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Do Rural Doctors Have What It Takes
to Provide Family Planning Services?

Results from a Survey in Uttar Pradesh, India

by

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ACRONYMS

FPS	Innovations in Family Planning Services
IMA	Indian Medical Association
MRB	Indian Market Research Bureau
ISM	Indian Systems of Medicine
IUD	Intra-uterine Device
MoHFW	Ministry of Health and Family Welfare
OC	Oral Contraceptive
PHC	Primary Health Center
Rs.	Rupees (currency)
SRI	Social and Rural Research Institute
UP	Uttar Pradesh
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

Background

Household surveys consistently show that the private doctor is the health care provider of choice in rural India. Among low-income populations in rural Uttar Pradesh, for example, private doctors provide 65% of all care; among higher-income groups, 80% of medical visits are to private doctors (World Bank, 1992). Private medical clinics are found even in remote areas where government facilities are scarce and ill-equipped. In short, the private doctor is the main provider for populations that are hardest to reach, have the highest fertility, and suffer the greatest health consequences of childbearing.

This paper presents the findings of survey in rural Uttar Pradesh, India, undertaken to assess the potential for involvement in the Indian family planning program of private trained and untrained doctors in rural areas. The private rural doctors in India bear little resemblance to the Western notion of "physician" or even to the doctors found in urban India. The rural doctors usually have little training and practice an unregulated, unorthodox blend of traditional and Western medicine. Many learned their trade working as pharmacists or from family members. Among those with professional training, most are educated not in the popular Western techniques that they commonly use, but in the teachings of Ayurvedic, Siddha, Unani and other Indian Systems of Medicine.

The study finds strong evidence of great potential for the involvement of rural doctors in the family planning program. Private rural doctors are likely to see far more reproductive age women in hard-to-reach populations than do government health personnel; untrained private doctors are already distributing oral contraceptives and condoms with surprising frequency; and interest in training is high. The study also identifies the specific constraints that will need to be overcome to make involvement of rural doctors cost-effective and sustainable. These constraints include the government's "crowding out" of private providers of contraceptive methods, as well as the possibility that private providers see few opportunities for financial gain in expanding their practice to include family planning clients.

Findings

A profile of the rural doctor: The typical doctor in Uttar Pradesh is a 38-year-old man, with 10-12 years of schooling, little or no professional training, practicing an unorthodox hybrid of Western and traditional medicine. He became a doctor through an informal apprenticeship or work as a pharmacist or compounder. The survey finds that only 7%

of the doctors practicing Western medicine have any professional training in those techniques.

Doctors' earnings and means of charging: Doctors charge a margin on the sale of medicines--often store-bought products, repackaged by the doctor and unlabeled. On average, doctors earn slightly less than low-level workers in government health facilities.

Villagers' perceptions of the cost of medical care: When making choices among providers, villagers take into account not only the direct price of medical care, but also the cost of transportation, speed of recovery and associated loss of income, loss of income due to waiting time, and unofficial access fees that they have to pay at government clinics to get attention. In this way, private sector care appears to be less expensive than care from the government services.

Private doctors' practice patterns: The typical doctor sees about 11 patients a day. Taking our best estimate of the number of practitioners, 80,000, that means that there are around 250 million visits per year to private doctors. This is consistent with the estimate of number of contacts from recent household surveys. From their responses about the mix of their clientele, we estimated that the average doctor sees about two reproductive-age women a day, and would have about 560 professional contacts with village women of reproductive age every year. The 20% of the doctors who are the busiest (i.e., see 16 or more patients a day) have a more than 1,200 such contacts annually.

Family planning service delivery by private doctors: While only 12% had training in family planning, all doctors (92%) said that they discussed family planning with patients, at least occasionally, on average a little more than four times a month; nearly all of those said that they specifically gave advice about contraceptive methods. Doctors now are quite active in providing family planning services (free distribution or sales) or in referring to the government facilities. Nearly a third of private doctors say that they give away or sell the pill and condom; about 90% say that they "prescribe" (recommend that the patient go to purchase at chemist shop).

Family planning is not a "booming business" now, but it is reported to be steady. Two-thirds of doctors providing OCs did so four or fewer times in the past month, but 13% provided pills 10-19 times in past month; 6% provided pills just about every day, on average. There is some evidence in this survey (and from the focus group research) showing that doctors' family planning practices are limited by the government's provision of free services, and by perceptions that the government is the main (or only) source of family planning services.

Interest of doctors in doing more: About 90% of doctors not now providing services said that they would be willing to make referrals to the government clinics for IUD insertion, and most (83%) doctors were willing to prescribe the pill and provide information. However, only one-quarter of the doctors not providing family planning services now were willing to sell the pill. When asked to explain their reluctance, most of those doctors said that they were not willing to sell the pill (or the condom) because the commodities are available free at the PHC, and there was no market for temporary methods. Interest in training and joining a rural practitioners' organization was very high.

Implications for Project Design

General

1. Rural Doctors are an Excellent Potential Channel for Expanding Family Planning Services to Rural Poor in Uttar Pradesh. All of the evidence generated in this study point to rural private practitioners as a logical group to promote as part of any effort to improve services in UP.
2. The Large Number of Doctors Currently Providing or Advising on Family Planning Will Enhance Project Success. Surprisingly, the vast majority of rural practitioners report that they are advising clients on what to do to limit births and/or are providing some temporary family planning methods. This *current involvement* with family planning and the doctors' expressed interest in becoming more involved greatly enhances the potential for success in expanding family planning services through these providers. In addition, it means that there is already an existing client base upon which to expand.

Specific Considerations for Design

3. Targeting Sub-sets of Rural Doctors Will Reach Many Potential Clients. A sub-set of about a third of the doctors receive 60 percent of the client visits. The majority of high patient-load practitioners are trained in some type of medicine and work full-time. Therefore, the project could achieve the greatest coverage most efficiently by specifically targeting trained, full-time doctors with relatively large patient loads.
4. Government and Private Services May Overlap; Project Design Will Require Careful Targeting of Services. Parts of the government program compete with private practitioners in their family planning services. This competition acts as a disincentive to them for expanding their business in this area. The expansion of public programs at the district level should take into account the potential adverse impacts on private practitioners. Having a good understanding of the market and how it is "segmented" will be key to targeting efficiently the different project activities, and keeping the public sector from capturing clients who would otherwise use private practitioners.
5. Doctors' Overwhelming Interest in Family Planning Training and in Rural Doctors Association Suggests Network Approach. The survey showed doctors' enormous interest in receiving training about family planning methods. This expressed interest, combined with an equal interest in belonging to a rural practitioners' association, suggests that project activities aimed at improving doctors' knowledge of family planning and supporting a rural doctors' professional network would be eagerly embraced.
6. Clear Cut Need for Family Planning Curricula in All Systems of Medicine Colleges. The doctors' lack of training in family planning methods is a clear call for promoting the incorporation of family planning into the medical curricula for all

systems of medicine. An emphasis on the health benefits of family planning and temporary methods would help many doctors expand their family planning practices, and help raise the overall quality of care.

7. Demonstrating Profitability of Family Planning Will Increase Service Availability. The survey suggests that rural private practitioners are strongly motivated by economic considerations, and understand the relationships between training and knowledge and income levels. One of the requirements for expanding current family planning practices, and attracting new practitioners will be to demonstrate how family planning can be profitable and can bring in new business.
8. Project Design Should Take Advantage of Existing Pharmaceutical Distribution Systems, and Apparent Linkages Between Rural Doctors and PHCs. Almost all rural doctors in this survey are linked with existing supply channels such as local chemist shops and pharmaceutical distributors. The existence of these channels and distribution linkages could offer a low-cost way to supply rural practitioners who need reliable access to family planning commodities. Further, the majority have contact with the local Primary Health Center staff, which in turn facilitates the strengthening of private to public referrals for some services (assuming the public facilities have the capacity).

Next Steps:

9. Carry Out Targeted Studies for Development of Demonstration Projects. The authors and sponsors of this study did not expect to find much involvement by private practitioners in providing family planning services or giving advice. The high level of involvement encountered means that project activities with rural practitioners will not need to start from scratch, but can build on the limited knowledge and tremendous interest that currently exists. Several questions emerging from these initial findings must be answered to create the bridge between the current level of understanding of rural doctors' characteristics and practices and the complete information required for development of a project strategy and demonstration activities. These are:

What is the precise nature of the family planning services currently being delivered by an estimated one-third of the rural doctors? They cannot be brought into a family planning system if we do not know this information.

What have other organizations/projects found in attempting to involve traditional and other rural medical practitioners in delivery of health and family welfare information and services?

What are the potential (and actual) legal and regulatory constraints to involvement of rural medical practitioners in delivery of family planning information and services, and how might these be overcome?

What do demographic survey data tell us about the major market segments, and about which subpopulations are currently receiving private and public family planning services?

10. Guidelines for Demonstrations Project Development. This study of rural doctors has shown that there is great potential for involvement of traditional and allopathic practitioners in the family planning program. As the most important medical personnel in rural areas, providing care to millions of reproductive age women, these rural doctors have sufficient coverage of the target population. They currently provide family planning services, though not in huge numbers, and express considerable interest in training and greater involvement in the family planning program.

This study also has indicated that several steps must be taken in preparation for project implementation, including the design, execution and evaluation of a demonstration project. Recommended guidelines for the development of demonstration project found in Section V of this study.

I. INTRODUCTION

When villagers in India become ill and seek medical care, they usually turn to a nearby private doctor. Household surveys show that when rural Indians require care outside the home, they go to private medical practitioners about 70% of the time (World Bank, 1992). Though the rural doctors usually have little training and practice an unregulated, unorthodox blend of traditional and Western medicine, they are the primary medical providers for the majority of poor Indian families.

From the perspective of the patient in the village, private doctors provide much that the government health system does not. They are nearby and available at convenient hours; they sell medicines directly to patients, eliminating the need for a visit to the town pharmacist (chemist); and they spend time examining their patients and treat them with respect¹.

Given the wide coverage of private practitioners of Western (allopathic) and indigenous medicine, and their acceptability within the cultures of rural Uttar Pradesh, USAID and the Ministry of Health and Family Welfare (MoHFW) have recognized the value of involving them in promotion of preventive health care, including family planning. Participation of private doctors will be an important part of efforts to improve the quality and increase the quantity of family planning services.

Study Objectives

To best take advantage of the potentially influential network of private doctors, it is critical to identify the characteristics, practices, organization and attitudes of these health care providers. Development of a strategy to expand rural family planning services requires understanding of what training, commodities, organizational assistance and other types of inputs are required. This study provides such detailed information about rural medical practitioners in Uttar Pradesh (UP). It will inform the design and implementation of the private sector component of the Government of India-USAID/New Delhi Innovations in Family Planning Services (IFPS) Project. In particular, this study seeks to assist in the development of a project component that provides training, family planning information, and contraceptive commodities to private doctors.

Overview of Methodology

During May-June 1992, the OPTIONS II Project and the Social and Rural Research Institute (SRI), a specialty unit of the Indian Market Research Bureau (IMRB), undertook a sample survey of 488 rural practitioners. The methodology is described briefly below, and a few methodological notes are found throughout this report to guide interpretation of the results:

¹ See the companion study, "Quality of Health and Family Welfare Services in Rural Uttar Pradesh: The Client's View."

Sampling: Given the unregulated nature of the occupation, and the absence of an up-to-date list of practitioners, an innovative sampling technique was required. First, 300 villages were randomly selected from five socio-cultural regions of Uttar Pradesh. The socio-cultural regions of Uttarkhand, Rohelkhand, Brij, Oudh and Bhojpur are relatively homogeneous in terms of religion, language, dress and other dimensions of culture. These regions correspond to political boundaries: districts included in each region are listed in Appendix A. The villages were distributed across two population strata--villages with populations of less than 2,000, and villages with larger populations--and then randomly selected in a ratio proportional to their representation in each region. Then, several women in the selected villages were asked for the names and addresses of doctors² they went to when they became ill. From this list, a sample of doctors was selected for interviews.

Questionnaire: Each rural medical practitioner was contacted and asked about the types of patients seen, methods of charging for services, relationship with the government health sector, type of family planning and other reproductive health services provided, current membership in professional organizations, and specific interest in greater involvement in delivering family planning services. (A copy of the English version of the questionnaire is presented in Appendix B.) The doctor was then asked if he (or she) would be interested in more information about a family planning project; if so, names and addresses were recorded separately.

Analysis: We do not know the precise size or characteristics of the universe of rural doctors in Uttar Pradesh or any of its regions; therefore, the sample on which our results are based are may not be fully representative. However, the descriptive and explanatory analyses presented in this report show the important patterns, and statistical analyses were applied to estimate the strength of observed relationships. Statistical tests applied include X^2 test of differences in proportions, and ANOVA and t-tests of differences in means. Several regression models were also fitted to identify significant determinants of being a "full-time" doctor (described in following sections), and of providing specific contraceptive methods. For the sake of simplicity, the implications of the results of the regression analyses are presented, but the estimations are not. (Unless otherwise noted, all differences reported in comparisons among types of doctors or geographic regions are statistically significant at the 95% or greater confidence level.)

