more about pregnancy complications than literate, Spanish speaking women.

## Conclusion

The research shows that this project had a significant impact on behaviour by improving awareness of, and access to, SRH services. This behavioural change can be directly attributed to the work of the mobile team, since no other services were accessible to these communities.

A gap remains, however, between those who express a demand for family planning methods and those who actually use them. Increased understanding of complications in pregnancy and childbirth and increased use of family planning methods alone cannot reduce the maternal mortality rate. Transport to hospital in times of emergency is a key issue as it remains difficult and costly to secure. Both the government and non government organisations (NGOs) in Guatemala need to address women's empowerment, literacy and income in order to help decrease maternal mortality.

*Antenatal and childbirth care by midwives increased to 89%.*

# introduction

Guatemala has one of the highest maternal mortality rates in Latin America at 270 per 100,000 live births (2002). Within the country, indigenous, returned refugees are amongst the poorest and most marginalised of communities, often living in isolated areas with limited access to services.

From June 2001 to October 2003 a team from MS: Mexico provided outreach services via a mobile unit to the returnee communities in the state of Huehuetenango, Guatemala. The unit comprised a driver/health promoter, a traditional midwife<sup>1</sup>, a nurse and a health technician. They provided non-surgical family planning (FP), maternal and child health services, and carried out information, education and communication activities. In addition, health promoters and traditional midwives were trained to improve access to, and raise awareness of, sexual and reproductive health (SRH) services. From June 2001 to October 2003, the mobile unit provided 2,786 SRH services and trained over 28 health promoters and 45 traditional midwives in 22 rural communities.

The following report describes the results of the endline knowledge, attitude and practice (KAP) survey carried out among a representative sample of the target population and its comparison to the baseline survey results. It also draws conclusions which should be considered for the continuation and replication of the project.

## Project objectives

Goal: to improve the SRH status of the population of Guatemala's frontier zone.

Purpose: to increase the use of SRH services in the target area, with a focus on returned refugees.

Outputs:

1. Improved access to high quality SRH and maternal health services through the provision of a mobile outreach service in remote, rural border areas of northern Guatemala
2. Increased awareness of SRH issues amongst the population and local organisations in remote, rural border areas of northern Guatemala.

***In order to sustain improved access to, and increased awareness of, SRH services, the project provided training for health promoters and existing traditional midwives.***

<sup>1</sup>*Traditional midwives* are typically untrained women who by attending childbirths acquire knowledge of birthing matters and are consulted by pregnant women and their families. It is these women that MS: Mexico has trained.

# methodology



Evaluation of the project was conducted by the project team and an external consultant using pre and post KAP surveys in 12 communities using a representative sample. The impact of the project was measured using 388 baseline (June 2001) and 400 endline (June 2003) interviews. 184 men and 204 women aged 14 to 49 were interviewed in the baseline and 190 men and 210 women were interviewed in the endline. Data was evaluated by an independent evaluator using EpiInfo 2000<sup>2</sup>.

## Demographic information

Almost 100% of the population interviewed were married or in a relationship. Some 68% of the population interviewed were under 35 years of age, reflecting a young population.

Levels of illiteracy were high for both men (39%) and women (63%). These levels did not change significantly between the baseline and the endline studies. In addition, it was found that barely half of the women participating in the study could speak Spanish. This percentage did not change significantly between the baseline and endline studies, indicating that educational levels and opportunities did not change for women during the two years that the project took place.

In the endline survey, as in the baseline, the majority (71%) of the sample population had been refugees in Mexico. About a fifth had not been refugees or displaced and were native to the land where the project took place. The remaining 7% were internally displaced in Guatemala. These proportions do not significantly differ from the baseline survey. The average number of years of refugee status was just over 12.

<sup>2</sup> P values of less than 0.05 indicate a *significant* statistical difference between baseline and endline.

# results



## Reproductive health history

Barely one percent of the population in the survey had no children, indicating high levels of parity even among young individuals. The majority (90%) of men and women under 20 had between one and three children; this is notable as it signals early age for starting families. Those aged between 20 and 34 had an average of four to six children. The vast majority of people over 35 years of age had more than six children.

