Improving the range of contraceptive choices in rural Ethiopia

Mengistu Asnake¹, Lakachew Walie², Yilma Melkamu³

Abstract

Background: Despite the reality of a high unmet need, the utilization of family planning services in Ethiopia could be described as very low. Besides this, the knowledge and practice of family planning is limited merely to the usage of shorter-term contraceptive methods. Therefore, there is a need to expand access to family planning services in rural Ethiopia by making available more choices to family planning clients.

Objective: The aim of this study is to examine the pattern of family planning method mix overtime and to assess the impact of combining strategies, such as community and facility based approaches, in improving access to family planning services and choices.

Methods: A cross-sectional, descriptive study was conducted in September 2000 in Tehuledere woreda, in South Wollo zone, Amhara Regional State. A census was done on all clients who live in 15 kebeles in the woreda and who used long-term and permanent family planning methods which included IUD, Norplant and male and female sterilization methods and were interviewed.

Results: Among the 218 family planning clients interviewed, 11 (5%) were males who had undergone vasectomy. Almost 81% of the clients using long-term and permanent methods were in the age group of 25-44 years. The mean age was 34.2 years with a range of 18-70 years and the mean number of children ever born to the study subjects was 5.6 with a range of 0-14 children. Knowledge of modern family planning methods was found to be over 90%, the majority (73.9%) of the respondents getting information on family planning from the community based reproductive health (CBRH) program. Fifty two percent have undergone voluntary surgical contraception, followed by Norplant (39.0%) and IUD (8.7%). Among the major reasons mentioned for the use of the current family planning methods were limiting family size (45.9%), spacing (27.5%), and side effects of the previous method (12.4%). For most clients (90.8%) the source of information for their current use is the CBRH program.

Conclusions: Improving the usage of wide range of contraceptive method mix improves the quality of family planning services rendered to the community and ensures sustainability of the services. A coordinated effort among facility based and community based providers can assist in ensuring client choices and improving the method mix. [Ethiop. J. Health Dev. 2006;20(2):74-78]

Introduction

Ethiopia is one of the countries with the highest maternal mortality, which is estimated at 871 per 100,000 live births (1). The major causes of maternal mortality and suffering are unsafe abortion, hemorrhage, and obstructed labor (2). With an estimated current population of over 64 million people (3), Ethiopia is the second most populous country in Africa next to Nigeria. The population is growing at a rate of 3.2 and is expected to reach over 173 million in 2050. Contraceptive prevalence in the country is very low with only 8% of married women using any type of contraception (1). This eventually leads to large numbers of unwanted pregnancies every year.

Close to 64% of the Ethiopian population can access modern health services. Only around 41% of pregnant women have the chance to have antenatal checkups and less than 10% get the opportunity of attended delivery (4).

The delivery of family planning services is one of the important strategies for reducing maternal morbidity and mortality worldwide (5). Families and individuals currently use either modern or traditional methods to space or permanently stop having children. Contraceptive method mix usage differs from program to program and region to region based on the availability of the methods, affordability of the services and other barriers such as socio-cultural factors. Generally, contraceptive users in Africa rely on shorter-term methods such as pills, while the usage of long and permanent methods is more common in Asia and Latin America (6, 7).

All modern methods which provide a wide range of protection from durations of as short as days to permanent protection such as voluntary surgical sterilization, intra uterine device, pills, injectables, condoms and other barrier methods are available in Ethiopia. However, utilization is limited very much to the shorter-term methods such as pills and injectables (1, 4).

Currently in Ethiopia, in addition to health facility based service delivery, programs are focusing on alternative service delivery strategies such as the community based reproductive health (CBRH) approach. The CBRH/CBD program was developed to enhance access to contraceptive use and knowledge by taking the services

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closer to the community level through the participation of the communities themselves and by mobilizing community volunteers. In a country like Ethiopia where the health service coverage and utilization is low the CBRH approach is vital in ensuring access to services and increasing knowledge of individuals and families to practice family planning. This model of service delivery was adopted in recent years in Ethiopia mainly by NGOs on a pilot basis and gradually expanded to wider geographical area. The program uses community volunteers that undergo two weeks of training that enables them to educate the community on family planning and other reproductive health care services, provide pills and condoms and refer those who need longer and permanent contraceptive methods (8).