Organization of this Report

We first present a brief background, highlighting what is known from previous studies about the size and importance of the private medical sector in rural India. Next, we present the main study findings and implications of those findings for development of the IFPS Project. Throughout, figures are used to communicate the data, and text boxes are used to highlight major findings. Finally, we distill guidelines for the specific steps of project implementation. The technical report, with an expanded discussion of

² The term "doctor" as used in this report (and in rural India) connotes no particular type or amount of training or expertise. We accept the interviewees self-identification as allopathic, homeopathic or Indian Systems of Medicine doctors, according to the main type of medicine practiced.

the methodology and full descriptive analysis, is available by request. Further analyses of the data also are available upon request.

II. BACKGROUND AND CENTRAL ISSUES

Background

Private practitioners of allopathic (or Western) medicine, Indian Systems of Medicine (ISM)³ and homeopathy provide most curative health services in rural Uttar Pradesh. There is a rich variety of rural medical practitioners: formally-trained allopaths, and practitioners of ISM and homeopathy, as well as individuals who have not had the benefit of formal training, including so-called Registered Medical Practitioners, "quacks" and practitioners of witchcraft.

How Many Doctors Are There?: It is reported that there are large numbers of traditional medical practitioners with the vast proportion practicing in the private sector, and a few sources provide information on the numbers of ISM practitioners in UP. The Ministry of Health and Family Welfare (1988) estimated that in 1985 a total of 47,732 practitioners of ayurvedic medicine and 10,073 unani practitioners were registered in UP. In 1983, 17,258 homeopathic practitioners were registered in the state (Directorate of Homeopathy, 1986). However, these figures are likely to be substantially off the mark: a 1979 study of 234 traditional practitioners in UP found that about 10% were unregistered all together; another 14% were registered as Registered Medical Practitioners, which are not necessarily included in the ISM registration (Singh, 1979). In addition, the registration system does not update the records regularly, and so the reported figures include non-practicing or deceased practitioners and exclude the many new entrants from UP's 22 colleges of traditional medicine and in-migrants.

When it comes to information on allopathic doctors, statistics are also distressingly difficult to find and are likely to be unreliable. The Uttar Pradesh Medical Council reports that some 32,369 doctors were registered as of the end of 1990 (the most recent year for which data are available), but this figure includes approximately 8,400 government physicians (Health Information India, 1990). And, like the ISM registry, the Medical Council does not regularly update its lists. In sum, the best official estimate of the number of registered doctors would be about 80,000 private practitioners identified as practicing ISM or homeopathy, and about 24,000 individuals who are registered as allopathic doctors. It must be noted that these classifications are not the most useful since, as this survey showed, most practitioners who are registered as ISM doctors are, in fact, mainly practicing allopathic medicine. An unknown number of doctors, of course, are not registered at all; many practice medicine only as a secondary occupation. For this study, we estimate that the population of rural doctors in Uttar Pradesh is 60,000-100,000. For the purposes of projection, we assume the midpoint of 80,000 rural doctors in the state.

³ These include ayurveda, siddha, unani, yoga, naturopathy and amchi (all of these disciplines involve herbal treatments and other indigenous methods).

How Important Is the Private Medical Sector?: Despite India's enormous investment in government health facilities and manpower, and the government's stated mandate of providing highly subsidized health care to all, the dominance of the private medical sector can hardly be overstated. And far from being a phenomenon of the well-off, reliance on private medical care is found in all population groups.

The extent of reliance on private medical care in rural areas is truly striking. A 1990 survey by the National Council of Applied Economic Research (NCAER) found that in about 70-80 out of every 100 times that rural Indians seek care for illness, private doctors are the providers of choice. Among low income rural populations, about 65% of all outpatient care is from the private sector; and among higher income populations, that figure rises to 80% (NCAER, 1991).

Though in concept the government is providing low-cost health care to poor populations, one national household survey found that the poor tend to represent a larger proportion of private sector patients than of government patients. In UP, 47% of treatments by private doctors were provided to the poorest 40% of the population. In contrast, only 37.2% of care provided by government hospitals and 23.8% of care delivered through PHCs was for the poorest 40% (World Bank, 1992, drawing upon information from the National Sample Survey, 42nd Round, 1986/87).

A 1981 household survey found that only about 2% of Indians usually used government services when they fell ill, and 51.7% treated themselves at home. At the same time, nearly one-third of all individuals (29%) regularly sought care from allopathic private practitioners. An additional 3.6% used ayurvedic practitioners; 4.8% sought care from homeopaths; and 9.6% obtained health care from "quacks, oja or tantrik" sources (Kumar and Sharma, 1983).

And still another study confirmed the importance of the private sector: A survey of poor households in UP found that in cases of illness requiring treatment, substantially more than half of all patients were seen by a "private doctor". For cases of fever, private practitioners provided care more than 77% of the time; for respiratory illness, private services were used in almost 63% of cases; for gastrointestinal illness, private care was sought 72% of the time; and for skin disease, 57% (Basu, 1990).

Together, the population-based surveys provide an indisputable picture of health care seeking behavior in rural UP (and elsewhere in India): When they fall ill, individuals try to treat themselves at home. If this fails, or if the condition appears severe, care usually is sought from private doctors. Though an important provider of hospital-based services, the government is a relatively minor player in providing outpatient curative care in rural areas.

Key Issues for Project Success

In contrast to outpatient medical care, family planning services are widely considered to be within the domain of the government health system. In a recent focus group study, villagers consistently associated the government with the family planning program⁴. And the method used most widely, sterilization, is available almost exclusively from government-financed providers. However, the government service frequently has failed to meet potential clients' needs, and major quality improvements and a reorientation of the program may be possible only over the long term. Therefore, a sensible approach to increasing the desirability of family planning services, particularly the promotion of temporary methods of contraception, might be involvement of private doctors.

Increased participation of private doctors in delivering family planning services has potential advantages that reach beyond an increase in the appeal of family planning to clients. Involvement of the private "commercial" sector in service delivery also helps to draw those who wish to use temporary methods and who can pay for them away from the government system. This allows the government to target its resources efficiently to populations most in need and to provide services for which it has a comparative advantage, such as long-term methods. Involvement of the private sector adds financial and human resources to the total pool of family planning resources. Almost by definition, the commercial sector is financially self-sufficient and does not require subsidies except by design (for example, social marketing and/or family planning training programs).

At the same time, private providers are likely to be more responsive than the government services to existing demand. And, particularly in the context of India, where the family planning program has a mixed reputation for quality, appropriate involvement of the private sector has the potential to generate additional

CENTRAL ISSUES FOR PROJECT SUCCESS

1. Where and who is the rural doctor?
2. How many women go to private rural doctors and for what services?
3. Are rural doctors able to provide family planning services? Which doctors are doing the most now?
4. Are doctors willing to provide family planning methods? Which types of doctors are most willing?
5. Is a referral network in place?
6. Could a distribution network be created or strengthened?
7. What inputs do rural doctors want and need?

⁴ See the companion study report on quality of care from the client's perspective.

demand by creating a more positive image of family planning and a stronger association with the health care that people value.

Given these strong arguments for considering ways to increase the participation of private doctors in the Indian family planning program, the attention turns to whether this is feasible, and how it should be done. To address these questions, several issues (shown in the box) must be addressed. This study provides information to guide implementation, and presentation of the results is organized around these key issues.

III. MAIN STUDY FINDINGS

This section presents the main results of the survey of almost 500 doctors in rural UP. First, we briefly describe the demographic and professional characteristics of the rural doctor, highlighting a few differences among socio-cultural regions. Next, we show characteristics of the doctors' patients and estimate the potential coverage of reproductive-age women and couples. Then we provide quantitative information on other factors that will affect the design and success of project activities--willingness and ability of rural doctors to provide family planning services, existing referral links and inputs needed.

1. *Where and Who is the Rural Doctor?*

The basic characteristics of private doctors, including their demographic profile, training and means of generating income, were strongly correlated with their inclination to provide family planning services. Therefore, it is important to give a picture of who the rural doctor is.

Most Doctors Are in Large Villages: One of the main advantages of private doctors is that they are available in remote areas, where the government services do not reach. In this study, private allopathic doctors were found in 37% of the smaller villages (2,000 or fewer inhabitants), while the government's Primary Health Centers (PHCs) were found in only 1% of those villages. While all types of medical providers were more accessible in larger villages, private providers were more available than were government doctors. Private allopathic doctors were found in 81% of villages with populations greater than 2,000 inhabitants. PHCs were present in only 12% of the larger villages, and Sub-centers were open in 19%.

The availability of medical care varied greatly among the socio-cultural regions. In the hilly Uttarkhand region, four out of five villages had no government or private medical facility at all, and half of the villages in Oudh and Bhojpur had no medical facility. In Rohelkhand and Brij, the most socio-economically developed of the five regions, access to private doctors was greatest.

Male Doctors: The typical private doctor in rural UP is a 38-year-old man, in practice for about 11 years. In our sample, only one doctor was a woman⁵, and all reports indicate that private female doctors are the exception to the rule. With respect to age, very few practitioners were younger than 26 or older than 45, with little variation among socio-cultural regions or types of medical practices.

All respondents had some schooling, though often quite little. About 1 in 10 had attended fewer than nine years of school, while 22% had only completed secondary school. The largest proportion of doctors (41%) could claim some post-secondary school education, but had not graduated from college. A total of 27% of the respondents had some graduate and/or post-graduate schooling; most of those reporting professional training noted that it was in medicine. There were no statistically significant differences in educational attainment among the types of practitioners.

The average length of time in practice was nearly a dozen years, but more than half of the doctors had been practicing for less than 10 years; one third had been practicing for less than five years. No significant differences among socio-cultural regions or types of medicine were found.

They Are Hindu and Hindi-speaking: The social backgrounds of the doctors reflect their communities. Nearly 90% of the doctors followed Hinduism; the remainder were Muslims. This distribution corresponds to the general population's religious affiliations. Overall, Muslims were more likely to practice homeopathy as the main type of medicine than were Hindu doctors. Nearly all the doctors spoke Hindi, as would be expected in the state.

Doctors Practice Many Systems of Medicine: The majority of rural doctors practiced allopathy, either as a main or as a supplementary system. And the vast majority of those practicing allopathy had little or no professional training.

Two out of three doctors said that their main practice was allopathy. There is a noticeable geographic pattern--a rising number of allopaths as one moves from western to eastern regions of the state. In the eastern-most region of Uttarkhand, only half of the doctors were mainly allopaths; in the western-most region of Bhojpur, 81% of the doctors said they primarily practiced allopathy. These differences can be seen only as suggestive, since they are not statistically significant.

The remaining one-third of rural doctors mainly practiced one of the traditional Indian systems or homeopathy. Of the 488 doctors surveyed, 128 (26%) practiced ayurvedic medicine. Only 9 (2%) followed one of the other Indian systems. And the remaining 26 (5%) were mainly homeopaths⁶.

⁵ For the rest of this report, we refer to the rural doctor as "he."

⁶ Here and elsewhere in the report, figures may not add up to 100% due to rounding.

The picture is made more complete when we consider the common practice of multiple systems of medicine (Figure 1). Nearly three-quarters of doctors who mainly practice allopathy also said that they use ISM remedies and techniques. Almost 80% of the ISM doctors at least occasionally use Western medicines.

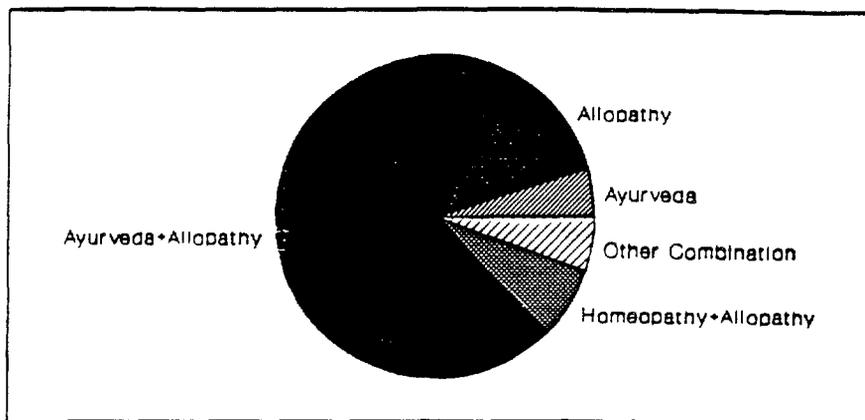


Figure 1 Types of Medicine Practiced by Rural Doctors

And homeopathic practitioners frequently apply other medical styles.

As shown in the figure, by far the most common combination of medical styles found was allopathy and ayurveda. For example, 69% of those who mainly practiced allopathy also used ayurvedic techniques and medications. Of all those who mainly practiced ayurvedic medicine, 80% also practice allopathy, at least for some cases.

In total, about two-thirds of all the doctors were practicing both ayurvedic and allopathic techniques and medicines.

Doctors Have Little Training: Only about half of the practitioners (52%) had received any type of formal medical training, and allopathic practitioners had received significantly less professional training than their counterparts. The distribution of types of training are shown in Figure 2.

Of 326 doctors mainly practicing allopathy, only 148 (45%) had any professional training. (And, as shown later, only a fraction of professionally-trained allopaths had received training in a college or university of allopathic medicine; the majority were trained in ISM or homeopathic schools.) Among the 134 ISM practitioners, 63% had received some professional training. And 21 of the 26 doctors mainly practicing homeopathy had been professionally trained.

Looking first at the sources of professional training, nearly 90% of professionally-trained doctors who mainly practiced allopathy received their education in ayurvedic, ISM or homeopathic colleges or universities--institutions that provide no instruction in the use of Western medicines or techniques. A mere 7% of allopaths had been educated in allopathic colleges or universities.

