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# THE HEALTH CENTER DOCTOR IN INDIA

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S. Prakash Sangal, and Joseph D. Alter

*The Johns Hopkins Monographs in International Health*

THE HEALTH CENTER
DOCTOR IN INDIA

# THE HEALTH CENTER DOCTOR IN INDIA

BY
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THIS MONOGRAPH RESULTS FROM STUDIES MADE BY THE
RURAL HEALTH RESEARCH PROJECT OF THE DIVISION OF
INTERNATIONAL HEALTH, JOHNS HOPKINS SCHOOL OF HYGIENE
AND PUBLIC HEALTH, WHICH IS BASED AT NARANGWAL, LUDHIANA, PUNJAB.

# PREFACE

THE Indian health center movement is one of the most ambitious in the world. Rural health centers, as the basic units of an expanding regional organization, provide the framework on which the country's major health programs are built. The rate of expansion has been so rapid that serious organizational problems and tensions have developed. As the initial quantitative spread is completed, planning for major improvements in the system can be based on practical experience. Analysis of problems encountered along the way to the present stage of development may suggest alternative approaches and may also help other countries through their expected periods of frustration and failure.

In this volume the current working situation of the doctor in a rural health center is described, as viewed by the doctors themselves and by five other professional groups involved in determining health center and medical education policy. Marked intergroup discrepancies in expectations result, at least in part, from the finding that some of these policy-makers know very little about what goes on in rural health centers.

Out of the analysis of present conditions, recommendations have been made for improvements in health center administration. Many of these recommendations have been made over and over again by governmental and nonofficial groups. They were reiterated in this survey and merit continued repetition until they are implemented. Some dramatic improvements have, in fact, occurred since this study started. The increasing readiness to innovate in health services in India has perhaps been partly sparked by the need to develop a major new emphasis in family planning, and by the need to integrate the malaria program into the basic health services.

Suggestions for modifying established patterns will have meaning only if they can be translated into economically and administratively feasible proposals. Most of the specific recommendations in the last chapter were proposed at the Second Annual Narangwal Conference of The Johns Hopkins Rural Health Research Project, in 1964, where the findings of this field investigation were first reported. A distinguished group of Indian leaders in health administration and medical education, under the chairmanship of Dr. Sushila Nayar, Minister of Health, reviewed the research findings, discussed their implications, and developed the recommendations. The imaginative ideas, progressive thinking, and wise judgment on practicality and feasibility result from the joint contributions of this group. Among the medical leaders the chief contributors were: Drs. K. N. Rao, N. Jungalwalla and P. R. Dutt of the Directorate of Health Services, Col. Amir Chand, Col. Barkat Narain, Drs. D. H. S. Griffiths and E. A. Gillis from WHO, Dr. L. R. Allen, Dr. K. Moti Singh, Dr. J. Roy, Dr. P. L. Powar, Dr. M. Thangavelu, Dr. E. Campbell, Dr. S. Joglekar, and Dr. John Carman.

Responsibility for the contents of this monograph, however, lies with the authors. The Rural Health Research Project has been conducted by the Division of International Health of The Johns Hopkins School of Hygiene, with financing from the Bureau of Educational and Cultural Affairs of the United States Department of State. A long-term study of the rural orientation of physicians started in 1961. Field work has been conducted in the teaching health centers of seven medical colleges: Bombay—Seth G. S. Medical College; Delhi—All India Institute of Medical Sciences; Ludhiana—Christian Medical College; Lucknow—K. G. Medical College; Nagpur—Medical College; Trivandrum—Medical College; Vellore—Christian Medical College.

To the Deans and faculty members of these colleges we particularly want to express appreciation for the mutually beneficial co-operation of this continuing research association. The professors of preventive and social medicine and other faculty members who have most closely worked with us are: Dr. D. N. Pai, Dr. S. Ganguli (Bombay); Col. T. D. Chablani, Dr. J. R. Bhatia, Dr. Y. L. Vasudeva (Delhi); Dr. B. G. Prasad, Dr. S. C. Bagchi, Dr. K. K. Mathur (Lucknow); Dr. B. K. Jerath, Dr. B. Malvea, Dr. H. Gideon (Ludhiana); Dr. D. K. Ramadwar (Nagpur); Dr. K. P.

Joseph, Dr. Chitra Gopalan, Dr. A. Guharaj, Dr. A. Haynes (Trivandrum); Dr. K. G. Koshi, Dr. V. Benjamin (Vellore).

In the field work many individuals co-operated and contributed, notably the members of our own staff. The following social scientists assisted with the field work: Miss C. M. Balchandani, and B. P. Agarwal, S. Andrews, A. Palocaren, D. N. Kakar, and P. L. Grover. In preparing the manuscript we are particularly grateful to Mrs. S. Flanigan for editorial assistance, and to C. Dayal, Mrs. M. List, and Miss C. Buckley for their careful and cheerful attention to the many details involved in the completion of this monograph.

Finally, there would have been no study without the co-operation of all the individuals who were interviewed in this project. Many of the respondents occupy positions of the highest responsibility, with a heavy burden of daily tasks. They cheerfully devoted the time needed for long interview sessions and provided through their insights and understanding the real substance of this volume.

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CHAPTER 1

# BASIC ELEMENTS OF THE HEALTH CENTER CONCEPT

PRESENT plans for health services for most of the world's people are based on the integrated development of a comprehensive network of rural and urban health centers, linked with regional hospitals for general support and referral of difficult medical cases. Although a regionalized health center plan makes excellent sense in theory, the present limited practical experience indicates that there are major obstacles to making the plan work in a free society. The success of comprehensive health services in a strongly centralized, authoritarian government, such as Russia's, has only partial relevance to the aspirations of such countries as India, where doctors retain considerable independence.

Given freedom of choice, most physicians prefer private to public practice, curative to preventive medicine, and an urban to rural environment. The scattered examples of individually successful local health units almost always have depended on an unusual charismatic leader, and have been limited to small areas and populations. Nevertheless, the idea of regionalization has been widely accepted because it appears more reasonable and efficient than other organizational plans which have been proposed. The more direct historic reason for the general acceptance of the concept is that it was advocated with great persuasiveness by some of the leading public health planners of the past generation, notably John Grant[1] and Andrija Stampar.[2]

Present systems of medical education do not prepare doctors either professionally or personally to work in health centers. Even more important, however, is the more basic consideration that there is little agreement about the work a health center doctor should do.

The analysis presented in this chapter tries to think beyond the obvious and superficial difficulties which have been much discussed. An effort is made to categorize some fundamental principles underlying the development of a workable system of health center services.

Reliance on traditional patterns of private medicine, random hospitals and clinics, and limited and separated public health activities has contributed little toward solving the massive health problems of developing areas. The investment of manpower and money under such an unplanned system involves so much duplication that it becomes prohibitively expensive. The continuing development of private medical practice for people who are prepared to pay, particularly in urban areas, is not precluded in a health center program. The health center's major contribution will probably continue to be in serving large rural populations and in providing an organizational framework for integrating preventive and curative activities.

A quantitative-qualitative dilemma pervades all efforts to meet mass health problems. It has its roots in the political urgency of rapid development in many parts of the world. Although logical planning would suggest that it might be better to concentrate first on wide introduction of mass preventive measures and to maintain strictly limited high quality curative services which are gradually spread to cover the population, starting with selected high-priority groups, this is often not feasible politically. Instead, it is usually necessary to spread minimum services to all communities and groups with the hope that future development will permit the necessary qualitative improvement. Mass disease eradication programs themselves require an infrastructure of health services when they reach their maintainance and surveillance phases.

A further complication which arises from the quantitative-qualitative dilemma is that it is becoming increasingly obvious that a number of fundamental changes must be introduced simultaneously. It does not seem to be enough to meet only part, or even most, of the necessary conditions. Partial and fragmented measures have been tried commonly in the past. It is increasingly clear that the essential changes are interdependent parts of a total concept and they all need to be changed together. If specific major preconditions remain unfilled, the whole program tends to lapse into traditional patterns, with large gaps in the health services rendered.

Because of this apparent all-or-nothing effect, there is great need to define, on the basis of present experience, the essential compo-

nents of the health center concept. In the twelve points presented below, specific concepts are stated and where possible the organizational changes necessary for their implementation under the particular conditions now prevalent in India are mentioned.

1. *The Regionalized Framework.* Health centers should not be operated as isolated units. They must be organized in regional systems around base hospitals and medical centers in order to maintain a two-way flow of patients and to provide support and continuing education for staff.

2. *Responsibility for Defined Geographic and Population Units.* Health centers should have responsibility for the health care of well-defined population and geographic units, conforming in general to established political or administrative units. The size of the population which can be served varies with population dispersion and with the availability of trained personnel, finances, transportation, communications, private sources of medical care, and other factors. The planned population size of health units in various countries ranges from 7,000 to 70,000.

3. *Comprehensive Care.* Health care should be comprehensive in at least two dimensions of service. First, in a better organization of medical disciplines, the full range of preventive and curative services must be integrated with appropriate action being available from specialists, general practitioners or auxiliaries, at the point where each can do the most good. Second, in relation to the patients' personal situation, there must be integration of services provided at the optimum place and time. Accordingly, the possible sequence of alternative services would range from community and environmental action, through home and family care, to outpatient service and screening, general and specialized inpatient care, and physical and social rehabilitation.

In some countries with complete separation of curative and preventive services, regionalization of the two separate services has been achieved. Curative services usually present particular problems because most developing countries cannot afford the luxury of the duplication and waste that is implicit in the double system.

4. *The Community as the "Patient."* Since the *patient* of the health center is the *community*, the focus of professional attention must shift from individuals to all the people in the population unit. With the acknowledged impossibility of doing everything for everybody, the most difficult decisions for health center doctors are in setting priorities. Selection of high-priority goals by health center staff

requires an understanding of total community ecology and the development process as it affects education, agriculture, and economic progress. The pulse and temperature readings of the community *patient* must be obtained through the use of statistical and epidemiological diagnostic tools, such as birth, death, and morbidity records; the medical history and physical examination must take the form of community and other surveys. The most effective therapeutic measures usually entail community action, political manipulation, and social change.

5. *The Family as the Basic Community Unit.* For the general health services provided by the health center or its satellite subcenters, the fundamental consumer unit should be the family. Rather than being satisfied with traditional medical concern limited to those patients already sick, the health center staff must take responsibility for both healthy and sick members of the family. Health services must reach out centrifugally into the home, in contrast to the usual pattern of waiting for sick patients to come centripetally for care, on their own initiative. An important organizational change is the introduction of the family-folder system of record-keeping, which makes available for the whole health center team much of the information that was supposed to be retained in the mind of the idealized family doctor.

6. *Community Participation.* The dilemma of achieving an optimum balance between centralization and decentralization presents one of the most difficult organizational problems in implementing regionalization. Community participation is essential and can be achieved only by careful delegation of selected areas of control to local authority. This has been clearly demonstrated in the history of the community development movement in India.[3] Local leaders should assume responsibility for improving utilization of services in a planned and rational way inasmuch as many of the spontaneous self-correcting mechanisms of an individualistic private system of medical care will not be operative. In India the method through which community participation is being encouraged is within the framework of democratic decentralization in the panchayat system, with particular responsibility for health being assumed by the block *samitis*—elected village councils in the community development blocks. As will be brought out, many of the most serious issues on administration arise from the difficulty doctors experience in working under local lay control rather than centralized technical supervision from professional superiors.

7. *Method of Payment for Health Services.* No health service can ever be free. Someone must pay. If supported from tax funds, the cost is distributed throughout the community, rather than being borne directly by those who are ill. There are many other ways of distributing cost, such as voluntary health insurance. Whatever the choice, it is obviously necessary in a regionalized system to have some way so that those who can afford to pay are able to contribute to the cost of their care. On the other hand, it is also important that all members of the community, however defined, have access to the services.

By far the most important consideration is that the sheer magnitude of the total cost of comprehensive medical and health care makes such services almost prohibitive for most governments, when balanced against all of the other demands on tax funds. Whenever direct local support can be mobilized, it should be welcomed rather than conforming to the present tendency of politicians to use free care as political bait. Any health official is foolish if he pays for anything he can get someone else to pay for, since there are so many demands on tax resources. It is probable that the two health center activities which the public will most readily pay for directly and locally are the actual cost of disease treatment and water supply. Charges can be made for medical care through various mechanisms, such as paying for drugs, a flat charge per visit, or some form of local insurance.[4] Examples of public willingness to pay for water can now be cited from several different parts of the world.[5] The justification is that, though water is free, it is expensive to transport it to a location convenient for the family.

8. *Controls within Regional Organization.* Strong centralized control within the regional organization must also be maintained to balance local community control. The regional controls should apply primarily to major staff appointments, the setting of standards and priorities, evaluation of day-to-day activities, and the maintenance of educational programs at all levels. Visits of central officials to peripheral units must de-emphasize inspection and concentrate instead on education. Since much of the health center cost will have to be borne by tax funds, central control often can be exercised with a minimum of direct local interference through the application of financial incentives and restrictions. In India, exesssive centralization has become grossly inefficient and present efforts are concentrating more on shifting the balance toward decentralization. In some African countries, however,

excessive decentralization has led to a serious decline in standards and paralyzing corruption.

9. *Team Orientation.* The staff of the health center must be prepared and must function as a team to achieve optimum utilization of the skills and training of each person. With health manpower in most countries in even shorter supply than health funds, job classification and distribution require careful definition in terms of local health needs and existing cultural, educational, and administrative limitations. A national pattern should be clearly set forth, but local flexibility should be actively encouraged, depending on specific needs and individual talents.

Arising out of the previous fundamental concept, but stated separately because of its immediate importance, is the need for developing a methodology of functional analysis which is based on a hard reappraisal of job distributions in the health center without being bound by professional pride. Clarification of the role of each member of the health center staff in relation to all the functions expected of the health center has become particularly urgent because there is so little agreement about what the basic functions are. Especially in regard to doctors, crucial frustrations stem from the conflict between the traditional educational and cultural expectations of the physician and the seemingly incompatible work expected of him as head of a health center team.

10. *The Role of the Health Center Doctor.* As leader of the health center team, the doctor should personally perform only those tasks which cannot be delegated safely to ancillary personnel. In the new concept of health center functions, his most important job is staff supervision—this requires both familiarity with staff operations and a certain amount of personal participation. Medical care, while an important part of the doctor's responsibility, must be kept in balance with preventive functions. The doctor, as a general practitioner, can use medical care as a basis for family health education and preventive advice. The greatest day-to-day obstacle to effective work in most Indian health centers is the excessive curative load of minor illnesses. This stifling burden is often aggravated by administrative practices—such as dispensing sufficient drugs for only one to two days—and by the fact that treatment is free. Particularly damaging is the general administrative practice of judging the quality of a doctor's work by the poor criterion of how many patients he sees and giving little credit for other activities. This attitude must be drastically changed and new standards should be

set for health center performance. Visiting consultants and district supervisors should immediately question the work of doctors who are merely seeing large numbers of patients. Such doctors need help in developing a greater preventive emphasis.