This study was conducted in Tehuleder Woreda in south Wollo zone of Amhara Regional State. The population of the woreda is close to 136,000 and the residents are predominantly muslim by religion. The CBRH program was started in the woreda in 1996 by the Family Guidance Association of Ethiopia by deploying 34 CBRH agents in 15 kebeles. Financial and technical support was secured for the program from Pathfinder International and USAID. A baseline study that was conducted just before launching the project indicated that the CPR was 12% with a method mix of 84% pills, 14% Injectables and 2% condoms and long term and permanent methods such as IUD, while Norplant and sterilization were not part of the method mix (9).

The aim of this study was to examine the pattern of contraceptive method mix overtime and to assess the benefit of combining strategies such as community and facility based approaches in improving access to family planning services and choices. The study is also intended to describe the characteristics of users of long and permanent contraceptive methods.

**Methods**

A cross-sectional descriptive study was conducted in September 2000 in Tehuledere woreda of south Wollo zone in Amhara Regional state. A census of all clients living in 15 kebele of the woreda using long-term and permanent methods that include IUD, Norplant and male and female sterilization were interviewed. This was not difficult to undertake as all the family planning users in a kebele are known and receive regular visits by their respective CBRH agent. Accordingly 218 users from the 15 kebeles were identified. A structured questionnaire was developed and pre-tested. The questionnaire was designed to capture socio-demographic variables such as age, religion, marital status, educational level and occupation. Additionally, variables such as fertility, knowledge and practice of family planning were included. The data collectors were selected from the local area and were, thus, well aware of the local culture and traditions and they were given adequate training in data collection. Field supervisors checked each completed questionnaire and the survey coordinator reviewed the instruments to ensure data quality. The data were analyzed using SPSS/PC version 5.0 and EPI-INFO version 6.04 software packages. Frequencies, means and proportions were used to present the data.

**Results**

Among the total of 218 family planning clients interviewed, 11 (5%) were males who had undergone vasectomy. Almost 81% of the clients who used long-term and permanent methods were in the age group of 25-44 years. The mean age was 34.2 years with a range of 18-70 years. The majority of the clients (89.4%) were predominantly Muslim. As shown in Table 1, 26.1% of the respondents had no education, 54.1% had some informal education, and 19.7% had some formal education. A majority (58.3%) of the clients reported that they were farmers.

<table>
<thead>
<tr>
<th>Variable (n=218)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5.0</td>
</tr>
<tr>
<td>Female</td>
<td>95.0</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>0.9</td>
</tr>
<tr>
<td>20-24</td>
<td>9.6</td>
</tr>
<tr>
<td>25-29</td>
<td>12.8</td>
</tr>
<tr>
<td>30-34</td>
<td>17.9</td>
</tr>
<tr>
<td>35-39</td>
<td>35.8</td>
</tr>
<tr>
<td>40-44</td>
<td>14.7</td>
</tr>
<tr>
<td>45-49</td>
<td>5.0</td>
</tr>
<tr>
<td>50+</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>89.4</td>
</tr>
<tr>
<td>Orthodox Christian</td>
<td>10.6</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>26.1</td>
</tr>
<tr>
<td>Informal</td>
<td>54.1</td>
</tr>
<tr>
<td>Formal</td>
<td>19.7</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>34.9</td>
</tr>
<tr>
<td>Petty trader</td>
<td>4.6</td>
</tr>
<tr>
<td>Farmer</td>
<td>58.3</td>
</tr>
<tr>
<td>Government employee</td>
<td>0.9</td>
</tr>
<tr>
<td>Others</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Table 2 indicates that almost 96% of the respondents are married. The mean age at first marriage among long term and permanent method users is 15.3 years with a range of 10-30 years. Almost 38% were married before the age of 15 years. The mean number of children ever born was 5.6 with a range of 0-14 children. Almost 30% of the respondents had four or more children during the time of the survey. Among the respondents, 42.7% didn’t desire the birth of their last child. Over 50% wanted to have an
ideal number of 2-4 children and 36.2% were undecided on the ideal number of children.