The number of couples who had had a child in the previous two years (58%) and those that were currently pregnant (14%) indicates high fertility rates among these communities. There was no significant change to rates of fertility during the project. It is notable that a quarter of women over 45 had given birth in the previous two years and 6.5% of them were pregnant at the time of the survey.

## Antenatal care

Of the 58% of women who had given birth in the previous two years, all sought care during the antenatal period or during birth. This was a significant increase from the 66% of women in the baseline survey who sought antenatal care. The number of antenatal visits was high, 13 on average. It must be noted, however, that frequent antenatal visits do not necessarily indicate quality, nor

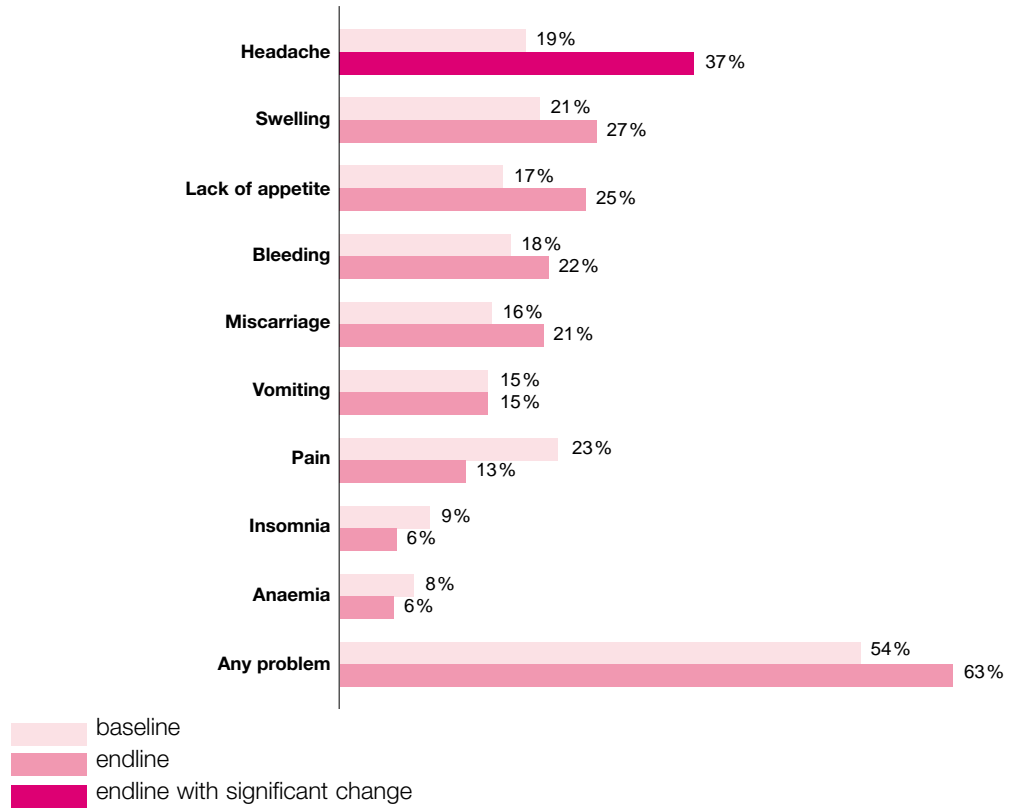
qualified, care. Antenatal visits in the target communities are frequently described as “*sobadas*” or massages which serve to position the foetus, “*close the back to air*” and other traditional Mayan treatments. Even when these factors are taken into account, however, the increase in antenatal care sought during the time of the project is significant.

## Knowledge of problems during pregnancy and childbirth

In the baseline, 40% of women reported experiencing a problem during at least one pregnancy; these problems included swelling (21%), frequent headaches (19%) and lack of appetite (17%). Seventeen percent of women had suffered a miscarriage at some point in their reproductive history.

Knowledge of problems which can occur during pregnancy did increase from baseline to endline, although not significantly. The problem most commonly identified in the endline survey was frequent headaches, highlighted by 37% of the population surveyed. This was also the only problem about which there was a significant increase in knowledge. In general, recognition of problems during pregnancy remained low, as illustrated by Chart 1.