11. *Role of Other Health Center Personnel.* Nurses and health auxiliaries should be responsible for as much of both preventive and curative work as quality standards permit. Since auxiliaries can be trained and supported with much less expenditure of time and money than physicians, the ratio of auxiliaries to doctors should be at least ten to one. Most existing health centers use inadequately supervised paramedical personnel primarily for preventive services, with insufficient delegation of curative work. A critical unmet need is the development of effective ways of using auxiliaries, under the doctor's supervision, to screen out the really sick patients who require the doctor's attention from the large numbers requiring only the routine care which can be provided by nurses or special auxiliaries.

12. *New Educational Preparation.* A new pattern of medical and auxiliary education must be developed to prepare doctors and other personnel for health center service. Since their *patient* is the total community, an approach to *community-side* teaching, that will be as revolutionary as Osler's emphasis on bedside teaching, is needed. The provision of improved and continuing opportunities in medical colleges and internships for health center field work is essential. As with good bedside teaching, practical learning by experience rather than mere observation should be the educational method of choice. A regionalized framework in which centers of medical education take responsibility for an appropriate geographical area provides a ready mechanism for excellent, inservice, continuing education in addition to the present practice of using teaching health centers for undergraduate and postgraduate preparation.

While other studies conducted by The Johns Hopkins Rural Health Research Project will include in whole or in part consideration of all twelve points enumerated above, as they apply to India's health centers, the present report relates primarily to items 10 and 11 dealing with the need to clarify the roles of health center personnel, beginning with the doctor in charge.

An underlying assumption of this research project is that improvements in both educational preparation and in health center working conditions will lead to greater interest among physicians in rural

health center work. Early in this research effort, it became apparent that the expectations set forth in manuals published by governmental agencies had little relation to what health center doctors themselves believed could be reasonably expected of them. *This study was, therefore, undertaken to compare in depth the role of the health center physician as perceived by himself with his role as perceived by those responsible for the doctor's education and for the staffing and administration of India's health centers.*

CHAPTER 2

# HEALTH CENTER DEVELOPMENT IN INDIA

THE isolated valley of Nalanda, in northern Bihar, is known today mainly for the fact that it contains the fascinating ruins of a university built 2,000 years ago. At the time of Emperor Ashoka, scholars from around the world came to swell the resident student body of 10,000. Adjacent to the university are the remains of one of the world's first teaching hospitals. Small by present standards, the rock-walled outline of the floor plan suggests a physical arrangement similar to that of hundreds of rural health centers being built today in India. Several rooms appear to have been used for inpatient care; a larger section was reserved for outpatient treatment.

From the classics of Ayurvedic medicine we know that the ancient practitioners attempted to achieve a high degree of integration of preventive and curative care—a principal goal of modern health center service. Other information indicates that many such institutions served regional needs during Ashoka's time.[6,7] Thus they fulfilled a second criterion of the modern health center—acceptance of responsibility for the health needs of designated areas and populations.

While the origins of the Indian health center movement clearly date from antiquity, present developments in India stem from public health activities which began from fifty to seventy-five years ago in some of the Western countries with the purpose of providing maternal and child care and other personal preventive services. Clinical care for the medically indigent was provided by charitable and public dispensaries. The result was that the existing serious dichotomy between curative and preventive services widened progressively. Health units in cities such as New York and Balti-

more limited themselves to nonclinical work, so that they would not encroach on the jealously guarded interests of private practitioners. Public health people expressed increasing concern that curative work might overwhelm and submerge the preventive emphasis. In any case they were accustomed to thinking mainly in terms of mass measures directed against environmental conditions. This artificial division between clinical medicine and public health was directly transplanted to India.

The first publication to set forth the regionalized health center concept in detail was the Lord Dawson of Penn Report in 1920.[8] In England, after World War I there was general recognition that health services must be drastically improved, with some equalization of availability for all sectors of the population. A special governmental commission proposed that comprehensive care units be established in regional patterns around base hospitals in order to obtain maximum utilization of personnel and resources without duplication. Far ahead of contemporary thinking, the Dawson Report recommendations were quietly shelved. Even when the National Health Service was introduced more than twenty-five years later, the emotional investment in existing institutional arrangements was so strong that the British government was still unable to implement the rearrangements recommended in the 1920 report. This experience suggests that it may be easier to attempt regionalization in countries with minimum existing services.

## ROCKEFELLER FOUNDATION

A development of great practical significance came when the International Health Division of the Rockefeller Foundation, because of concern about the slow progress of a world-wide effort to eradicate hookworm, decided to establish demonstration health units in several developing countries. Experience in the southern United States had shown the usefulness of county health departments in obtaining the changes in personal health habits which were preconditions of an effective hookworm control program. These units could concentrate on preventive services without getting involved in general medical care, since that was provided by private medical practitioners.

When health units were planned in rural areas of countries having practically no organized medical or health services, the

Rockefeller experts transplanted the pattern of purely preventive services in their demonstration projects. Units were located near capital cities so that their work could be readily publicized, with the hope that the pattern would spread. An early report by Jacocks[9] tells of the successful program in Ceylon, which was one of the few places where, indeed, the pattern spread. The initial demonstration center which was opened in the village of Kalutara Totamune in 1926 was the first of an island-wide chain of health units, each serving about 80,000 inhabitants.

Similar health units were started in India outside seven large cities, Delhi, Madras, Bangalore, Lucknow, Trivandrum, Poona, and Calcutta. Others were organized in Burma, Java, the Philippines, Turkey, Yugoslavia, Greece, and several Latin American countries. Descriptions of their activities have a modern ring, with emphasis on health education, house-to-house surveys, weekly staff conferences, arrangements for local financial contributions, and maintenance of sound vital statistics. Excellent educational preparation was given to the highly selected staff, who became some of the world's leading public health pioneers. As these men rapidly rose in their own government services, they carried through their entire careers the strong health center orientation of their early appointments.

A critical period followed the shift of financing and control to local governments as the Rockefeller support was withdrawn, according to a phased plan. A remarkable number of the demonstration centers continued to do effective work. Except in Ceylon, however, the expansion of similar preventive units was disappointingly slow. Also, in most countries other than Ceylon, governments soon required health center doctors to run dispensaries rather than to concentrate on preventive work. Gradually the emphasis shifted to such an extent that in some places the doctors did only curative work and their public health auxiliaries, for the most part, were left unsupervised.

A particularly influential demonstration project was undertaken in 1941 at Singur, outside Calcutta, by Dr. John Grant of the Rockefeller Foundation when a teaching health center was developed for the All India Institute of Hygiene. A number of important studies were carried out. An outstanding feature, which has its counterpart in many modern efforts to develop village health committees, was the selection of six, bright, high-school boys from each village to be voluntary health workers. Each became the

village specialist in one of the following health functions: malaria control, vital statistics and epidemic reporting, organizing maternal and child health clinics, pumps, latrines, immunizations, and school health. These efficient and capable youths worked with enthusiasm at their unpaid jobs because of the local prestige and because they enjoyed the annual two-week training courses at the health center.

## OTHER DEMONSTRATION CENTERS

Also important in the origin of the health center movement in India were isolated demonstration projects associated with general rural development programs. One of the earliest was started by Rabindranath Tagore and his colleagues[10] at Sriniketan and Shantiniketan in Bengal. A network of village dispensaries was operated for some thirty years, uniquely financed by a voluntary contributory insurance program. Because malaria was their greatest problem, the dispensaries undertook, after World War II, one of the first rural DDT spraying programs. As malaria control succeeded, the insurance program collapsed. The villagers could see little reason for continuing to pay their annual health insurance premiums when they no longer needed the gallons of quinine mixture which previously had provided the principal justification for their financial participation.

Mahatma Gandhi's efforts to improve the health of villagers in the vicinity of Sevagram Ashram in Central India are well known. He constantly stressed health education in his writings, speeches, and the daily work at the Ashram.[11] Similar pioneering may be credited to various mission groups, such as the Wiser's India Village Service Program in Uttar Pradesh,[12] where effective methods of health education were evolved and the value of general community development workers in health programs was demonstrated. Most of these demonstrations were dependent on the personality of an outstanding and charismatic leader. In fact, these idealists often set standards of dedicated service which were so far above normal operating standards in government that efforts to duplicate their achievements produced considerable frustration.

On the other hand, the scattered demonstrations by dedicated village workers did help to create a climate favorable to acceptance of the national health goals outlined in the Bhore Report, which was published in 1946. General application required much persistence in adaptation, largely through trial and error. Although

examples of effective and successful programs were not numerous, they were sufficient to produce a general conviction that the basic goals were desirable and the adapted techniques feasible. What had worked well in a few instances appeared promising for wider application.

## THE BHORE REPORT[13]

Appointed by the government of India in 1944 to develop long-range health plans, the Bhore Committee met regularly for two years. Despite wartime complications they managed to collect and evaluate an impressive amount of data on health conditions, manpower, and educational programs. The committee had among its members some of the pioneers of the health center movement. In view of obvious deficiencies in resources and manpower, the most persuasive argument in favor of a comprehensive regionalized system of health centers was that alternative possibilities seemed less logical, practical, and efficient. As a result, the four-volume Bhore Report became in 1946 the next major national document, after the Dawson Report in England, to present a detailed plan of regionalized health centers. This excludes the Soviet five-year plans, which differed in developing a clear vertical separation between curative and preventive services within a strongly centralized regional organization. Some of the relevant recommendations were:

1. Medical and health services should be totally tax-supported and medical personnel should be fully salaried.
2. Priority should be given to rural needs, and primary health centers with 75-bed hospitals should be provided for each 10–20,000 population—regionalized around secondary centers with 650-bed hospitals, again regionalized around district hospitals with 2,500 beds. (This would have required 234,000 doctors for the population at that time. India today has only one-third that number of doctors for a population one-fourth larger.)
3. Curative and preventive services should be combined at all administrative levels, with great emphasis on a massive expansion of preventive programs.
4. Major changes in medical education should be required in order to prepare "social physicians." An emphasis on "quality" led to the recommendation that "licentiate" physician training should be upgraded to full medical education. A strong minority,

however, felt that the mass needs would require a great expansion of "licentiate" medical education.

Published just a year before India achieved independence in 1947, the Bhore blueprint for national health services was of great value to the new Central Health Ministry. Its basic approach fitted well with the social welfare goals persuasively supported by Pandit Nehru in speeches all over India. Politicians at all levels were promising the people that one of the fruits of independence would be vastly expanded and improved health care. The partition crisis and subsequent governmental concentration on the resettlement of refugees forced a delay in the health plans. However, the emergency measures required to meet the epidemics and physical suffering among refugees forcefully underscored the need for well-established health services.

## FIVE-YEAR PLANS

When, in 1952, national planning became the central force in India's long-range development, the Health Ministry was in a strategic position. The Bhore Committee report remained relatively up-to-date and served as a carefully considered sectoral plan. Most other ministries did not have an equivalent headstart in planning. Thus, regionalization and health centers were implicitly part of the national plan, although they were not provided with an administrative framework until the subsequent implementation of the whole community development structure.

In all the five-year plans there was a continuous emphasis on the implementation of the community development concept. Although multipurpose village development workers were supposed to participate in this work, health continued to be the specific responsibility of specially trained health personnel. However, it was found that this multipurpose role assigned to village workers created complications in interdepartmental collaboration. Supervision of these field workers by district officers belonging to different technical departments also created difficulties. Community development staff and, particularly, village level workers have gradually withdrawn from general developmental activities to concentrate almost completely on agriculture. Thus health has again become the exclusive responsibility of people working in health services. As this study will bring out, the problems of integrating health

services with the general community development services are far from being resolved.

The Planning Commission's calculations of the distribution of national resources quickly made it apparent that the Bhore Committee's recommendations were too ambitious. The basic and continuing dilemma is whether it is better to establish a few good health centers and gradually expand the system, or to begin with minimal health center coverage for everyone and gradually improve the quality. International health planners and experts have tended to recommend a gradual increase in the number of high-quality units, even at the expense of limited initial coverage. On the other hand, it is not surprising that political considerations have dictated acceptance of the quantitative approach. The discrimination implicit in limiting good services to selected areas would have been impossible to justify in a new democracy.

The decision was made, therefore, to organize the health centers on the basis of the community development blocks into which India had been divided for planning and administrative purposes. The target set in the Second and Third Five-Year Plans was to have one health center in each of the 5,000 blocks. This meant that each center was to serve 60,000 to 100,000 persons living in an area averaging 150–200 square miles in size. The health centers were to be under the supervision of district officers, with an average of sixteen blocks in each district. Civil surgeons or district medical officers were responsible for therapeutic care and district medical health officers for preventive services in each district.

Erecting the health center buildings was relatively easy but providing personnel proved a much harder task. With only a beginning understanding of the health center staff needed or the nature of their duties, the early health center doctors required dedication and considerable courage to cope with rampant health problems in the face of glaring deficiencies of staff, equipment, and living conveniences. Nevertheless, some individuals accepted the challenge with laudable fortitude and patience. Even though many doctors experienced increasing frustrations, it is remarkable that within a short time health centers were set up to function, however poorly, in remote villages all over the country.

## MUDALIAR COMMITTEE REPORT

By the close of the Second Five-Year Plan the Bhore Committee report was conspicuously out-dated. A freshly focused look at

health needs and resources was required to furnish technical guidance to planning. A distinguished group of medical leaders under the chairmanship of Sir Lakshmiswamy Mudaliar met through 1959 and 1960 and issued recommendations in 1962. An obvious note in the Mudaliar Report[14] is the chastening effect of lessons learned in the first two five-year plans. The setting of realistic goals is stressed, and even more emphasis is placed on implementation.

While the ambitious objectives of the first two five-year plans were endorsed, the Mudaliar Committee urged consolidation of advances already made. They recommended a shift of attention from opening new health centers to improving services in existing centers. The committee also stressed the importance of the regional framework with greater concentration on district hospitals as the central bases of regional services.

Political considerations and previous commitments to the people compelled the government to defer action on many of the Mudaliar recommendations until the first political objective of providing some kind of health center for each community development block was accomplished. But the call for a shift in emphasis from quantitative to qualitative health care remains the most recent authoritative guide to Indian health planning. There is now, growing recognition from experience with the national disease eradication programs that mass application of simple preventive measures have their own justification, particularly if a cost/benefit type of thinking is to be applied to the setting of priorities.

## HEALTH CENTER MANUALS

While high-level discussions of the quantitative-qualitative dilemma were proceeding in national planning, the administrative leaders at the operational level had to do the best they could with health centers springing up all over the country. A surge of activity in the state ministries of health during the 1950s brought forth a series of manuals for health center operations. They stand as a commendable achievement in health education, because they served the important purpose of beginning to specify what was expected of health personnel. If these manuals are analyzed collectively and duplications are overlooked, they offer an interesting compilation of the ambitious thinking which prevailed. Two influential and widely distributed manuals prepared by Col.

Barkat Narain[15] of the Ministry of Community Development and Dr. P. R. Dutt[16] of the Central Ministry of Health merit special attention for their balanced view.

With the wisdom born of hindsight it can be perceived now that the manuals erred most in expecting too much in too short a time. This is not really a criticism, because that was a period when ambitious goals were appropriate. They stimulated high levels of achievement, even though realization came later that the goals themselves were unattainable in the allotted time.

