

costs (\$36,500) would be offset by the patient-related costs (\$7,488 per day) incurred had the restaurant remained open an additional five days.

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## Public Opinion on and Potential Demand for Vasectomy in Semi-rural Guatemala

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**Abstract:** In this study of 1,600 men aged 25-50 from semi-rural Guatemala, three-fourths had heard of vasectomy. Among these, 54 per cent approved of it. However, the survey reveals a widespread lack of knowledge regarding the procedure, as well as negative perceptions or doubts about its effect on sexual performance, ability to do hard work, health, and manhood. One-fourth of the respondents who knew of vasectomy and who desired no more children expressed interest in having the operation, a finding which raises questions as to the potential (unrecognized) demand for vasectomy in other developing countries. (*Am J Public Health* 1985; 75:73-75.)

#### Introduction

Vasectomy has long been a controversial method of contraception, especially in developing countries, for a number of reasons: Lack of knowledge or misconceptions regarding the effects of vasectomy on sexual performance<sup>1-4</sup>; prevailing cultural norms that women should take the responsibility for birth control<sup>5</sup>; inability to disassociate manhood from the ability to impregnate<sup>6</sup>; a societal preference for female sterilization, especially with the simplification of these techniques<sup>7</sup>; ambiguous legal status, and others. However, another barrier to the more widespread acceptance of vasectomy is that service providers may have underestimated the potential demand for male sterilization and have failed to offer it as a desirable method to limit family size.<sup>5</sup>

There is an extensive literature of follow-up studies on vasectomized men, which generally show a high level of satisfaction with the operation.\* However, there have been

\*Exceptions to this have been reported where financial incentives are offered and the source of motivation is not necessarily internal.<sup>5</sup>

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few studies on the attitudes, beliefs, and predispositions of the general public toward vasectomy. Of those that have been published, at least half are based in the United States,<sup>9-12</sup> and have little relevance to developing countries. Reports of public opinion (among non-vasectomized men) from Korea,<sup>13</sup> Taiwan,<sup>14</sup> Thailand,<sup>15</sup> and Uganda<sup>16</sup> suggest very limited receptivity to this form of contraception.

Interest in investigating public opinion and the potential demand for vasectomy in the country of Guatemala stemmed from the limited but promising acceptance of this form of contraception to date. Of the 6,672 male sterilizations performed by the private family planning associations (affiliates of International Planned Parenthood Association/Western Hemisphere Region) throughout Latin America from 1980 to 1982, 56 per cent originated from the Asociación ProBienestar de la Familia (APROFAM) of Guatemala.\*\* Moreover, of these, 19 per cent were performed in one small rural community, Barberena, suggesting that the potential acceptance of this method is not limited to educated professionals in urban areas.

In an effort to explore the demand for vasectomy and different approaches to its promotion, APROFAM has undertaken a service/research project in four semi-rural communities of southwestern Guatemala. The study reported here constitutes the baseline for this project, and as such serves three purposes: 1) to assess existing public opinion toward vasectomy and the potential demand for this method; 2) to identify lack of knowledge, misconceptions, and other obstacles which should be addressed as part of the communication program; and 3) to provide baseline data against which to measure the impact of the promotional effort once it has been in operation for 12 months (July 1984).

#### Methodology

This study was carried out in the southern coastal area of Guatemala, 60-180 kilometers from the capital, Guatemala City; primary economic activities include the raising of livestock and the harvest of sugar cane, cotton, and coffee. Vasectomy has been available through fixed clinics or mobile units in a number of towns in this region since 1979,

\*\*IPPF/WHR: Personal Communication. Estadísticas de Servicio, 1978 a 1982.

although this method has not been specifically promoted in previous communication campaigns.

A randomly selected sample of 400 men, aged 25–50 years old, was taken from each of four locations for a total of 1,600 respondents. Interviewing was conducted in June 1983; male interviewers spoke privately with the respondents in their own homes. The refusal rate was less than 5 per cent; revisits for verification were conducted in 5 per cent of the cases.

## Results

### Sociodemographic Characteristics

The average age of the 1,600 respondent males was 36.2 years. Most (88 per cent) were married or living in consensual union, with an average of 3.2 living children. Only 28 per cent had gone beyond a high school education, and the great majority (83 per cent) were skilled laborers, agricultural workers, vendors, or other blue collar workers. Almost all (97 per cent) were ladinos.\*\*\* While two-thirds were Catholic, only 19 per cent were “very religious.” The use of family planning is already widespread in this population: 65 per cent reported that they or their wives were using some type of contraception.

### Awareness and Knowledge of Vasectomy

Three-fourths of the men interviewed had heard of vasectomy (or “an operation for men who do not want any more children”). All subsequent percentages reported herein are based on those who had heard of vasectomy.

One-third of those aware of vasectomy had talked to a man who had had the operation, although only 1 per cent of the study population was vasectomized. The experience of those vasectomized was generally favorable. However, only thirty-nine per cent of those who had heard of the operation were able to correctly describe it.

### Attitudes and Perceptions

In response to the question, “Do you approve or disapprove of men having this operation?”, 54 per cent expressed approval. A subsequent set of eight questions regarding perceptions of a vasectomized man reflect certain fears or misconceptions among the public:

- 51 per cent thought a vasectomized man would gain weight; another 14 per cent did not know;
- 41 per cent believed sexual desire would decrease or were unsure (25 and 16 per cent, respectively);
- 40 per cent felt sexual performance would be poorer or did not know (24 and 16 per cent, respectively);
- 30 per cent would expect health to deteriorate or were unsure (15 and 15 per cent, respectively);
- 30 per cent felt a man’s disposition would be worse or did not know (13 and 17 per cent, respectively);
- 26 per cent believed he would be less able to do hard physical labor or did not know (17 and 9 per cent, respectively);
- 24 per cent considered he would be “less of a man” or did not know (15 and 9 per cent, respectively);
- 22 per cent felt he would be less respected by the community or were unsure (16 and 6 per cent, respectively).