The story is strikingly different among practitioners of other systems. Nearly all (94%) of the professionally-trained ISM doctors had been trained in the disciplines they practice. About two-thirds (67%) of homeopaths had been trained at homeopathic institutions; the remainder had attended ISM colleges or universities.

Among the rest of the doctors--those without professional training--the vast majority became doctors after doing some sort of related work, such as working in a pharmacy. Nine out of every 10 untrained doctors practicing allopathy learned their trade as a compounder, pharmacist or doctor's assistant. Similarly, nearly 80% of the ISM doctors had informal training.

The majority of doctors are not trained at all in the field in which they mainly practice. They either are completely untrained, having learned their trade in some type of informal apprenticeship; or they are trained in traditional medicine (ISM or homeopathy), and are primarily practicing allopathy, distributing Western medications.

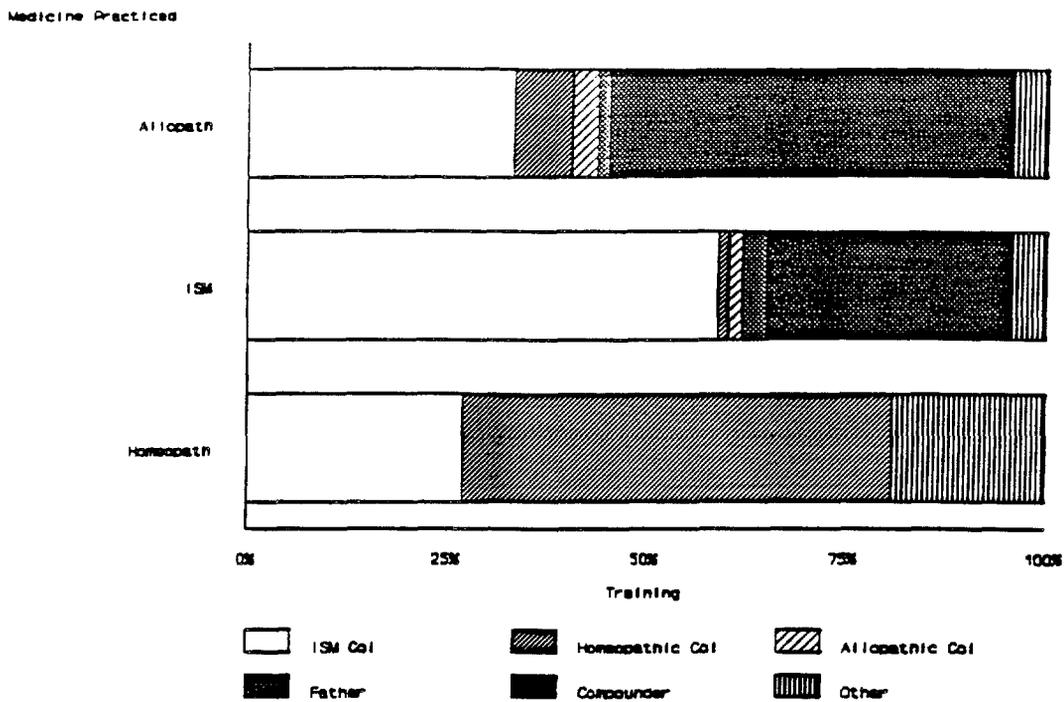


Figure 2 Source of Training, by Main Type of Medicine Practiced (father=learned from father/grandfather; Compounder=was pharmacist, compounder and/or non-physician government health worker)

Many Doctors Work Part-time: This survey found that many of the rural doctors worked at other occupations, in addition to practicing medicine. About 45% of doctors did not depend solely on their medical practice, and had other sources of income, primarily from agriculture.

Estimation of a regression model to identify determinants of full-time vs. part-time work as a doctor found that older age, lack of any professional training, and living in the regions of Rohelkhand and Oudh increased the likelihood that a doctor would only work part-time. The relationship between professional training and full-time work is clearly

shown in Table 1. The type of medicine practiced was not found to be a significant determinant of part-time vs. full-time work. As we see later, the distinction between individuals who do and do not have another occupation may serve as a valuable means of targeting the doctors who could make the greatest contribution to the family planning program.

Table 1 Relationship of Professional Training to Supplementary Occupation (%) (N=488)

Professional Training	Supplementary Occupation	
	Yes	No
Yes	20	32
No	25	23

Full-time, Trained Doctors Practicing Western Medicine

Earn the Most: Some 42% of the rural doctors interviewed said that their monthly income from medical practice was in the range of Rs. 750-1,500, with an average of about Rs. 928⁷. Extrapolated to annual earnings, doctors make slightly more than Rs. 11,000 (approximately US\$400) per year. This is approximately equal to the wages of a low-level PHC employee, such as a wardboy.

As shown in Figure 3, allopathic practitioners earn somewhat more than do traditional doctors, though this finding is only suggestive and not statistically significant. Doctors who had any type of formal training were significantly better off than those without training. Curiously, the most economically advantageous strategy appears to be to obtain any professional training (in allopathy, homeopathy or ISM), and then to practice Western medicine. Not surprisingly, those

individuals devoted entirely to medicine earned about Rs. 250 per month more than those who were also involved in agriculture or other income-generating activities.

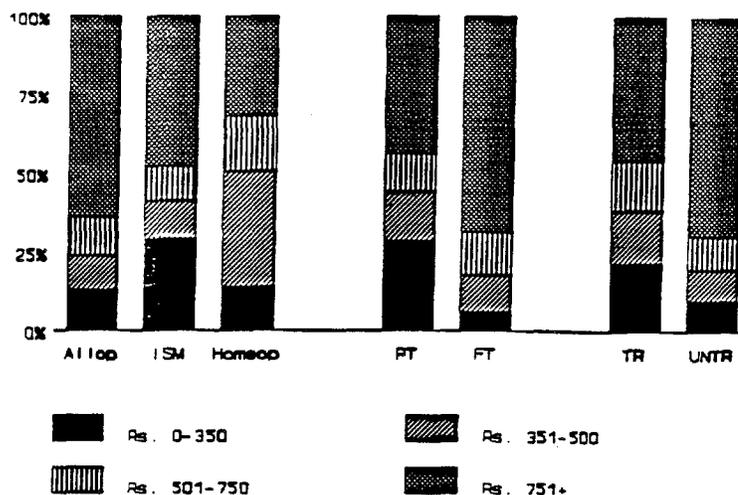


Figure 3 Average Monthly Income from Medical Practice, by Main Type of Medicine Practiced, Supplementary Occupations, and Training (PT=parttime, FT=fulltime, TR=trained, UNTR=untrained)

Doctors Sell Medicines: Nearly all rural doctors charged patients on the basis of a margin added to medications. Of this study's sample of practitioners, 93% earned income solely off of the margin on sales of medicine. A mere 3% charged for consultation fees and

⁷ The average incomes are approximations, since the question was asked in terms of ranges of monthly income, and then later converted to point estimates.

medicine. And 4% of the doctors charged for consultation only. This pattern held among all regions, ages, types of practitioners, and levels of training.

When doctors who added a margin to the medications' cost were asked to indicate how much they would charge for medicines that would cost them Rs. 1, 5 or 10, they indicated that the percent mark-up was inversely related to the medicine's cost (Figure 4). Patients would pay on average Rs. 1.50 for a Rs. 1 medicine, and Rs. 11.90 for a Rs. 10 medicine.

The pattern of charging for medical care often determines the type of goods and services offered. For example, practitioners may have incentives to spend more time with patients if they charge for consultations by the hour. Or they may tend to overuse medicines and laboratory tests if they directly profit. In the U.S., for example, insurance reimbursement rules that favor surgical interventions have been associated with higher rates of surgery.

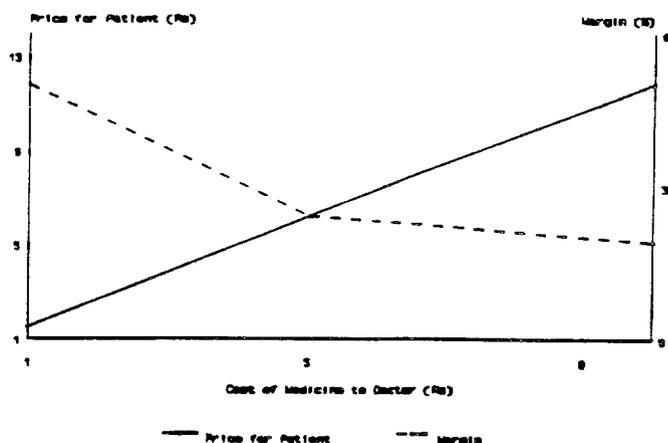


Figure 4 Absolute and Relative Margins on Medications, Over Price that Doctors Pay

The method of charging used by rural doctors in India is likely to foster the following attitudes:

- ◆ Patients expect to receive medicines when they go to a doctor, rather than simply advice and guidance; the value attached to treatments is not for diagnosis, but for cure and relief through medication.
- ◆ Doctors sell medicines rather than prescribing them, revealing a tacit understanding that their real power lies in the medicine.
- ◆ There is an element of mystification that doctors seek to preserve. This is further enhanced by observation from other studies that medicines from rural doctors are not dispensed in the original packaging. Rather, they are repacked in white paper that reveals nothing about their origins or contents.

Doctors Use Store-Bought and Homemade Remedies: Ten percent of the doctors gave only brand-name, manufactured medicines to their patients. About two doctors in every five compounded medicines themselves at their clinic or repackaged store-bought ones, while almost half of all respondents sometimes sold manufactured medicines and sometimes compounded them at their clinic (Figure 5). Doctors practicing all types of

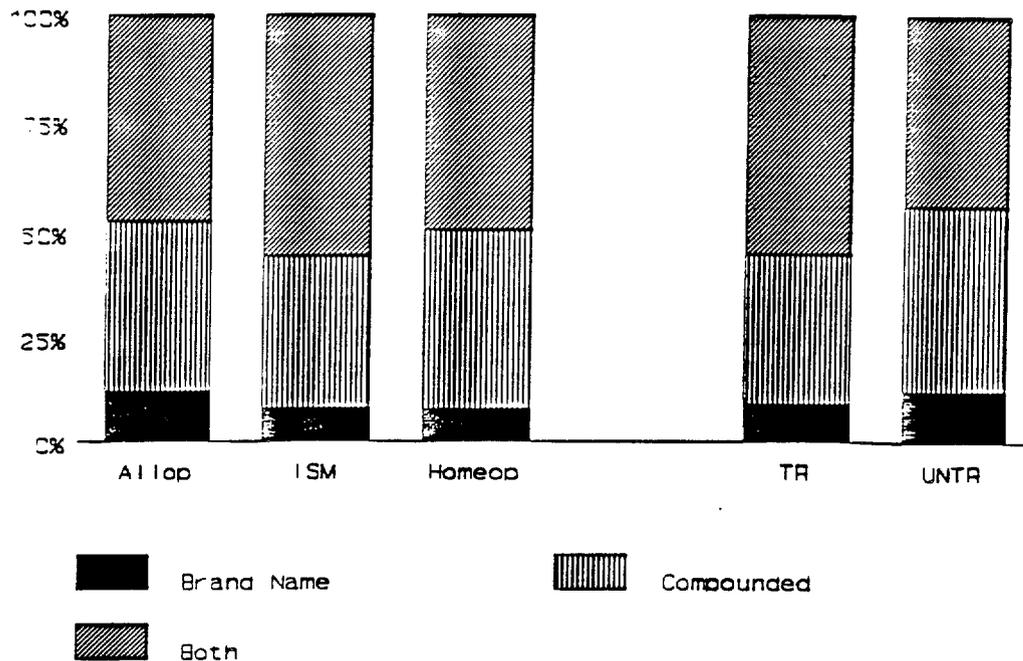


Figure 5 Types of Medications Sold, by Main Type of Medicine Practiced and Training

medicine were likely to use manufactured medicines, usually in addition to compounded preparations. Practitioners with professional training were most likely to use manufactured medicines in combination with homemade ones.

2. How Many Women Go to Private Rural Doctors?

If a family planning project is to involve rural doctors in a cost-effective manner, it is critical to assess whether a sufficient number of members of the target population--particularly reproductive age women--currently are part of the doctors' clientele. As described below, our data indicate that members of the family planning target group do attend private doctors' clinics, though any given practitioner would be unlikely to see more than two reproductive age women on a typical day.

Some Doctors Are Busy, Some Are Not: Overall, the average rural doctor in UP reported seeing 11 patients on the June day preceding the survey date. Since medical practice in rural India is a seasonal business, with summer being the peak season, it is very likely that over the course of a year the daily average number of patients is considerably less than 11⁸.

⁸ Methodological note: Doctors were asked about the number of patients seen during the previous day (in June 1992), seasonal trends, and the typical number seen on a summer, monsoon and winter day. They were not asked about the average number of patients over the entire year, since it was believed that information elicited would not be valid, and

Allopathic doctors tend to see more patients than do other practitioners (Figure 6). A sizeable number of doctors--30% of the allopaths, 39% of the ISM practitioners and 46% of the homeopaths--see five patients or fewer on a typical day during the peak, summer season.