The vital lesson to be drawn from analysis of the health center manuals is the utter impracticability of the numerous assignments given to health center doctors. The lists of thirteen to thirty jobs defined as the responsibility of the lone health center physician included everything from the provision of medical care for over 60,000 persons, in itself an impossible task, to conducting the most advanced types of health promotion campaigns. Preventive activities were particularly specified. The doctor was supposed to visit villages according to a regular schedule every afternoon, thus leaving the mornings for curative work at the health center.[17] Certain manuals also attempted to define the doctor's duties in relation to community development officials[18] and the health center staff, even to including a detailed statement on weekly staff conferences.[19]

Detailed analysis of the state manuals' job lists for health center doctors is unnecessary since time has made manifest their reflection of wishful thinking. In the process we have learned something about how the number, as well as the balance, of paramedical health workers serves as the main determinant of what can be attempted. The healthworker's education determines to a considerable extent the functions to which they will give priority. When there is more to be done than can possibly be accomplished, the work stereotypes they acquired during their education will control for each group the limited duties actually carried out. More realistic job classifications necessitate a narrowing of responsibilities in order to increase efficiency.

## WHO AND INTERNATIONAL AGENCIES

During the process described above an important contribution has been made by the regional office of the World Health Organization (WHO). Conferences on rural health have been organized.[20]

Consultants have been provided for states and districts. UNICEF has provided large quantities of drugs, supplies, and equipment especially for maternal and child care. U.S. foreign aid also has provided money and advisers, as has the Ford Foundation. The international exchange of thinking and experience has been particularly important because most of the countries of the developing world have much to share and learn from India's experience.

## MUKERJI COMMITTEE REPORT

An increasingly urgent problem is how to integrate national programs for special activities, such as malaria eradication and family planning, into the health service infrastructure. The initial successes and problems of disease eradication programs, in themselves, have provided insight into ways in which preventive activities can be reorganized. The need for a primary and continuing focus on a limited number of selected preventive activities is basic. The Mukerji Committee of the Ministry of Health[21] has proposed a new administrative framework for this integration, with particular attention to the numbers and utilization of various categories of health auxiliaries, since they are clearly the greatest manpower need. They can readily be prepared to carry out efficiently and systematically the relatively simple procedures required, if they are adequately supervised.

CHAPTER 3

# METHODOLOGY

## OBJECTIVES OF RESEARCH

1. To determine the opinions of selected groups responsible for directing health center activities and educating physicians about:
   a) actual working of health centers,
   b) primary health center doctor's role and his problems,
   c) problems in recruiting and training doctors for rural health center service.
2. To identify problems in present administrative patterns of the health services and to suggest alternatives for administrative reorganization.

It must be emphasized that the aim of this study was not to examine directly the present operation of health centers but to seek opinions of various categories of persons who should know most about health center work and to identify the major discrepancies in these group opinions. The respondents to the depth interviews were obviously expressing their own vested interests and hopes. The findings have all the limitations of any study which attempts to probe attitudes and opinions.

## TWO METHODOLOGICAL APPROACHES

The first part of the study required personal interviews with individuals belonging to six groups: primary health center doctors, district level administrators, senior health administrators and policy-makers, state legislators, social and preventive medicine teachers, and clinical teachers. The second part was a detailed study of administrative documents and other existing sources of information to define existing organizational patterns, with particular attention to lines of authority, supervision, and the planned and actual interrelationships between professionals and auxiliaries.

Exploratory interviews indicated that a rigid questionnaire would be of little use in the first part of the study. Because both facts and opinions were sought from extremely varied groups, a flexible interview method using an open-ended questionnaire was more appropriate.

For the second part of the study dealing with administrative patterns, documents pertaining to the existing lines of authority and interrelationships between health personnel were collected from state and central government sources. If no formal or informal reports were available, or if they were inadequate, the senior author personally collected the information from responsible officials and drew organizational charts illustrating the functioning of various segments of the health services, which were then checked with appropriate officials.

## RESPONDENTS

Interviews were conducted with 170 persons over a two-year period by the senior author. With the exception of respondents in the central government, those interviewed were associated with health services and legislatures in the states of Delhi, Kerala, Madras, Maharashtra, Punjab, and Uttar Pradesh, where the seven medical colleges co-operating in The Johns Hopkins Rural Health Research Project are located.

The following numbers of respondents were interviewed to represent the six groups:

a) thirty-nine primary health center doctors—those responsible for actually delivering the services;
b) thirty-five senior administrators in health or medical services of the state and central government—officials responsible for high-level policy decisions and administration;
c) sixteen district officers—officials directly involved in the local supervision of primary health centers;
d) twenty-seven teachers of preventive and social medicine—the teachers most directly responsible for imparting a rural and preventive orientation to medical students;
e) eighteen teachers of clinical and other subjects—teachers who tend to serve as the primary role models for medical students;
f) thirty-five legislators—representing the recipients of health

services. These legislators were selected because they had participated in health budget debates in 1962–63 and 1963–64.

One important group not included was the general public, the direct recipients of medical services. This group is important enough to claim a separate study. To some extent the views of the people should be reflected by the legislators who are their elected representatives.

Since this study must be considered a preliminary effort to define broad patterns and trends and since the logistic problems of arranging interviews presented major obstacles, minimal effort went into obtaining refined random samples of respondents that would be needed for a more precise, definitive study. Respondents were selected primarily on the basis of availability, and cannot therefore be considered as completely representative of Indian opinion. The six states included in the study, however, do provide fair geographic coverage of the country. Most of the groups represent essentially all the people in those categories in the states included in the study. For certain groups, such as health center doctors and district level officers, the selection process consisted essentially of reaching out into adjacent rural areas in a radius from the seven urban centers where the co-operating medical colleges are located. The only justification for this nonrandom selection is that transportation to the rural areas is so difficult that this proved to be the only practical way of obtaining a crude area sampling of these two groups. The major recognized bias is, of course, the underrepresentation of the most remote areas of these six states, where the problems would be even more severe than reported here.

## INTERVIEWING AND PROBLEMS OF FIELD WORK

The senior author personally interviewed all respondents. Although the sampling procedure undoubtedly was biased, utmost care was taken to minimize bias in responses. To insure this the interviewer carefully explained the nongovernmental sponsorship of the study and the scope of the information needed. He assured respondents that their responses would be completely confidential. The interviewer then talked with respondents about their own special responsibilities and interests. Invariably a free discussion developed with a high level of spontaneous interest. The discussion was gradually channeled to the theme of the study. Attempts were

made to cover all three areas defined in the objectives. The set of general questions which served as guidelines, essentially followed the specific headings presented in Chapters 4, 5, and 6. The interview was not, however, conducted in a specific question-by-question order.

The interviews did not always proceed smoothly. Sometimes the interview had to be cut short or modified according to the temperament or mood of the respondent and the time available. This was particularly true for policy-makers and senior administrators. Interviewing clinical professors and legislators posed special problems when they brushed aside *en bloc* questions on certain areas such as factual information about the working of health centers. In such cases a particular line of questioning had to be abandoned, but if in discussing another part of the questionnaire any comments on the previously skipped questions were volunteered, they were, of course, recorded and tabulated. Records were written out during and after the interviews.

Most interviews were conducted in English. Occasionally, the interview was conducted in a local language. In the few instances in which the interviewer did not know the local South Indian language, a social scientist of the Rural Health Research Project, who was posted in that area, was used as a translator.

## ANALYSIS AND TABULATION

About eighty protocols of interviews with a cross-section of respondents were used to work out a code of expected responses. Code numbers were assigned to each response. Two of the authors independently coded all protocols. Since all the questions were not asked of all respondents, the coders made reasonable interpretations and extrapolations on some responses from those questions which covered the same subjects.* The two coders then reconciled differences in coding. If after discussion, coders failed to agree on a particular code and/or interpretation of the responses, it was

* For example: Respondents were asked to list the services offered in primary health centers. If a respondent did not include environmental sanitation in the list, but in answer to the question on the time the primary health center (PHC) doctor spends on different activities, an estimate was included of the time actually spent in supervising the sanitary inspector, then the logical interpretation was that environmental sanitation had been fortuitously left out in listing the services offered by the PHC and should be inserted.

deleted altogether. Thus the reconciled coded data can be considered to be the minimum number of responses obtained in the interviews. This, together with the other recognized biases, fosters underreporting.

Edge-marked cards were used to analyze the data.

## PRESENTATION OF DATA

Since the primary health center physicians are directly responsible for medical and health services in health centers, it seemed reasonable to assume that they know most about what is going on and what may be possible in the future. Their opinions were taken as a baseline against which the opinions of other groups were compared. The data are usually presented in percentages, but when respondents were few, only ratios are given.

The information presented in the tables and graphs will be recognized to be selective, with much data being left out. This was usually due to a high nonresponse rate of some groups on certain questions. An arbitrary decision was made that when the number of responses codeable on a particular question fell below twelve, that set of responses would be dropped from the data; therefore, many tables do not have data on all six groups. In addition a ratio is given at the head of each column in graphs and tables which shows the number of individuals responding to this question in comparison with the total number in the group. The percentages were calculated only on actual responses. It is obvious that those who did respond tended to be those most interested, and this will tend to bias the data in the direction of the opinions of the most interested individuals. For practical purposes the assumption can also be made that a large nonresponse rate is an indication of disinterest, since questioning about a topic was usually stopped when the respondent brushed the matter aside. This is distinct from the category of "don't know" which is included as a specific response resulting from statements indicating willingness to talk about the matter but lack of information. The results which are recorded, therefore, can be taken as indication of sufficient interest in the topic by those who claimed to have a basis for judgment.

Abbreviations occasionally used in this text are: SPM (social and preventive medicine teachers), PHC (primary health center), BDO (block development officer of the community development block).

CHAPTER 4

# PERCEPTIONS OF THE PRIMARY HEALTH CENTER

THE first area to be explored was the functioning of the primary health center as a whole. The questions were focused on what respondents knew about primary health center functions and their opinions on what changes should be made.

## GOALS OF PRIMARY HEALTH CENTERS

The major goals of primary health center activities provided a convenient starting point. Two-thirds (Fig. 1) of thirty-one primary health center doctors responded with comprehensive terms, such as "community welfare." Pinpointing the goals more precisely, almost one-half of the doctors mentioned both medical care and disease prevention as specific objectives. Five primary health center doctors listed health education as a major goal, and one mentioned statistics.

The group of senior administrators mentioned broad goals and specific objectives which corresponded rather closely with the responses of primary health center doctors. Almost all the district officers named "community welfare" as a goal but only one-third mentioned prevention, and even fewer (or one-quarter) specifically referred to medical care and health education. Surprisingly, only four of twenty social and preventive medicine teachers listed prevention as a major goal as compared with seven who emphasized curative work.

In general, it may be said that the four groups agreed on community welfare as the long-range goal to be served, with disease prevention and curative services receiving almost equal stress as specific objectives.

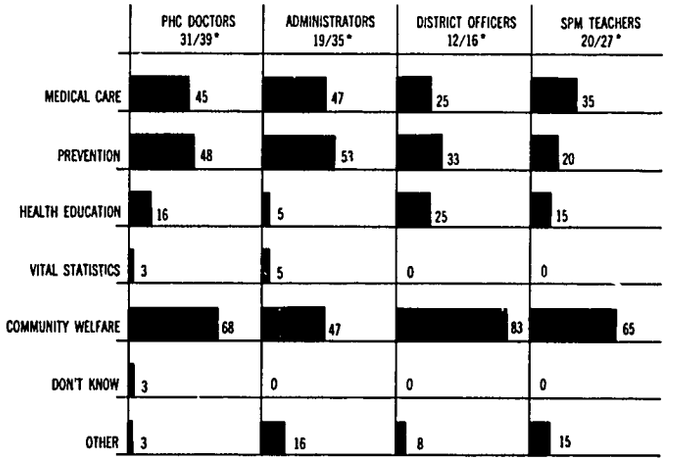
## PRESENT HEALTH CENTER ACTIVITIES

While opinions on long-range goals tended to be nonspecific, the respondents had more definite impressions about the services currently provided by primary health centers (Fig. 2). Almost all knew that curative work was the basic service. Aside from legislators, a substantial majority believed that the centers were active in the fields of maternal and child health, health education, sanitation, school health and communicable disease control.

Family planning was specifically named by half of the senior administrators and district officers and two-fifths of the primary health center doctors. Vital statistics was mentioned as a basic activity by three-fourths of the social and preventive medicine teachers, more than half of the administrators, one-half of the district officers, and two-fifths of the primary health center doctors.

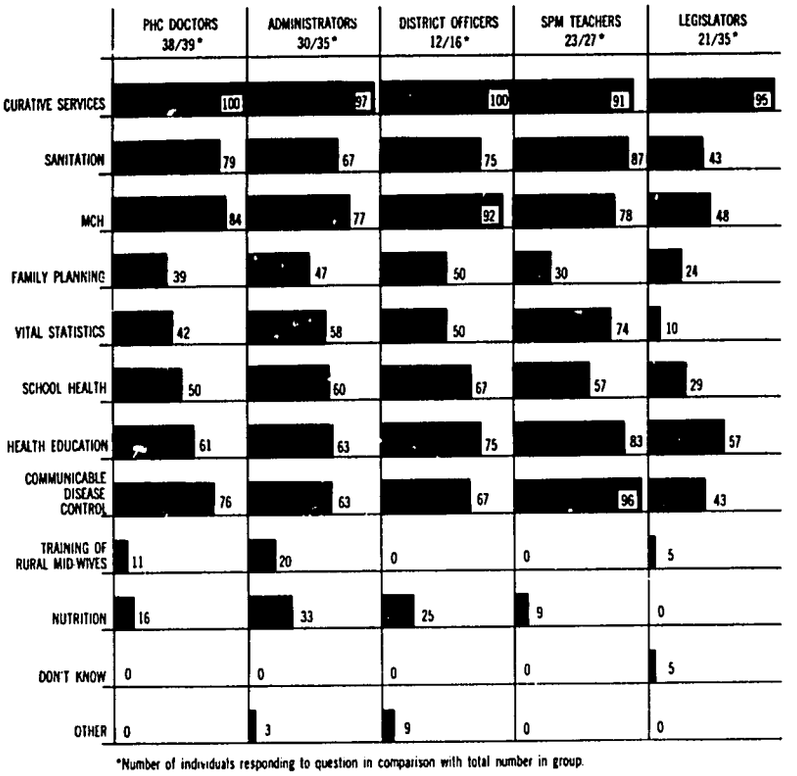
In general, the administrators, the district officers, and the teachers of preventive and social medicine thought there were more preventive services in terms of vital statistics, health education, school health, and family planning than did the primary health center doctors. The primary health center doctors agreed with the

Figure 1. Profiles of Group Opinions on Major Goals of Primary Health Centers (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

Figure 2. Profiles of Group Opinions on Basic Services Now Provided in Primary Health Centers (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

others in giving a high rating to sanitation, maternal and child health, and communicable disease control. There was little mention of nutrition services and almost no mention of "training of *dais*" (rural midwives).

