

**A MARKET STUDY OF A SPECIALIZATION DEGREE IN
REPRODUCTIVE HEALTH PROGRAM MANAGEMENT**

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SUMMARY

Family planning programs in Mexico have evolved in the last few years into reproductive health programs. However, few service providers and program managers have received formal training on the design, implementation and management of comprehensive reproductive health programs. This training would seem to be specially relevant given the decision of the MOH to completely decentralize all health programs and put them under the management of State governments. Thus, the success of reproductive health programs will be based on the capacity of state-level managers.

In 1991, the National Institute of Public Health (INSP) started offering a distance education masters in public health program for state mid-level managers. To date, 86 chiefs of local health systems have received the degree and the program has been replicated by the Pan American Health Office in other Latin American Countries. Given this experience, the INSP thought that perhaps the same system could be used to remedy training needs in reproductive health management. In order to test this idea and to be able to design and implement such an educational program, the INSP conducted a market study for the potential demand of an in-service graduate degree program in management of reproductive health programs.

Specific objectives of the study were: a) to identify the profile of MOH state- and jurisdictional level reproductive health program managers, b) to assess the acceptability of an in-service graduate degree in Management of Reproductive Health Programs, and c) to obtain information to design the curricula of the educational program. To achieve these objectives, a survey of 203 State and local health system managers was conducted. In addition, 18 State level top decision makers were personally interviewed.

The results showed that there was a high potential demand for an in-service graduate degree program, but that the program would have to meet several requirements in terms of funding, location of activities, availability of time and compatibility with present work requirements. The degree should emphasize as main subject areas: a) reproductive health, b) program operations and functioning, c) management, and d) methodology, evaluation and operations research.

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I BACKGROUND

The mission of the National Institute of Public Health of Mexico (INSP) is to contribute to the betterment of the population's health by means of producing, reproducing, disseminating and using scientific knowledge. The INSP is composed by three academic units: the Center for Research on Population and Health, the Center for Infectious Disease Research (CIDR) and the Center for Health Systems Research. In 1994, the INSP completed 88 research projects, conducted 25 scientific events, and continued publishing the most respected Mexican scientific publications in the health area, including the professional journal *Salud Publica de Mexico* (Mexican Public Health), the series *Perspectivas en Salud Publica* (Perspectives in Public Health), as well as research summaries and academic and scientific books.

The staff of all three research centers, under the coordination of the Academic Secretariat, participate in the various higher education programs offered by INSP. In 1994, the INSP conferred 141 graduate degrees in health sciences and trained 652 participants in continuous education courses. The different academic programs offered by INSP can be classified as follows:

A - Professional Education Programs these consist of master's and specialization degree programs. The specialization programs are designed to enhance the capacities of professionals through additional course work that link theory with the practical application of innovative research and management techniques. The master's programs seek to form high level human resources for strategic planning, management of health institutions and research development. Specialization programs in Public Health, Nursing and in Hospital Administration are offered. Master's degrees offered include those in Health Services Administration and in Public Health.

B - Academic Education Programs these master's and doctorate degrees in sciences aim to prepare professionals capable of conducting research to help solve priority health problems. Substantive concentration areas in these science degrees include epidemiology, health systems, environmental health, mental health, health economy, occupational health and reproductive health. This last degree, the first of its kind in Latin America, was started in 1991.

C - Continuing Education Programs these are designed to bring up to date or enhance the knowledge of public health professionals by way of short term courses oriented towards the priority needs of targeted populations. They also seek to strengthen the link between professional practice in health services and the academic process.

In recent years, the INSP has started to offer distance graduate education programs. In 1994, the INSP received the National Public Administration Prize for the development and implementation of a Master's in Public Health program that

was launched in 1991 (with funding from the Kellogg Foundation) and has allowed 86 chiefs of sanitary jurisdictions (local health systems) in the country to receive the degree. The success of this program motivated the Panamerican Health Organization (PAHO) to replicate the experience of this program in other Latin American countries. The strength of the In-Service Masters Program is that it allows professionals to conduct their studies while simultaneously they continue working. This type of on-the-job masters program does not require the constant presence of a teacher, defined class hours or the constant presence in a classroom. In addition, the students are able to directly relate what is learned with their day to day working. Finally, this training is very efficient because it is focused on those who are already hold managerial posts in health institutions.

The in-service masters program has a duration of two years. The students are evaluated through weekly meetings with state-assigned tutors and regional coordinators, examinations and a final written document. The curricula follows four stages: health diagnosis, design of an intervention, implementation and evaluation. For each stage, the students are assigned a set of readings and are required to conduct a practical, on-the-job exercise. Both these assignments are discussed in weekly meetings. Thus, by the end of their masters program, students have completed an operations research on a theme related to their professional activities and functions.

II PROBLEM STATEMENT AND SOLUTION

In Mexico, family planning programs have evolved in recent years into reproductive health programs. For example, the Family Planning Department of the Mexican Social Security Institute (IMSS) was transformed in 1992 to the Department of Reproductive and Maternal-Child Health Services. Likewise, the Family Planning Directions of the Ministry of Health (MOH) and the Institute of Social Security and Services for Federal Workers (ISSSTE) were transformed in January 1995 to the Direction of Reproductive Health. In the midst of those changes, few service providers and program managers have received formal training on the design, implementation and management of comprehensive reproductive health programs. Training in the management of comprehensive reproductive health programs for state-level officials has become even more pressing given the decision of the MOH to completely decentralize all health programs and put them under the management of State governments. As part of the decentralization, both the staff and physical infrastructure of both the MOH and of IMSS-Solidarity will be merged and transferred to the State Governments. Thus, the success of reproductive health programs will be based on the capacity of state-level managers.

Given the experience that the INSP has recently acquired, perhaps the training needs of State-level managers could be met by means of an in-service graduate degree.

in management of reproductive health programs. This educational program would benefit not only from the proven capacity of INSP in providing distance education services, but also from its academic resources, particularly those involved in the reproductive health masters degree program. Furthermore, given the emphasis placed in applied research, such a program would be an ideal mechanism for the institutionalization of operations research as a management tool.

However, to be able to design and implement such an educational program, there would be a need for data on the characteristics of potential program participants, their training needs, and their potential demand for the educational service. For this reason, the INSP decided to conduct a market study for an in-service graduate degree in management of reproductive health programs. In what follows, the results of this study are presented.