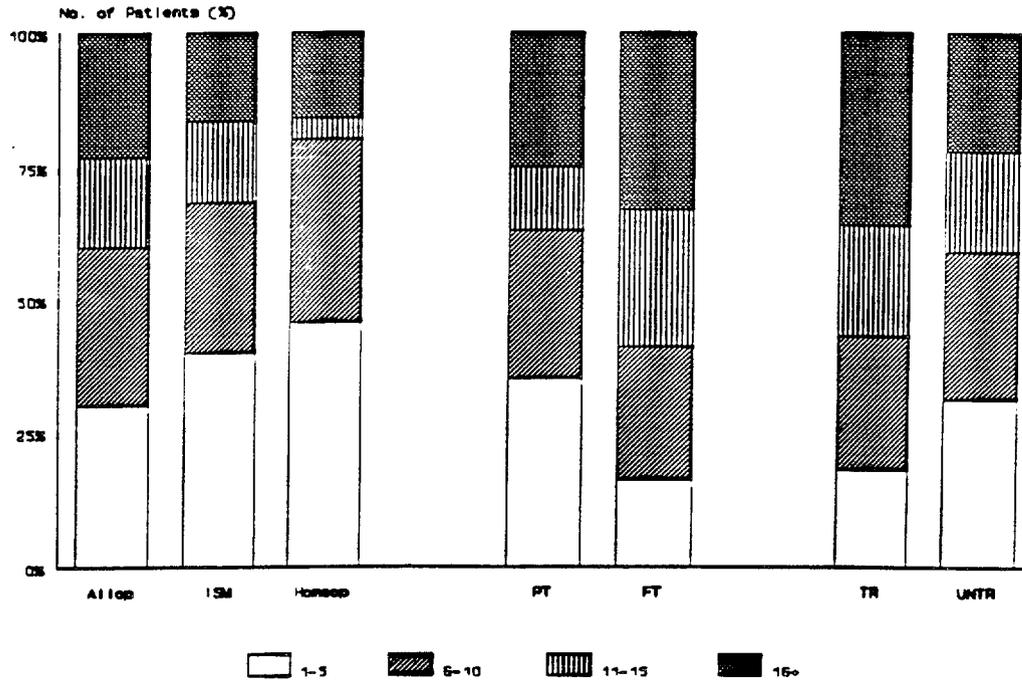


Figure 6 Number of Patients Seen on a June Day, by Main Type of Medicine Practiced, Supplementary Occupation and Training

On the other hand, many doctors are quite busy. About 37% of all doctors see 11 or more patients daily, and one-fifth of doctors see at least 16 patients. Both professional training and full-time doctoring were significant determinants of patient load. Not too surprisingly, the busiest doctors were those who were solely dependent on medical practice for their income, who practiced allopathy and who had some professional training. In fact, doctors working at medicine on a full-time basis saw about twice the number of patients as did part-time doctors. In general, the doctors in the hilly

seasonal differences in incidence of illness and likelihood of seeking treatment have been well documented elsewhere. Doctors reported that they would see about 14 patients on a typical summer day; 12 on an average monsoon day; and 8 patients on a winter day. However, since the summer figure is nearly 30% higher than the number reported for the previous day, it is likely that doctors inadvertently overestimated their patient load. We use the actual number reported from the previous day, assuming it to be more accurate (and certainly more conservative).

northwestern region of Uttarkhand, where PHCs are even fewer and farther between than in other areas, saw large numbers of patients, relative to the eastern regions. The same was found for the more developed area of Rohelkhand.

Women Go to Private Doctors: Of the patients seen, how many are female? Of those, how many are within the reproductive age group? Doctors reported that, regardless of season, the ratio of male to female patients was 55:45. At first glance, this would appear to indicate a biased representation of men at private practitioners' clinics. However, the 1991 census shows that in UP, there are 881 women for every 1,000 men. Therefore, men are only over-represented slightly among rural doctors' patients. The doctors estimated that out of every 10 female patients, about four were younger than 13 years; about two were 49 years old or older; and about four were age 14-48 years old. There was essentially no variation in this distribution of patients by type of medicine, training or location of the doctors. (Though not statistically testable, it is very interesting to note that the one female doctor in the sample reported that all of her patients were women.)

Simple math produces the total number of reproductive-age women seen by the typical doctor in a UP village. Assuming that the daily average number of patients (over a year) is about 10, some 45% are female, and about 40% of the female patients are in the target age group, the average doctor sees an average of 1.8 (or nearly two) reproductive-age women per working day.

If we assume that doctors work six days per week, then over the course of a year each doctor would have 560 professional contacts with village women of reproductive age.

This estimate can be made more meaningful if we look only at the 20% of the doctors who see 16 or more patients a day, and do a separate calculation. Taking the same assumptions, the busiest doctors see about four reproductive age women a day, or have 1,244 professional contacts with them every year.

Even more encouragingly, it is likely that doctors have far more exposure to women than these numbers would suggest. Overwhelmingly, it is mothers who bring children for care, so doctors have opportunities to speak with and counsel a far larger universe of women.

Patients Come with Reproductive Health Concerns: While women may go to doctors for medical treatment, it appears that they only infrequently go for reproductive health care. This is consistent with household survey data that indicate that reproductive health problems, though distressingly common in rural India, are usually only treated at home (World Bank, 1992).

On average, four out of every five doctors were consulted for help with childbearing problems, at least occasionally. An interesting geographical trend was evident: the proportion of doctors reporting that they treated obstetrical cases was only 56% in the western region of Uttarkhand, rising steadily to 93% in the eastern region of Bhojpur. No significant differences were noted among the various types of doctors.

Though most of the doctors interviewed were familiar with obstetrical cases, they were consulted on childbearing problems infrequently. Almost no one said that he saw such problems quite often or very often. With respect to frequency of consultation, a geographical trend again was apparent: those in the western regions who attended to any childbearing problems said they did so somewhat less frequently than did their counterparts in the eastern regions. So while more of the eastern doctors saw patients with childbearing problems, they saw them infrequently. In contrast, the relatively few doctors in western regions who ever saw women with obstetrical problems were likely to see such patients frequently. While there is insufficient evidence for a conclusive statement, it appears that some type of specialization exists in the west, in comparison with a generalization of practice in the east.

The finding that reproductive health services are a small part of the typical rural doctors' practice is further borne out by the responses to another question: "Out of 100 women patients, how many would usually be consulting you on reproductive health problems?" On average, doctors estimated that about 13 out of every 100 women came with a reproductive problem. There was little variation in this response by type of medicine practiced or region of residence. Overall, a little more than one-third of the doctors said that at most 5% of their female patients sought treatment for reproductive problems; some 65% said that at most one-tenth of their female patients sought such care.

3. *Are Rural Doctors Able to Provide Family Planning Services?*

Private doctors constitute a wide network in rural UP, and many see large numbers of reproductive age women. This suggests that their involvement in a family planning project might be cost-effective⁹. The next question, then, is whether they have the capability to provide family planning services. While it is difficult to judge technical competence to provide family planning counseling or other services, it is possible to describe their specific training and awareness of particular methods.

Few Doctors Have Family Planning Training: Only 59 doctors, or a mere 12% of the respondents had any training in contraceptive methods. This result is hardly surprising, given the relatively low levels of training overall and the government system's traditional dominance in the field. There was little variation either by main type of medicine practiced or by whether the doctor had received professional training or not.

Many Doctors Are Concerned about Family Planning and Counsel Their Patients: Family planning clearly was a matter deemed important by the rural doctors. When asked their opinion about the main health problems faced by women, a remarkable 65% said either "how to carry out birth spacing/control" or "advice regarding family planning." About 30% said "pain before delivery"; 48% said "bleeding" or "problems of the menstrual cycle"; and 20% said "sterility"¹⁰.

⁹ The question of whether their involvement truly is cost-effective is outside of the scope of this study.

¹⁰ Figures sum to more than 100 because of multiple responses.

When asked which type of patients they spoke with about family planning, about four in every five respondents said "those with too many children," indicating that family size limitation usually was the goal of the intervention. While one might expect, given the cultural barriers, that male doctors would speak only to men about family planning issues, our study shows no such constraint. Overall, only 17% of the respondents said that they spoke only with men about family planning; 10% said they spoke only with women. The preference for talking with men about family planning was pronounced in the regions of Uttarkhand and Brij, areas that are more socially conservative than others.

The doctors' concern for family planning was evident in their reported behavior. Almost all the respondents (92%) said they had discussions with their patients on family planning or population control. Of those, 98% said that they specifically gave advice about contraceptive methods. On average, doctors gave patients family planning advice about 4.4 times a month. This held across all regions, ages, types of practitioners, and levels of training.

Most Doctors Are Aware of Family Planning Methods: In the survey, each doctor was asked to list the methods with which he was familiar. The responses were tabulated as either "First Mention" or "Subsequent Spontaneous Mention." When the doctor had exhausted his or her active knowledge of contraceptive methods, the interviewer then read off the remaining methods, asking if the doctor was familiar with them. If the doctor said he or she was, the response was tabulated as "Passive Knowledge." The data (Figure 7) clearly reveal that total (passive) awareness of all methods is very high--nearly complete--but spontaneous awareness is much higher for temporary contraception. Particularly well known are condoms.

This finding is intriguing since it is at odds with what intuition might have suggested. The government has had a long-standing emphasis on permanent methods; only in recent years has attention been given to disseminating information about temporary methods, such as oral contraceptives and condoms. Therefore, one would expect that sterilization would have been one of the most well-recognized methods. The answer could lie in the fact that these respondents were private practitioners, and the vast majority (if not all) were unqualified to conduct sterilization operations. Their family planning business was restricted to temporary methods--methods, as it turns out, they knew best (see Table 2).

Taking this analysis one step further, we can look at how spontaneous awareness of various contraceptive methods varied among the study population. As shown in Table 2, there was essentially no difference in spontaneous awareness by type of medicine practiced or training received. On the other hand, differences can be seen by region of residence and age of respondent. For example, doctors in Uttarkhand show markedly less spontaneous awareness of the temporary methods of oral contraceptives and condoms than did doctors in Roheikhand. At the same time, awareness of permanent methods was much greater among Uttarkhand doctors than among those in Roheikhand. In very general terms, it appears that doctors are aware *either* of temporary or of

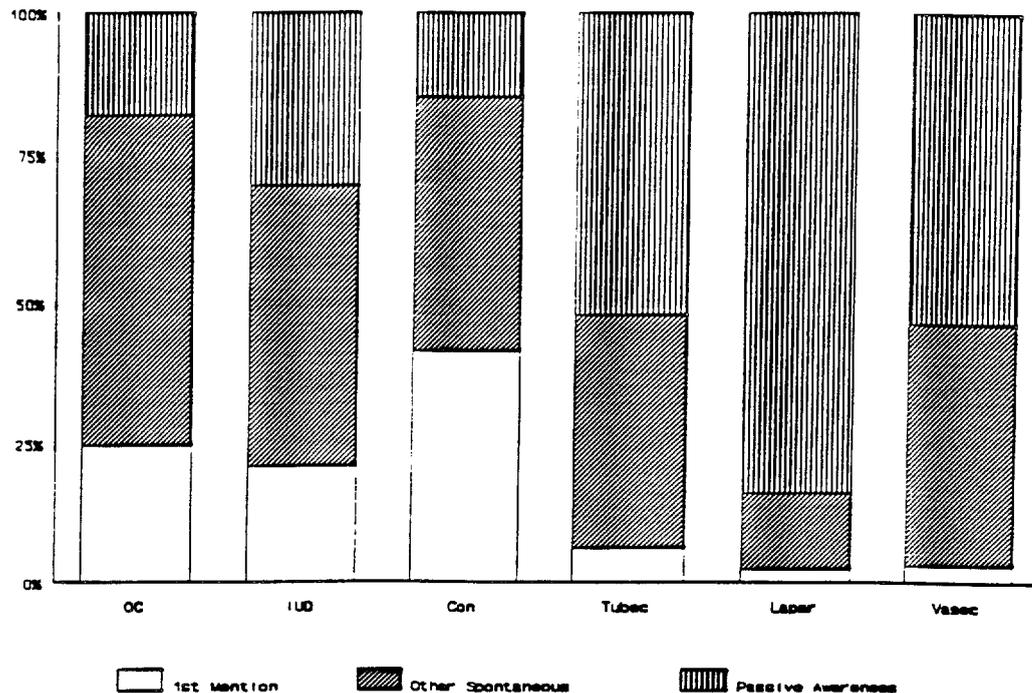


Figure 7 Doctors' Awareness of Contraceptive Methods (Con=condom, Tubec=tubectomy, Lapar=laparotomy, Vasec=vasectomy)

permanent methods.

With respect to age, younger doctors tend to have greater awareness of temporary methods, while older doctors are more familiar with male and female sterilization. The older doctors clearly spontaneously associated family planning with permanent methods. This difference among cohorts reflects recent shifts in the government's emphasis.

4. Are Doctors Willing to Provide Family Planning Methods?

The success of a project that seeks to increase private doctors' participation in the family planning program is determined in large part by the practitioners' willingness to provide family planning services to their patients. To assess whether rural doctors are (or would be) willing to provide family planning services, we look at several pieces of evidence. First, we look at the type(s) of family planning services currently provided in the private medical sector, estimating the financial benefits derived from such activities. Then we present findings from the survey on doctors' expressed interest in increasing their role in the family planning program.