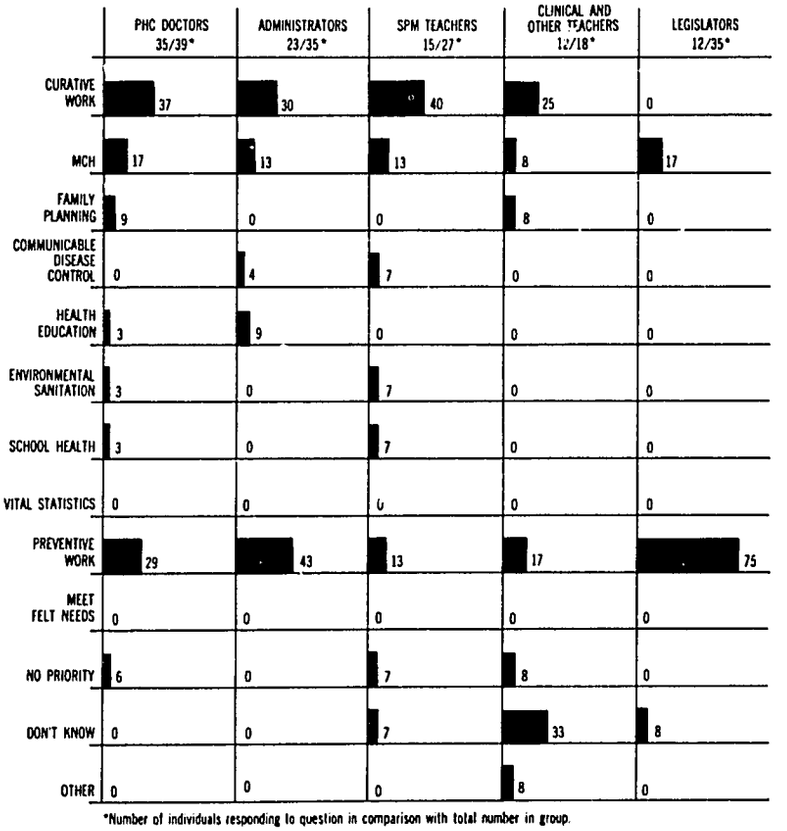
Almost all legislators showed an awareness of curative services and more than half mentioned health education. However, it is important to note that they showed considerably less awareness of other primary health center services.

## PRIORITIES

It is most critical to define which of the many health center activities should receive the highest priority. Some interesting differences

in the points of view of various groups about the relative priority to be given to curative and preventive work are evident (Fig. 3). Thirty-seven percent of primary health center doctors gave top priority to curative work while 29 percent said preventive work was of first importance. However, more than two-fifths of the high level administrators gave first place to preventive work, whereas less than one-third gave curative work first priority. Three-fourths of the legislators indicated that preventive work was their first choice, and an additional one-sixth gave maternal and child health first priority. This was essentially the reverse of what they thought were

Figure 3. Profiles of Group Opinions on the Activity Which Should Receive Highest Priority in a Primary Health Center (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

the existing patterns of work. Surprisingly, only two of the social and preventive medicine teachers gave priority to their own field of preventive work, whereas six out of fifteen ranked curative work as most important. This may reflect their recognition of the importance of curative work in getting the co-operation of villagers, or their acceptance of the primarily clinical motivations of medical students.

## SERVICE AREA

The simplest indication of official expectations of a health center's service load is the size of the population unit it is supposed to serve. The majority of primary health center doctors, administrators, district officers, and social and preventive medicine teachers knew that official planning was based on one health center for every community development block of 60,000 to 80,000 persons.

A supplementary question was asked to get respondents' opinions on the population unit which could actually be served by health centers with current personnel and resources. Most refused to speculate. Those primary health center doctors who did respond said that primary health centers, as now constituted, could provide services for about 20,000 persons within a radius of five miles.*

## MATERNAL AND CHILD HEALTH CARE

The care of expectant mothers and children has long been recognized as a primary function of health centers. It occupies close to full-time of the health visitor and four midwives who are usually

* "In 1961 a sub-committee of the Central Council of Health recommended that a PHC should serve a population of 20,000 within a radius of not more than five miles.[22]

"The WHO Regional Office in New Delhi is of the opinion that the PHC's effective service area is within a three-mile radius and that this would normally mean a population of 12,000, depending, of course, on the density of population.

"A WHO team in U.P. found that 38 percent of patients coming to PHCs were from the headquarters village, 58 percent from within a radius of a mile and 87 percent from within a three-mile radius.[23]

"In a detailed but unpublished study of coverage in three PHCs in Kerala, Dr. C. Joseph found that 80 percent of the cases came from within a three-mile radius.[24]

"Dr. H. Frederiksen, U.S. AID Epidemiologist, in another unpublished study found that 88 percent of the patients at a rural dispensary in U.P. came from less than 2.5 miles."[25]

more than half of the primary health center's total staff. As an index of the effectiveness of this service, an effort was made to estimate the percentage of pregnant women in a primary health center service area who received prenatal care or trained help at delivery.

A majority of primary health center doctors did not know what their prenatal coverage was, an indication that either the health center records did not provide this information or that they were not interested. Those who did reply offered estimates of prenatal care coverage ranging from less than 10 percent to more than 50 percent of expectant mothers, with a mean of 29 percent. This probably reflects actual conditions, because great variations between health centers occur. Half of the health center doctors thought that their staff were assisting in the delivery of more than 20 percent of the women who received prenatal care.

Three-fourths of the administrators did not attempt to estimate the prenatal coverage. One-fourth of the district officers thought the prenatal coverage was above 50 percent, and half said they didn't know. Among the social and preventive medicine teachers, replies ranged as widely as those of the health center doctors with a mean estimate of 25 percent covered by prenatal care. It is important to realize that fairly precise answers to these questions of percent of coverage and utilization of delivery services could readily be obtained if the record-keeping systems of the health centers were appropriately developed and a reporting mechanism was set up through the doctors.

## SANITATION

The health inspector has the most diverse and multivalent responsibilities of anyone in the health center, including the doctors. Under the general heading of supervision of general sanitation in the whole community development block come specific environmental sanitation activities, such as insuring protected water supplies and proper disposal of human excreta. His duties also include identifying, verifying, and controlling outbreaks of communicable diseases in the area, looking after vital statistics, representing the primary health center at block meetings, helping the primary health center doctor in preparing reports, and carrying out health education and school health programs. In some states he also has responsibility for enforcement of the Food Adulteration

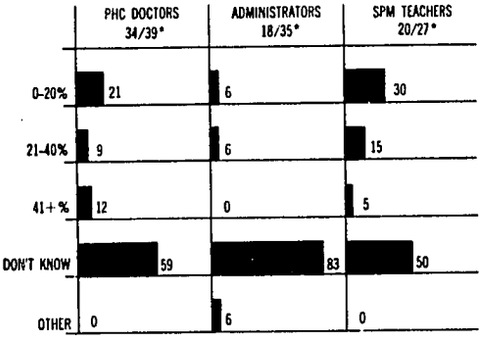
Act and inspection of eating establishments. The health inspector is, in fact, the general-purpose functionary of the primary health center.

To go into detail about all the activities of the health inspector would have required too much time. Consequently, the present inquiry was limited to the time that a health inspector spends on environmental sanitation, as an indicator of what is being done about this important function.

The majority of the respondents in the three categories shown in Figure 4 were not able to attempt an estimate. This was in addition to the even larger numbers who were not even willing to discuss the matter and, therefore, were left out of the calculations. More than half of those who were willing to make an estimate in each of the three groups said that a health inspector spends less than 20 percent of his time on environmental sanitation.

A sample of health inspectors from the same health centers as the respondent doctors were also asked this question. All of those interviewed said that since environmental sanitation was so mixed with

Figure 4. Profiles of Group Opinions about the Time a Health Inspector Spends on Environmental Sanitation (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

their other activities, they could not quantify time spent on it separately. When they were pressed for an answer, fourteen out of twenty-six health inspectors tried to make educated guesses and gave the following responses, indicating that this important responsibility receives only limited attention:

Less than 10% — 3
10–19% — 7
20% plus — 4

## CASE REFERRAL AND CONSULTATIONS

Under the regional concept of rural health services the primary health centers are medical outposts which look to district medical officers and regionally based hospitals for help with consultation and referral of difficult cases. The respondents were asked to give their understanding of present arrangements for both consultation and referral.

Most primary health center doctors (84 percent), and a smaller majority of district officers and social and preventive medicine teachers (67 percent) said no provision was made for primary health center doctors to consult district medical specialists on difficult cases (Table 1). By contrast, and following established policy statements, almost one-third of the higher-level administrators said that district specialists made visits to health centers for consultation work.

TABLE 1. GROUP OPINIONS ABOUT REGIONAL SERVICES FOR CLINICAL CONSULTATIONS

| | Relationship (percentages) | | | |
|---|---|---|---|---|
| | No provision | District specialists visit PHCs | Don't know | Any other |
| PHC doctors 31/39 | 84 | 10 | 0 | 9 |
| Administrators 13/35 | 46 | 31 | 15 | 8 |
| Dist. officers 12/16 | 67 | 17 | — | 25 |
| SPM teachers 18/27 | 67 | 6 | 22 | 6 |

A working relationship on hospital referrals was more clearly established (Table 2), with a large majority of the primary health center doctors, all of the district officers, and two-thirds of the high-level administrators and social and preventive medicine teachers saying that seriously ill health center patients were referred to local or district hospitals. However, the question of whether patients were

referred to hospitals other than those based in the district, such as those operated by medical colleges, brought only a few positive responses.

TABLE 2. GROUP OPINIONS ABOUT REGIONAL SERVICES FOR REFERRAL OF COMPLICATED CASES TO HOSPITALS

| | Relationship (percentages) | | | | |
|---|---|---|---|---|---|
| | Taluka or district hospital | Other hospital | No definite pattern | Don't know | Any other |
| PHC doctors 31/39 | 90 | 23 | — | — | 3 |
| Administrators 12/35 | 67 | 17 | 9 | 17 | — |
| Dist. officers 12/16 | 100 | 17 | — | — | — |
| SPM teachers 18/27 | 67 | — | 17 | 17 | 6 |

## REFERRAL DIFFICULTIES

Eleven out of twenty-five primary health center doctors felt that lack of transportation was their greatest limitation in making referrals and getting consultations (Fig. 5). Five of them felt that no special attention was given to referred patients. Four cited long distances as a problem, three mentioned the financial difficulties of patients, and three felt there were inadequate services at referral hospitals.

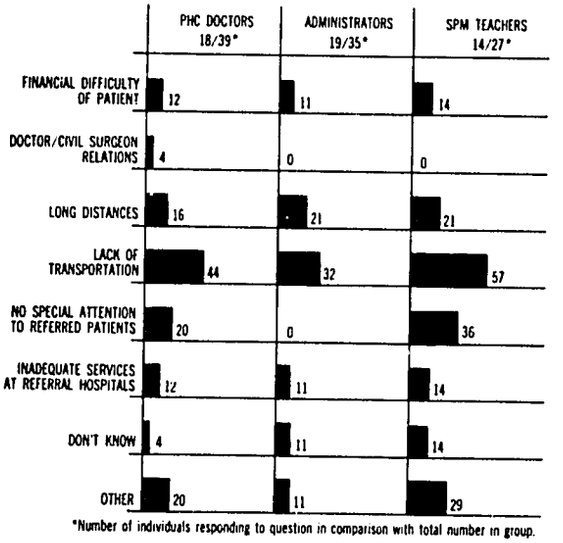
One-third of the administrators recognized lack of transportation as a difficulty and one-fifth mentioned long distances. A majority of social and preventive medicine teachers stressed the lack of transportation, while one-third said that no special attention was given to referred patients.

## EVALUATION OF HEALTH CENTER ACTIVITIES

One-fourth of the senior administrators replied "yes" when asked if anyone had attempted or was attempting to make an evaluation of the work of primary health centers. They were the only respond-

ents, with the exception of two social and preventive medicine teachers, to show an awareness of the few evaluation efforts that had been made. Two-fifths of the administrators replied that they did not know whether evaluations had been attempted, and almost one-third said that evaluations definitely had not taken place. Three-fourths of the primary health center doctors said that no evaluations had been made, and one-fourth said they did not know.

Figure 5. Group Opinions of Difficulties That a Primary Health Center Doctor Faces in Making Referrals and Getting Consultations (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

## SUMMARY

Most of the respondents regarded health centers as multiservice units for promotion of community welfare, but gave varied responses as to specific objectives of primary health centers. Except for the primary health center doctors, the respondents as a whole showed little knowledge of actual health center operations, and even the doctors were uncertain about such practical details as the extent of maternal-child-care coverage and the amount of a health inspector's time devoted to environmental sanitation. The

state legislators were not familiar with health center functions, other than curative work. Their lack of familiarity with what goes on in a health center was shared by medical college teachers of clinical medicine.

The primary health center doctors and social and preventive medicine teachers tended to stress curative work as the most important health center function, while administrators leaned toward preventive services as having first priority. Three-fourths of the legislators gave first priority to preventive services, in contrast to their opinions of what is now being done.

Limited awareness of the problems faced by primary health center doctors in obtaining consultations and referrals was apparent among all respondents except the doctors themselves. The doctors said that inadequate transportation and long distances represented their major difficulties in arranging consultations and referrals. Also mentioned was the lack of special attention to referred patients in the hospitals.

CHAPTER 5

# PERCEPTIONS OF THE PRIMARY HEALTH CENTER DOCTOR AT WORK

THE second part of the interview concentrated on the health center doctor himself: how he spends his time, his supervisory responsibilities, and his relationships with the block community development officer. The responses of the doctors themselves are given first to establish a reference standard and then the opinions of other groups are given to show discrepancies in their perceptions of the doctor's role.

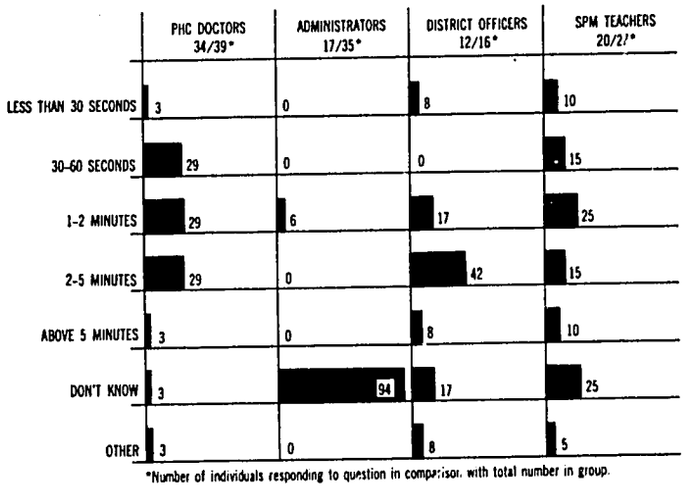
## CLINICAL PATIENT LOAD

The most pressing problem the health center doctors face is coping with the sheer size of the patient load. As an indication of this pressure doctors were asked to estimate how much time a doctor spends, on an average, with each patient in his outpatient clinic (Fig. 6). Almost 90 percent of doctors said that the time per patient was less than 5 minutes, with a third of this number saying they had only 30–60 seconds, and an equal number indicated that 1–2 minutes would be their estimate.

The district officers tended to think that the doctors spend somewhat more time with patients than the doctors themselves said they did. Half the district officers estimated more than 2 minutes per patient. The teachers of social and preventive medicine made estimates similar to those of the doctors, with one-fourth estimating less than one minute and two-thirds less than 5 minutes per patient. The high-level administrators simply said they did not know.

The estimates of the PHC doctors may be taken as fairly accurate,

Figure 6. Group Opinions about the Average Time a Primary Health Center Doctor Spends with a Patient (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

since the doctors based them on their records of total outpatient attendance the previous month divided into the time spent on outpatient work.

