

PN-ACD-378

98999

TESTING LOW-COST METHODOLOGIES FOR  
GATHERING DATA ON FP/RH CLINIC CLIENTS

LIMA, PERU

A

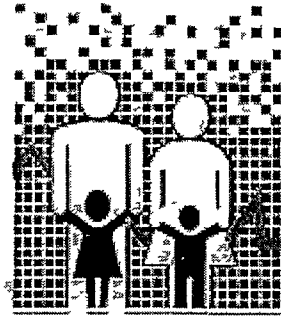
**INPPARES/Peru  
In House Project**

**Testing Low-Cost Methodologies for Gathering  
Data on FP/RH Clinic Clients**

**FINAL REPORT**

The Population Council seeks to improve the wellbeing and reproductive health of current and future generations around the world and help achieve a humane, equitable, and sustainable balance between people and resources. The Council ■ analyzes population issues and trends ■ conducts biomedical research to develop new contraceptives, ■ works with public and private agencies to improve the quality and outreach of family planning and reproductive health services, ■ helps governments to influence demographic behavior, ■ communicates the results of research in the population field to appropriate audiences ■ and helps build research capacities in developing countries. The Council a nonprofit nongovernmental research organization established in 1952 has a multinational Board of Trustees its New York headquarters supports a global network of regional and country offices

This project was funded by the U S Agency for International Development Office of Population under Contract No CCP-3030-C-00-5007-00 Latin America and the Caribbean Operations Research and Technical Assistance in Family Planning and Reproductive Health (INOPAL III) Population Council Accounting number 350 04037



**TESTING LOW-COST METHODOLOGIES FOR  
GATHERING DATA ON FAMILY PLANNING/  
REPRODUCTIVE HEALTH CLINIC CLIENTS**

**Final report prepared by**

**Jeanne Noble  
INOPAL III, Lima Office**

**Dr Daniel Aspilcueta  
Dr Aníbal Velásquez  
Instituto Peruano de Paternidad Responsable - INPPARES**

**INOPAL III  
In-House Accounting Number 350 04037**

**October, 1997**

## TABLE OF CONTENTS

I Purpose of study	1
II Methodology	2
III Instrument acceptability	2
IV Instrument validity	3
<i>Socio-demographic profiles</i>	3
<i>Presence of STD symptoms and sexual behavior</i>	7
V DISCUSSION	10

d

## I Purpose of Study

The main objective of this operations research (OR) study was to explore a simple, low cost way of estimating the nature and prevalence of sexually transmitted disease (STD) and high risk sexual behavior in order to determine the cost effectiveness of providing new or expanded services. This is particularly important when considering whether to provide routine STD screening and treatment given its relatively high cost. However, estimating STD prevalence through sentinel surveillance is often cost prohibitive, while collecting information regarding STD symptoms and/or risk factors through interviews is also problematic due to respondents' reluctance to discuss sensitive topics openly. Thus, it was hypothesized that self-administered questionnaires could be an ideal alternative, as a low cost methodology that avoided (or reduced) respondents' hesitancy to provide information about high risk sexual behavior.

In Lima, Peru, the IPPF affiliate INPPARES tested the feasibility of using self-administered questionnaires to collect data on the STD risk profile of its client population in three clinics. The self-administered questionnaires were evaluated with regard to *acceptability* (measured as the percentage of questionnaires returned at each site) and *instrument validity*, or the ability and willingness of respondents of different socio-economic backgrounds to provide accurate responses to personal questions without the assistance of an interviewer. Instrument validity was evaluated in two ways. First, respondents' ability to answer questions without assistance was measured by comparing the socio-demographic profiles of clients obtained from questionnaire data with that of service statistics. Second, the extent to which respondents were willing to provide "truthful" information about sexual behavior and STD symptoms was estimated by cross-checks for internal consistency between responses to different questionnaire items and by comparing the percentage of respondents reporting STD symptoms with the percentage of visits during which STD symptoms were reported or detected during the study period.

## **II Methodology**

Three clinics were selected from the INPPARES network to serve as study sites *Patres*, located in an affluent neighborhood and serving a largely middle class, adult clientele, *Futuro*, a clinic for young adults operating in the same locale as *Patres*, and *San Juan de Lurigancho Community Clinic*, a small establishment operating in an urban slum and serving a population with limited education and disposable income

Female and male versions of the questionnaire were developed, consisting of 17 questions for women and 16 for men, including socio-demographic items, purpose of visit, STD history, and recent sexual behavior Both versions were pre-tested and validated with INPPARES clients prior to the initiation of data collection (see Annex 1) Questionnaires were distributed by the clinic receptionist to all persons entering each site, including those accompanying clients To preserve anonymity, respondents were requested to deposit completed questionnaires into a sealed container At *Patres* and *Futuro*, approximately 30 days of data collection were spread out between late January and early April of 1997 At *San Juan de Lurigancho*, questionnaires were distributed between February 12 and March 14