Table 2: Distribution of clients by marital status and fertility patterns

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>0.5</td>
</tr>
<tr>
<td>Married</td>
<td>95.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>2.8</td>
</tr>
<tr>
<td>Widowed</td>
<td>0.9</td>
</tr>
<tr>
<td>Age at first marriage</td>
<td></td>
</tr>
<tr>
<td>&lt;15</td>
<td>38.2</td>
</tr>
<tr>
<td>15-17</td>
<td>46.1</td>
</tr>
<tr>
<td>18-20</td>
<td>11.1</td>
</tr>
<tr>
<td>21+</td>
<td>4.6</td>
</tr>
<tr>
<td>Number of births</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1.8</td>
</tr>
<tr>
<td>1</td>
<td>4.1</td>
</tr>
<tr>
<td>2-4</td>
<td>28.9</td>
</tr>
<tr>
<td>5-6</td>
<td>26.1</td>
</tr>
<tr>
<td>7+</td>
<td>39.0</td>
</tr>
<tr>
<td>Children alive</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1.8</td>
</tr>
<tr>
<td>1</td>
<td>4.1</td>
</tr>
<tr>
<td>2</td>
<td>29.8</td>
</tr>
<tr>
<td>3</td>
<td>34.9</td>
</tr>
<tr>
<td>4+</td>
<td>29.4</td>
</tr>
<tr>
<td>Children died</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>77.1</td>
</tr>
<tr>
<td>1</td>
<td>13.8</td>
</tr>
<tr>
<td>2</td>
<td>5.5</td>
</tr>
<tr>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>4+</td>
<td>1.8</td>
</tr>
<tr>
<td>Ideal number of children</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>2-4</td>
<td>51.4</td>
</tr>
<tr>
<td>5-6</td>
<td>10.6</td>
</tr>
<tr>
<td>7+</td>
<td>1.4</td>
</tr>
<tr>
<td>Undecided</td>
<td>36.2</td>
</tr>
</tbody>
</table>

Except for foaming tablets (70.0%), knowledge of modern family planning methods was over 90%. The majority (73.9%) of the respondents got their information on family planning from the CBRH program. As shown in Table 3, the majority of the clients were on temporary family planning methods such as pills (72.9%) and injectables (41.3%) before they shifted to long-term and permanent methods. Twenty eight (12.8%) of the clients never used modern contraceptives before the present method. The mean duration of use before the current method was 16.7 months with a range of 0-87 months. Almost over 60% of the clients have used some form of modern FP methods for over six months. Close to 52.0% have undergone voluntary surgical contraception, followed by Norplant (39.0%) and IUD (8.7%).

Among the major reasons mentioned for the use of the current family planning methods were limiting family size (45.9%), spacing (27.5%), and side effects of the previous method (12.4%). For most clients (73.9%) the source of information is the CBRH program.

Table 3: Distribution of clients by modern family planning knowledge and practice

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of specific FP method</td>
<td></td>
</tr>
<tr>
<td>Pills</td>
<td>100.0</td>
</tr>
<tr>
<td>IUD</td>
<td>95.0</td>
</tr>
<tr>
<td>Injectable</td>
<td>98.6</td>
</tr>
<tr>
<td>Foaming tablet</td>
<td>70.2</td>
</tr>
<tr>
<td>Condom</td>
<td>90.4</td>
</tr>
<tr>
<td>Norplant</td>
<td>98.0</td>
</tr>
<tr>
<td>VSC</td>
<td>95.0</td>
</tr>
<tr>
<td>Source of information</td>
<td></td>
</tr>
<tr>
<td>Health facility</td>
<td>24.8</td>
</tr>
<tr>
<td>CBRH program</td>
<td>73.9</td>
</tr>
<tr>
<td>Mass media</td>
<td>0.5</td>
</tr>
<tr>
<td>Others</td>
<td>0.9</td>
</tr>
<tr>
<td>Previous use of specific FP method</td>
<td></td>
</tr>
<tr>
<td>Pills</td>
<td>72.9</td>
</tr>
<tr>
<td>IUD</td>
<td>14.1</td>
</tr>
<tr>
<td>Injectable</td>
<td>41.3</td>
</tr>
<tr>
<td>Foaming tablet</td>
<td>1.4</td>
</tr>
<tr>
<td>Condom</td>
<td>0.9</td>
</tr>
<tr>
<td>Norplant</td>
<td>2.8</td>
</tr>
<tr>
<td>None</td>
<td>12.8</td>
</tr>
<tr>
<td>Duration of use</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>12.8</td>
</tr>
<tr>
<td>1-6 months</td>
<td>25.7</td>
</tr>
<tr>
<td>7-12 months</td>
<td>22.5</td>
</tr>
<tr>
<td>13-24 months</td>
<td>19.7</td>
</tr>
<tr>
<td>&gt;24 months</td>
<td>19.3</td>
</tr>
<tr>
<td>Current FP method on use</td>
<td></td>
</tr>
<tr>
<td>Norplant</td>
<td>39.0</td>
</tr>
<tr>
<td>IUD</td>
<td>8.7</td>
</tr>
<tr>
<td>VSC</td>
<td>52.3</td>
</tr>
<tr>
<td>Reason for current method use</td>
<td></td>
</tr>
<tr>
<td>Spacing</td>
<td>27.5</td>
</tr>
<tr>
<td>Permanent use</td>
<td>2.8</td>
</tr>
<tr>
<td>Side effect of previous method</td>
<td>12.4</td>
</tr>
<tr>
<td>Better method use</td>
<td>9.2</td>
</tr>
<tr>
<td>Limiting</td>
<td>45.9</td>
</tr>
<tr>
<td>Others</td>
<td>2.3</td>
</tr>
<tr>
<td>Source of information for current use</td>
<td></td>
</tr>
<tr>
<td>Health worker</td>
<td>39.0</td>
</tr>
<tr>
<td>CBRH program</td>
<td>8.7</td>
</tr>
<tr>
<td>Friend/relative</td>
<td>52.3</td>
</tr>
</tbody>
</table>