The doctors felt strongly that they should have more time with each patient. In reply to the question of what would be an appropriate average time per patient, one-third of them answered 5 minutes, one-fourth answered 6 to 10 minutes, and one-seventh answered 11 to 15 minutes. Only one doctor in ten considered the present amount of time sufficient (Table 3).

TABLE 3. OPINIONS OF PHC DOCTORS ON THE AVERAGE TIME A PHC DOCTOR SHOULD SPEND WITH A PATIENT*

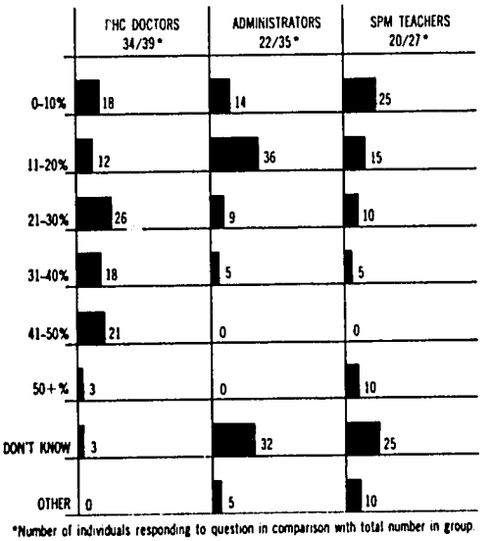
| | Time to be spent with patients (percentages) | | | | | |
|---|---|---|---|---|---|---|
| | Present time all right | Less than 5 minutes | About 5 minutes | 6–10 minutes | 11–15 minutes | Above 15 minutes |
| PHC doctors 29/39 | 10 | 7 | 34 | 24 | 14 | 3 |

*8 percent had no opinion

## PREVENTIVE WORK

Because disease prevention has been greatly emphasized in the plans for health center development, data on the time a doctor actually spends on preventive work is especially relevant. Out of seventy-six respondents in three categories only one PHC doctor and two SPM teachers stated that doctors spend more than 50 percent of their time on preventive activities (Fig. 7). On the whole, doctors reported that they spent more time doing preventive work than other groups of respondents thought they did. Two-thirds of the doctors said that more than 20 percent of their time was devoted to preventive work. By contrast, only one-seventh of the senior administrators and one-fourth of the SPM teachers shared this opinion. One-third of the administrators and one-fourth of the SPM teachers said they didn't know.

Figure 7. Profiles of Group Opinions on the Time a Primary Health Center Doctor Spends on Preventive Work (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group

## REASONS FOR THE LACK OF EMPHASIS ON PREVENTIVE WORK

Fourteen doctors and seventeen senior administrators offered reasons for the lack of emphasis on preventive work in health centers (Fig. 8). Half of these doctors and administrators merely said that doctors were not interested in carrying out preventive measures. One-third of the doctors and one-fifth of the administrators said that the general public fails to appreciate preventive services. More than one-quarter of the doctors and senior administrators said that inadequate health center resources were responsible for the lack of preventive work. Considering the brief time per patient available for clinical care, one of the inadequate resources is time itself.

## SUPERVISORY WORK

Supervision of the work of health inspectors and health visitors is a major responsibility of health center doctors. A substantial number of the respondents thought that the doctors should give both general advice and direct supervision in the field to both health inspectors (Table 4) and health visitors (Table 5). The doctors put even more stress on supervision than did other respondents. This is of interest because the indices of effective supervisory activity referred to earlier (Fig. 4) did not indicate that

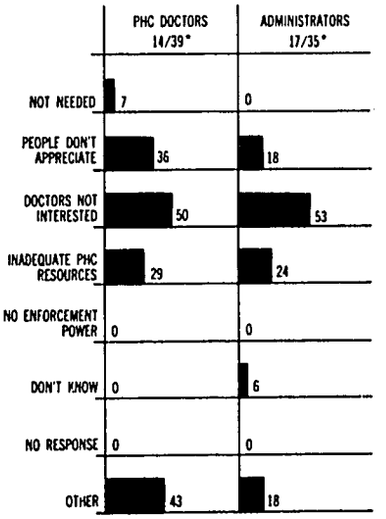
TABLE 4. GROUP OPINIONS ABOUT THE PHC DOCTOR'S SPECIFIC RESPONSIBILITIES IN RELATION TO THE WORK OF HEALTH INSPECTORS

| | PHC doctors' responsibilities (percentages) | | | | |
|---|---|---|---|---|---|
| | General advice | Office supervision | Field supervision | Don't know | Any other |
| PHC doctors 29/39 | 83 | 66 | 69 | 14 | 0 |
| District officers 14/16 | 79 | 64 | 50 | 7 | 0 |
| SPM teachers 19/27 | 79 | 58 | 58 | 5 | 11 |

TABLE 5. GROUP OPINIONS ABOUT THE PHC DOCTOR'S SPECIFIC RESPONSIBILITIES IN RELATION TO THE WORK OF HEALTH VISITORS

| | PHC doctor's responsibilities (percentages) | | | | |
|---|---|---|---|---|---|
| | General advice | Office supervision | Field supervision | Don't know | Any other |
| PHC doctors 31/39 | 87 | 71 | 74 | 10 | 0 |
| District officers 14/16 | 71 | 57 | 64 | 7 | 7 |
| SPM teachers 16/27 | 75 | 56 | 50 | 6 | 12 |

Figure 8. Profiles of Various Groups Giving Reasons for Lack of Emphasis on Preventive Work in Primary Health Centers (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

they knew much about the work of their auxiliaries. This suggests that there are reasons other than doctor's interest for the inadequate supervision. The previous data on clinical load suggests that in addition to being too busy doctors need an appropriate and simplified mechanism for following and reporting the activities of their auxiliaries.

## MEDICAL ASSISTANTS

One way of meeting the time problem in clinical work would be to provide medical assistants (Table 6). One-third of the doctors said they needed medical assistants, while only one-seventh thought that medical assistants were not needed at all. Surprisingly, more than half said they didn't know, perhaps because the medical assistant's functions have not been clearly defined. Even higher percentages of administrators and SPM teachers favored having medical assistants, but less than one-fourth of the clinical teachers responded favorably.

TABLE 6. GROUP OPINIONS ON THE NECESSITY FOR PROVIDING THE PHC WITH A MEDICAL ASSISTANT FOR CLINICAL WORK

| | Need for medical assistant (percentages) | | |
|---|---|---|---|
| | Yes | No | Don't know |
| PHC doctors 22/39 | 32 | 14 | 55 |
| Administrators 16/35 | 38 | 31 | 31 |
| SPM teachers 17/27 | 41 | 59 | 0 |
| Clinical & other teachers 13/18 | 23 | 38 | 38 |

Of the one-third of the total sample of all respondents who favored medical assistants to work with the doctor, fourteen specified that this should be a fully qualified second doctor, eleven suggested a second-grade medical auxiliary to be in charge of subcenters, and lesser numbers of respondents spoke for having a licentiate doctor or paramedical assistant. Other suggestions included reducing the size of the primary health center service area and providing the doctor with clerical and administrative help.

## DOCTOR AND BLOCK DEVELOPMENT OFFICER RELATIONSHIP

Since the primary health center provides the nucleus of health activities for a community development block, the doctor's relationships with the block development officer are obviously important. The general belief that friction exists between block development officers and doctors was substantiated by responses to a specially phrased question asking for the causes of this friction. Indeed, only one-fourth of the doctors and administrators and only one-tenth of the teachers said that no friction existed (Fig. 9). The district officers were somewhat less definite, with more than one-third saying there was no friction. Most frequently mentioned as a source of friction was "bossing of doctors by block development officers" (Fig. 9). A little less than half of the doctors and administrators, half of the district officers, and more than half of the teachers of social and preventive medicine cited this as a cause of poor relations. Conflicts also arose over the dual control of health center staff, according to one-third of the doctors, more than one-fourth of the administrators, and one-fourth of the district officers.

Since friction rubs both ways, the doctors were also held accountable for poor relationships. One-fifth of the health center doctors and more than one-fourth of the administrators, one-third of the social and preventive medicine teachers and one-fourth of the district officers indicated that the trouble arose from the doctor's sensitivity about his own "prestige."

The doctors had additional explanations for the lack of cordial relations, which included the BDO's control of funds, their use of health center vehicles, lack of interest in health work, and poor mutual understanding.

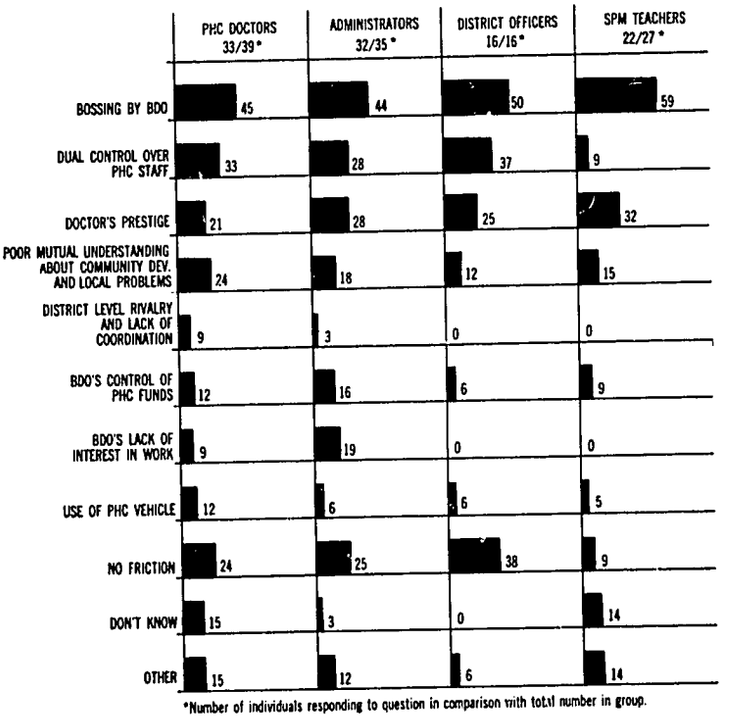
## DESIRED ADMINISTRATIVE RELATIONSHIP

The question was then turned to what the doctors' relationships with block development officers should be. Only doctors and administrators replied in sufficient numbers to be recorded. Three-fourths of the doctors thought that they should be administratively independent of block development officers (Table 7). One-fifth of them felt that block development officers should always accept the technical advice of the doctors in matters relating to the

TABLE 7. GROUP OPINIONS ABOUT THE PHC DOCTOR–BDO RELATIONSHIP

| | Suggested relationship (percentages) | | | | | |
|---|---|---|---|---|---|---|
| | Administrative independence for doctor | Equal status | Dr. technical advisor to BDO | Both responsible to block samiti | Don't know | Any other |
| PHC doctors 16/39 | 75 | 0 | 19 | 6 | 6 | 29 |
| Administrators 17/35 | 60 | 20 | 20 | 27 | 0 | 27 |

Figure 9. Group Opinions on the Causes of Primary-Health-Center-Doctor/Block-Development-Officer Conflicts (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

doctor's professional field. More than one-half of the administrators subscribed to the belief that the block development officers should have no administrative control over the doctors, and one-fourth said they would make the block development officer and doctor both responsible to the "block *samiti*"—the elected group of local panchayat members who have been given increasing responsibility for the administration of community development programs.

## SUMMARY

The doctor's heavy clinical load was clearly borne out by all respondents' estimates of the very short time doctors spend with patients. The doctors themselves strongly indicated that they should have more time available per patient, with 90 percent saying that they now have less than 5 minutes per patient, while three-fourths felt that they should have more than 5 minutes per patient. However, the use of medical assistants to help with the patient-load was supported by less than half the respondents, including only one-third of the doctors.

Ninety-six percent of all respondents agreed that doctors spend considerably less than 50 percent of their time on preventive work. On the other hand, two-thirds of the primary health center doctors said that they spent 20 percent or more of their time doing preventive work, which was considerably more than other respondents gave them credit for. All respondents agreed that lack of interest among doctors was the major factor contributing to the minimal emphasis on preventive work.

Two-thirds of the doctors, as well as a majority of respondents in other categories, agreed that the doctors should assume supervisory responsibility over the work of health inspectors and health visitors in the office and in the field.

Friction between doctors and block development officers was reported by 77 percent of the respondents. Bossing by block development officers, dual control over staff and "doctor's prestige" were the most commonly mentioned causes of this friction. Administrative independence for the doctor from the block development officer was suggested as the appropriate solution by a majority of the doctors and senior administrators, while one-fourth of the

administrators thought that both officers should be made responsible to the "block *samiti*"—the locally elected body in charge of community development activities.

CHAPTER 6

# RECRUITMENT OF PRIMARY HEALTH CENTER DOCTORS

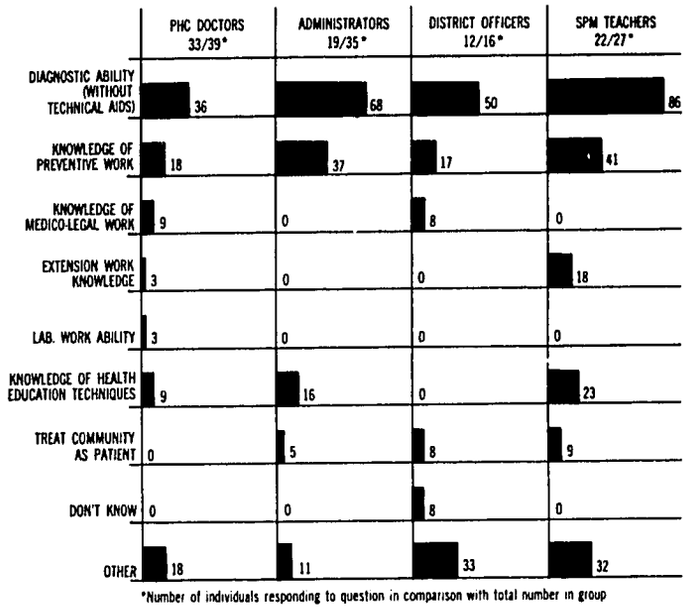
THE most practical questions in the interviews dealt with the difficult problem of how doctors can be recruited and prepared for rural service. Detailed exploration was required to discover the skills, personal attributes, training, and incentives considered necessary for good health center doctors. These findings must be translated into specific action if the broader issues discussed in this monograph are to be solved.

## PROFESSIONAL SKILLS AND KNOWLEDGE

In listing the professional capabilities essential for a doctor in rural health service, the respondents displayed a tendency to put curative above preventive skills, which corresponds roughly with their statement of priorities (Fig. 3) for health center activities. A large majority of the social and preventive medicine teachers and senior administrators and half the district officers said that the most important requirement (Fig. 10) was the ability to diagnose patients' illnesses with limited technical aids and prescribe treatment appropriate to local conditions. It is interesting to note that this same view was held by only slightly over one-third of the doctors. However, the responses of doctors were spread out over a larger number of specific alternatives, whereas the other groups made only a few broad recommendations.

Knowledge of preventive methods was listed as essential by more than one-third of the senior administrators and two-fifths of the social and preventive medicine teachers. Less than one-fifth of the doctors and district officers stressed such preventive knowledge.