Providing a private area for questionnaire completion was considered, but was not possible to implement due to space limitations During the first week of data collection, a group of men and women at *Patres* were observed filling out their questionnaires together (discussing highly improbable responses) To prevent this from happening in the future, receptionists at all sites requested respondents to complete the questionnaire without the help of others, which prevented overt data falsification during the remainder of the study period

## **III Instrument Acceptability**

In total, 1454 questionnaires were distributed and 1290 (89 percent) were returned Two-thirds of the questionnaires were completed by women and one-third by men with nearly identical completion rates (88% and 89% respectively)<sup>1</sup> Of the three study sites, *San Juan de*

---

<sup>1</sup>Questionnaires were judged to be “complete” when all questions regarding STD symptoms and treatment were answered

Lurigancho (SJL) had the highest completion rate (94%), likely due to the fact that the receptionist could easily observe respondents who declined to return the questionnaire in the small, uncrowded waiting area. The following table displays the distribution of questionnaires by site.

**Table 1** *Number of Questionnaires Distributed and Completed by Sex and Clinic*

	Patres			Futuro			SJL		
	Distrib	Valid	%	Distrib	Valid	%	Distrib	Valid	%
<b>Women</b>	520	454	87	235	202	86	216	203	94
<b>Men</b>	291	254	87	150	137	91	42	40	95
<b>Total</b>	811	708	87	385	339	88	258	243	94

High response rates across the three study sites suggests that self-administered questionnaires are an acceptable way to collect information from client populations of different socioeconomic strata.

#### IV Instrument Validity

##### *Socio-demographic Profiles*

As a general measure of instrument validity, responses to socio-demographic questions were compared to similar data collected as part of SDP service statistics. The following table displays marital status, age, and education distributions for female questionnaire respondents as compared with SDP statistics of female clients by study site<sup>2</sup> (Comparison of male responses with service statistics was not possible due to the limited number of men attended at the study sites.) Respondents who reported that they were accompanying a client and did not intend to receive services themselves have been excluded since they are not represented in services.

---

<sup>2</sup>Service statistics were calculated from a review of clinical histories of all patients seen during the month of February at Patres and Futuro and during the continuous period of data collection at San Juan de Lurigancho (February 12 - March 14)

statistics. It should be kept in mind that perfect correspondence is not expected given that many clients appearing in service statistics did not enter into the study group.

**Table 2** *Percent Distribution by Socio-demographic Characteristics  
Questionnaire Responses and Service Statistics Compared*

Socio-demographic Characteristics	Questionnaire Data Female Clients Only			Service Statistics Female Clients		
	Patres N=393	Futuro N=159	SJL N=181	Patres N=2371	Futuro N=335	SJL N=204
<i>Age</i>						
Under 20	2.5	41.5	7.2	1.2	52.5	9.8
20-29	45.3	55.3	46.4	45.8	47.5	48.5
30 and over	52.2	3.1	46.4	53.0	0.0	41.7
<i>Marital Status</i>						
Single	29.0	84.9	13.7	36.9	91.0	11.0
Married/ in-union	62.8	13.8	81.4	59.4	9.0	89.0
Sep/Div/Widowed	8.1	1.3	4.4	3.7	0.0	0.0
<i>Educational Level</i>						
Primary or less	1.3	2.5	19.1	4.2	2.1	41.5
Secondary	21.2	49.7	50.8	23.2	30.2	41.5
Superior	77.6	47.8	30.1	72.7	67.7	17.1

At Patres and SJL, there is very little variation between age distributions calculated from questionnaire data and service statistics. At Futuro, there is an 11 percentage point difference between questionnaire and service statistics data for the youngest age group. However, the younger age distribution of clients reported in service statistics may be due to the fact that Futuro officially serves adolescents and young adults up to the age of 22, creating a downward pressure on reported age.

There is close correspondence between questionnaire data and services statistics with



regard to marital status across all three sites. With respect to education, there is only close correspondence between the two data sets at the Patres site. At Futuro, the percentage of clients with secondary education and post-secondary education are nearly identical according to questionnaire data (50 and 48% respectively), while according to service statistics, the figures are 30 and 68%. This discrepancy may have to do with the structure of the question which asked for the highest level of studies completed, providing the options "Never attended/ Primary/ Secondary/ Superior". Individuals who completed three years of secondary school, for example, may have marked secondary school (highest level attended) and others may have marked primary (highest level completed). Having the respondent indicate the last year (of a given level) completed, as well as providing additional options (such as post-secondary technical school) could provide more accurate results.