Many Doctors "Prescribe" and Provide Contraceptive Methods: Given the high levels of awareness of contraceptive methods and the doctors' reports of frequent family planning-related discussions with patients, it might be expected that rural doctors suggest or

TABLE 2 AWARENESS OF FAMILY PLANNING METHODS

Characteristic (%)	Temporary Methods			Permanent Methods		
	OC	IUD	Condom	Tubectomy	Laparoscopy	Vasectomy
Total (N=488)	80	67	84	47	14	46
<i>Main Medical Style</i>						
Allopathy (n=326)	83	68	84	46	13	45
ISM (n=134)	75	61	84	49	14	47
Homeopathy (n=26)	77	69	85	50	23	50
<i>Professionally Trained</i>						
Yes (n=255)	79	72	84	48	17	47
No (n=233)	79	72	84	48	17	47
<i>Socio-Cultural Region</i>						
Uttarkhand (n=88)	71	65	81	56	21	61
Rohelkhand (n=99)	82	67	91	47	12	46
Brij (n=100)	78	66	81	41	15	29
Oudh (n=100)	84	60	88	37	12	31
Bhojpur (n=101)	85	76	81	55	9	54
<i>Age Group</i>						
17-28 (n=88)	88	66	87	40	9	39
29-35 (n=148)	82	74	92	38	17	39
36-45 (n=128)	81	73	85	57	9	56
46 and older (n=95)	65	48	68	56	6	52

provide methods, at least occasionally. In fact, we found that a sizeable number of doctors "provided"¹¹, and a majority said that they "prescribed"¹² both oral contraceptives and condoms. Only a tiny fraction provided the IUD.

As shown in Figures 8, 9 and 10, delivery of specific family planning services varies by main type of medicine practiced, age and training. Looking first at differences by type of medicine, it appears that doctors of ayurveda and other traditional systems were less likely than their counterparts to either provide or prescribe oral contraceptives to their patients. While this might indicate a reluctance to use Western medicines, such an inference is not borne out when looking at the behavior of homeopaths, who were the most likely both to provide and to prescribe the pill. With respect to condoms, there is no significant variation in their provision or prescription behavior among doctors practicing the different types of medicine.

While less than 10% of the private doctors inserted IUDs themselves, 70% reported that they referred patients to the government health centers for IUD insertion. However, the number of referrals was not great.

About three-quarters of the doctors interviewed had at some time referred a female patient for sterilization, and a smaller proportion

(54%) had referred a male patient for vasectomy. Referral of patients for sterilization was more common among older doctors and among those who had received professional training¹³. However, the actual number of cases referred for sterilization was quite small.

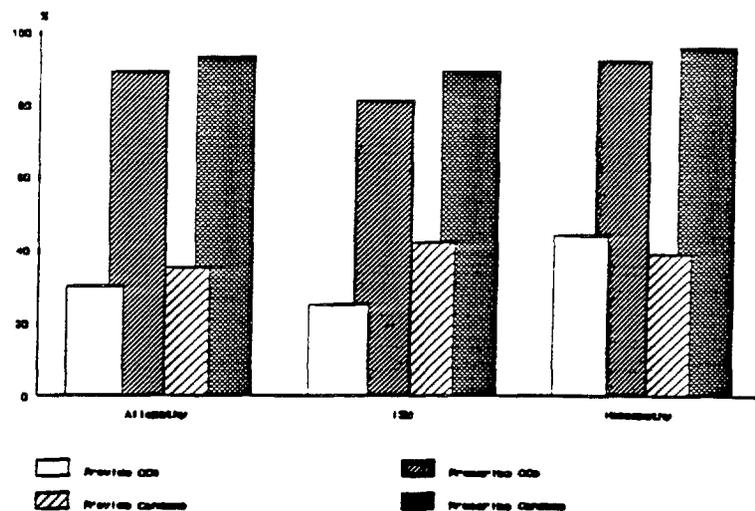


Figure 8 Family Planning Service Delivery by Main Type of Medicine Practice (Presc='prescribe', Prov='provide')

¹¹ In this study, the term "provide" means that the doctors distribute the pills or condoms, either for free or for a price. It is not known exactly what other types of services or information doctors provide along with the family planning commodities, or how many cycles of pills or condoms they give out.

¹² The term "prescribe" means that they suggest specific methods to patients, who then must purchase them at local pharmacies or obtain them at public sector facilities. It does not mean that the doctors write a prescription for specific items.

¹³ Methodological note: This is difficult to interpret since, in general, older doctors would have had a longer time period during which to have made such a referral.

The apparent differences in delivery of OC services by type of medicine practiced may be explained by the doctors' ages. Figure 9 shows that older doctors are less likely to provide oral contraceptives than are their younger colleagues. There is no similar systematic variation in provision or prescription of condoms.

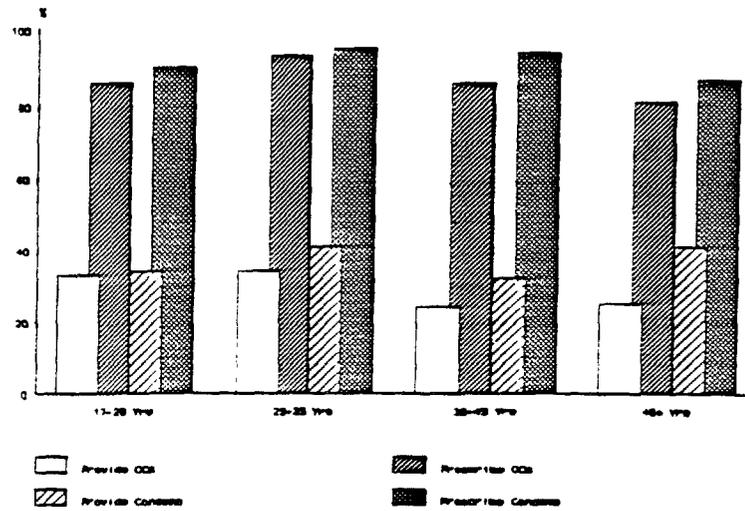


Figure 9 Delivery of Family Planning Services by Doctor's Age

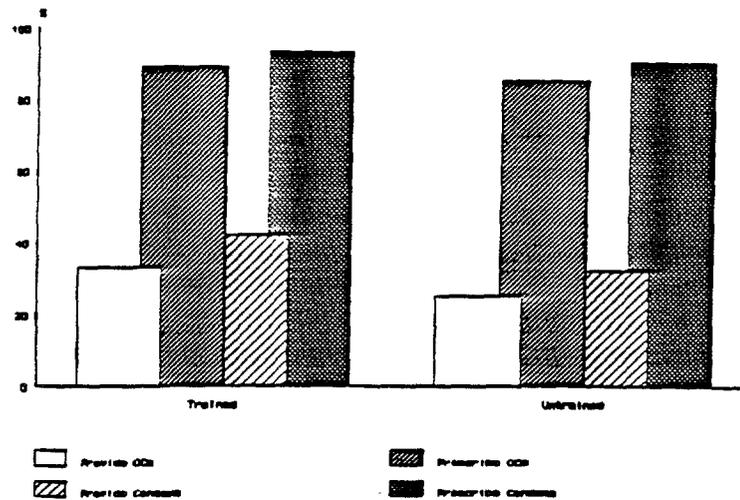


Figure 10 Delivery of Family Planning Services by Doctor's Training

Most interesting are the results showing the association between training and family planning service delivery. Figure 10 shows that those doctors who had received professional training both provided as well as prescribed the various contraceptive methods to a greater extent than did those who had not received such training. There were no differences between full- and part-time in provision or prescription of contraceptive methods.

The survey found significant correlation between the delivery of condom-related and delivery of pill-related services. Of the 488 doctors, 107 (22%) distributed both pills and condoms. About 84% (or 409) of the doctors prescribed both forms of contraception; 35% provided condoms and prescribed OC's; and 28% provided OC's and prescribed condoms.

Another way to assess awareness of family planning methods is to inquire about knowledge of brands. When asked about their awareness of specific brands, doctors tended to be most aware of government-produced items. For pills, Mala-D was the brand known best. Among the brands of condoms the Nirodh brand, heavily marketed and distributed through government centers, was known almost universally, while the other brands were much less prominent (Table 3). Younger doctors were most knowledgeable about specific brands.

Doctors Now Provide Family Planning Services Infrequently:

The frequency with which doctors provided family planning services was ascertained by asking how often pills and/or condoms were provided during the past month and during the past six months, and how often patients were referred for IUDs or sterilization during the same period. The results show that most doctors tend to provide such services only once or twice per month, but a few seem to see family planning clients daily.

Of doctors providing OCs, 66% said that they did so four or fewer times in the past month. On the other hand, some 13% provided pills 10-19 times in the past month, and 6% provided pills almost every day. Condoms were distributed more frequently. Among the doctors providing them, slightly more than 40% had done so four times or less in the past month, but nearly the same amount (37%) had done so more than 10 times during the same reference period. As discussed later, this is a substantial base from which to initiate expansion of private doctors' participation in the family planning program.

Table 3 Doctors' Awareness of Contraceptive Brands

	OC		Condom			
	Mala-D	Mala-N	Nirodh	Deluxe Nirodh	Masti	Kohinoor
% Aware Overall	92	42	92	19	28	17
% Aware of Doctors Who Prescribed, Provided	81	39	85	17	25	15
% Aware of Doctors Who Did Not Prescribe, Provide	11	3	7	2	3	2

Some 55% of the respondents who had ever referred patients for IUD insertion had not done so at all in the past month, and on average had done so only 1.5 times in the past six months. During the same reference period, only about five women and five men had been referred for sterilization. Of those, doctors believed that only half of the referred patients in fact went through with the operation.

Some important differences were found among various types of doctors, and among the regions in provision of temporary methods. Allopathic practitioners provided OCs marginally more than did ISM doctors, but homeopathic doctors seemed to provide the pill most frequently¹⁴ (Figure 11).

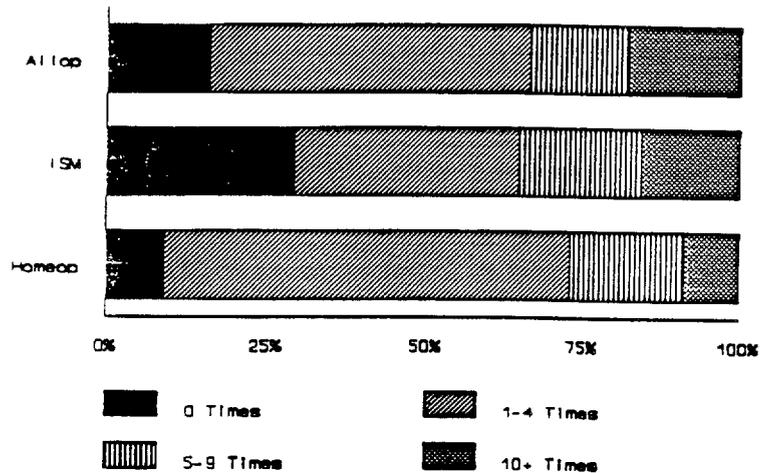


Figure 11 Frequency of Providing Oral Contraceptive Pills in the Past Month, by Type of Medicine Practiced

Doctors in the Uttarkhand, Brij and Oudh regions were more likely to see large numbers of OC clients than were doctors in other areas (Figure 12). ISM doctors provided condoms with more frequency than their colleagues who were mainly practicing other types of medicine (Figure 13). Regionally, there was no systematic difference in frequency of condom provision.

The frequency of provision of family planning services was found to be related to training. Some 58% of trained doctors providing condoms reported that they did so more than 20 times in the past six months; only 48% of untrained doctors did so that frequently.

Since identification of practitioners most likely to participate in a social marketing program is essential to project success, we estimated a regression model to assess the importance of individual determinants of OC provision within this sample, controlling for correlated factors. We found that having any professional training was the only statistically significant independent variable, in a model including age, region, supplementary occupation and type of medicine. This implies that training can be used to distinguish practitioners who would be most interested in providing family planning services.

¹⁴ Methodological note: In this and other instances, the number of homeopaths providing family planning services is very small (11), and so inferences should be drawn cautiously.

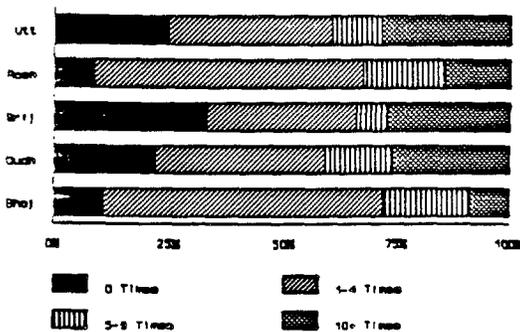


Figure 12 Frequency of Providing Oral Contraceptives in the Past Month, by Region

Variation was seen among different types of practitioners in the propensity to distribute contraceptives free of charge. In general, doctors mainly practicing either allopathy or ISM were least likely to distribute contraceptive methods for free; homeopathic practitioners are most likely to do so.

Interestingly, doctors with training were more likely than those without to provide contraceptive pills for free; but when they did sell them, the trained doctors charged more than the untrained doctors (Figure 15). A different pattern

was seen for condoms. Doctors without training were more likely to provide free condoms: there were no statistically significant differences in the prices charged.

There were large regional differences in charging for contraceptive commodities. In Bhojpur, for example, distribution of pills was clearly a commercial enterprise--75% of the doctors providing oral contraceptives were selling them (as opposed to distributing them for free). On average, they charged Rs. 10.08 per cycle of pills. The opposite was seen in the Brij region, where two-thirds of the doctors providing the pill were doing so free of charge; among the few doctors selling the product, the average charge was Rs. 1.05 per cycle. Among doctors providing condoms, 83% of those in the Brij region were distributing them for free. When they charged, Brij doctors charged 23 paise per condom, on average¹⁵. In Uttarkhand, 80% of the doctors distributing condoms were selling them, and the average charge was 45 paise.

