

"PHARMACISTS' AND CONSUMERS' KNOWLEDGE AND BEHAVIORS WITH
RESPECT TO AIDS AND ITS PREVENTION. THE CASE OF MEXICO CITY"

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I. SUMMARY.

IMIFAP (Instituto Mexicano de Investigacion de Familia y Poblacion, A.C.) is a young institute formed by researchers in the social sciences whose main objective is to develop applied research in the field of family and population.

With the object of developing a study which provides the bases for the design of a program for pharmacists on AIDS prevention, \$ 48,208 is being requested.

II. RATIONALE.

Throughout Latin America, prescription medications and contraceptives can be purchased over the counter in pharmacies. Products are available in the absence of physicians or other trained health professionals. Pharmacy owners and clerks, who are often placed in the role of the healer, advisor and provider of medications, have few sources of information available regarding the use of the products they prescribe and dispense. Minimal training plus the biased information of pharmacy workers limit the quality and completeness of the information they provide.

On the other hand, studies in Mexico, Guatemala, Brazil, Colombia, Ecuador, Paraguay and El Salvador show that the pharmacist is clearly an important source of treatment for all social strata, and are the primary source of care for the poor.

The importance of pharmacies as a source of information has also been confirmed by several national demographic studies in Latin American countries conducted as part of the World Fertility Survey (WFS).

Pharmacies rather than doctor's offices or clinics were one of the most commonly cited sources of contraceptives. The importance and potential of the pharmacist and pharmacy worker in family planning and the reproductive health of the community has been recognized by researchers and health professionals for a long time (e.g. figures show that at least 30% contraceptives in Mexico are distributed through pharmacies, Datos Mexicanos, S.A. de C.V., 1980).^{*} Unfortunately, until the relatively recent interest in commercial distribution of programs, little has been done to support and utilize the ubiquitous and appropriate resources of the pharmacy infrastructure to promote family planning and provide information and contraceptives for informed client decision-making and the accessibility of products.

^{*} A recent study (Pick de Weiss et al., 1988) on the sexual and contraceptive practices of adolescents in Mexico City showed that 62% of teenagers who have used some form of contraceptive obtained it through a pharmacy.

One example of such support has been a series of projects funded by the Pathfinder Fund in seven countries conducted since 1976, in which pharmacy employees have been given formal training so that they can provide accurate information on contraceptive methods and actively promote family planning.

No studies have been carried out in Latin America which analyze the information pharmacists have regarding AIDS and its prevention.

III. PURPOSE.

1. Obtain information on the knowledge that pharmacists and their clients have and information pharmacists provide, regarding HIV transmission and its prevention.
2. Design educational material based on this information.
3. Test the effect of this material on changes in knowledge of AIDS and behavioral patterns regarding condom sales.

IV. END OF PROJECT.

Status. Brief interviews have been held in eight pharmacies in order to evaluate the feasibility of this research.

Specific Objectives.

A. From the pharmacists perspective.

- 1) Obtain data on the information which pharmacists have and provide regarding condoms.
- 2) Obtain information on the knowledge pharmacists have regarding HIV transmission, AIDS and its prevention.
- 3) Obtain information on ways in which the pharmacist thinks condoms would have widespread acceptability.
- 4) Obtain information regarding whether or not they advise clients on the AIDS prevention ability of condoms.
- 5) Obtain data on the pharmacists' perception of who determines if condoms are purchased.

8. From the perspective of the consumers.

1) Obtain data regarding the information and service provided by the pharmacists' with respect to HIV transmission, AIDS and its prevention.

2) Obtain information on the consumers' perception of who determines what contraceptives are bought.

4) Obtain data on who informs consumers regarding the purchase of contraceptives (e.g. knowledge, who determines the purchase).

5) Determine who these products are being bought for (e.g. the sexual partner, the son, the daughter).

V. PROJECT DESCRIPTION.

EXPLORATORY RESEARCH STAGE:

Samples.