In SJL, a 20 percentage point discrepancy is observed in the distribution between primary and secondary education with questionnaire respondents reporting higher levels of education than that found in service statistics. According to service statistics, over 40% of those attended had a primary education or less, compared with 19% according to questionnaire data. However, the "primary or less" category is composed of those who never attended school as well as those who attended and/or completed the primary level. Once those who did not attend school are excluded from analysis (assuming that most are illiterate and did not complete the questionnaire), a close correspondence emerges between the educational distributions calculated from questionnaire data and from service statistics: 17 versus 24% respectively with primary education, 54% with secondary education according to both data sets, and 29 versus 22% with university education.

Respondents were also asked three 'yes' or 'no' questions about the purpose of their visit: had they come for family planning services, for another type of service, or to accompany a client to the SDP. When the questionnaire was designed, it was assumed that most respondents would give a positive response to only one of the three questions. However, a significant proportion of respondents at each site gave more than one reason for their visit.

**Table 3** % Distribution of Respondents by Motive for Visit

Purpose of Visit	Patres		Futuro		SJL	
	Women N=447	Men N=25 1	Women N=199	Men N=136	Women N=199	Men N=40
Family Planning services	34	31	40	43	68	53
Other services	81	39	65	26	80	38
Accompanying client	16	64	21	63	29	74
% responding affirmatively to more than 1 item	<b>30</b>	<b>32</b>	<b>28</b>	<b>34</b>	<b>61</b>	<b>53</b>

Although it is certainly likely that *some* respondents were seeking more than one type of service, or both seeking services and accompanying a friend, the fact that more than half of all respondents at SJL gave two or three motives for their visit raises doubts as to whether or not the series of questions was understood by these respondents. Combining the three questions into a single question with non-dichotomous responses may have yielded better results.

When purpose of visit is cross tabulated by educational level, a more probable distribution of responses is evident among those with secondary education or higher.

**Table 4** Motive for Visit by Level of Education

Level of Education	Distribution of Female Respondents by Number of Motives for Visit				N
	No motive given (%)	1 motive (%)	2 motives (%)	3 motives (%)	
Primary or less	10	43	22	25	49
Secondary	4	56	32	8	287
University	3	64	30	3	471

Only 3-4% of those with higher education failed to give a reason for their visit, compared with

10 percent of respondents with primary education or less. Likewise, while only 3% of those with university education and 8% of those with a high school education responded affirmatively to all three motives (seeking family planning, seeking other services, and accompanying a friend), 25% of those in the lowest educational group did so.<sup>3</sup>

### *Presence of STD Symptoms and Sexual Behavior*

The validity of responses to sensitive questions, such as the presence of STD symptoms and sexual behavior, has been evaluated by internal cross-checks between questionnaire items and by comparison with the percentage of clinical histories containing references to STD symptoms during the study period. Again, some divergence between questionnaire and clinic-based data is expected as anonymous questionnaire respondents could not be matched with their clinical histories.<sup>4</sup>

The first check for internal consistency is a cross tabulation of current STD symptoms (discharge or genital lesion) with sexual behavior, expecting to see the lowest rate of current symptoms among those reporting no sexual activity, an intermediate rate among those reporting monogamous sexual activity, and the highest rate among respondents with more than one sexual partner.

---

<sup>3</sup>Spearman's correlation confirms a negative relationship between educational attainment and number of motives given for visit (Value= - .124, p< .000)

<sup>4</sup> "Presence of STD symptoms" includes any type of vaginal/penal discharge or lesion that the respondent considered to be abnormal, which may or may not be the result of an STD

**Table 4** *Percentage of Respondents Reporting STD Symptoms by Sexual Behavior*

Sexual Behavior	Patres	Futuro	SJL	All Sites	All Sites
	Women N=442	Women N=201	Women N=193	Women N=822	Men N=422
Not sexually active	29	25	25	27	20
One partner only	42	46	54	46	14
More than 1 partner	60	50	79	64	15
% of all respondents reporting STD symptoms	42	41	53	44	15

The distribution of female respondents at all three study sites follows the expected pattern, suggesting that questions were understood and answered accurately <sup>5</sup> An inconsistent pattern is seen among male respondents (pooled across sites) where those reporting no recent sexual activity also reported the highest rate of current STD symptoms, although the difference between groups is small

A second check for internal consistency is cross tabulations of responses to the last two questionnaire items

13) Have you had sex during the past 3 months?

- 1) Yes, with only 1 person
- 2) Yes, with more than 1 person
- 3) No, I have not had sex within the last 3 months

---

<sup>5</sup>Pearson's R confirms a positive correlation between presence of STD symptoms and number of sexual partners (Value= .157, p< .000)

14) Do you believe that your partner (or any of your partners in the last 3 months) has had other sexual partners?