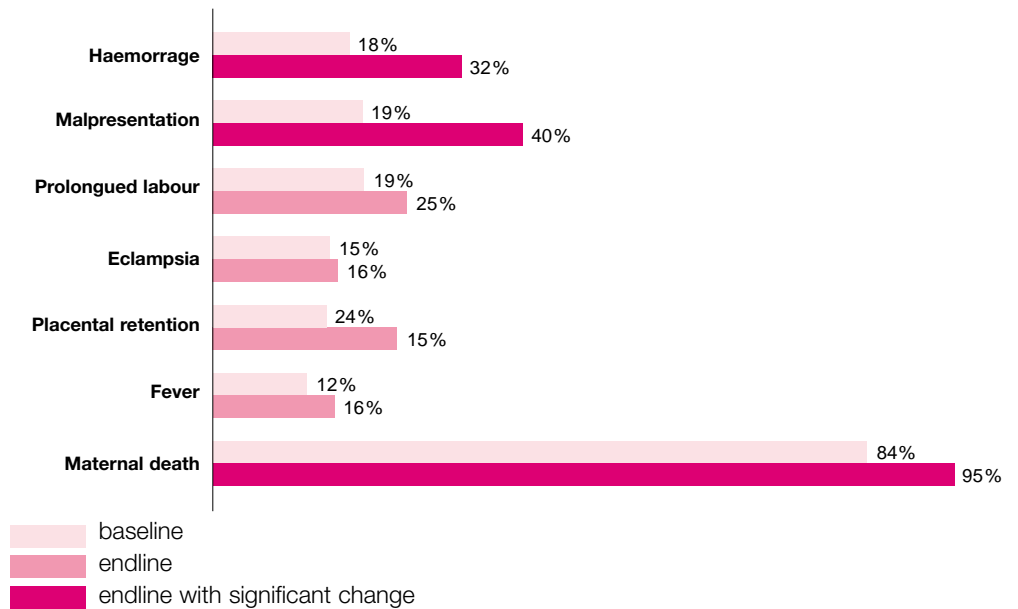
**Chart 1: Knowledge of pregnancy-related problems**



A significant inverse correlation was identified between knowledge of problems during pregnancy and literacy and knowledge of Spanish, particularly in the case of women: 70% of women who could not read were able to identify a problem in pregnancy compared to 49% of women who could; 62% of women who did not speak Spanish

could identify problems, compared to 56% of those who did. However, it is important to note that women who were unable to read had higher rates of miscarriage and more frequent headaches during pregnancy, suggesting higher rates of malnutrition and worse health status among illiterate women.

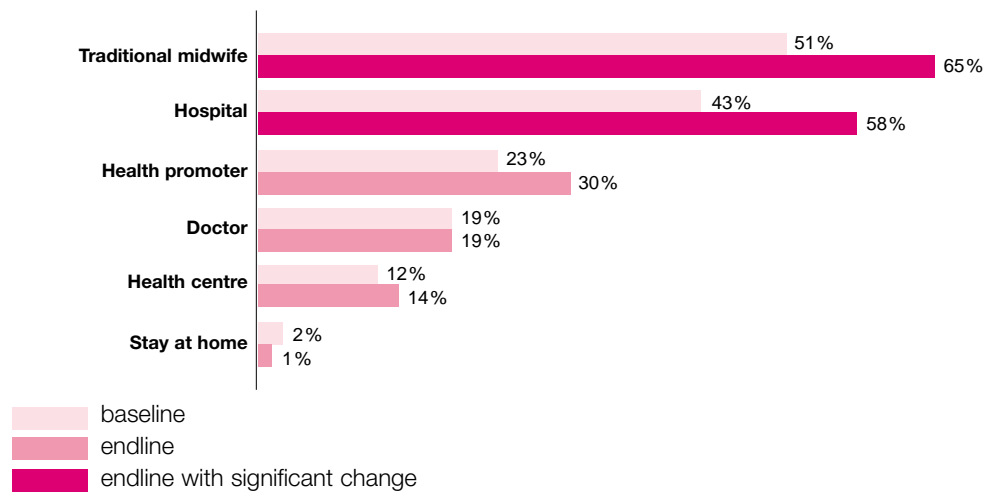
**Chart 2: Knowledge of childbirth related problems**