1. Sample of Pharmacies.

There is no reliable index or census of the pharmacies which exist in the Mexico City area. However, several institutions have registered at some point in the last ten years the approximate number of existing pharmacies. Of these, Dr. Flores Galaz, President of the Mexican Society of Pharmacists, Dr. Manuel Urbina, Director General of Family Planning of the Health Ministry and Dr. Jaime Martuscelli, former Under-Secretary of Health, estimate the number of pharmacies in the metropolitan area of Mexico City to be between ten and fourteen thousand.

Data from Wil, S.A. (1985, 1986) a well know marketing research company, indicate that in Mexico City, 8%, 29% and 63% of the population belong to high, medium and low socioeconomic levels. Based on the Mexico City mercadological map published by BIMSA (1982) six pharmacies in each of these socioeconomic levels will be selected, three with one or two attendants and three with three or more attendants. In each of these pharmacies the non-professional clerks and professional attendants will be interviewed (64 interviews in all).

In order to insure a representative sample of both pharmacies and consumers which contemplates different schedules, interviewing will be carried out in all pharmacies in two different schedules (8 a.m. - 3 p.m. and 3 p.m. - 10 p.m.)

2. Sample of consumers.

In order to complement the information of the pharmacists,

once the pharmacists data has been collected an analysis of different "types", of pharmacies * will be developed and 30 consumers of condoms will be interviewed (10 at each type of pharmacy).

In order to cover the whole range of schedules at which clients make their purchases, interviewees will remain for a whole day at each pharmacy. Consumers of all age groups and both sexes will be included. Pharmacists will be asked to point the interviewer to the possible interviewee in order to enable him/her to conduct the interview. Care will be taken to include pharmacies located both in residential and commercial areas.

Instruments.

Open ended questionnaires and focus groups will be used.

Statistical analyses.

Frequency analyses and content analyses will be carried out, followed by cross-tabs and analyses of variance (one or the other depending on the variables under consideration). A socioeconomic profile of consumers will be developed and will be associated with "pharmacy types". In addition comparisons between consumers' and pharmacists' responses will be carried out.

STAGE OF DESIGN OF EDUCATIONAL MATERIALS:

Based on the results of the exploratory research, educational materials will be designed, printed and evaluated. Two kinds of pamphlets will be designed:

- 1) Consumer. It will include for example: a brief description of the virus, routes of transmission, condom information and suggestions of questions to ask the pharmacy worker.
- 2) Pharmacies. It will include information for customers.

EVALUATION STAGE:

In each of the three socioeconomic groups a sample of 60 pharmacies (ten of each type, all attendants in each) will be given a questionnaire on their knowledge of AIDS, its prevention, their behaviors regarding AIDS prevention and specifically condoms sold (240 interviews). They will then be given and explained the educational materials and evaluated again one month later with respect to knowledge and behavior and regarding their attitudes towards the educational materials and their usefulness.

* Six types will be formed (combining one of three socioeconomic levels and one of two sizes).

Pharmacies of different types

The pharmacies in this stage will be in similar areas as the ones used in the exploratory stage of the research.

Instruments.

Close ended questionnaires will be used.

Statistical analyses.

Frequency analyses, McNemar test and analyses of variance will be applied in order to evaluate the effect of the materials.

Capability of implementing agency

IMIFAP is formed by researchers in the social sciences who also work at UNAM (National University of Mexico). Dr. Susan Pick de Weiss, obtained her Ph.D. in Social Psychology from the University of London and has been carrying out research and teaching in the population field for 10 years. Dr. Michelle Shedlin obtained her Ph. D. in anthropology and has been carrying out qualitative research and work on design of educational materials, many specifically oriented towards AIDS prevention, for almost 20 years. Other members of IMIFAP have experience in field work (both interviewing and supervision) as well as in coding and statistical analyses.

VI. BUDGET.

Principal Investigator:

Dr. Susan Pick de Weiss 20% of time \$ 7,400 Dlls.