¹⁵ Methodological note: This average is only among the 5 Brij doctors who were found to sell condoms, so it should be interpreted loosely.

Doctors Charge Little for Family Planning: When asked how much they charge for providing family planning products, including oral contraceptives and condoms, doctors' responses varied greatly. Many doctors provided the products free of charge--about one-third of doctors distributed pills for free, and about half of the doctors provided free condoms (Figure 14).

Among doctors charging for the products, the average amount charged on a unit-cost basis was Rs. 4.41 per cycle of pills and 25 paise per condom.

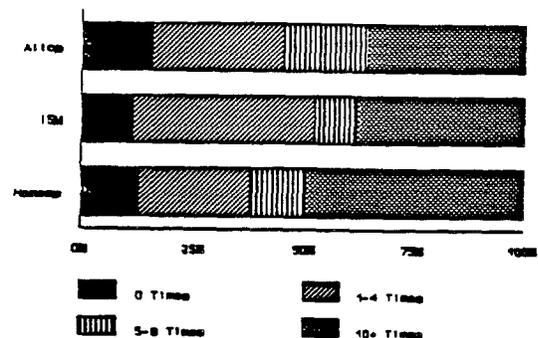


Figure 13 Frequency of Providing Condoms in the Past Month, by Main Type of Medicine Practiced

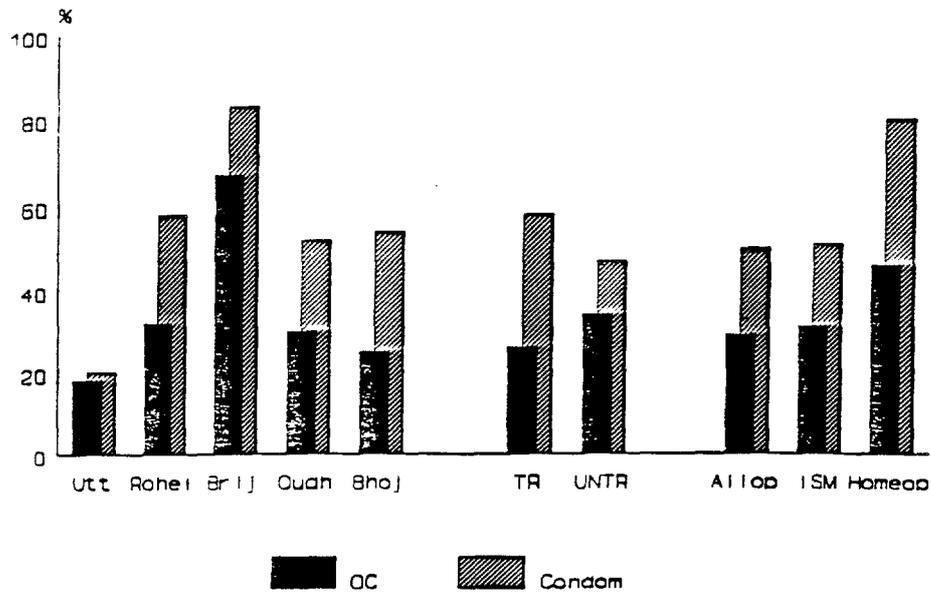


Figure 14 Free Distribution of Contraceptive Methods, by Region, Training and Main Type of Medicine Practiced

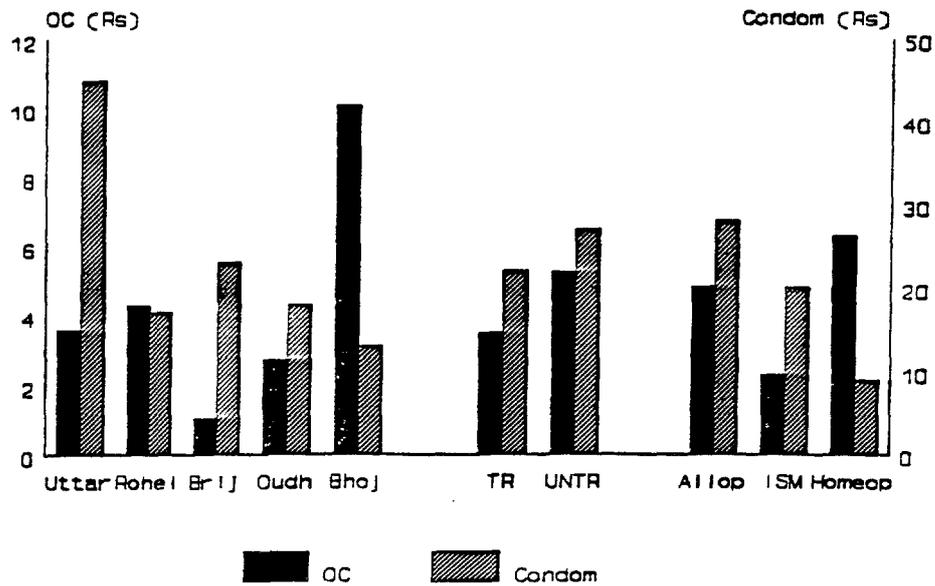


Figure 15 Prices Charged for Oral Contraceptives and Condoms, by Region, Training and Main Type of Medicine Practiced

The explanation for regional variation lies in the source of the doctors' supplies of contraceptive commodities. Doctors in Brij--the most likely to distribute both contraceptive pills and condoms for free--tend to obtain the supplies from the government-run PHC. In Uttarkhand, where many doctors charged for contraceptive methods, chemists' stores and local distributors were the main sources (Figures 16 and 17). In sum, doctors who got their products free of charge were likely to distribute them free. If they paid, they charged to recover the cost plus a margin.

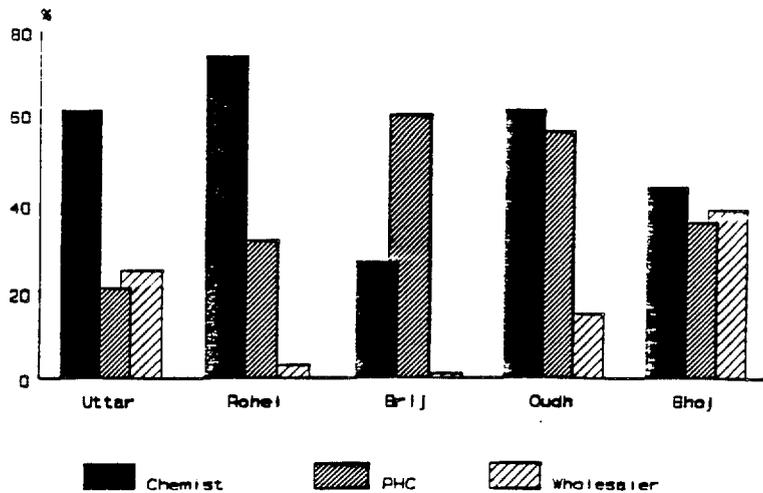


Figure 16 Sources of Oral Contraceptives, by Region

Doctors Now Earn Very Little from Family Planning: Since private doctors generate income only when they sell medicines, the amount that doctors earn directly from family planning will be a function of (a) whether and how frequently they provide such services and (b) whether and how they charge for contraceptive commodities.

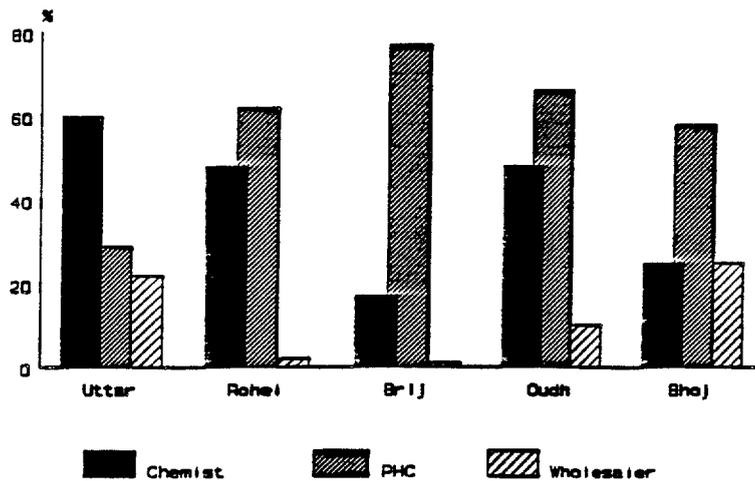


Figure 17 Sources of Condoms, by Region

As we have seen, about 31% of doctors provide oral contraceptives. On average, they do so about six times a month. Taking into account both the free and the fee-for-product distribution, and making the very generous assumption that doctors distribute three pill cycles at a time, the doctors who provide pills generate approximately Rs. 55 per month from this family planning service. This is only about 6% of the average monthly income of private rural doctors. And this does

not take into consideration the fact that the doctors may themselves have to pay for the commodities that they provide to patients.

Turning to condoms, 37% of doctors provide the commodities. On average, they provide condoms about nine times a month. Assuming they distribute a dozen condoms at a time (about Rs. 3 worth, at 25 paise a condom), the doctors generate about Rs. 13 per month from this activity. This constitutes only 1.4% of a doctor's average monthly income. We can safely state that family planning services are not only a small part of most doctors' practice, but they also provide very little of the typical doctor's income.

Why would doctors be delivering family planning services if they do not seem to benefit materially? While we cannot answer this question definitively, we can make some sensible speculative statements. First, it may be that delivery of such services is something of a "loss leader"--a service provided at little or no charge to generate additional profitable business. Second, doctors may be practicing a form of enlightened altruism, believing that such a service benefits their patients. Finally, doctors who prescribe may in fact have financial interests in particular chemists' shops, and therefore make money off of prescriptions.

While doctors earn little from provision of family planning, it is important to emphasize that they show considerable interest in providing family planning services. Currently, they counsel patients, "prescribe" methods, refer patients to government facilities for long-term methods, and provide free commodities--all for little material gain.

Doctors Are Willing to Do More: Among doctors *not* currently providing family planning services, this survey found considerable willingness to do more. At the same time, the doctors were well aware of the limited market for contraceptives in a setting where the government distributes them for free.

Turning first to referrals of patients for IUD insertion, 90% of doctors said that they would be willing to make such referrals, with little variation by socio-cultural region or type of medicine practiced. Younger doctors were somewhat more willing to consider making such referrals. And the few respondents who had received training in family planning were almost unanimous in their willingness to refer appropriate patients for IUD insertions, while those who had not been trained in family planning were more hesitant to do so.

When asked about their willingness to prescribe or provide contraceptive methods, practitioners clearly showed that they were interested in being involved in the family planning program through provision of information, prescription or referral, but were unwilling to sell OC's or condoms. More than three-quarters of doctors not currently providing services said that they were willing to refer patients to government workers for oral contraceptives, give information to patients, or tell patients how to obtain the pill from chemist's shops ("prescribe"). At the same time, only 24% were willing to sell the commodity (Figure 18).

The same was found for condoms. Most doctors not now providing condoms were willing to play the role of referral agent, or to give information about the method to patients. Only 24% were willing to sell condoms (Figure 19).

The practitioners who stated that they were willing to prescribe, sell, refer or give information about contraceptive methods were asked for their reasons. The majority (about 87%) said that contraception was important because of the country's rapid population growth. A much smaller proportion (about 20%) said that family planning was demanded by patients.

The practitioners who said that they were unwilling to sell condoms or oral contraceptives were quizzed about the reasons for their hesitation. This probing revealed that the availability of commodities free of cost

at the PHC acted as a major disincentive to practitioners. Private doctors said they had no motivation to undertake a sales effort under the circumstances. This response was given by 64% of the 231 respondents who were unwilling to sell condoms, and 57% of the 256 doctors who were unwilling to sell the pill.