III OBJECTIVES OF THE MARKET RESEARCH

The general objective of this study was to identify training needs of MOH state-level managers of reproductive health programs in order to provide the information needed for the curricular design of an in-service graduate degree program in Management of Reproductive Health Programs.

Specific objectives of the study were the following:

- A To identify the profile of MOH state-level reproductive health program managers
- B To assess the acceptability of an in-service graduate degree in Management of Reproductive Health Programs
- C To obtain the needed information to design the curricula of the in-service graduate degree in Management of Reproductive Health Programs

IV METHODOLOGY

4.1 Sampling

States were used as sampling units. In order to select the States, a health needs index was developed, using four basic indicators related to reproductive health: total population, fertility, infant mortality and maternal mortality. A single health needs index was built by means of the principal components method. The values of the index ranged from -5 (for the State of Tlaxcala) to 6 (for the State of Guerrero). The states were distributed into three groups, according to the observed value of the health needs index. Twelve States (with index values of between -5 to -2) were assigned to

the first group, nine States (with index values of between -1 to 1) were assigned to the second group, and the remainder were assigned to the third group. Three States from each group were randomly selected. The selected States were Oaxaca, Guanajuato, San Luis Potosí, Baja California Sur, Zacatecas, Tabasco, Coahuila, Veracruz and Chiapas (See Table 1). It should be mentioned that due to the state of emergency caused by the Roxanne hurricane it was impossible to complete the interviews in Tabasco.

In each of these States, an attempt was made to interview a variety of top and mid-level managers involved in the MOH's Reproductive Health Program. These included the head of the State Health Services, the State Reproductive Health and Maternal Child Health Program managers, and the Jurisdictional (local health systems) Reproductive Health Coordinators. In addition, an attempt was made to interview managerial staff from the IMSS, ISSSTE and MEXFAM, although it was possible to conduct only a few of these interviews.

Finally, in the course of this project, the MOH conducted a national meeting of the Reproductive Health Program Managers of the different states in Mazatlan, in October, 1995. To make use of this ideal opportunity to collect information from a larger variety of States, a team of interviewers went to Mazatlán, where they were able to collect information from several States which had not been included in the Sample, as well as from a variety of officials from the central level in Mexico City (the General Direction for Reproductive Health of the MOH, DGSR).

4.2 Data Collection instruments and methods

Two data collection methods were used to collect the information: a survey and in-depth personal interviews.

The survey was focused on mid-level MOH reproductive health program managers and a few directors of health centers and hospitals. The survey questionnaire employed both open and closed questions to assess socio-demographic characteristics, job demands and activities, the principal problems they face and their training needs (see Appendix 2). A total of 203 interviews were completed, including 73 in the National Meeting of MOH Reproductive Health Program Managers in Mazatlan and 170 in the States included in the sample design. Table 1 presents the number of interviews achieved in each State. Sixteen of these interviews were conducted among staff of other institutions: IMSS (4), ISSSTE (2), MEXFAM (8), DIF (2).

TABLE 1

NUMBER OF INTERVIEWS COMPLETED OF REPRODUCTIVE HEALTH PROGRAM MANAGERS IN EACH STATE	
STATES	NUMBER OF INTERVIEWS
ZACATECAS	22
SAN LUIS POTOSI	14
NAYARIT	24
GUANAJUATO	20
VERACRUZ	28
OAXACA	9
TABASCO	1
CHIAPAS	22
GUERRERO	12
20 OTHER STATES (INTERVIEWS CONDUCTED IN MEETING IN MAZATLAN)	51
TOTAL	203

The in-depth interview was addressed to key informants, mostly top-level managers, who could provide a qualitative global view that could help understand potential problems in the implementation of an in-service graduate degree program (see Appendix 3) A total of 18 in-depth interviews were conducted, including five State Health Secretaries

The instruments were pre-tested with public health officials in Cuernavaca, the capital of the State of Morelos, where the INSP is located Once the instruments were reviewed, two teams of interviewers were formed, one which conducted the interviews in North and Central Mexico, and another that conducted the fieldwork in South and South-east Mexico The leader of each team conducted the in-depth interviews

Field work was conducted during October and November of 1995

4.3 Data Analysis

The data from the survey questionnaires was analyzed by means of the STATA (version 3.1) statistical package A univariate analysis of the dependent variables was made (frequencies, means and standard deviations, where appropriate) Two-way cross-tabulations were produced in the case of the most relevant variables

To analyze the data from the in-depth interviews, a transcript of the recordings was made The text was codified according to relevant analytical categories The texts for each category were analyzed, compared and synthesized

V SURVEY RESULTS

Regarding the characteristics of the respondents, eighty seven percent of the respondents worked for the MOH. Fifty four percent worked at the State level and 33% were jurisdictional officers (see Table 2)

TABLE 2

ORGANIZATIONAL LEVEL AT WHICH RESPONDENTS PROVIDE THEIR SERVICES		
ORGANIZATIONAL LEVEL	FREQUENCY	PERCENT
STATE JURISDICTION	109	53.69
REGIONAL	68	33.50
HOSPITAL	7	3.45
OTHER	3	1.48
TOTAL	16	7.88
	203	100.00

The name of the positions held by the interviewees varied considerably. 10% said they were heads of reproductive health offices, while 11% and 12%, respectively, mentioned family planning and maternal-child health offices. Interviewees at the jurisdictional level included chiefs of jurisdiction, coordinators of reproductive health programs, jurisdictional office chiefs, directors of health centers and of hospitals, in order of frequency (Table 3)

TABLE 3

CURRENT POSITION OF RESPONDENTS		
CURRENT POSITION	FREQUENCY	PERCENT
STATE RH CHIEF	20	9.90
STATE FAMILY PLANNING CHIEF	23	11.39
JURISDICTIONAL COORDINATOR	61	30.20
MCH COORDINATOR	24	11.88
OTHER POSITION	74	36.63
TOTAL	202	100.00

The mean age of the respondents was of 37 years, with a standard deviation of six years and a range of 25 to 70 years of age. Fifty five of the respondents were male, and they were on average one year older than female respondents. About 20% had held their present position for less than one year and nearly 30% had held it for five or more years (Table 4)

TABLE 4

SEX AND MEAN AGE OF RESPONDENTS						
SEX	NUMBER	PERCENT	AGE			
			MEAN	STD DEV	MINIMUM	MAXIMUM
MALE	111	54.7	38	7	28	70
FEMALE	92	45.3	36	5	25	53
TOTAL	203	100.0	37	6	25	70

Eighty seven percent of the respondents were trained physicians. The remainder held nursing, nutrition and other degrees. Twenty one percent had a medical specialization degree (mainly Ob/Gyn and pediatrics) and 11% had a graduate degree, in 80% of the cases a MPH (see Figures 1 and 2). Those with graduate degrees are placed mostly at state level offices, usually in charge of the reproductive health program. At the jurisdictional level, officials most often hold a BA or Bsc degree (Table 5).