There was a significant improvement in the identification of problems which can emerge during childbirth, from 53% at baseline to 67% at endline (Chart 2). The two problems that had significantly improved rates of identification were haemorrhage and malpresentation (the position of the foetus): 32% of the endline population recognised haemorrhage as a problem, up from 18% at baseline; identification of malpresentation as a problem increased to 40% at endline, up from 19% at baseline. Knowledge of other childbirth problems such as prolonged labour, eclampsia and fever also increased, while the number of individuals who identified placental retention as a risk decreased, although not significantly. Finally, it is important to note that along with increased knowledge of the risks of childbirth, knowledge that women can die in childbirth also increased significantly, up from 84% to 95%.

As in the case for problems identified during pregnancy, knowledge of problems during birth was inversely related to literacy and knowledge of Spanish. It was interesting to note that 75% of non-literate women and 74% of women who could not speak Spanish identified problems in childbirth at a significantly higher rate than women who could read (55%) and women who could speak Spanish (62%).

**Chart 3: Where to seek care in case of problems during childbirth**



### Care during childbirth

In order to improve both the prevention of problems and their treatment during childbirth, the project sought to train traditional midwives and health promoters to take action in these situations, both by teaching them new skills and by stressing the importance of timely transport to a health facility. As seen in Chart 3, the project was successful at significantly increasing the perception that it is appropriate to seek care from a midwife or at a hospital in the event of problems experienced during childbirth.

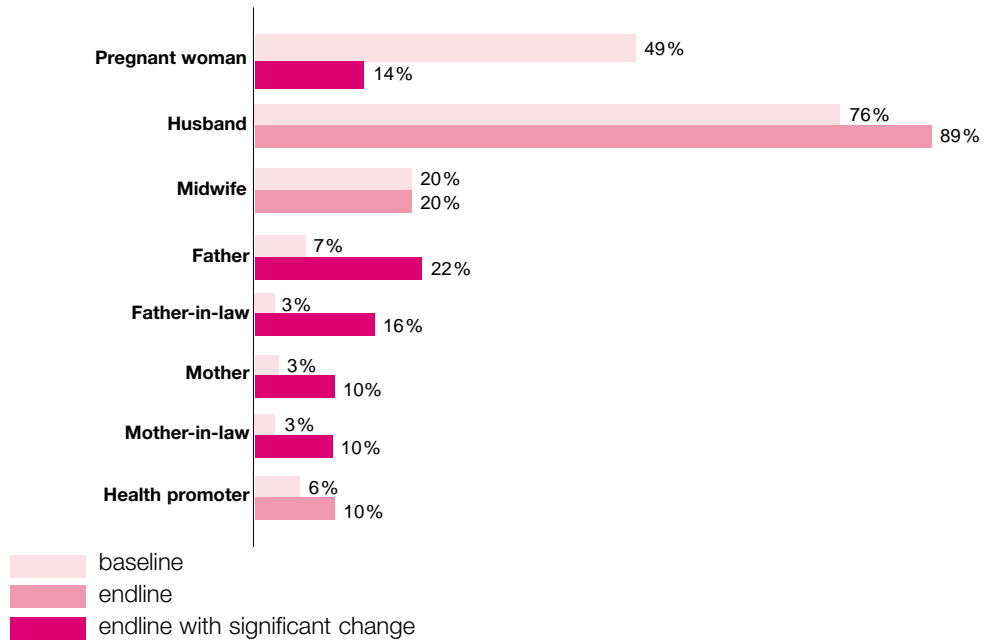
Of the women who had given birth in the previous two years, all sought an attendant during the birth, up from 86% in the baseline study. This illustrates an important success which can be attributed to the presence of the MS: Mexico team.