As shown in Table 4, the majority of the clients (83.0%) took 1-3 months before deciding on the current method. Moreover, 60.0% of the respondents encouraged others on the use of long term and permanent methods. Among these clients 57.3% have confirmed that one or more clients started to use the method.
Table 4: Distribution of clients by factors associated with current use

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion with others before current method use</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>43.1</td>
</tr>
<tr>
<td>No</td>
<td>56.9</td>
</tr>
<tr>
<td>Duration before decision on the method</td>
<td></td>
</tr>
<tr>
<td>Immediately</td>
<td>4.1</td>
</tr>
<tr>
<td>1-3 months</td>
<td>83.0</td>
</tr>
<tr>
<td>4-6 months</td>
<td>5.0</td>
</tr>
<tr>
<td>&gt; 6 months</td>
<td>7.8</td>
</tr>
<tr>
<td>Encouraged others on use</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60.1</td>
</tr>
<tr>
<td>No</td>
<td>39.9</td>
</tr>
<tr>
<td>Number used with your effort</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>42.7</td>
</tr>
<tr>
<td>1</td>
<td>23.7</td>
</tr>
<tr>
<td>2</td>
<td>17.6</td>
</tr>
<tr>
<td>3</td>
<td>7.6</td>
</tr>
<tr>
<td>4+</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Discussion

During the baseline survey, the utilization of contraceptive methods was totally dominated by the use of shorter-term methods such as pills and injectables, and at the time of this study the methods used have significantly shifted towards the long and permanent methods of contraception. Contrary to the findings in this study, the contraceptive method mix of the country from the DHS and data according to the MOH, a majority of the family planning clients are users of short-term methods - especially the pills (1,4). The report by MOH shows that the use of IUD and Norplant ranged 0.1-0.4% and 0.1-0.3% respectively in three consecutive years (4). This could be explained by different factors and needs detailed investigation. Some of the reasons could be the unavailability of the long-term methods, the lack of trained personnel to provide the methods, as they demand special skills and providers' bias towards the methods as they need pre-procedure special preparations and as they are relatively time taking. Countries in Middle East and Asia such as Iran have managed to bring the share of the long and permanent methods to over 50% of the total method mix (7).

In the DHS, knowledge of family planning was generally good both in the rural and urban settings, but was low for methods such as Norplant, IUD, and VSC for both men and women (3). Compared to the DHS, knowledge of all methods in general and long and permanent methods in particular is quite high and almost all are above 90%. Encouragingly, CBRHAs were the main initial sources of information. The fact that 60% of current users were trying to encourage others to use the long and permanent methods shows that there is satisfaction from the users' side and probably extent of the quality of services provided.

This study demonstrated that there is very high demand for long and permanent contraceptive methods given the availability of methods and adequate awareness creation in the community. It is clear that, in addition to health service providers, the contribution of CBRHAs was quite significant.

In a country like Ethiopia where it is difficult to sustain services and ensuring constant supply of contraceptives is a challenge, shifting towards the long and permanent methods is an important strategy to ensure continuity of services. From the client perspective, using the methods gives them confidence as they are not expected to worry about the timing of taking methods and becoming pregnant. It also relieves them from repeated visits to health facilities by walking long distances.

Generally, to ensure the quality of services and address the different contraceptive needs of clients, programs should make all methods available and try to harmonize health facility and community based interventions. Different strategies that are based on local context including training of all staff in long-term contraceptive methods provision at a health facility should be designed and implemented. In conclusion, the achievement of this study area could be replicated to other areas.

The study focused only on the users of long and permanent methods due to limitation of resources and a larger scale study that includes users of both short and longer/permanent methods and non-users is recommended to provide detailed information that would provide detailed information for the expansion of method choices at a larger scale.

Acknowledgement

We would like to acknowledge the Family Guidance Association of Ethiopia and Pathfinder International Ethiopia for providing financial and technical assistance for this study.
## References