TABLE 5

PROFESSIONAL PROFILE OF RESPONDENTS		
PROFESSION	FREQUENCY	PERCENT
GENERAL PRACTITIONER	169	86.67
NURSING B A	5	2.56
NUTRITION B A	4	2.05
GENERAL NURSE	7	3.59
OTHER	10	5.13
TOTAL	195	100.00

ACADEMIC LEVEL AND TYPE OF GRADUATE DEGREE OF REPRODUCTIVE HEALTH PROGRAM MANAGERS

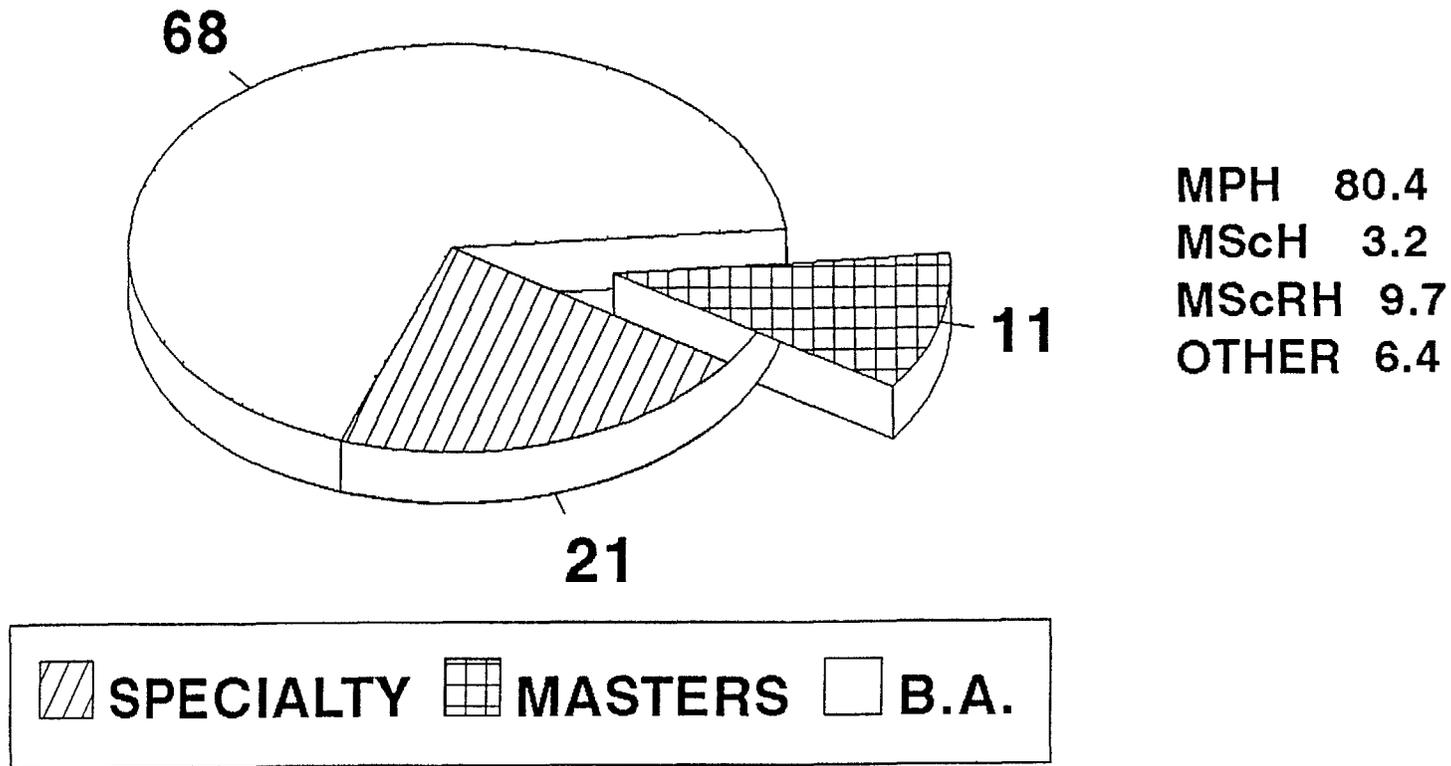
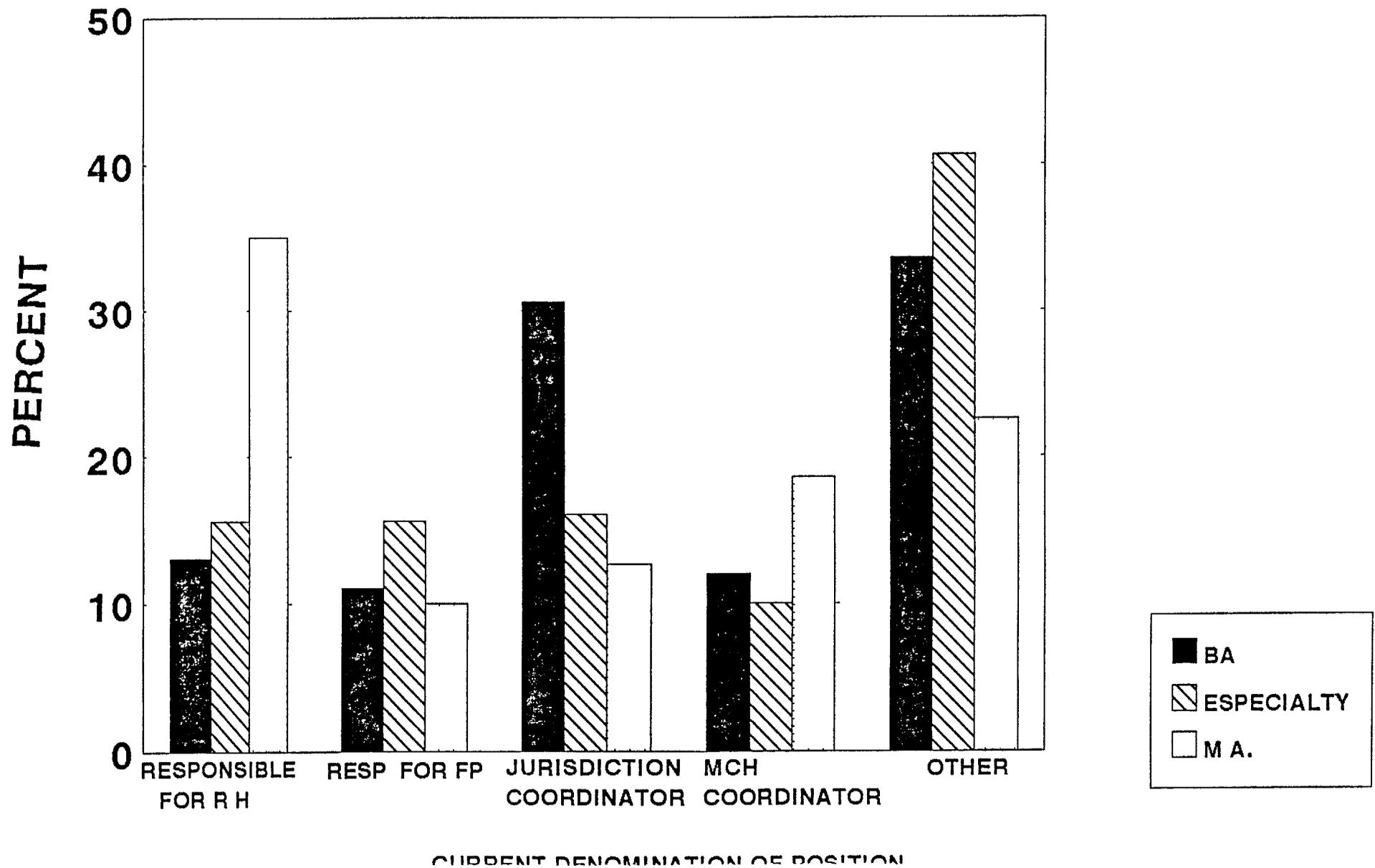