Care during birth was mostly given by a traditional midwife. Part of the increase in midwife attendance from baseline to endline can be attributed to the decrease in use of the health promoter. This change is positive as, although midwives are not always highly trained or experienced, they generally have greater knowledge and experience specifically of birth than health promoters who deal with a whole range of medical issues. In addition, most health promoters are men, and women often feel more comfortable with other women attending their births.

In these communities, the decision to transport a pregnant woman to hospital when there are problems during childbirth, requires the consensus of several family members. Chart 4 illustrates this and highlights the low decision-making power that women themselves have. The percentage of women who make the decision to go to hospital decreased significantly from almost half to 14% in the endline survey.

Conversely, the decision-making power of older family members, including fathers and fathers-in-law, mothers and mothers-in-law, significantly increased. Husbands remain by far the most important decision-makers with 89% at endline.

**Chart 4: People making the decision to transport in the case of complications in childbirth**



*The endline results showed a significant increase in knowledge of all modern family planning methods.*

### Knowledge and use of family planning

At the start of the project, the baseline survey revealed very low levels of family planning use, as is reflected by the high fertility rates previously described. As the project focused on the promotion of modern family planning, results are shown for these methods in Chart 5. It should be noted that the use of herbs, the rhythm method and other traditional methods were in fact quite low at both baseline and endline.

Knowledge of modern family planning increased significantly for all methods during the project and can be attributed directly to the work of the MS: Mexico team. In the case of the oral contraceptive pill, knowledge increased from 54% at baseline to 85% at endline, while knowledge of injectables increased from 41% to 89%. Knowledge of tubal ligation almost doubled, whilst knowledge of vasectomy, condoms and intra-uterine devices (IUDs) all more than doubled over the course of the project.

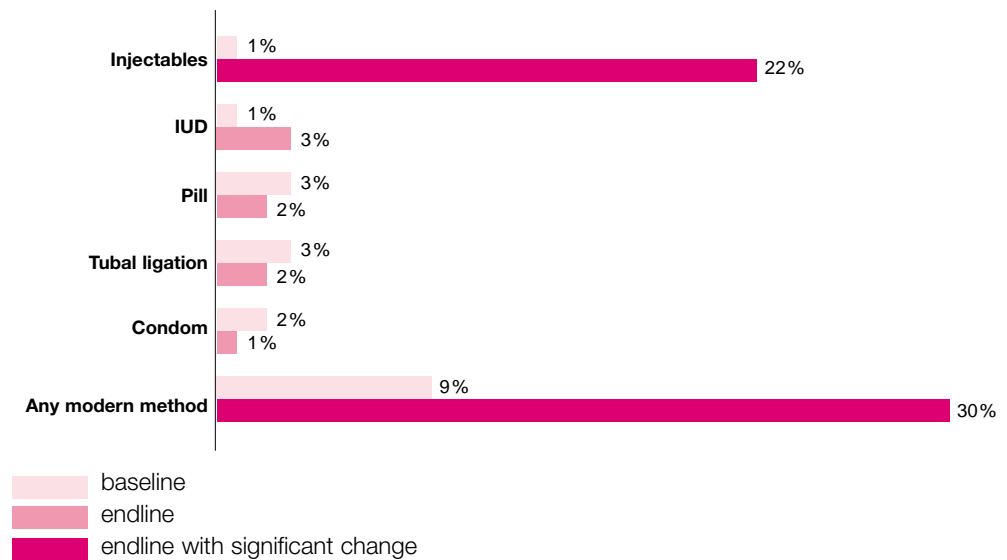
As would be expected, due to the improved knowledge and access to methods, use of methods also increased significantly from

22% ever having used a method to 44%. The most significant increase was in the case of injectables, preference for which overtook the pill and reached an ever used level of 27% at endline. There was a negligible difference in the rate of ever having used other methods.

Use of family planning methods now or in the past did not differ significantly with experience of displacement, literacy or age, except in the case of the pill which increased among women aged 35 to 44. Use of family planning methods was, however, associated with knowledge of Spanish in women. Forty-five percent of those who spoke Spanish had ever used a method, compared to 30% of women who did not speak Spanish.