Figure 10. Group Opinions about Professional Qualities Needed for a Rural Doctor (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group

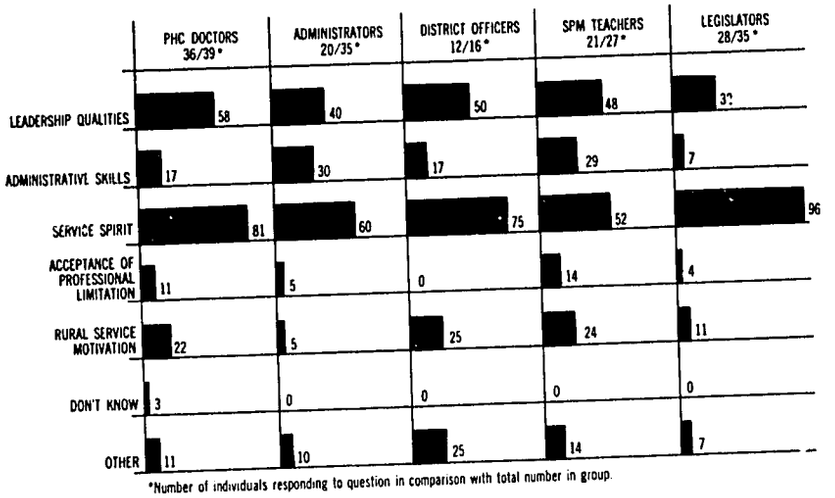
One-fourth of the SPM teachers mentioned health education techniques while one-fifth stressed extension-work knowledge. Health education was also mentioned by one-tenth of the doctors and one-sixth of the administrators.

The important theoretical concept that the doctor should assume responsibility for the whole community as his patient was mentioned by only one administrator, one district officer, and two teachers of preventive and social medicine.

## PERSONAL ATTRIBUTES

The importance of personal qualities in determining the success of a health center doctor's work is indicated by the fact that most of the respondents were eager to discuss this subject (Fig. 11). Four-fifths of the doctors stressed the necessity for having a proper spirit of service. This was further defined by expressions such as an interest in the people's welfare, a desire to help, patience, politeness, humility, adaptability, and willingness to work hard. Almost one-fourth of the doctors also mentioned the importance of rural service

Figure 11. Group Opinions of Personal Qualities Needed for a Rural Doctor (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

motivation as distinct from a more general service spirit, referring to a specific desire to serve rural people. Three out of five doctors pointed out the importance of leadership qualities in working with the health team, one-sixth also mentioned administrative skills, and one-tenth referred to need for understanding their professional limitations.

"Service spirit" was clearly given greatest prominence in all groups—by all but one legislator, three-fourths of the district officers, three-fifths of the administrators, and half of the SPM teachers. As with doctors, "leadership qualities" was clearly the second most frequently mentioned personal quality referred to by all groups. Administrative skills and rural service motivation were next.

## SUGGESTIONS FOR IMPROVING RURAL ORIENTATION

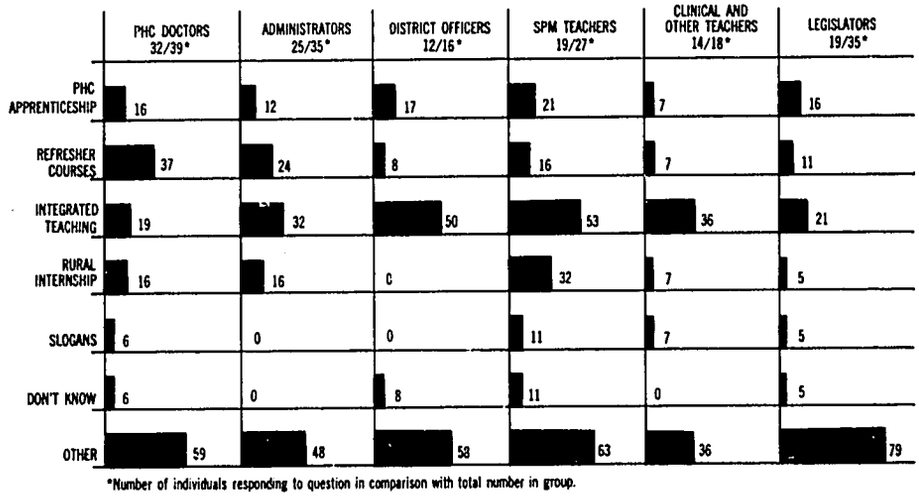
After respondents finished describing the desirable professional and personal qualities of health center doctors, they were asked the vital question: "How can these qualities or skills be developed?" Many times the question seemed to take the respondents by surprise. In such situations they often started by commenting that it was very difficult to impart these qualities. They did then offer

some suggestions (Fig. 12). The most prominent suggestion in each group, except PHC doctors, was "integrated teaching." This refers to improved participation of clinical departments in rural teaching in medical schools, rather than placing responsibility solely on departments of social and preventive medicine. This answer was given by half of the district officers and teachers, one-third of clinical and other teachers and administrators, but less than one-fifth of the doctors.

Understandably, the doctors suggested with considerable enthusiasm the possibility of refresher courses in medical colleges and other in-service training. This type of postgraduate orientation was mentioned by one-fourth of the administrators, but by only a few others.

Many of the suggestions fell into multiple "any other" categories, including recommendations that student-teacher ratios in medical colleges be reduced to insure more individual attention; that senior teachers, particularly in clinical departments, take greater interest in rural health problems; that teachers' attitudes toward rural service be improved so as to provide good examples for students; and diffuse statements, such as the need for a rural bias to be injected into all stages of medical training. These replies, along with those previously grouped by specific categories, indicate

Figure 12. Group Opinions about Methods of Providing Doctors with Professional and Personal Skills Relating to Rural Work (Response Rate in Percentages)



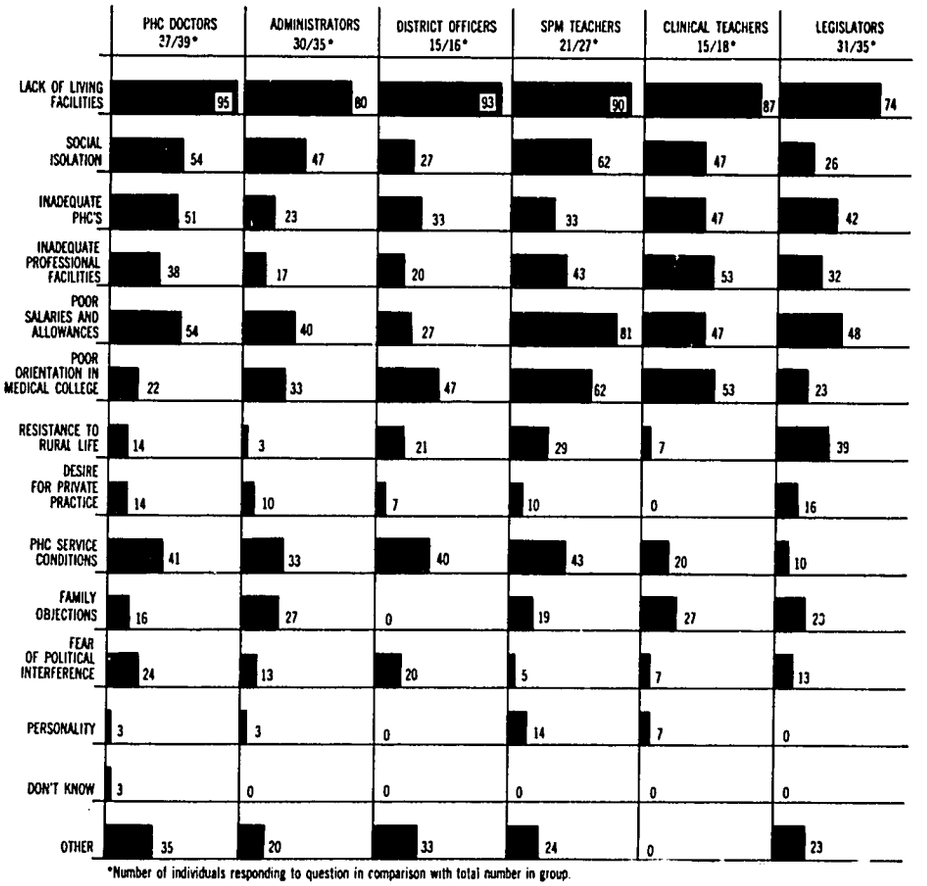

*Number of individuals responding to question in comparison with total number in group.

mainly that medical colleges have a major role to play in imparting the required skills and in developing in doctors the motivation for rural service.

## OBSTACLES TO RECRUITMENT

In no area of questioning were answers so readily and freely elicited as when the respondents were asked about obstacles to the recruitment of doctors for rural service. Since doctors have the most intimate knowledge of the career disadvantages of health center service (Fig. 13), it is highly significant that as a group they

Figure 13. Group Opinions about Obstacles to Recruitment of Doctors for Rural Work (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

gave most emphasis to lack of living facilities in rural areas (thirty-five out of thirty-seven). Slightly more than half mentioned poor financial compensation; social isolation; and inadequacies in buildings, supplies, and equipment of the primary health centers. Two-fifths mentioned service conditions and facilities inadequate for maintaining professional competence. Under the last headings the doctors spoke of the fear of losing clinical skills, nonavailability of medical literature, absence of experienced guidance, limited opportunities to learn new professional techniques, fear of being stuck in the villages, fear of frequent transfers, too heavy a load in relation to staff assistance, and possible conflict with block development officers. Next in importance were fear of political interference, poor orientation in medical colleges, and family objections.

Three-fourths or more of the respondents in each of the other groups agreed that unattractive living conditions, especially inadequate housing and lack of electricity, were obstacles to recruitment. An obstacle frequently mentioned by all groups was poor salaries and allowances, this included four-fifths of the SPM teachers and almost half of the legislators and clinical teachers, together with two-fifths of the senior administrators and one-fourth of the district officers. The disadvantages of social isolation were cited by more than half of the teachers of social and preventive medicine, and almost half of the senior administrators and clinical professors. The inadequacies of the health centers themselves were considered a drawback by a substantial number of other respondents, especially the clinical teachers and legislators. An allied obstacle, inadequate professional facilities, loomed large for half of the clinical teachers and better than two-fifths of the SPM teachers, while health center service conditions were considered adverse factors by one-third of the administrators and two-fifths of the district officers and SPM teachers.

Poor medical college orientation of doctors to rural health service was emphasized by three-fifths of the SPM teachers, half of the clinical professors, almost half of the district officers, and one-third of the senior administrators. But less than one-fourth of the health center doctors themselves mentioned poor orientation in medical college. The district officers (one-fifth) came closest to agreeing with the one-fourth of doctors who said that fear of political interference deterred doctors from going into rural health center service, but very few respondents in the other groups mentioned this obstacle.

While lack of living facilities was ranked highest by each group, the rank order of subsequent statements varied considerably according to the group of respondents. The following summary reflects basic differences in the points of view. Health center doctors ranked the obstacles in the following order: low salaries, social isolation, inadequate health centers, poor service conditions, and inadequate professional facilities. Administrators ranked: social isolation, low salaries, poor orientation in medical colleges, poor service conditions, and family objections. District officers ranked the following: poor orientation in medical colleges, poor service conditions, inadequate health centers, and, only then, salaries and social isolation. Social and preventive medicine teachers ranked: poor salaries, social isolation, poor orientation in medical colleges, inadequate health centers, and poor service conditions. Clinical teachers ranked: poor orientation in medical colleges, inadequate professional facilities, social isolation, inadequate health centers, and poor salaries. Finally, the legislators ranked: poor salaries, inadequate health centers, inadequate professional facilities, resistance to rural life, and social isolation.

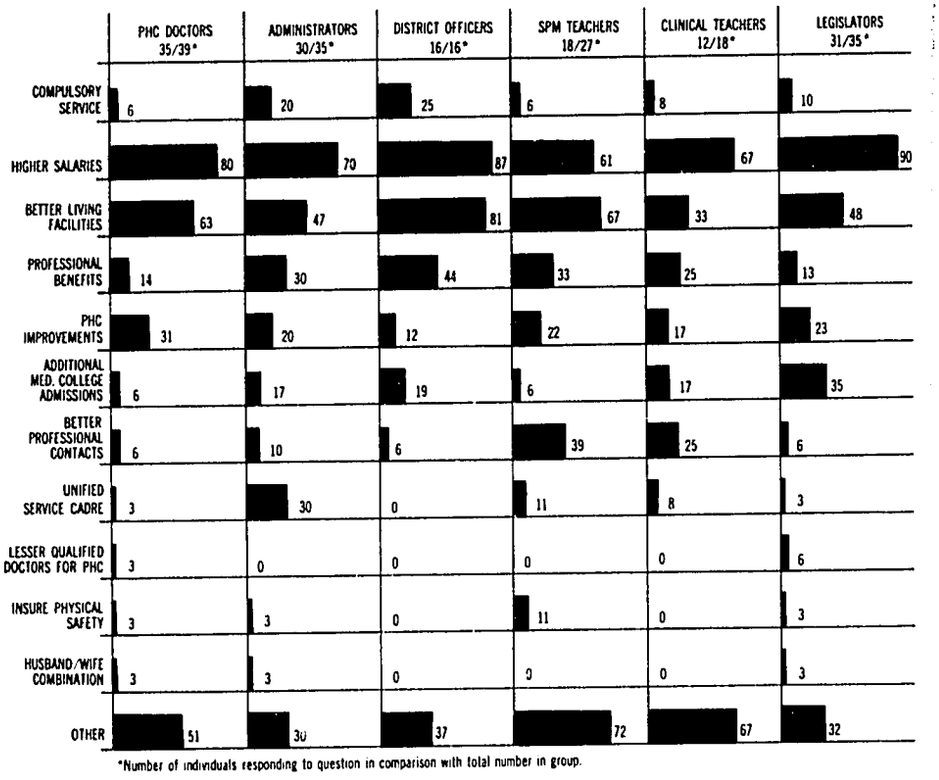
## INCENTIVES

The next logical step was to discover the incentives that might be used to compensate for the most evident obstacles and, thus, attract doctors to rural areas. Two-thirds or more of the respondents in each group recommended better financial remuneration as an incentive (Fig. 14), although they had not necessarily named low salaries as the most important obstacle to the recruitment of health center doctors.

The next greatest emphasis was placed on improving the living conditions of health center doctors, which agrees with the finding that lack of living conveniences was ranked highest by all respondents as an obstacle to recruitment. The general heading of improving living conditions included, in addition to better housing, specific suggestions such as provision for the schooling of doctors' children and personal use of transportation.

The group of incentives which was ranked third by doctors was improvement of health centers to make professional work more attractive. District officers, SPM teachers, and senior administrators gave more emphasis to added professional benefits, such as

Figure 14. Group Opinions about Incentives Which Could Be Used to Attract Doctors for Rural Work (Response Rate in Percentages)




*Number of individuals responding to question in comparison with total number in group.

preferential treatment in promotions and selection for post-graduate training.

The next incentive which was mentioned by two-fifths of the SPM teachers was providing more frequent and better professional contacts. A fourth of the clinical teachers agreed, but very few of the other groups mentioned this point. Only the senior administrators placed much emphasis (three-tenths) on the possibility of developing a unified service cadre for government doctors, permitting ready movement from health centers to hospital service.