FIGURE 2

ACADEMIC LEVEL OF REPRODUCTIVE HEALTH PROGRAM MANAGERS BY CURRENT DENOMINATION OF POSITION



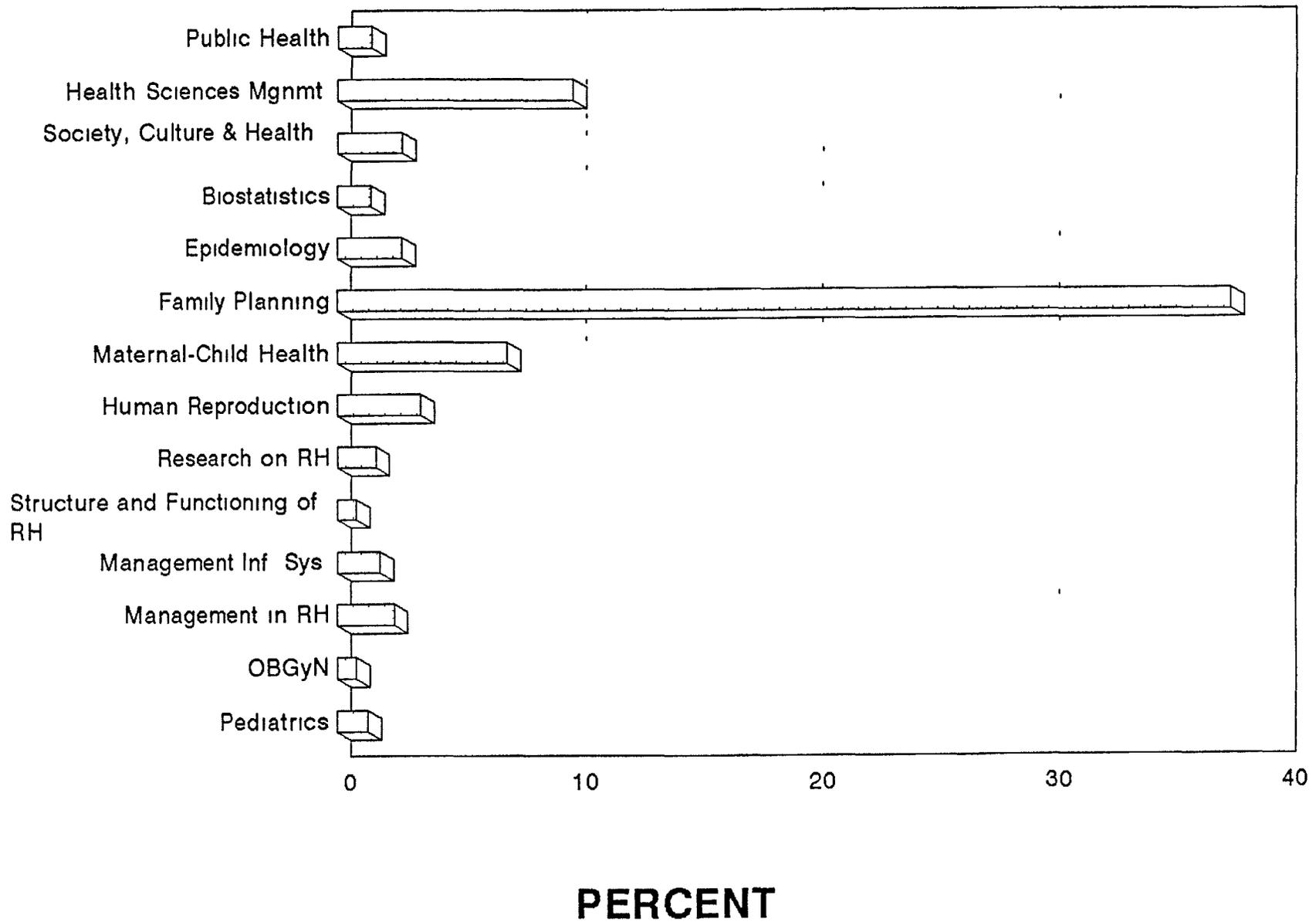
Respondents were asked if they had received more than 30 hours of training in any subject during the last three years. Almost 40% said they had attended a family planning course, 12% mentioned a course in management of health services and 10% mentioned a course in maternal-child health (Figure 3). Table 6 shows the type of training received according to the position held by the interviewee.