Current use of modern methods also improved from 9% at baseline to 30% at endline. This is predominantly attributed to a significant increase in the use of injectables, from 1% to 22%. Use of IUDs also increased, while preference for pills and tubal ligation remained steady and use of condoms dropped. Current use of methods did not differ by age group or experience of displacement.

**Chart 5: Percentage of women currently using a modern family planning method**



**Knowledge of locations where people can buy family planning methods increased significantly from 49% to 90%.**

Current use of family planning methods was significantly associated with women’s literacy and knowledge of Spanish. Women who were literate were almost twice as likely to use a modern method as women who were not. Interestingly, the literacy status of men did not change their wives’ current use of methods. Of the women who did speak Spanish, 40% used a modern method compared to 14% of those who did not speak Spanish.

There was still an important percentage of the population who did not use any method (70%). Of those, only 37% stated a reason for non-use, the most commonly stated reason being lack of awareness of methods or how they work.

Knowledge of locations where individuals could purchase family planning methods improved significantly from 49% to 90% (Chart 6). Almost a third of the population identified MS: Mexico, and 64% - almost three times as many people compared to the baseline - identified health promoters as a source of family planning methods. This is a very encouraging result since the MS: Mexico mobile unit travels between communities, whereas health promoters, supplied with family planning methods by MS: Mexico, live

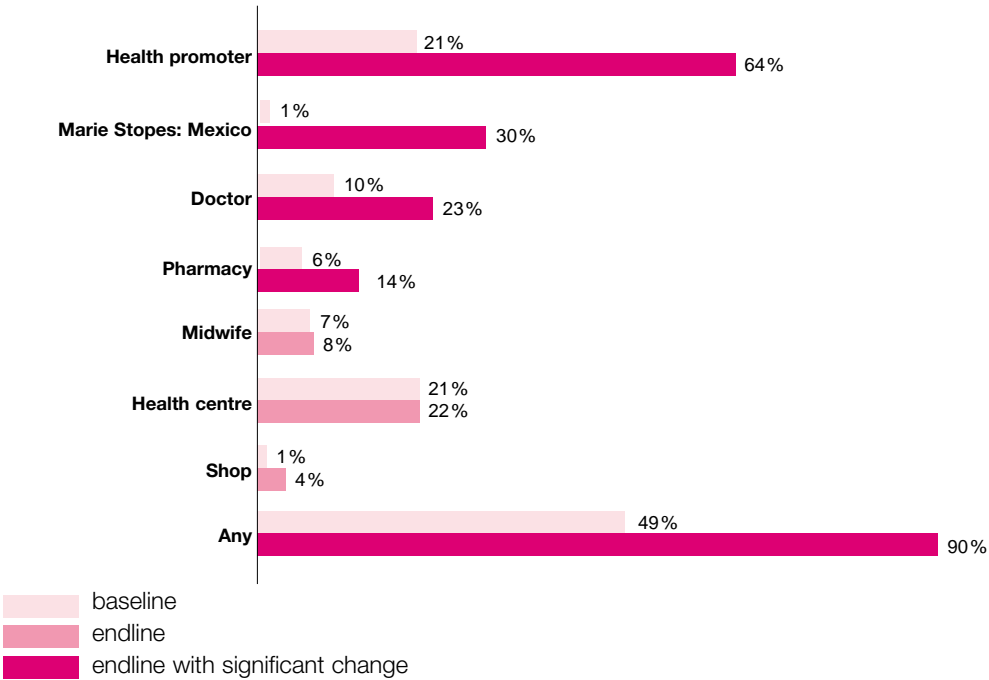
within the community, facilitating greater access. Knowledge of pharmacies and doctors as a source of methods also increased significantly from 6% to 14% and from 10% to 23% respectively, although it must be noted that these communities lacked the presence of these facilities.

**Fertility preferences**

The survey also sought to investigate fertility preferences and intentions. Despite high fertility rates, over half of the population stated that they would like to have another child. It is interesting to note that, despite a fall from 17% at baseline, 10% in the endline study stated that they did not know if they wanted another child. Similarly, 11% stated that they do not decide when to get pregnant, a significant increase from baseline, perhaps illustrating women’s feelings of a lack of control over their own fertility.