A final and crucial question probed for opinions on whether or not compulsory service for doctors in rural areas would be necessary (Table 8). Well over half of all respondents agreed to it as a last resort if other measures failed. As might be expected, the two extremes were four-fifths of the legislators answering "yes" and almost half of the health center doctors answering "no."

TABLE 8. GROUP OPINIONS ON COMPULSORY RURAL SERVICE REQUIREMENT FOR ALL DOCTORS, IF INCENTIVES FAIL

| | Whether compulsory service should be required (percentages) | |
|---|---|---|
| | Yes | No |
| PHC doctors 34/39 | 53 | 47 |
| Administrators 17/35 | 71 | 29 |
| District officers 14/16 | 57 | 43 |
| SPM teachers 22/27 | 64 | 36 |
| Clinical teachers 11/18 | 73 | 27 |
| Legislators 28/35 | 82 | 18 |

## SUMMARY

Among PHC doctors, curative skills were ranked as being more important than preventive ones. A proper service spirit and leadership ability were listed as the PHC doctor's most important personal attributes.

Integrated teaching in undergraduate medical education and refresher courses for health center doctors were the major recommendations for improving the preparation and rural orientation of doctors.

The most commonly mentioned obstacles to recruitment of doctors for rural service were lack of living facilities, poor pay, social isolation, inadequate professional facilities, poor orientation in medical colleges, and poor service conditions. The incentives most commonly mentioned for overcoming these obstacles were higher pay and better living conditions. As a last resort, if incentives fail to attract enough doctors to meet the needs of rural areas, more than half of the respondents felt that some form of compulsory rural service might become necessary.

CHAPTER 7

# THE NEED FOR ADMINISTRATIVE REORGANIZATION

THE findings of this study substantiate the general feeling of most health workers in India that administrative reorganization of the health services is needed. Since independence there has been a progressive step-by-step evolutionary alteration of health services administration. Some additional steps which remain to be taken are now evident.

Particularly noteworthy has been the steady movement toward integration of curative and preventive services at top administrative levels. Only three states still retain the cumbersome separation between the directorates of medical services and the directorates of public health. Very few states have begun integration at the district level. Although integration is an inherent and basic concept of primary health center organization, implementation has also been slow at the local level, mainly because of the pressure of curative work. As this discussion will reveal, the major needs for administrative reorganization are:

1. in supervision from district level officials,
2. in supervisory relationships within the health center,
3. in the interactions between the state health directorates and health center personnel in the critical process of achieving a real and workable decentralization,
4. in relationships with community development activities.

## ADMINISTRATIVE RELATIONSHIPS BETWEEN DISTRICT OFFICERS AND HEALTH CENTERS

Primary health centers can be expected to function effectively in a regionalized framework only if they have continuing working

links with the rest of the health services through an effective district machinery. The staff requires supportive supervision in routine activities and the many special functions which can be provided only by specialists.

The most evident need for reorientation in health center staff activities arises from the lack of emphasis on preventive measures, despite official policies to the contrary. The new structure should provide a supervisory system which would preclude neglect of preventive medicine by the health center doctor, even if he is not prevention-minded.

Under the present administrative arrangement in most states, the district officer of public health (variously known as medical officer of health or assistant district medical officer or deputy chief medical officer) is responsible for direct supervision of primary health centers. The thickness of lines of authority shown in Figure 15 indicates the dominance of the clinical authority, in spite of the official chain of command.

In those few states where curative and preventive work has been integrated at the district level, the district medical officer, who is usually a clinician, has officially been made responsible for the health centers. However, the former district officer of health, who is usually deputy to the district medical officer, still is supposed to maintain actual supervision, even though he no longer retains independent charge of public health work in the district (Fig. 16).

Figure 15. Administrative Pattern in States Where Curative and Preventive Services Have Not Been Integrated at the District Level

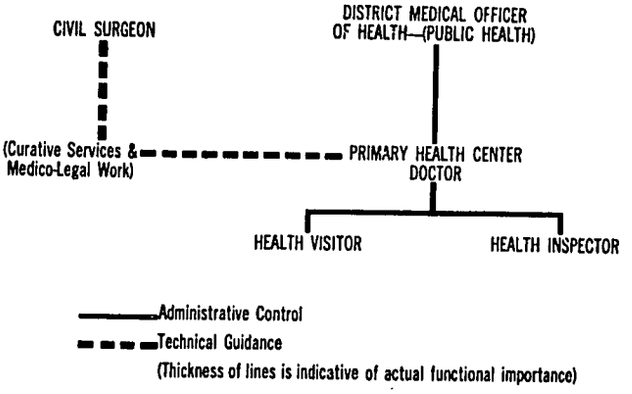
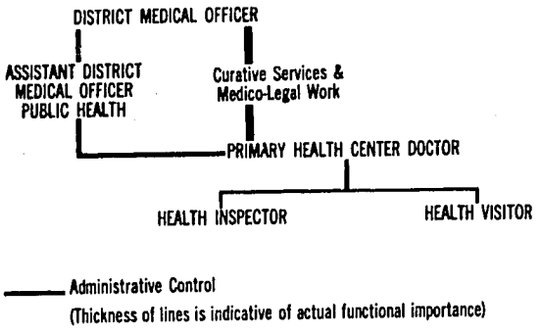


Figure 16. Administrative Pattern in States Where Curative and Preventive Services Have Been Integrated at the District Level




Whatever the theoretical district-level administration, the actual functional relation is that the health center doctor feels responsible to the public health man or district health officer for preventive programs and to the district medical officer or the senior clinician of the district for curative services and medico-legal work. The separation of curative and preventive supervision has developed because district officers of health are not considered to have sufficient clinical knowledge to provide effective medical consultation and guidance to health center doctors. In view of the heavy emphasis on curative work and the greater prestige which it commands, the district health officer is placed at a marked disadvantage in dealing with health center doctors. Under the new reorganization, with integration of curative and preventive work at the district level, public health is placed in an even more subordinate position. The district officer of health no longer has independent control of even the preventive activities in his district. This tends to lessen the emphasis on preventive work and negate one of the major purposes of the administrative unification.

Obviously, the only reasonable arrangement is to have all health center operations under the district-level control of one officer. Since administrative competence is the primary objective, individuals should be selected for these positions from either curative or preventive specialties. In either case, they should receive sufficient general orientation to provide competent supervision and guidance for both clinical and preventive activities. Clinical specialists can be made available for technical consultation on

patients as needed, without necessarily being in charge administratively. In order that preventive activities be given the desired priority, however, it should be made mandatory that before assuming over-all administrative responsibility for a district a clinician should be given special orientation in public health and administration. Courses such as those now available at the National Institute of Health Administration and Education in New Delhi would meet this need. The possibility of advancement to chief medical officer of a district should also help to attract more capable individuals into public health.

## PRIMARY HEALTH CENTER STAFF SUPERVISION

This study has clearly shown the general agreement that health center doctors should give both office and field supervision to health center staff. Yet, upon direct questioning it was evident that the health center doctors had little personal knowledge of the maternal and child health work performed by health visitors, or how much time health inspectors devoted to environmental sanitation. Health center doctors seem to perceive their role in relation to health inspectors and health visitors as being limited to signing their monthly reports.

District officers of health have assumed general responsibility, through their own assistants, for direct supervision of health inspectors, while the state assistant directors of health, in charge of maternal and child health, provide most of the field guidance for health visitors. This pattern of direct supervision from higher up—by-passing the health center doctor's authority—contributes to the doctor's lack of interest in the work of his own staff and thus reinforces his general disinterest in preventive measures. This functional difficulty exists, even though administrative lines of authority provide for the PHC doctor to have control. These preventive officers, coming to the health center from state or district level, have tended to focus their attention on auxiliaries. Perhaps this is because they are more readily accessible to the officials than the doctors who remain engrossed in curative work. Ways must be found so that auxiliaries can have the benefits of technical guidance from district health officers and assistant directors of maternal and child health, but such guidance should be channeled through the health center doctor.

Since the field investigation reported here was carried out, steps

have been taken to integrate all national programs for mass disease control (malaria, smallpox, tuberculosis, trachoma, and venereal diseases) with the regular rural health services. This has meant an increase in the paramedical health center staff under the supervision of the PHC doctor from six to eight, plus up to twenty-four additional auxiliary workers. This is going to further complicate the supervisory and leadership problems that were identified in this study. Even more than before, the doctor will have to be responsible for personnel management. The crucial question is: How can the health center doctor be led to see that his role must shift from being only a clinician to an essentially managerial role?

Basic health worker is the term applied to the new category of male health worker, with most of the initial recruitment coming from malaria eradication auxiliaries. Each basic health worker has been assigned a population of 10,000 people, with responsibility for surveillance in the malaria maintenance program, family planning work, and health intelligence duties in the area. Under the guidance of the senior sanitary inspector, he is also expected to do field work for the surveys required in special health center programs.

In addition, each PHC will have an equivalent number of auxiliary nurse-midwives (one for every 10,000 population) who will be primarily involved in family planning and maternal and child health (MCH) work under the supervision of a lady medical officer to be assigned to the health center as part of the national family planning program.[21]

## RELATIONSHIPS WITH STATE DIRECTORATES OF HEALTH SERVICES

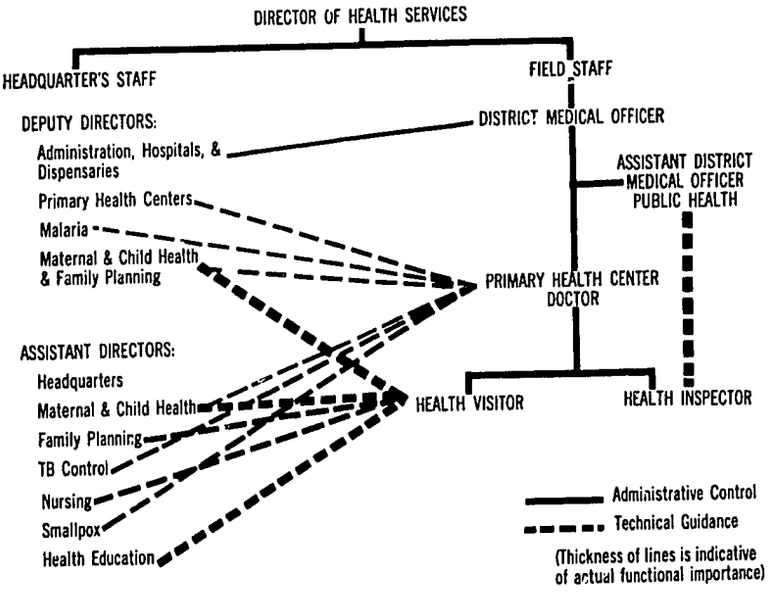
Much of the functional confusion and role conflict flows down from the state administration. A necessary part of regionalization is decentralization and delegation of responsibility. State officials, however, tend to hold on to centralized authority with direct control of peripheral units being retained by numerous peripatetic administrators. The state health directorates have a number of assistant directors, each responsible for one technical aspect of health work. Any one of these may descend directly upon the health center doctor from time to time to discuss current aspects of his special field of interest. When the assistant director in charge of smallpox control, for instance, visits a health center, he has

neither the time, nor perhaps the interest, to be aware of the center's operations as a whole. He may not even concern himself with those functions which have indirect bearing on the success of his own smallpox program. He concentrates on matters of immediate relevance to his own administrative responsibility. A chart showing present supervisory flow indicates why the health center staff tends to be confused (Fig. 17).

Some health center doctors get many supervisory visits, while others get few or none. Each visit stresses a particular aspect of health center work and a series of separate instructions are given to the doctors. The doctor is then expected to integrate the various programs. When health center doctors are assigned too many responsibilities, without adequate educational guidance they drift naturally into concentration on curative work. This is the part of their official scope of work which not only fits their image of what a doctor should do but is also the work with which they feel most comfortable.

The staff officers in the state directorates responsible for technical specialties have not yet learned to merge their individual interests

Figure 17. Present Administrative Control of Primary Health Centers from State and District Levels



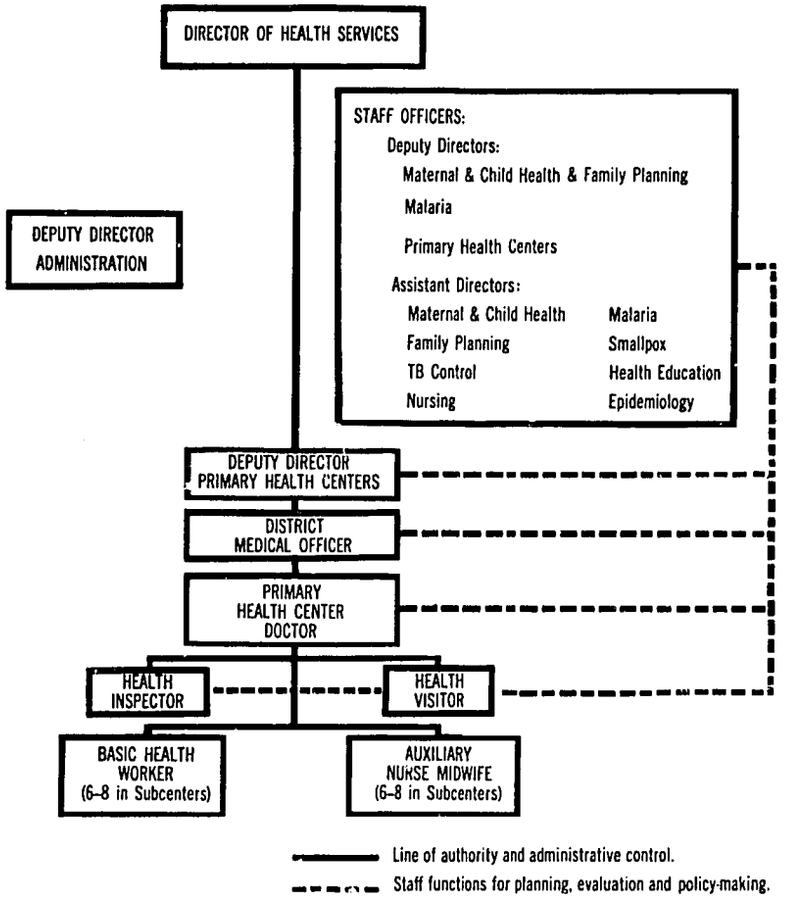
in order to develop a comprehensive state health program. Priorities must be based on a realistic appraisal of what can or cannot be accomplished by health centers at particular stages of development. One suggestion which might help state officials improve their own understanding of the integration process would be to have each one take personal responsibility for supervising a particular health center. He could gain invaluable experience by trying to develop a model of comprehensive, high-quality health care, relating his own program to the general activities within the limits of existing personnel and financial resources.

One of the most encouraging developments in recent years followed the creation of the National Institute of Health Administration and Education in the Directorate General of Health Services in New Delhi. Senior officers from state health directorates and ministries and a few district medical officers have been invited to attend eight-week seminars on health administration. These seminars have permitted detailed consideration of problems of district-level supportive supervision. From such beginnings, directives and manuals providing guidelines for field workers at all levels need to be worked out.