TABLE 6

PROFESSIONAL TRAINING COURSES OF MORE THAN 30 HOURS RECEIVED BY THE RESPONDENTS OVER THE LAST THREE YEARS BY TYPE OF POSITION HELD					
PROFESSIONAL COURSE	CURRENT POSITION HELD (PERCENT)				
	STATE R H CHIEF	F P CHIEF	RH JURISDICTION COORDINATOR	MCH COORDINATOR	OTHER
PUBLIC HEALTH	4.3		0.5		
HEALTH SERVICES MANAGEMENT	21.4	6.0	13.2	8.1	5.6
HEALTH CULTURE AND SOCIETY	2.9		1.0	4.8	3.7
BIOSTATISTICS	1.4	1.5	0.5		0.9
EPIDEMIOLOGY	1.4		2.7	3.2	3.7
FAMILY PLANNING	40.0	62.7	46.4	35.5	23.8
MATERNAL CHILD HEALTH	4.3	6.0	5.5	14.6	8.4
HUMAN REPRODUCTION FACTORS	4.3	1.5	3.2	8.1	2.8
REPRODUCTIVE HEALTH RESEARCH		1.5	2.7		1.4
RH STRUCTURE AND FUNCTIONING	2.9		0.5		0.9
INFORMATION SYSTEMS	1.4		2.7	1.6	0.9
RH MANAGEMENT METHODS AND INSTRUMENTS			1.4		5.1
GINECO OBSTETRICS			1.0	4.8	
PEDIATRICS	2.9		0.5		2.3
OTHER	12.9	20.9	18.6	19.4	40.2

FIGURE 3

REFRESHER COURSES OF REPRODUCTIVE HEALTH PROGRAM MANAGERS



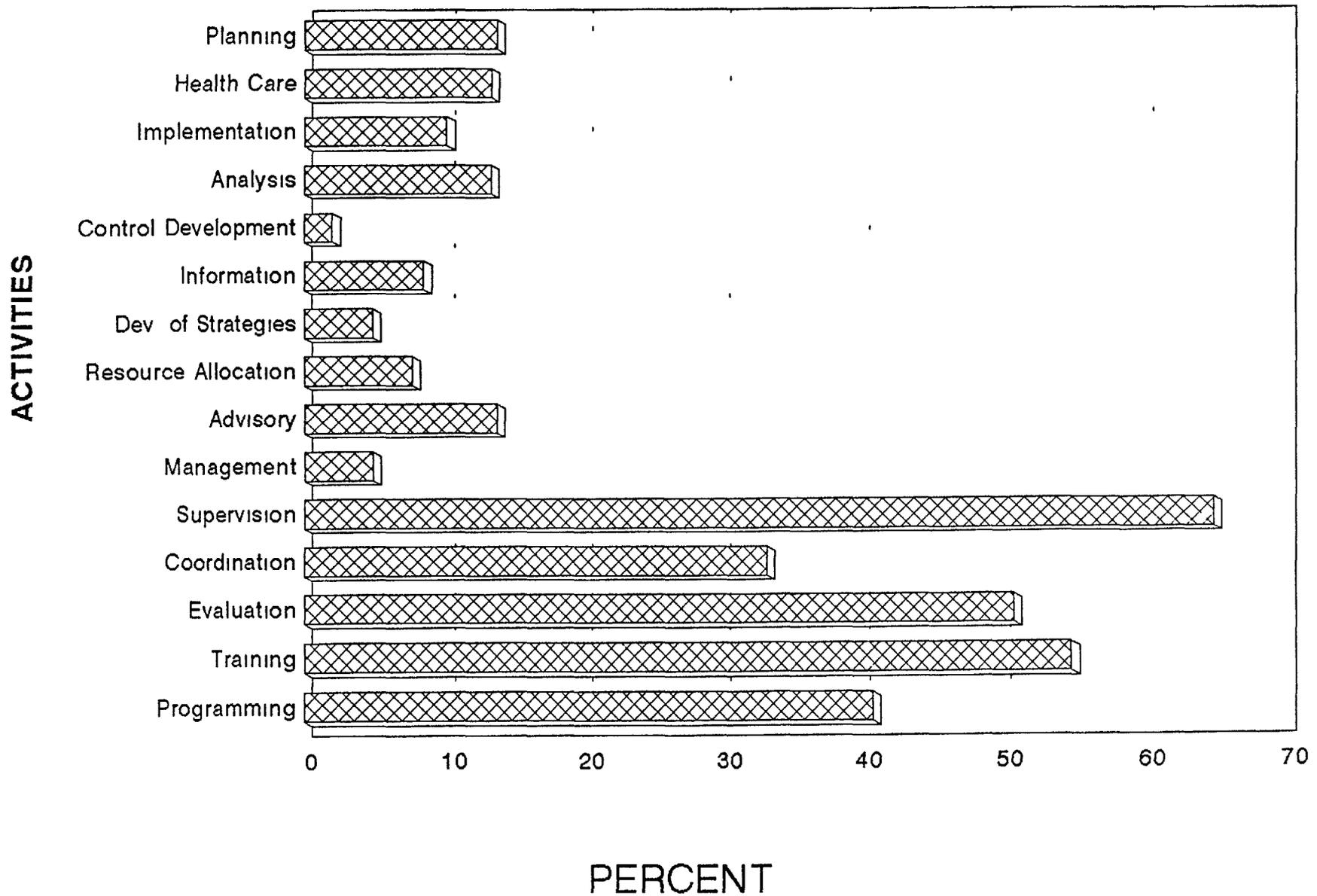
Regarding the type of activities that most often occupy the respondents, 70% mentioned supervision, 58% training, 50% evaluation, 44% planning, and 36% coordination of activities and events. Training and coordination of activities seem to be a more frequent activity of jurisdictional officers, while planning and evaluation are more important at the State level (see Table 7 and Figure 4).