Responsibilities: Research planning, questionnaire design and construction, supervision of design of the educational materials, of the exploratory and evaluation stages, report writing and dissemination of information, supervision of statistical analyses.

Co-principal Investigator

Michelle Shedlin 20% of time \$7,400 Dlls.

Responsibilities: supervision of focus groups and questionnaires design and design of educational materials, content and qualitative analyses, report writing.

Consultant:

Sandra Rosenhouse of Population Council will be a consultant to the project in the construction of the questionnaires and in the data analyses.

EXPLORATORY RESEARCH STAGE

64 interviews with pharmacists, 10 Dis. each. (including coding and transportation)	640
8 focus groups with 8 people each (4 with consumers and 4 with pharmacists) (20 Dis. each participant)	1,280
Conduction of the focus groups, 500 Dis. each (8 groups)	4,000
60 interviews with consumers, 20 Dis. each (including coding and transportation) (the reason for this cost is that the interviewers will be present in the pharmacies for a whole day in order to assure representativeness of pharmacy schedules)	1,200
2 field supervisors (2 months of data collection, 500 Dis. each)	2,000
Printing of questionnaires	200
Data coding and capture	1,500
Data analyses	1,500

STAGE OF DESIGN OF EDUCATIONAL MATERIALS

Design of the educational materials	3,200
Printing of the educational materials (500 pamphlets)	4,500

EVALUATION STAGE

240 interviews with pharmacists, 10 Dis. each (including coding and transportation)	2,400
Data coding and capture	3,000
Data analyses	3,500
2 field supervisors (2 months of data collection, 500 Dis. each)	2,000
Travelling costs for co-investigator 2 trips from Connecticut and per diem (6 days)	4,000

OTHER COSTS

Bilingual secretary 20% time	2,000
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Supplies	800
Printing of questionnaires	700
DISSEMINATION OF INFORMATION	
Seminar	500
2 national and 2 international trips	3,000
Total	41,920
overhead 15%	6,268
TOTAL	48,208

VII. IMPLEMENTATION PLAN.

Time Line

Month	1	Design and construction of exploratory questionnaire, sample specification, training for focus groups.
Month	2 - 3	Application of exploratory questionnaire and focus groups.
Month	4	Data capture.
Month	5	Preliminary data analyses.
Month	6 - 7	Design and printing of educational materials, application of pre-test (evaluation stage) and distribution of materials.
Month	8 - 9	Application of post-test (evaluation stage).
Month	10	Data capture.
Month	11 - 12	Data analyses, report writing, seminar for dissemination of results.

Monitoring and Evaluation.

Four interviewers will be in charge of carrying out all of the interviews and focus groups.

They will each be allocated pharmacies where they will carry

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out the interviews. The two supervisors will check on the interviewers daily at least once in each of the time schedules and the principal investigator will also check daily in each of the locations where interviewees are working. This will be done in a manner such that the interviewers cannot predict when or how often they will be checked by the supervisors and the supervisors will not be able to determine when or how often the principal investigator will check on them.

The monitoring will focus on place and time of interview and quality of its content.

Each of the supervisors will give the principal investigator a daily report of activities and expenses.

The supervisors will also review each of the interviews and should problems arise will ask the interviewees to conduct them again.

The principal investigator will check the content and coding of the quantitative data and the co-principal investigator the qualitative one.

Reporting

A detailed report which will include sampling, data collection procedures, the questionnaires, data analyses and recommendations will be presented to the funding agency and to interested authorities in this field. Papers will be presented at scientific meetings and published in scientific journals. A seminar to disseminate the information will be organized upon completion of the project.

Implications for policy design.

Dr. M. Flores Galaz, President of the Mexican Society of Pharmacists and Dr. Manuel Urbina, General Director of Family Planning of the Health Ministry have expressed interest in this project and in the possibility of using the materials for an AIDS prevention program for pharmacy workers.