It is notable that 18% stated that they would like to become pregnant after one year, indicating a demand for short-term methods of spacing births. This percentage did not change significantly from the baseline.

**Chart 6: Sources identified from which to purchase family planning methods**



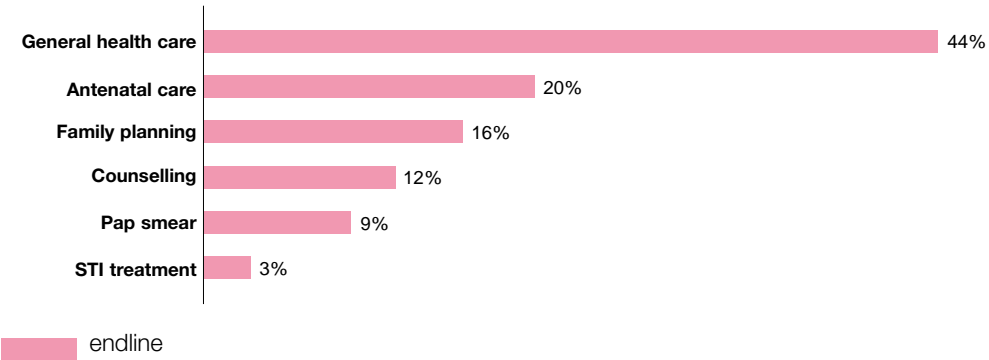
Demand for family planning methods is further reflected in the fact that 68% of the population stated that they would like to use a method. This is a significant increase from the baseline where 36% demonstrated an interest in using family planning. It is important to ensure that any project to increase awareness of family planning methods can satisfy the likely increase in demand for these methods.

**Acceptance of MS: Mexico**

Finally, the endline survey sought to investigate local acceptance of MS: Mexico.

It was found that knowledge and acceptance are very high. Almost all (96%) of the population had heard of MS: Mexico and 93% considered their services to be important or very important. Despite knowledge and perceived importance of MS: Mexico, use of the services they provide was relatively low (Chart 7). General health services had been used by 44% of the population, indicating the low access to healthcare providers in the area. One in five women had used MS: Mexico for antenatal care and 16% had visited the team for family planning.

**Chart 7: Use of MS: Mexico services**



## conclusion



The similar demographic data in both the baseline and endline surveys indicates that there was no significant change in the resources and opportunities available to the population since their return to Guatemala, highlighting their continuing isolation. It is this isolation that effectively provided a control to the survey. As the only SRH information and health provider in the area, positive improvements in SRH knowledge, attitudes and use of services among local communities can be solely attributed to the actions of the MS: Mexico team.

Although MS: Mexico had an important impact on increasing awareness and use of family planning methods, fertility rates remain high in the area. The results suggest that fertility is still highly valued and that many people consider pregnancy to be something of a random, uncontrollable or pre-destined event. Fertility data in the endline survey is similar not only to the baseline data, but also to data from the *Guatemala Demographic and Health Survey, 1998/99* which also details low levels of family planning use across Guatemala. The high fertility rates have important implications for maternal mortality and morbidity.

Views on the value of women as child-bearers is shown in the data regarding perception of pregnancy problems. Despite increasing levels of knowledge, pregnancy

does not appear to be a time that is considered especially problematic, particularly among younger women. Pregnancy and other reproductive health problems, such as STIs, may still be considered private issues.

It is surprising that women who could not read or speak Spanish were able to identify a problem in pregnancy more readily than those who could. These women were more likely to have been pregnant in the past and therefore have possibly experienced problems during pregnancy and birth first hand, which may make it easier for them to identify them.

It is important to note that young people under 20 always had lower results for identification of specific problems (although not significantly lower). This illustrates a lack of awareness among young people who are already starting families, that childbirth can carry risks. If maternal mortality rates are to be successfully tackled, this lack of awareness must be addressed.

The increase in knowledge of problems which can arise during childbirth indicates an important success in the programme, as perhaps through better recognition of birth problems, improvements in transport and care may occur which should decrease maternal mortality.