TABLE 7

PRINCIPAL ACTIVITIES IMPLEMENTED BY RESPONDENTS BY OPERATIONAL LEVEL					
ACTIVITIES	OPERATIONAL LEVEL PERCENT				
	STATE	JURISDICTION	REGION	HOSPITAL	OTHER
PROGRAMMING	52.0	38.0	14.0	33.3	19.0
TRAINING OF STAFF	50.0	79.0	57.0	33.3	19.0
PROGRAM EVALUATION	63.0	40.0		33.3	25.0
INSTITUTIONAL AND INTER- INSTITUTIONAL COORDINATION	28.0	51.0	14.0		25.0
SUPERVISION	75.0	78.0	100.0		12.0
MANAGEMENT	6.0	4.0			6.0
ASSISTANCE TO STAFF	8.0	18.0	71.0		6.0
ALLOCATION OF RESOURCES	5.0	12.0	14.0		
DEVELOPMENT OF STRATEGIES	7.0	6.0	14.0		6.0
DATA CONCENTRATION	12.0	10.0	28.0		
DEVELOPMENT OF CONTROLS	9.0	3.0	14.0		
ANALYSIS	15.0	15.0			6.0
IMPLEMENTATION OF ACTIVITIES	1.0	13.0	14.0	66.7	44.0
PROVISION OF MEDICAL SERVICES	1.0	18.0		100.0	62.0
PLANNING	23.0	3.0	14.0		
ORGANIZATION	6.0	1.0	14.0	33.3	6.0
DIRECTION	4.0	4.0			12.0

FIGURE 4

MAIN ACTIVITIES OF REPRODUCTIVE HEALTH MANAGERS



Respondents were asked to mention the most frequent problems they had in their jobs. Answers were classified in four different categories: clinical problems, context problems, organizational problems and institutional problems. Clinical problems were most often mentioned, especially the lack of pre-natal care (mentioned by 50%), lack of family planning (30%), perinatal mortality (27%), adolescent pregnancies (19%) and maternal mortality (18%). Organizational problems followed clinical problems, in particular insufficient training (27%) and lack of service coverage (21%). The most often context problem mentioned was the lack of participation and interest of the population (23%) (see Figure 5). Other analysis showed there are only slight variations in the frequency in which these problems are mentioned according to the number of years in which the position has been held and the administrative level in which the respondent is placed.

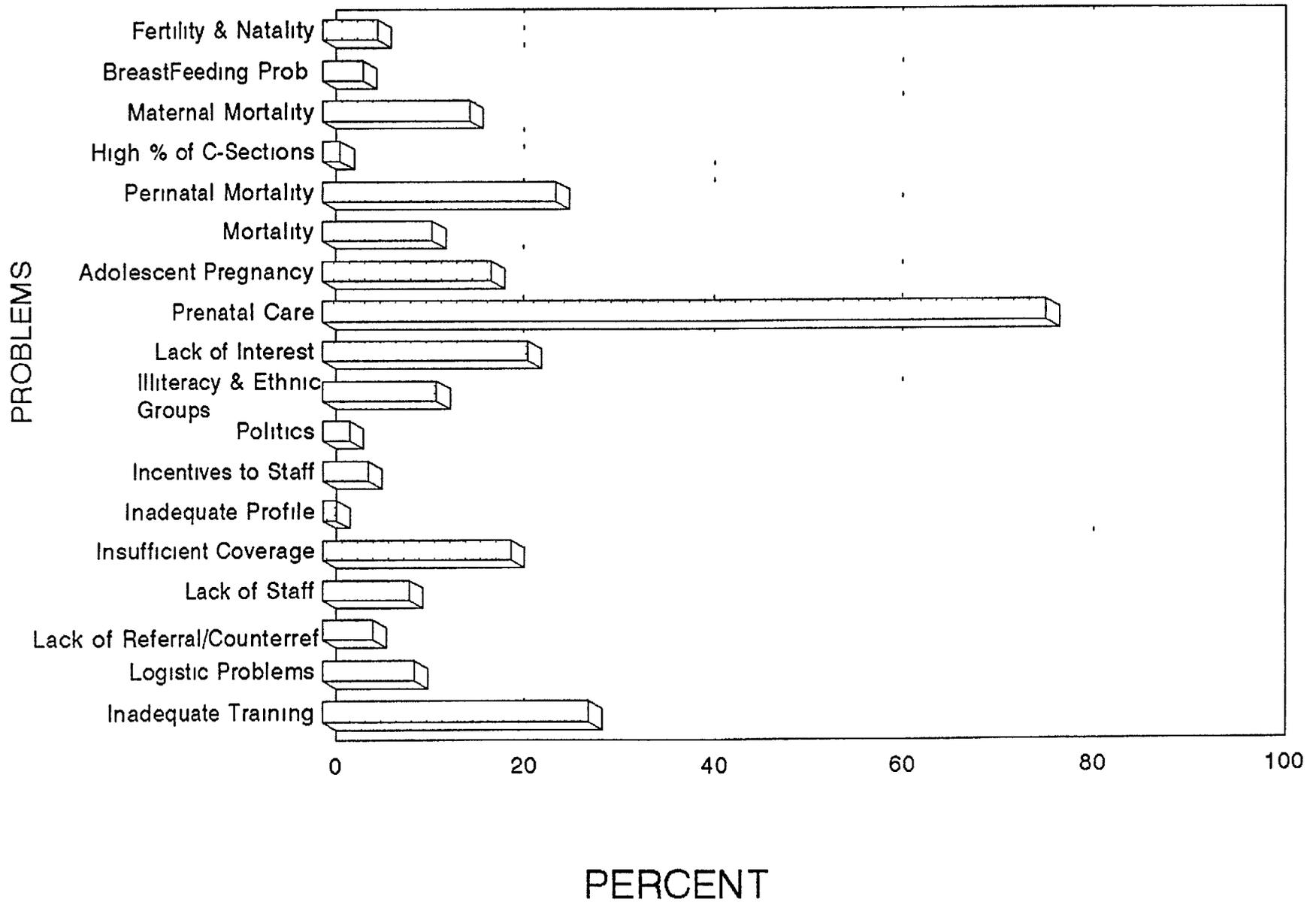
Respondents were asked to mention the most important training needs from a personal and from an institutional point of view. Answers were grouped in categories. From a personal point of view, the most often mentioned topics were related to clinical reproductive health (22%), operations research (18%), management of programs (17%), epidemiology (16%) and biostatistics (16%). Institutional training needs most often mentioned were reproductive health program operations or functioning (26%), clinical reproductive health (22%) and program evaluation (19%). From both a personal and institutional point of view, the subjects most often mentioned were reproductive health program operations (39%), program management (38%) and program evaluation (34%) (see Table 8).