\*\*\*The term “ladino” is an ethnic classification which describes the half of the Guatemalan population that is Spanish-speaking; 43 per cent of Guatemalans are Indian.

### Potential Demand for Vasectomy

The men in this study were asked: “Would you be interested in having a vasectomy?” Twenty-six per cent of the 504 men who had heard of the operations, did not want any more children, were not already sterilized, nor were their wives answered affirmatively. The figure corresponds to 8 per cent of all men interviewed, many of whom had not completed their families.

Further analysis of responses of the 504 men desiring no more children indicated that interest in vasectomy was highest among men who:

- were ladino;
- had three to four children;
- were “somewhat” or “not very” religious;
- believed that vasectomy would have a positive effect or no effect at all on sexual desire and performance, health, disposition, ability to do hard work, manhood and respect from the community; and
- had talked to a vasectomized man

### Discussion

In this population with a high degree of awareness, over half of the men who had heard of the operation approve of it as a means of contraception. Nonetheless, there is a widespread lack of knowledge regarding the procedure itself, and a substantial segment of the population has negative perceptions or doubts about the effect of vasectomy on sexual drive and performance, health, disposition, ability to do hard work, manhood, and opinions of the community. These findings have been taken into account in the communication campaign which has been subsequently launched in three of the four study locations to specifically encourage acceptance of vasectomy.

Admittedly, the expression of interest in vasectomy can not be equated with intention to have the operation. As in all surveys, there is the possibility of interviewer bias whereby respondents try to provide responses which they believe will please the interviewer.

Nonetheless, the results of this study indicate that the potential demand for vasectomy may be greater than might be expected from a semi-rural population in an agricultural region where *machismo* is reputed to prevail.

The extent to which demand for the operation can be increased though the use of radio and directed interpersonal communication will be determined by a 12-month follow-up survey, carried out in July 1984.

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## Contraceptive Usage during Lactation: Analysis of 1973 and 1976 National Survey of Family Growth: I. Age and Race

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**Abstract:** Data from the National Survey of Family Growth are analyzed to estimate the prevalence of contraceptive use during lactation. Approximately 20 per cent of lactating women were sexually active and did not use a method in months two through six, postpartum. Among method users, the largest proportion chose barrier methods but 14 per cent used oral contraceptives in the early postpartum period. Between 1973 and 1976 there was an increase in the percentage of women who utilized a contraceptive method during lactation and a decrease in the per cent using oral contraceptives. (*Am J Public Health* 1985; 75:75-77.)

### Introduction

In recent decades, women in the United States have readopted breast-feeding as the preferred method of infant feeding.<sup>1-3</sup> In the late 1960s and early 1970s, only about 25 per cent of women chose to initiate breast-feeding, whereas in 1981 this level had increased to 59 per cent.<sup>1-4</sup>

The association between lactation and the suppression of ovulation is well established.<sup>5-8</sup> However, ovulatory inhibition is dependent on the frequency and intensity of suckling and the duration of time postpartum, and ovulation may antedate resumption of menses. Therefore, most women require some contraceptive protection during lactation as postpartum infertility diminishes.

There is some concern that the minute quantities of synthetic steroids transmitted via breast milk may affect the neonate or infant, and it is known that estrogen containing hormonal contraceptives can reduce milk volume.<sup>8-10</sup> In view of these concerns, health authorities such as the World Health Organization, the American Academy of Pediatrics, the American Public Health Association, and the Interna-

tional Planned Parenthood Federation (IPPF) have developed recommendations for contraceptive use during lactation.<sup>11-14</sup> Although none prohibit combined hormonal contraception during lactation, all recommend waiting until lactation is established and utilizing another method during lactation if possible.

Little is known concerning actual contraceptive use during lactation in the United States. Strauss, *et al*,<sup>15</sup> found that 26 per cent of North American IPPF-affiliated physicians prescribed combined oral contraceptives during lactation, and patient preference was a major reported factor in their decision. Because of the special problems of contraceptive need and pill use in lactating women, an analysis was carried out to study contraceptive use during lactation, using data from the National Surveys of Family Growth (NSFG) for 1973 and 1976.

### Method

The National Surveys of Family Growth obtained concurrent and three-year retrospective data by personal interviews with a multi-stage probability sample of women aged 15-44 in the noninstitutional population of the coterminous United States.<sup>16,17</sup> For the first survey, 3,856 Black women and 5,941 women of all other races were interviewed between June 1973 and February 1974. For the second survey, 2,946 Black and 5,665 women of other races were interviewed between January and September 1976. For each live birth where the child lived with the mother for at least two months, women were asked if they breast-fed the child and how many weeks old the child was when they stopped breast-feeding altogether. Information on contraception was also obtained.

Because the sampling rates varied for different subgroups of the population, the sample data are weighted to give accurate estimates of the population. Weighting procedures, estimation of sampling errors, and tests of significance are discussed elsewhere.<sup>17,18</sup>

### Results

During the years 1973 to 1976, most women resumed sexual activity within one or two months of giving birth

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