- 1) Yes, I think so
- 2) No, I do not think so
- 3) I have not had sex within the last 3 months

The only apparently “incorrect” combination of responses is reporting no sexual activity to one question and some other answer (indicating sexual activity) to the other. However, an exception to this apparent inconsistency is the combination of “no sex” and “partner with others” with the possibility that the respondent’s most recent union had ended due to partner infidelity. The combination of “no sex” with “monogamous partner” was interpreted as inconsistent as was “sex with one or more partners” in response to question 13 and “have not had sex” in response to question 14. In total, inconsistencies were found in only 5.8% of female cases at Patres and among 12.7% of male cases at the same site. At Futuro, 9.6% of female respondents gave inconsistent responses compared with 9.0% of male respondents. And at SJL, 7.2% of women reported inconsistent information as did 10.8% of men (based on only 37 cases). In sum, the vast majority of respondents supplied consistent information regarding sexual activity suggesting that such questions were widely understood.

Performing the same consistency check, while controlling for level of education, demonstrates that the highest proportion of inconsistent responses comes from those with the lowest levels of education. Among all female respondents, 13.2% of those with primary education or less gave inconsistent responses to questions 13 and 14, compared with 7.6% of those with secondary education and 6.1% of respondents with a university education.

In addition to internal cross-checks, the proportion of respondents reporting STD symptoms was compared with the proportion of patient records from one month of the study period containing a reference to STD symptoms (either mentioned by the client or detected by the provider). As displayed in the following table, there is a close correspondence between questionnaire responses and clinical records among women seen at Patres and Futuro and less than a 10 percentage point difference between the two sources at SJL. The small number of men

attended at the three sites precludes analysis of male respondents

**Table 5** % of Respondents Reporting STD Symptoms Compared with Clinical Records

% with STD Symptoms	Female Clients		Male Clients	
	Questionnaire Data	SDP Records	Questionnaire Data	SDP Records
Patres	42	37	17	10
Futuro	45	44	11	-----
SJL	54	46	-----	-----

It should be noted that a significant proportion of all respondents reported having more than one sexual partner or believing that their partner had other partners, ranging from a low of 18% of men and 19% of women at Patres to a high of 27% of men and 32% of women at SJL. This information, together with responses regarding STD symptoms, has ready applications for program management, suggesting a clear need for STD screening and treatment and indicating where demand is highest

As a result of this study, INPPARES developed and is currently testing clinic protocols for STD detection and treatment that will be implemented in its clinics throughout the country

## V Discussion

Study results suggest that self-administered questionnaires are a feasible, low cost way to collect data on sensitive issues such as STDs and sexual behavior across different populations. However, for most variables analyzed, differences between questionnaire responses and service statistics were greatest at San Juan de Lurigancho, which serves an economically disadvantaged population with lower levels of formal education. And across sites, the highest proportion of inconsistent responses came from those with primary education or less, suggesting that self-administered questionnaires are best suited for data collection among populations with at least some secondary schooling. Further study is needed to determine if adjustments in instrument design could reduce the level of inconsistent responses among groups with less education.

Several questionnaire items did not produce interpretable results due to lack of specificity. Respondents were asked if they had ever had a vaginal/genital infection diagnosed by a doctor or nurse and were later asked if they had ever received treatment for a vaginal/genital infection. These questions were designed to detect the proportion of respondents who at one time had an unmet need for STD services. However, the number of respondents reporting past treatment slightly exceeded the number of respondents reporting previous diagnoses at both Patres and SJL, which is entirely possible due to the common practice of purchasing medicines directly from pharmacies without previous medical consultation. Estimating unmet need for STD services would require specific questions about how any previous symptoms were resolved.

The virtual absence of affirmative responses to questions referring to previous diagnoses or treatment of gonorrhea, syphilis, or genital warts also suggests that these terms are not widely recognized or that respondents are not informed about the origin of their STD symptoms.

Beyond testing the general acceptability and feasibility of self-administered questionnaires, a precise measure of instrument validity would require a one to one correspondence between the information provided by respondents and that obtained from service statistics. However, matching completed questionnaires with clinical records would come at the cost of respondent anonymity. An intermediate solution would be to design the questionnaire to match as closely as possible the series of questions asked by providers during patient in-take. This was not done in the present study, but may be experimented with in the future.

A final lesson learned during the present study is the benefit of collecting data during one continuous period, thus facilitating comparisons of questionnaire data with clinic-based service statistics. At the Patres site, a sufficiently robust sample size and client flow (captured in service statistics) made exact chronological correspondence between the two data sets unnecessary. At the smaller site of Futuro, however, an unnecessary degree of statistical “noise” was introduced by comparing questionnaire responses and services statistics from only partially matched periods of data collection.<sup>6</sup>

---

<sup>6</sup>This was not a factor affecting San Juan de Lurigancho where questionnaire distribution occurred over a continuous period and was matched with service statistics accordingly.