TABLE 8

PERCEIVED INSTITUTIONAL AND PERSONAL TRAINING NEEDS OF RESPONDENTS BY AREA			
INTEREST AREAS	TYPE OF NEED		
	PERSONAL	INSTITUTIONAL	BOTH
CLINICAL REPRODUCTIVE HEALTH	21.7	21.7	21.7
FUNCTIONING OF REPRODUCTIVE HEALTH PROGRAMS	11.3	25.6	39.4
PROGRAM MANAGEMENT	16.7	16.7	38.5
PROGRAM EVALUATION	13.8	19.2	34.5
OPERATIONS RESEARCH	17.7	17.2	27.1
EPIDEMIOLOGY	16.2	16.2	26.6
BIOSTATISTICS	15.8	16.7	20.7
SOCIAL SCIENCES	11.3	12.8	21.2
OTHER (DEMOGRAPHY, INFORMATICS, ECONOMY)	14.3	11.8	23.1

FIGURE 5

MAIN PROBLEMS REPORTED BY RH PROGRAM MANAGERS



Among State level staff, the subjects of main interest were clinical reproductive health and program operations. At the jurisdictional level, epidemiology was also frequently mentioned (Table 9)

TABLE 9

PERCEIVED TRAINING NEEDS OF RESPONDENTS BY CURRENT POSITION HELD						
INTEREST AREAS	CURRENT POSITION HELD					
	STATE RH CHIEF	STATE FP CHIEF	JURISDICTION RH COORDINATOR	MCH COORDINATOR	OTHER	TOTAL
CLINICAL REPRODUCTIVE HEALTH	15 6	17 4	42 6	25 0	20 0	18 2
REPRODUCTIVE HEALTH PROGRAM FUNCTIONING	15 2	13 0	31 1	12 5	20 0	12 8
PROGRAMMING	11 3	17 4	22 9	8 3	20 0	10 3
PROGRAM EVALUATION	14 1	17 4	21 3	12 5	20 0	10 3
OPERATIONS RESEARCH	12 7	8 7	29 5	8 3		10 8
EPIDEMIOLOGY	12 0	13 0	26 2	16 7		11 3
BIOSTATISTICS	11 2	8 7	19 7	8 3		7 9
SOCIAL SCIENCES	11 0	8 7	18 0	8 3	20 0	7 9
OTHER	9 6	13 0	19 7	12 5		8 9

A different way in which training needs were assessed was by asking what would be the desired area of expertise of an assistant. The most often areas mentioned were reproductive health technician (25%), risk management (19%) and programmer (15%), suggesting a need for training in use of computer software. Programmers were more often demanded by state-level personnel, whereas reproductive health technicians were most often mentioned by the staff of sanitary jurisdictions. Physicians more often requested a reproductive health technician, while nurses more often thought of biostatistician (40%) and general nurses of programmers (29%) (Tables 10 and 11)

TABLE 10

PROFESSIONAL PROFILE OF A DESIRED ASSISTANT OF THE RESPONDENT BY POSITION CURRENTLY HELD						
PROFILE OF ASSISTANT	POSITION CURRENTLY HELD					
	STATE RH CHIEF	STATE FP CHIEF	JURISDICTION RH COORDINATOR	JURISDICTION MCH COORDINATOR	OTHER	TOTAL
RISK MANAGEMENT	28 0	17 4	5 1	25 0	27 9	19 6
EPIDEMIOLOGIST	8 0	17 4	1 7		4 4	5 0
BIOSTATISTICIAN	4 0	13 0	15 2	8 3	5 9	9 5
COMPUTER PROGRAMMER	32 0	4 3	15 2	12 5	11 8	14 6
ECONOMIST			1 7		1 5	1 0
GINECO OBSTETRICIAN	4 0	4 3	15 2	8 3	10 3	10 0
PEDIATRICIAN	12 0	30 4		20 8	5 9	9 5
RH TECHNICIAN	12 0	8 7	42 4	4 2	27 9	25 1
OTHER		4 3	3 4	20 8	4 4	5 5

TABLE 11

PROFESSIONAL PROFILE OF A DESIRED ASSISTANT OF THE RESPONDENT BY PROFESSION OF THE RESPONDENT						
PROFILE OF ASSISTANT	PROFESSION OF RESPONDENT					
	GENERAL PRACTITIONER	NURSING B A	NUTRITION B A	GENERAL NURSE	OTHER	TOTAL
RISK MANAGEMENT	19 5	0 0	50 0	14 3	10 0	19 0
EPIDEMIOLOGIST	4 7	0 0	25 0	14 3	0 0	5 1
BIOSTATISTITIAN	8 9	40 0	0 0	0 0	20 0	9 7
COMPUTER PROGRAMMER	13 0	20 0	0 0	28 6	40 0	14 9
ECONOMIST	1 2	0 0	0 0	0 0	0 0	1 0
GINECO OBSTETRICIAN	9 5	0 0	25 0	14 3	0 0	9 2
PEDIATRICIAN	8 9	20 0	0 0	0 0	10 0	8 7
RH TECHNICIAN	25 8	0 0	0 0	14 3	20 0	25 1
OTHER	5 9	20 0	0 0	0 0	0 0	5 6

Almost 90% of the respondents said they would support a degree in management of reproductive health programs. In order to be able to register for such a degree program, 35% said they would need some time away from the job, 14% said that the degree would have to be compatible with their activities, 14% mentioned geographic requirements, and 10% said they would require support from their hierarchical superiors. When broken down by sex, a smaller proportion of females (85%) than of males (95%) said they would be interested in the degree, mostly because of time demands.

VI RESULTS OF INTERVIEWS WITH TOP STATE HEALTH MANAGERS

In order to collect more in-depth information about the potential demand of the in-service graduate degree in management of reproductive health programs, 19 interviews were conducted, five with State Secretaries of Health (the top manager of the health system in the States of San Luis Potosí, Guanajuato, Guerrero, Nayarit and Oaxaca), and 13 with the managers of the State's Reproductive Health Programs, both of the SSA as of IMSS, ISSSTE, DIF, PEMEX.

The reproductive health managers agreed that there was a need for an integrated reproductive health program. This requires training their staff so that they can "understand the new concept and provide better care." In addition, they thought this would lead to an increase in the coverage of their services and in the demand for services. Most managers thought that the merging of family planning and maternal-child health programs sought to prevent health problems and decrease health risks for the population.

The secretaries of health agreed with the reproductive health managers in the advantages of having a comprehensive reproductive health program because it would improve the quality of care, social participation and the population's health. They also thought there was a need to have well trained staff to manage the specific activities required by the new integrated focus.