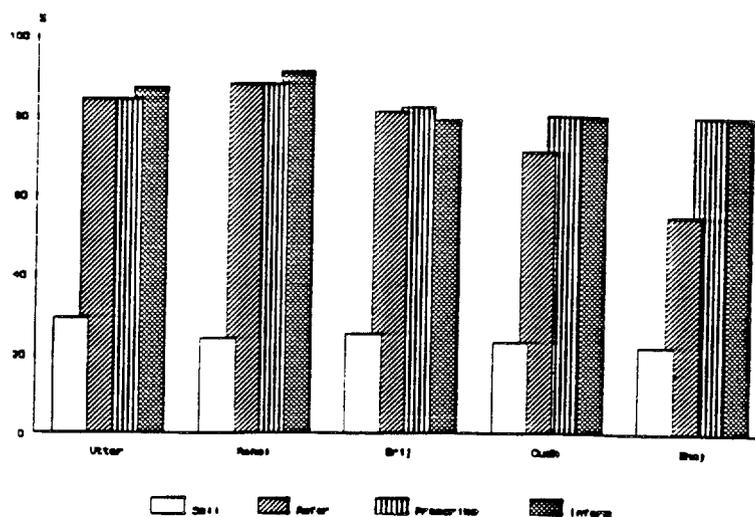


Figure 18 Doctors Not Currently Providing Oral Contraceptive Services, Who Would be Willing to by Region

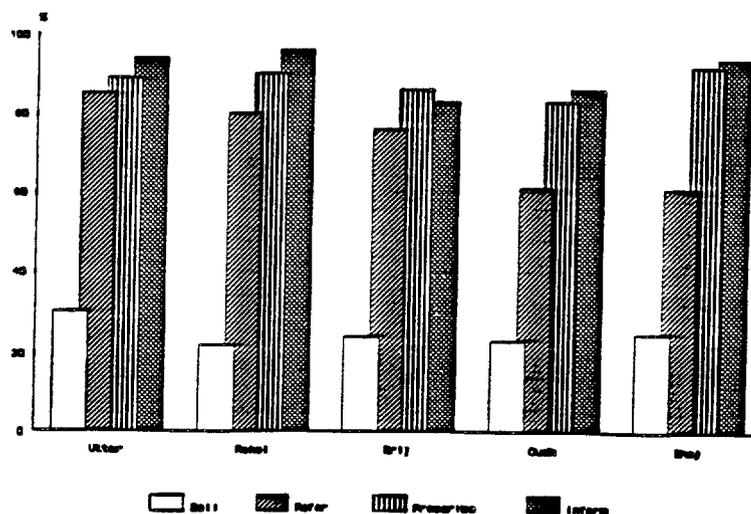


Figure 19 Doctors Not Currently Providing Condom Services, Who Would Be Willing by Region

Doctors Are Interested in Promoting the Family Welfare Program: All but one of the respondents believed that the government should actively promote small families. Nearly all (98%) also felt that private doctors and non-governmental organizations should support family size limitation. This was true in all regions and among all age groups. When asked to explain these beliefs, almost all (92%) of the private practitioners cited the "population explosion" as the main reason. When asked for additional reasons, the most popular response was "economic reasons." Maternal and child health concerns were mentioned as secondary reasons by fewer than half of the respondents.

Essentially the same pattern held when practitioners were asked whether they would be interested in expanding their participation in the family planning program. Rapid population growth emerged as the dominant reason for which doctors wanted to provide more information about family planning to their patients. While a relatively low proportion (14%) of respondents saw it as their duty as a doctor to provide such information, this was a more common view among doctors with professional training than among untrained practitioners (18% vs. 10%).

Some of the doctors (5%) said that they were uncertain about whether they would be interested in providing family planning services, and many of those said that they needed training, equipment and educational materials before they would be able to provide services to their patients.

5. *Is a Referral Network in Place?*

Since it is unlikely that rural doctors will have the facilities or technical competence to deliver some types of family planning services--insertion of IUDs, for example, or sterilization--the success of a private family planning project depends, in part, on the existence of referral links to the government system. In this section, we look at the type and frequency of contact that private doctors currently have with the PHC and other government facilities.

Many Doctors See Family Planning as the Government's Main Activity: In this survey, respondents tended to see the government's PHC as a place to go for family planning services and, to a lesser degree, for preventive health care. A small proportion considered provision of curative care to be a significant activity of the PHC. About 36% of the doctors said that family planning was the local PHC's main activity; 29% believed that preventive care was its main function. Family planning was cited as a secondary activity of the PHC by 37% of the respondents. Therefore, a total of 73% of the doctors said that family planning was either the primary or secondary activity of the government facility. Curiously, 8% of all respondents were unaware of any of the activities of the PHC, and 13% of the doctors thought that the role of the PHC was "advisory" in nature.

Quite remarkably, given the social conservatism prevalent in rural India, only 8% of the doctors stated categorically that they were uninterested in any involvement in the family planning program. When asked for the reasons behind their disinterest, most of these doctors said that adequate information already was being provided, presumably by the government.

Though the government health system is supposed to be uniform throughout the state, private doctors' perceptions of PHC activities varied by region. In Brij, where doctors are most likely to obtain pills and condoms from the PHC and distribute them to patients at no cost, family planning was considered to be the PHC's main activity by 49% of the respondents (the highest of all regions). In general, there was a tendency in the western part of the state to see PHCs as family planning centers, while in eastern UP there was a greater awareness of the role of PHCs in curing illness.

Homeopaths and older practitioners were more likely than other types of doctors to perceive PHCs as predominantly family planning centers. In addition, doctors with professional training were significantly more likely to see family planning as an important PHC activity than were untrained doctors.

Most Doctors Have Visited the PHC: It appears that there is considerable contact between private and government doctors. Slightly more than two-thirds (69%) of the doctors interviewed had ever visited the local PHC, and about three-quarters had met at least one of the PHC officials. In general, allopaths were most likely to have visited in the past month, and homeopaths were the least likely. (These differences, though suggestive, were not statistically significant.) There were no differences between trained and untrained doctors, nor between full- and part-time doctors in the likelihood of visiting the government facility. Approximately 44% of doctors who had met with a PHC official said they did so for a medical consultation or professional advice; 31% said they had met for personal reasons.

Doctors Occasionally Refer Difficult Cases: When asked a direct question about whether they referred cases to other doctors, only 10% of the respondents said that they often referred cases outside. About 37% said that they sometimes made such referrals, and 8% said that they had never done so. Doctors mainly practicing allopathy or ISM, younger doctors and those who had received professional training were more inclined to refer cases to other practitioners.

Almost all of the respondents (91%) reporting that they referred cases said that the referrals were made to doctors at government health centers (PHCs or government hospitals). Nearly 40% of the referring doctors said that they had at some time referred cases to private doctors outside the village. Essentially none of the respondents said that they referred to a private doctor in the same village. This pattern held, regardless of type of medicine practiced or extent of training. Doctors reported referring cases beyond the scope of their ability, including serious illnesses such as cancer, tuberculosis, cholera and others, delivery, family planning and surgery (Table 4).

Type of Case	% Referring
Serious illness	73
Delivery	48
Family Planning	41
Surgery	33

In all instances where the respondent had indicated referrals to the government doctor for gynecological programs and/or problems related to reproductive health, the respondent was asked to elaborate and to indicate the exact nature of these problems.

More than half (56%) said that they referred complicated delivery, 38% said they referred normal delivery, and 21% said they referred abortion cases¹⁶. One third of all doctors who referred gynecological cases to the government said that they did so all of the time.

Doctors Buy Medicines in Town and Have Few Problems with Supply: The major source for the purchase of medicines was the chemist from the nearby town. A total of 26% of all private doctors obtained their medicines from village chemists; 37% purchased them from the distributor or wholesaler in the nearest town; and 61% bought medicines from the chemists in the nearest town¹⁷. Allopathic practitioners were least likely to seek medicines from wholesalers, while homeopaths depended on this source most.

More than 70% of the respondents said that they had never faced any problems in procuring medicines. This response was particularly high in Oudh and Bhojpur where more than 80% of the doctors said that they had never faced a problem. In fact, only in the hilly regions of the state, Uttarkhand, did a relatively large proportion (32%) of the respondents report that they often or sometimes faced a problem in gaining access to medicines. Those few respondents in other regions who said they faced problems with the supply of medicines said that the main difficulty was in obtaining specific medicines, and that as a result they had to purchase substitute formulations. Clearly, a working distribution system is in place, and there exists the potential for the IFPS Project to take advantage of this system for social marketing of contraceptives.

6. *Could a Distribution Network Be Created or Strengthened?*

One of the most promising ways to stimulate private doctors' interest in delivering family planning services and to provide them with the commodities, training and other inputs they might need is to create or strengthen a network organization. This might take the form of an association of rural medical practitioners, as exists in many parts of the country. In this section we examine whether such an organization already includes the majority of rural doctors and whether the doctors would be interested in joining such an association.

Many Doctors Belong to Medical Associations: More than half (54%) of the private doctors said that they were registered with some medical association (Table 5). While there were few differences among types of medical practice in the proportion of doctors who were organization members, the professionally trained doctors were significantly more likely to be in medical associations (65% vs. 42% for the untrained doctors). No one organization was clearly more popular than the others¹⁸.

¹⁶ Percentages add to more than 100 because of multiple responses.

¹⁷ Percentages add to more than 100 because of multiple responses.

¹⁸ Methodological note: These are self-reported memberships and may not fully reflect reality. Of particular concern is the 4% of non-professionally trained doctors who stated that they were members of the Indian Medical Association (IMA). The IMA requires that members have at least an MBBS (medical) degree, so these untrained doctors are in fact not IMA members.

Membership	Total	Main Type of Medicine			Training	
		Allopathy (n=326)	ISM (n=134)	Homeopathy (n=26)	Yes (n=255)	No (n=233)
Any Organization	54	53	58	56	65	42
Private Medical Practitioners Assn	11	12	15	9	11	12
ISM Assn	3	2	7	7	6	0
Indian Medical Assn	11	10	12	11	17	4
Indian Rural Medical Assn	6	7	4	5	6	6
Other	23	22	19	25	19	26

Most Doctors Would Join, and Fees May Not be an Obstacle: Doctors were asked whether they would be interested in joining a rural medical practitioners' association, and they responded enthusiastically. Nearly all (95%) of the practitioners expressed interest in joining such an association, and interest was high among all types of doctors. The main reason given for the great interest in joining a membership organization was that doctors wished for a forum for exchange of ideas. Doctors also expressed a desire to learn about new medicines and techniques (Table 6). Doctors who did not have training were particularly interested in exchange of ideas, and learning about new medicines and techniques.

Doctor's Characteristic (%)	"Exchange of Ideas"	"Learn About New Medicines"	"Learn About New Techniques"
<i>Main Type of Medicine</i>			
Allopathy (n=309)	69	65	40
ISM (n=127)	69	52	39
Homeopathy (n=26)	89	58	42
<i>Professional Training</i>			
Yes (n=245)	67	58	35
No (n=219)	74	64	45

To assess whether doctors would be interested in joining specific types of organizations, interviewees were queried about (a) an association consisting of doctors practicing different medical styles; and (b) an association requiring a membership fee. The survey found that neither of these criteria substantially diminished doctors' interest.

Most (93%) of the doctors who said they were interested in joining a membership organization retained this interest when told that it would consist of doctors practicing ISM, in addition to those practicing Western medicine. This runs counter to some concerns that doctors are reluctant to confer with practitioners of other systems. Respondents said that the opportunity for exchange of ideas across different medical systems was attractive.

There was a slightly larger drop in interest when respondents were asked whether they would be willing to join the organization if they were required to pay a membership fee to join. Overall, 88% of the doctors originally interested in participating were willing to pay, regardless of membership benefits. On average, practitioners said they would be willing to pay about Rs. 25 per month. There was some variation in willingness to pay by age: the older doctors (46 years and older) were willing to spend only Rs. 14.20 per month, while the younger doctors were willing to pay an additional Rs. 10 or more.

About 12% of doctors were hesitant or unwilling to pay a fee. Those stating that they were reluctant--who were disproportionately among the trained practitioners--tended to say that they would pay if facilities and/or other benefits of membership were guaranteed. Most of the 22 doctors who said they were definitely unwilling to pay a fee, who were disproportionately untrained, said the barrier was cost. Others said that membership in such an organization "should be free."

7. *What Inputs Do Rural Doctors Want and Need?*

The survey findings already have hinted at types of inputs that private rural doctors would need to increase their participation in the family planning program. Most important is training, both in specific contraceptive methods and in the larger area of reproductive health. In this section, we report on the doctors' expressed interest in being formally trained in these areas.

Doctors Want Training in Many Aspects of Family Welfare: Four out of every 5 doctors interviewed expressed interest in undergoing training on the topic of family welfare. Only 16% of the respondents stated that they had no interest in the topic, while the remaining 4% were uncertain.

An overwhelming majority (78%) of the doctors interested in training felt that it would enable them to provide better service to patients. This response was somewhat more prominent among allopathic and ISM doctors (80 and 77%, respectively) than among homeopaths (71%). There was no statistically significant difference between professionally trained and untrained doctors in their interest in such training.

Type of Training	Extent of Interest (%) (n=392)			
	Very	Somewhat	Not Very	Not At All
Selecting the best method	89	9	1	1
Advising patients	90	8	1	1
Prescribing contraceptives	80	17	2	2
Managing and selling OC's and condoms	67	19	3	11
Inserting IUDs	60	13	5	22

Respondents were given a list of topics in which training could be provided, and were asked to indicate their relative interest in each (Table 7). Clearly, doctors are quite interested in training in selecting the best method, advising patients and prescribing methods, and have less enthusiasm for managing the sales of

contraceptives and learning to insert IUDs. In fact, nearly a quarter of the respondents

were not at all interested in training in IUD insertion. This belief was held by a third of the respondents from Rohelkhand.

Doctors Want a 10-Day Training Course in a Nearby Town: Since doctors only earn when they are providing services, training courses have a substantial opportunity cost. We can get a sense of the strength of the interest in training by seeing how much time the doctors would be willing to invest. Surprisingly, we found that rural practitioners were willing to spend an average of about 10 days in family welfare training (Figure 20). (It is important to note that many doctors operate their medical practice in the evening hours, which are most convenient for patients, and therefore might not experience as great an opportunity cost for training as this figure suggests.)

Nearly three-quarters of the respondents in the survey said that the training period should be 8 days or more. ISM doctors and those with some professional training tended to want shorter courses. Young doctors were interested in longer courses than were their older colleagues.

