Community-based providers in rural Guatemala can provide the injectable contraceptive DMPA safely

Introduction
In Guatemala, the use of modern contraceptives is the second lowest in Latin America. Low rates of literacy, difficult topography of the country, and a lack of trained health-care providers impede efforts of the national health system to deliver reproductive health care widely to the people, particularly in rural areas. Contraceptive use among rural populations is almost half that of urban dwellers (Figure 1).

In 2000, the Government of Guatemala launched a programme to expand health-care services to rural areas through community-based health-care providers. Along with other health-care activities, the community-based providers were entrusted with the distribution of oral contraceptive pills and condoms to the people. Women requesting other family planning methods that required clinical interventions (e.g. injectable contraceptives) were referred to local health clinics. However, recognizing a growing demand for injectable contraceptives in the country, the Guatemalan Ministry of Health sought to assess the feasibility of providing injectable contraceptives also through community-based providers in rural Guatemala. The specific objectives of the study were to assess client satisfaction and competence of community-based providers in providing the three-monthly injectable contraceptive depot-medroxyprogesterone acetate (DMPA).

Methods
The study was conducted in the rural Department of Sololá, 140 km southwest of Guatemala City. Indigenous people make up more than 90% of the population in this region, which has high levels of fertility and maternal mortality. More than a quarter of women have an unmet need for contraception and literacy rates are low, with 44% of reproductive-age women never having attended school.

A total of 116 community-based providers were recruited to the study. They included 32 paid providers, 68 volunteer providers, 11 traditional midwives, and five others (IEC educators). The providers were given training in: counselling on the voluntary selection of contraceptive methods by clients; use of a checklist designed to identify women who could safely use the injectable; and safe and proper administration of the injectable. Following the training, the providers were tested, via a practical examination, for their competency in the safe administration of the injectable. A total of 97 providers passed this examination. Those conducting the study then visited the homes of the 97 providers to assess their knowledge, attitudes, and practices regarding the provision of the injectable. The providers were assessed for a second time after they had administered at least four injections (approximately 9–12 months after...
completing training). This final assessment evaluated the providers’ knowledge, attitudes, and practices related to DMPA provision and this information was documented as a result of the study. Measures of attitudes and practices included the providers’ comfort level with the provision of the injectable to potential clients, including restrictive practices, such as refusal to provide the injectable to adolescents or unmarried women. In addition, the providers were asked to comment on the usefulness of provider tools and rates of client continuation, and to assess client satisfaction.

The trained community-based providers identified potential clients for provision of DMPA from the current and potential family planning users in their community. These women (N=193) included new contraceptive users of a family planning method (75%); re-initiators of the injectable (22%); and those who switched from other contraceptive methods to become first-time users of the three-monthly injectable (3%).

The first interview with the clients of the providers took place immediately after the first administration of the injectable and the second after the fourth injection (between the 9th and 12th month of the data collection period). Women who discontinued use of the injectable were also followed up. In the interviews the women were asked to state their satisfaction with the services of the provider; satisfaction with DMPA; desire/intention to continue using DMPA; and perceptions on the safety of provision of the method by community-based providers.

**Results**

50 of the 116 providers selected for training completed the study. The majority of those who left the study were unpaid volunteer providers and those who were unable to recruit a sufficient number of injectable users. In addition, a total of 193 women participated in the study. Of these, 189 participated in the second follow-up interview following the fourth injection.

Compared with the results of their baseline knowledge test about the correct gap between injections, where to administer the injection (arm) and how to administer the injection, the providers showed improved knowledge at the first and second follow-up assessments (Figure 2). In addition, the providers reported that the screening checklist provided to them to identify appropriate candidates for injectable use was easy to use and had helped them to correctly identify appropriate candidates.

Over time, the providers also became more comfortable with the task of providing DMPA. The proportion of community providers who said they were uncomfortable providing the method decreased from 28% at baseline to 1% at first follow-up interview; no provider reported being uncomfortable providing the method at the final interview.

Despite the training, it was noted in the interviews that the providers continued to place unnecessary restrictions on potential family planning users. Some providers at baseline...
(25%), first (8%), and second (11%) interviews stated that they were unwilling to provide the injectable to unmarried women, women who did not have their partner’s consent to use the method, women with health problems (unspecified), adolescents, women over 35 years of age, and women who were not perceived as forthcoming during the provider’s assessment (mentioned at second follow-up only).

Both the women and the providers themselves reported high rates of client satisfaction with the provision of the injectable by community-based providers (Figure 3). At both the first and second follow-up interviews, over 98% of women reported that they felt safe and secure after the injection was administered. When DMPA users were asked if they would recommend the method to other women, only 36% at first follow-up interview and 24% at second interview said that they would do so. This contrasts with the high satisfaction reported with the method.

There were no reported problems specifically related to the administration of the injectable by community-based providers. More paid providers compared with unpaid providers had clients who received the four injections planned in the study. Clients of paid providers were also more likely to state that they intended to receive their next injection from the same provider.

Conclusions
- Community-based providers who receive adequate training and supervision are capable of providing DMPA safely to indigenous people in rural Guatemala.
- Women are generally satisfied with the provision of DMPA through community-based providers. Qualitative research is needed to understand why women are reluctant to recommend services of community-based providers to friends despite indicating a high level of personal satisfaction with such services.

- The fact that 75% of women in the study were new contraceptive users implies that use of community-based providers could help to reach currently unserved or underserved populations.
- Paid providers were more effective than volunteers. A salary or stipend may increase the motivation of community-based providers to participate in the project and perform well.

Policy implications
- Provision of injectable contraceptives such as DMPA through community-based providers has the potential to extend safe and effective family planning services to underserved populations.
- Interventions that seek to introduce new, or expand existing, family planning services should work to create a supportive environment for service provision which includes promotion of family planning generally, reinforce counselling on contraceptive benefits and side-effects particularly for new users, and strengthen logistic systems to ensure a consistent and reliable supply of contraceptives.
- Providers of any type require adequate motivation, training, and supervision. Appropriate system structures should be in place prior to testing or introducing new interventions and for their sustainability.

![Figure 3. Percentage of providers and clients reporting client satisfaction with community-based provision of the injectable](image_url)
This policy brief is based on research conducted by Lillian Ramírez, Centro de Investigación Epidemiológica en Salud Sexual y Reproductiva, Guatemala City, Guatemala. The policy brief was written by Shawn Malarcher (with input from Dawn Chin Quee, Morrisa Malkin, and John Stanback) of Family Health International, Research Triangle Park, NC, USA, edited by Jitendra Khanna, and graphic design by Janet Petitpierre, Department of Reproductive Health and Research, World Health Organization, Geneva, Switzerland.

Further reading:


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