**Improved knowledge of, and access to, family planning methods, has increased levels of use.**

The project sought to increase the number of women who were attended during birth by a trained attendant, in order to decrease mortality by ensuring that those who are either at risk during labour or who experience problems are adequately attended or referred. The fact that all women in the endline survey had been attended when giving birth is an important and significant success. However, it must be noted that not all birth attendants are well trained: a *traditional midwife* may be considered so having attended just one training session or one birth. Also, the presence of a trained birth attendant may not guarantee that a woman is transported to hospital when required, as the decision may lie with others.

Although the majority of women stated they would go to the hospital in the event of a problem during childbirth, transport is difficult and costly and women often stated that they “*would rather die at home*”. The transport issue, coupled with these views, and the consistently low percentage of women delivering in hospitals, highlight the importance of improving the quality of birth attendants in the area. Women also have a lack of decision-making power over transportation to hospital. Husbands are the most important decision makers, with fathers and fathers-in-law also being important stakeholders. Gender dynamics must be addressed in order to decrease maternal mortality and improve women’s rights and lives.

Despite the lack of control that women feel they have over their fertility, many women knew they could get family planning methods through health promoters and through MS: Mexico. Improved knowledge of, and access to, family planning methods, has increased levels of use. It is significant that the presence of MS: Mexico increased family planning levels among the communities to levels comparable with Guatemalan national levels, when previously they had been significantly lower.

Use of family planning was associated with knowledge of Spanish among women and may reflect their improved access to education, materials and resources as well as direct communication with all of the

MS: Mexico team members, as only one team member in the mobile unit spoke the local language. Preference towards injectable contraceptives may indicate that women like an easy-to-use method or that they may still have to use a method in secret. Low use of the pill and IUDs may indicate myths surrounding these methods are still prevalent in the community and pose a barrier to their use. Use of condoms is still very low and must be addressed in order to prevent the spread of HIV and other STIs. The data demonstrates the need to improve SRH education in young people, with a concerted effort made to reach young men.

Despite the success of the project in increasing family planning use, there is still an important percentage of the population who are not currently using any method. The results show that the project was unable to reach all of the population. This demonstrates that further work on reducing barriers to family planning is required.

In conclusion, the project was successful in reaching its goals of increasing antenatal visits, increasing the level of care during childbirth, increasing the knowledge of, and use of, contraceptive methods, ensuring access to contraceptive methods and increasing the number of men and women who recognise obstetric complications. There are, however, numerous factors, such as gender inequality and the socio-economic conditions in Guatemala which could not be addressed within the scope and timeframe of the project and which limited the impact that the project had. A decrease in maternal mortality and morbidity which is sustained requires commitment from stakeholders, including the Government of Guatemala, to address these issues and ensure good SRH for all.

### **Marie Stopes International**

The Marie Stopes International Partnership provides sexual and reproductive health services and information to 4.1 million people in 37 countries, upholding their right to choose the timing, spacing and size of their families; and to remain healthy. The organisation's global network of services are sustainable, culturally appropriate and of the highest quality.

### **Marie Stopes: Mexico**

Marie Stopes: Mexico was established in 1999 to provide much needed education and services in the southern state of Chiapas. The programme focuses on providing appropriate services to the state's mestizo and indigenous populations through static centres in the urban areas of San Cristobal de las Casas, Comitán and Tuxtla Gutiérrez via mobile teams travelling between rural communities. The programme has recently opened an information, education and training centre for adolescents, run in conjunction with local health authorities. MS: Mexico uses social marketing techniques to market condoms and emergency contraception, and operates an emergency contraception hotline, specifically targeting young people.

For further information, contact  
Laura Miranda, Programme Director,  
Marie Stopes: Mexico at  
[info@mariestopes.org.mx](mailto:info@mariestopes.org.mx)

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**Marie Stopes International**

153–157 Cleveland Street  
London W1T 6QW  
United Kingdom

**Telephone**

+44 (0)20 7574 7400

**Facsimile**

+44 (0)20 7574 7417

**Email**

[info@mariestopes.org.uk](mailto:info@mariestopes.org.uk)

**Website**

[www.mariestopes.org.uk](http://www.mariestopes.org.uk)

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