Most managers thought that the institutional coordination between SSA, IMSS and ISSSTE was of paramount importance. In this sense, they believed that there was a need for formal training that would allow the staff of the different institutions to agree on basic definitions on the new program focus so that joint action was facilitated.

About half of the interviewees thought that their staffs had the appropriate training to manage a reproductive health program, given that they were physicians. The remainder 50% thought their staff required more specific training despite their field, practical.

experience. They believed that their training needs were not limited to reproductive health, just as important were training needs in management.

Over half of the respondents considered a requirement for further training that training was on-site. They believed that a distance education program would help improve staff performance. Training of their current staff was deemed specially important given that they do not have the resources to hire additional personnel.

Regarding the subjects of the potential degree program, there were three predominant opinions, each held by about one third of the respondents. The first group thought that the program should include in about 50% medical-clinical contents and about 50% management subjects. A second group believed that it should all be management subjects. The third group believed the degree should be directed to service providers and include about 60% clinical contents, about 30% management subjects and about 10% research subjects.

Budgetary factors were the main obstacle identified by the respondents to train a large proportion of staff members. The interviewees said that most training allocations were managed at the Federal level and that in their State budgets the training line item was almost void. Nonetheless, several reproductive health managers believed that the State's Secretary of Health would be a key factor in the decision to carry out a training program for the staff. Three secretaries of health said they could support a training program for two or more years, one said that the MOH and the student should share the costs of training and one more said it would all depend on the budget.

Another limiting factor identified by reproductive health managers is the large proportion of "trust" positions among reproductive health and jurisdictional managers (as opposed to "base" or civil service positions). Given that those occupying "trust" positions can be removed at any time, that could be an incentive to not provide training. However, for secretaries of health this was not an important factor, since they could decide for how long a person would occupy a given position.

A few informers suggested that inter-institutional agreements on training should be established, in order to avoid the drain of trained personnel and guarantee the trainee's permanence in the institution. Nevertheless, most of the respondents considered that their institutions were fully able to train and maintain staff trained on their jobs.

About one half of the interviewees said they would be willing to provide administrative support to the program. Over 15% said they could provide material support and only five percent were willing to provide economic support (Table 12)

TABLE 12

Type of support that top managers are willing to provide the program	
Support	Percent (N = 19)
Economic	5.26
Material	15.79
Administrative	47.37
Other	31.58
Total	100

Regarding the duration of the program, about 10% said they would support a program of 12 months or less, 47% said they would support it for 18 months, and 42% said they would support it for as much time as the program required (Table 13)

TABLE 13

Length of period for which top managers would be willing to support the program	
Duration	Percent (N = 19)
6 months	5.26
12 months	5.26
18 months	47.37
As needed	42.11
Total	100

Regarding the number of staff members they would be willing to support in the program, nearly half said that three staff members, 15% mentioned two staff members, 5% said one staff member, and the remainder 32% said that the number that was required (Table 14)

TABLE 14

Number of staff members that top managers would be willing to support in the program	
Number of staff	Percent (N = 19)
1	5 26
2	15 79
3	47 37
Whichever is required	31 58
Total	100

Finally, 84% said they would be willing to provide per-diem for students traveling to program meetings (Table 15)

TABLE 15

Percent who would provide per-diem expenses to program participants	
Would support?	Percent (N = 19)
Yes	84 21
No	15 79
Total	100

VII DISSEMINATION OF RESULTS

The results were presented in a special session to researchers of the INSP/Health Systems research center, who made several suggestions regarding the program curricula. They also emphasized the importance of establishing inter-institutional collaboration agreements with those who were interested in order to maintain the interest of potential participants. Likewise, they recommended creating a multi-disciplinary ad-hoc team to integrate the academic curricula.

A presentation was also made at the General Direction for Reproductive Health (DGSR) of the Ministry of Health. The importance of the project for this institution was commented on, given that it builds upon the national policy in reproductive health of further developing the skills of program managers through in-service training. The head of research of DGSR was given the task of following up this project.

Likewise, the results of the market study were presented to the staff of reproductive health services of ISSSTE and IMSS. The head of Reproductive Health of IMSS said he would like to participate more actively in the project. He said he would like to be a member of the team who develops the curricula of the program.

VIII CONCLUSIONS AND RECOMMENDATIONS

- 1 The study showed that there exists a high need and potential demand for an in-service graduate degree in management of reproductive health programs. Over two thirds of the managers have only a B.A. degree and 21% have only a medical academic background. Most of the managers have not received any recent training and have not received training at all on most of the subjects related to their daily work: supervision, coordination, training and programming of health services under their supervision.
- 2 The degree should strengthen the National Reproductive Health Program and the decentralization of health services by training State reproductive health managers.
- 3 There is a need for inter-institutional collaboration in the design and implementation of the degree, particularly of the national reproductive health directors, as well as of other public agencies, international institutions and non-governmental organizations. This collaboration should begin by agreeing on the most desirable profile of a graduate of the degree program.
- 4 For cost reasons and to strengthen local human resources, in as much as possible, local instructors should be employed.
- 5 There are three basic aspects that need to be considered in the design of the program: a) the compatibility of the academic program and the daily work activities. This implies the instruction needs to be provided close to their work sites and that the curricula needs to be focused on problem solving, b) the time available for the program, that needs to be considered as part of the hired time of the professionals, and c) the support that top managers are willing to provide: per-diem, time, material resources but not much more.
- 6 The majority of top managers were willing to support the program for a period of 18 months or less.

- 7 On the basis of the results obtained in this study, it is suggested that the following main subject areas are included in the curricula of the degree program

Reproductive health in this area, the components of reproductive health would be studied pregnancy, birth and post-partum, abortion, family planning sexually transmitted diseases, including AIDS, lactation, child survival, linkages between services To fully understand the subject areas, a review of measurement and social concepts would be included, such as prevalence, rates, gender, reproductive rights, etc

Characteristics and functioning of reproductive health programs Here, a description of strategies followed to provide reproductive health services would be reviewed lactation programs, including baby-friendly hospitals, prenatal care programs, family planning programs (hospital and clinical-based, community based, social marketing), vaccination programs In addition, programs to reach special populations adolescents, post-partum/post-abortion programs, males, rural populations, etc

Program management planning, coordination, leadership, motivation, supervision, training, evaluation and use of data for decision making, resource management, etc

Methodology, evaluation and operations research