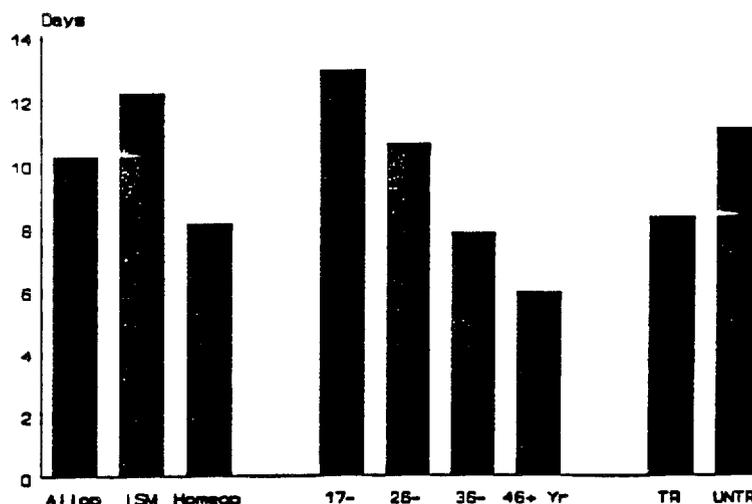


Figure 20 Desired Duration of Family Planning Training Course, by Main Type of Medicine Practiced, Doctors Age and Training

The doctors were almost unanimous about the location for training. Nearly all (94%) of the doctors who were interested in training said that the appropriate venue would be the nearest town.

Doctors Will Pay for Training: While the major indicator of interest in training is simply whether doctors would go and for how long, it also is important to know whether they would be willing to pay a fee for training.

Four-fifths of the 411 doctors who said they were interested in training were also willing to pay for it. On average, they were willing to pay Rs. 109, but one-third were willing to pay only Rs. 30 or less. A quarter were willing to pay Rs. 31-50, 18% would pay Rs. 51-100 and a surprisingly large 23% said they would pay Rs. 101 or more.

There was some regional variation, roughly in parallel with the variation in overall well-being. Respondents from Brij were, on average, willing to pay only Rs. 61, while those from Uttarkhand were willing to pay almost Rs. 150.

Some Doctors Thought Benefits Would Not Outweigh Costs: The 16% of the doctors stating that they had no interest in going through family welfare training were asked for their reasons. Of the 76 doctors, half said that they could not afford to spend the time that training would require (i.e., they perceived a high opportunity cost). This was most frequently the reason of doctors with no professional training and those who practice part-time, who earn less from medical practice. Some 36% said that they thought such training would be of little or no use to them. Again, this response was most popular among those without professional training than among those who had been trained.

IV. IMPLICATIONS FOR PROJECT DEVELOPMENT

This survey provides a detailed description of who the rural doctor is, what his practice patterns are, and how interested he might be in expanding participation in the family planning program. More importantly, however, it provides specific information for project designers about which type of doctors would be most interested in participation in the family planning program and which ones would have the greatest potential impact or coverage. It provides information about what practitioners would need and accept in terms of training, information, joining a membership organization, or other activity that would lead to expansion and upgrading of family planning services in rural areas. In this section, we identify the major implications of the survey findings for design of a private sector component of the IFPS Project in Uttar Pradesh.

Target the project: Reach doctors with relatively large patient loads

We found tremendous variation in doctors' workloads and therefore in the number of potential family planning clients that doctors would be able to reach. Some practitioners depended entirely on medical practice and saw 15 patients a day. Others were part-time doctors and saw fewer than five patients, even during the busy summer season. This finding has clear and important implications for the potential impact of a family planning project.

Analysis of the data has shown that doctors with relatively large patient loads are those who have no supplementary occupations. And the best means of identifying doctors with no supplementary earnings is to focus on younger doctors practicing any type of medicine and who have some professional training.

Only by focusing on the "busy" doctors will the project have an impact in a cost-effective manner. For example, if a training or information dissemination component of the IFPS Project involved 1,000 randomly selected private doctors, we would expect that, collectively, they would have the potential to reach 560,000 rural women over the course of a year. If the same resources were used to involve 1,000 practitioners who were specifically drawn from the subset of doctors who do not have supplemental income (that is, who are full-time doctors), the potential coverage increases by 60%, to about 900,000.

Build on doctors' interest: Expand on the activities of doctors now providing family planning services

Both in word and action, private doctors currently are showing substantial interest in providing family planning services. Nearly all express concern about the "population explosion," and many counsel patients who "have too many children." About one-third provide oral contraceptives or condoms to patients, often at no charge. And approximately 80% of the private doctors stated that they would be interested in doing more, such as referring, counseling or prescribing.

The IFPS Project can build on the existing interest. It can do this most easily by working first with doctors who currently are providing such services, and then expanding the project to include doctors who have expressed the strongest interest in obtaining family planning training.

As a way to identify those who would be most interested, one might select doctors who have professional training. Analysis of the data showed that the most meaningful correlate of the likelihood of distributing oral contraceptives is professional training background. Other possible means of identifying doctors, such as age and type of medicine practiced, are less sensitive indicators.

It might be desirable to focus the initial demonstration project among professionally trained doctors in Uttarkhand. They see relatively large numbers of patients and currently deliver family planning services more frequently than in other areas.

Recognize the government's role in "crowding out" the private sector

We found both direct and indirect evidence that the aggressive government family planning program is crowding out the private sector in this area. Doctors often said that they referred family planning clients to the government system, instead of providing the services themselves. They tended to see the primary role of the PHC as a provider of family planning. And a plurality of the doctors explicitly stated that they would be uninterested in trying to sell oral contraceptive pills or condoms because such commodities were available free through government providers.

This issue goes beyond the scope of a training and commodity distribution project for private doctors, but must be addressed in other parts of the IFPS Project. The availability of free commodities through the government, often distributed by family planning workers whose jobs depend on attaining high levels of method "acceptance" among members of the community, may be having a negative effect. Instead of promoting high levels of use, it may be curtailing private distribution channels that would be more responsive to client preferences and would operate at much lower levels of government subsidy.

Bring doctors together: Take advantage of the considerable interest in association and training

While only slightly more than half of all private doctors currently are members of a doctors association, the enthusiasm for joining was quite strong. We found that not only were doctors eager to join, but they were also willing to participate in an association that was not restricted to their own type of medical practice. And, most encouragingly, in general they were willing to pay up to Rs. 50-100 to join.

The interest in joining an association or network extended to a willingness to participate in training in family planning. In particular, doctors currently not providing family planning services expressed considerable interest in learning about the "nuts and bolts" of family planning: how to counsel, how to provide contraceptive methods. They were less enthusiastic about training in the management and sales of contraceptive supplies. It is very likely that this is because of their relatively low interest in the business technicalities of their practice and also due to the perceived low potential for generating income through provision of family planning services.

Unfortunately, it appears that no existing organization yet reaches a sufficiently large proportion of rural doctors to be an appropriate network, at least in the present form. As described below, it will be necessary to assess several organizations' capabilities and ability to expand.

Develop a full curriculum: Make doctors aware of family planning's health benefits

The survey found that doctors were very well aware of the rapid rate of population growth in UP and of the importance of reaching "people with too many children." They were much less aware of or concerned about the maternal and child health problems associated with early, late and high levels of childbearing.

This implies that the IFPS Project has the opportunity and the responsibility to increase private doctors' awareness of the health benefits of family planning. In this way, the doctors would increase their ability to provide valued services to their patients. In the private sector, as in the government, doctors need to provide services that have benefits for the individual as well as for society.

Show profitability: Demonstrate that family planning can bring new patients, bring financial benefit

Currently, doctors earn very little from delivery of family planning services, and many seem to provide such services out of a desire to slow the rate of population growth. Private doctors do not associate financial benefit with provision or "prescription" of temporary methods. This explains, in part, why they do not do more to promote this aspect of their practice. To have a substantial impact on the practice patterns of the typical UP doctor, the IFPS Project will have to find a way to promote the profitability of delivering family planning services.

It must be emphasized that this implication of the survey findings reaches beyond the private sector component of the IFPS Project and highlights the importance of the interaction between government and private sectors. If the Government of India fails to target its family planning subsidies, it will counteract many of the project's efforts to involve the private sector in social marketing.

Use existing supply channels: Make the most of distribution through town chemist

A relatively minor but important finding of this survey was the reliability of the supply channels for medications. For the most part, doctors found it uncomplicated to obtain necessary medicines from the town chemists. The challenge for the project, then, is to determine the distribution channels from which town chemists obtain their products and to use that channel for contraceptive commodities.

Examine means of involving female practitioners

Two additional findings of the study are striking: (1) Only 1 of 488 doctors was female; and (2) the female doctor saw at least 5 times as many reproductive-age women as did her male counterparts. Since the intent of the study was to find a representative--not a female--sample of rural doctors, we have no more information about who women doctors are or how they can be found and involved in the project. However, a small additional background study of the feasibility of lady doctors' participation might have significant payoffs for project impact.

Carry out targeted studies for development of demonstration project

Several questions emerging from these initial findings must be answered to create the bridge between the current level of understanding of rural doctors' characteristics and practices and the complete information required for development of a project strategy and demonstration activities. These are:

- *What is the precise nature of the family planning services currently being delivered by an estimated one-third of the rural doctors? They cannot be brought into a family planning system if we do not know this information.*
- *What have other organizations/projects found in attempting to involve traditional and other rural medical practitioners in delivery of health and family welfare information and services?*
- *What are the potential (and actual) legal and regulatory constraints to involvement of rural medical practitioners in delivery of family planning information and services, and how might these be overcome?*
- *What do demographic survey data tell us about the major market segments, and about which subpopulations are currently receiving private and public family planning services?*

V. GUIDELINES/STRATEGY FOR IMPLEMENTATION

This study of rural doctors has shown that there is great potential for involvement of traditional and allopathic practitioners in the family planning program. As the most important medical personnel in rural areas, providing care to millions of reproductive age women, these rural doctors have sufficient coverage of the target population. They currently provide family planning services, though not in huge numbers, and the great majority of them advise their clients on family planning. Finally, most express considerable interest in training and greater involvement in the family planning program.

This study also has indicated that several steps, besides the suggested research above, must be taken in preparation for project implementation, including the design, execution and evaluation of a demonstration project. The following steps are recommended.

1. **Develop strategy to apply study findings.** Development of the strategy would involve activities such as reviewing the study findings in light of experiences in other states, such as Gujarat; and carrying out small additional studies, such as the studies mentioned above. Then determine how the rural doctors component of the project should work with the social marketing component: What will be the joint and separate objectives of the components? How must they be staged so that distribution channels are established by the time doctors are trained? The result of this step would be a written strategy that will guide the demonstration project and its eventual expansion.
2. **Assess institutional capabilities of rural medical organizations.** Since no one organization appears to have a large enough reach in UP, it may be desirable to assess the capabilities of several existing organizations in terms of financial accountability, potential to expand membership, and interest in disseminating information and serving as an umbrella for training.
3. **Select the "best" candidates for a demonstration project.** Enlist a group of doctors who are likely to have sustained interest and who have active practices that reach relatively large numbers of reproductive-age women. These will be doctors with at least some professional training who derive all their income from medical practice. Uttarkhand may be the best location to initiate this work. Recruit for membership through existing networks, do outreach recruiting, or use the list of interested participants from this survey.
4. **For future evaluation, develop a baseline of individual participants.** Carry out a baseline study of a sample of the participants. Find out more detailed information about their practice patterns, perhaps by doing on-site observation of who and how they counsel, "prescribe" and provide family planning services.
5. **Ensure that supply links are established before doing training.** Develop a reliable supply of contraceptives, either through the training organization or through the regular source of medicines, the town chemist's shop. Monitor the availability of supplies as the project progresses.

6. **Ensure that government workers are supportive of effort before doing training.** Inform and obtain the cooperation of local government workers and make sure they understand that the private doctors will not compete with them for "acceptors."
7. **Develop full training package.** Create a 10-day training program available in central towns and invite participation by doctors in nearby villages. Make sure that the training curriculum includes not only specific information about family planning, but also background education on the health benefits of birth spacing and family size limitation. Expand the focus beyond the demographic rationale for family planning, since this is well known already. Also make doctors aware of the potential for financial benefit if they sell OCs and condoms. Make provisions for follow-up training within clinics.
8. **Evaluate the demonstration project.** Assess changes in the practice behaviors of doctors included in the baseline study to evaluate the effectiveness of training.
9. **Expand the project activity to include more practitioners.** Use the results of the evaluation to modify the nature of the membership organization and training and then expand the project. To increase the cost-effectiveness of this work, make sure that the project continues to target only the doctors who are in full-time practice and who see a substantial number of patients who would be likely candidates for family planning.

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APPENDIX A: DISTRICTS IN SOCIO-CULTURAL REGIONS

Uttarkhand Region

Uttarkashi
Tehri-Garhwal
Almora
Chamoli
Dehradun
Nainital
Pithoragarh
Garhwal

Brij Region

Agra
Aligarh
Budaun
Bulandshahr
Farukhabad
Mainpuri
Mathura
Pilibhit

Oudh Region

Bahraich
Barabanki
Etawah
Etah
Faizabad
Gonda
Hamirpur
Hardoi
Kanpur
Lalitpur
Rai Bareilly
Shahjahanpur
Unnao
Sitapur

Bhojpur Region

Allahabad
Azamgarh
Banda
Basti
Deoria
Gorakhpur
Jaunpur
Pratapgarh
Sultanpur
Varanasi
Sonbhadra

Roheikhand Region

Bareilly
Bijnor
Gaziabad
Meerut
Moradabad
Muzaffarnagar
Rampur
Saharanpur
Haridwar