A related problem is that assignment to specialized senior public health posts in the directorate oftentimes depends more on seniority than on technical competence. Specialized fields such as epidemiology have not been consistently developed because senior persons in the health hierarchy move from one post to another, depending on vacancies. These movements are often so rapid that an individual does not have time to develop real competence in a specialized field, such as tuberculosis control or family planning. It would greatly enhance the prestige of public health personnel generally, if individuals who are supposed to be specialists actually have had the opportunity to develop competence sufficient to gain the respect of both clinical specialists and health center doctors.

The organizational chart shown in Figure 18 presents an alternative administrative pattern. It is essential that there be clear separation of "staff" functions from "line" authority. The group of specialized assistant directors in the health directorate should be staff officers who are concerned primarily with policy-making and the development of operational plans. They must, of course, continue to be in the field as much as possible to gather information, to see that performance standards are met, and to define problem areas where solutions must be found. They should

Figure 18. Proposed Administrative Control of Primary Health Centers from State and District Levels




not, however, directly administer their own statewide programs. Their relationship with health center doctors should be primarily educational and they should be available to answer technical questions. Their administrative instructions should be channeled through district supervisors and should be co-ordinated through a single chain of command in the directorate. Decisions about the relative priorities of individual activities should be worked out in a systematic way by a group of administrative and staff officials, including the director and the deputy directors responsible for administration, in consultation with technical experts. In some of

the larger states it would be desirable to appoint regional directors to be responsible for groups of districts divided in a systematic way. The present span of control is much too large.

## COMMUNITY DEVELOPMENT

According to official theory, the primary health centers are integral parts of the block community development activities. Presumably this includes a working relationship between healthworkers and general development workers. This is demonstrably not the case. There has been no clear definition of the responsibilities of community development workers for public health programs. The presumption that health center doctors and block development officers will automatically establish suitable functional relationships between themselves has failed to materialize. Major administrative problems have appeared from their overlapping community concerns. Doctors and development officers often confine themselves to circumscribed areas which enable them to avoid crossing one another's path. Rather than seeking the potential co-operation of community development workers, most doctors are suspicious of encroachment on their authority.

Three corrective measures require immediate attention: a clear definition of responsibilities; joint training courses and seminars for the purpose of developing mutual understanding between health center doctors and block development officers; and coordination of development and health activities at the district level in order to generate more mutual co-operation at the block level.

The *block samitis* (locally elected development bodies) can play an important role in bringing healthworkers and general development workers together for discussion of common concerns. No real understanding is now available of the health expectations of the village people themselves. Their opinions need to be investigated as to what the relative functional roles of healthworkers and community development workers should be. The health center is usually represented at *samiti* meetings by the health inspector, who is in a subordinate position. Therefore, no matter how well-intentioned he may be, he cannot effectively promote health interests in sessions with the elected representatives of the people and community development officials. Primary health center doctors generally claim to be "too busy" to attend the *samitis*' monthly meetings.

However busy the health center doctor may be, he should not miss this opportunity to educate block leaders and to obtain their co-operation in carrying out health programs. In block *samiti* meetings he can obtain community participation in public health activities. The co-operation of local leaders will provide a broader base for health work.

Particularly relevant, also, would be studies to determine the particular health functions that can be carried out by general development workers and appropriate mechanisms for providing continuing supervision by qualified healthworkers. Very little is known about the attitudes of general development workers toward health activities. The BDO (block development officer), who is uniformly subjected to much criticism, has seldom been asked for his interpretation of the difficulties. If the broad principles of co-ordinated programs could be worked out, presumably the field personnel could make the necessary local adjustments.

## ORIENTATION

All states have some arrangement for in-service orientation of health center doctors and other healthworkers. Several states run their own orientation training centers. These courses take about two months and the curricula have been worked out over several years of trial, with most members of the central and state health directorates taking part in the training. Preventive functions are particularly stressed and efforts are made to give doctors a chance to refresh their knowledge of public health and to discuss their difficulties under field conditions.

There is little doubt of the need for orientation courses. Nevertheless, those who run the in-service training programs generally acknowledge that the basic attitudes of doctors toward preventive work are not improved. Attempts to teach the doctors to reapportion their time and energies in the field have also been unsuccessful. The PHC doctors attend the courses, listen, and then return to their previous routines, where preventive measures continue to receive minor attention. Obviously, this means that indoctrination by itself is not sufficient and that continuing support must be provided by appropriate administrative routines. A major shortcoming in the in-service orientation of PHC doctors has been the complete lack of follow-up from the orientation training centers. Follow-up visits will permit assessment of the extent to which trainees use the

newly acquired knowledge and also should make the orientation training programs more realistic and field-oriented.

## MEDICAL COLLEGE EFFORTS TO PROVIDE RURAL ORIENTATION

All respondents directed particular attention to the role of medical colleges in developing in young doctors an interest in and understanding of rural health problems. The most frequent recommendation in these interviews was that curative and preventive teaching should be integrated in medical college teaching and that clinical teachers should participate in the work of teaching health centers. All prospective doctors must be indoctrinated with their responsibility for the whole community early enough in their careers so that this orientation becomes an intrinsic part of their system of professional values.

In fact, this study showed clearly that clinical teachers in medical colleges have little awareness of the goals, functions, or conditions of work in rural health centers. Considering the high prestige that is attached to clinical teachers, it is no wonder that the majority of young doctors develop a purely clinical orientation and acquire little professional concern for community health functions. The greatest advantage of integrated teaching would be that clinical teachers would be expected to demonstrate an interest in preventive work, and thus lend some of their prestige to this otherwise unpopular area.

To be sure, much depends on the image of rural work which social and preventive medicine teachers project among their clinical colleagues. It is particularly regrettable, therefore, that the SPM teachers in this study displayed relatively little familiarity with the practical aspects of health center operations and showed no deep commitment to a preventive orientation. Before they can hope to gain the co-operation of clinical teachers, they must involve themselves deeply in rural work and be enthusiastic about it.

A reasonable development which is working well in some medical colleges is to organize weekly specialty clinics in rural teaching centers. This can lead to joint field research projects with clinical and social and preventive medicine departments co-operating to the mutual advantage of both. However, the attainment of a truly integrated, balanced medical education adapted to the specific needs of India still requires extensive experimentation in educa-

tional methods and major reorientation of the total medical college administration.

The rural doctor must become a respected member of the profession.

## IMPLICATIONS FOR FAMILY PLANNING

No problem in India is as urgent as improving implementation of the national family planning program. The general policy of developing family planning as a major responsibility of health services and integrating it with maternal and child health activities has been inadequately focused at the health center level. Most effort now is going into centrally financed mobile teams which conduct "camps" for sterilizing men or inserting intrauterine contraceptive devices.

The population crisis demands that all possible resources be concentrated on reaching rural people. It is increasingly evident that a major effort will be required to indoctrinate all health-workers with the idea that they have personal responsibility for promoting family planning.

Since the family planning problem of India is primarily a rural problem, most of the specific findings of this research have direct relevance to the process of orienting and preparing family planning workers. At present, most doctors do not accept family planning as part of their professional responsibility, any more than they personally accept rural service. In medical education and continuing in-service training both emphases must logically be developed together.

Administratively, too, there is a major problem in integrating family planning with rural services in both health and community development. Because of the urgency of the population problem, there is a tendency to by-pass the red-tape of the regular health services and to set up independent activities. Too much separation could weaken both programs. On the contrary, it is extremely desirable that the political and financial pressure behind the national family planning program be used to produce needed changes in both family planning and health services, to cut red-tape and break bureaucratic strait jackets. New administrative patterns have been clearly defined as necessary. What is now needed is the official determination to introduce major administrative reforms.

CHAPTER 8

# SUMMARY AND RECOMMENDATIONS

ONE hundred and seventy respondents in six states of India were interviewed in depth to obtain their perceptions of the role of primary health center doctors. The six main respondent groups included PHC doctors, legislators, senior administrators in central and state health directorates, district medical and health officers, professors of preventive and social medicine, and clinical teachers in seven medical colleges. In addition, some supplementary questions were asked of sanitary inspectors working in primary health centers.

Some important findings of the study are summarized:

## THE PRESENT FUNCTIONING OF THE PRIMARY HEALTH CENTER

### *1. Primary Health Center Goals*

Community welfare is a broad term which has gained widespread endorsement in India since the start of the Community Development Program some fifteen years ago. The large majority of all groups used such terms in describing the underlying goals of health center activity.

The more specific categorization of objectives led to an interesting distribution of different emphases. Almost half of both health center doctors and senior administrators indicated that emphasis should be placed on preventive as well as curative work. Among district health officers there was slightly more emphasis on preventive work than on medical care while, surprisingly, only one-

fifth of the teachers of social and preventive medicine specifically mentioned preventive services.

Of considerable interest was the finding, which was consistent on many questions in the interviews, that clinical teachers and legislators really did not know enough about what went on in health centers to express opinions.

*2. Present Health Center Activities*

All categories of respondents except clinical teachers showed enough familiarity with primary health centers to respond to this question. Almost uniformly, curative services were considered the basic activity. Large minorities also referred to a number of preventive activities such as maternal and child health, sanitation, and communicable disease control. In general, senior administrators, district officers, and teachers of social and preventive medicine thought there was more work in vital statistics, health education, school health, and family planning than did the health center doctors themselves.

*3. Priorities*

The crucial question of which activities should receive highest priority led to the significant finding that PHC doctors gave a higher priority to curative than preventive work while senior administrators reversed the emphasis. Three-fourths of the legislators ranked preventive services as having highest priority, in marked contrast to what they believed the present pattern of activity to be. Also of great interest was the finding that only one-seventh of the teachers of social and preventive medicine ranked preventive services as of highest priority. This is even more significant than their similar responses on goals. In view of what is expected of them as teachers, this finding is of major concern. Unless they can stand up with conviction for their own specialty, there is little prospect of their having much impact on medical education.

*4. Size of Health Center Service Areas*

Most individuals in all groups reflected the official expectation that a primary health center is expected to serve a population of 60,000 to 80,000. In a separate question, some health center doctors estimated the size of the service area that they considered manageable within present limitations on resources and personnel as being about 20,000 persons living within a maximum radius of 5 miles. There is clear evidence that inadequate attention has been given

to working out subcenter patterns to get total community coverage of essential preventive services.

*5. Maternal and Child Health and Sanitation*

Two of the basic preventive services of health centers were investigated to get an indication of what responsible officials knew about what was really going on in the health centers. The indices used were percent coverage of prenatal care and trained help at deliveries and the percentage of time that health inspectors actually spent on environmental sanitation activities. There was considerable lack of information on both of these activities. This is particularly serious because it could probably be easily corrected by more adequate recording and reporting of activities. The wide range of estimates of prenatal coverage (from 10 percent to more than 50 percent of women in the health center area) made by those doctors who had an opinion, probably reflects the actual wide variations between health centers. Because of the multiplicity of the health inspectors' other responsibilities, it was not surprising that half or more of both doctors and health inspectors indicated that less than 20 percent of the health inspector's time was actually spent on environmental sanitation.

*6. Case Referral and Consultations*

The general agreement that there is no provision for health center doctors to obtain clinical consultations from specialists was strongly confirmed by the health center doctors themselves. Although there were regular referrals made from health centers to district hospitals there were also major difficulties caused by lack of transportation and long distances, and, to a somewhat lesser extent, the lack of special attention given to referred patients.

*7. Evaluation of Health Center Activities*

Only one-fourth of the senior administrators showed any familiarity with the few attempts which have been made to evaluate health center activities. The health center doctors themselves, along with the other groups, were not aware of any such efforts.

## THE PRIMARY HEALTH CENTER DOCTOR AT WORK

*1. Clinical Patient Load*

The health center doctor's time is almost entirely occupied with trying to meet the massive clinical load and this causes much

frustration. As the best indication of this, doctors were asked to calculate from their records the time they were able to spend with each outpatient. One-third said they had only 30–60 seconds per patient and 90 percent said less than 5 minutes. By contrast, three-fourths of the health center doctors felt that they should have more than 5 minutes for each patient.

*2. Preventive Work*

In spite of the great pressure of clinical work, health center doctors reported that they spent more time on preventive work than other groups of respondents gave them credit for. Two-thirds said preventive activities occupied more than 20 percent of their time. The reasons given for the lack of emphasis on preventive activities in health centers were ranked in the following order: (1) doctors are not interested in prevention; (2) the general public does not appreciate preventive services; (3) health center resources are inadequate.

*3. Supervisory Responsibility and Medical Assistants*

Most of the preventive services of health centers are performed by auxiliaries. Doctors are supposed to supervise and advise. The health center doctors put more stress on the importance of their supervisory role than did the other groups of respondents.

Frequent suggestions have been made that one way of reducing the clinical load for doctors would be to have some type of medical assistant. More than half of the doctors said they did not know whether such an arrangement would meet the need, but one-third were favorable and only one-seventh responded negatively to the proposition. Approximately equivalent proportions of senior administrators and teachers of social and preventive medicine indicated that they were in favor of some such arrangement, but only one-fourth of clinical teachers agreed. Of those who indicated that they favored a medical assistant, somewhat less than half then said that what they really meant was that such a person should be a fully qualified second doctor.

*4. Doctors' Relationships with Block Development Officers*

Friction between doctors and the block development officers in charge of community development activities has interfered consistently with the co-ordination of services. More than three-fourths of all respondents indicated that such friction exists with

the major reasons being: bossing by the BDOs; dual control over staff; and doctors' sensitivity about their "prestige." The recommended solutions ranged from giving the doctor administrative independence to putting both medical and development officers under the control of the block *samiti*.

## RECRUITMENT OF PRIMARY HEALTH CENTER DOCTORS

*1. Professional and Personal Qualities Needed in Rural Doctors*

Primary emphasis was placed on the need for health center doctors to be able to diagnose and treat with limited facilities. Less importance was attached to knowledge of preventive methods and health education.

The personal attributes of doctors were a topic of great interest to all respondents. Most stress was placed on service spirit and a specific motivation to serve rural people. Also considered important were leadership qualities and administrative skills.

*2. Suggestions for Improving Rural Orientation*

All respondents placed the major responsibility for improving the rural orientation of doctors on the medical colleges. All groups except the health center doctors spoke first of improved integrated teaching, by which they meant the involvement of all medical college departments in rural teaching. The doctors, however, were understandably more interested in refresher courses in medical colleges and in-service training.

*3. Obstacles and Incentives to Recruitment*

Without any doubt, the most prominent obstacles to rural recruitment are a series of personal problems classified as "living conditions." Next in importance come poor financial remuneration, social isolation, poor health center facilities and service conditions, inadequate opportunity to maintain professional competence, too heavy a clinical load, fear of political interference, poor orientation in medical college, and family objections.

Specific recommendations to compensate for these obstacles included first of all better pay and improved living conditions, followed by a long list of suggestions to make health center work professionally more attractive.

As a last resort, if the above incentives fail to provide the necessary number of doctors, over half of all respondents indicated that a period of compulsory service in villages may become necessary. Most willing to accept this alternative were the legislators, with four-fifths in favor.

## SPECIFIC SUGGESTIONS ARISING FROM THIS STUDY

*1. Reorganization within the Primary Health Center*

a. Administrative routines should be established within the health centers which require the doctors to function as actual leaders of the health team. The doctors should have direct responsibility for supervising the auxiliaries rather than being by-passed by district and state officials, as is now the case.

b. In order to be able to carry out his responsibilities for community health, the health center doctor must be relieved of some of the present clinical load. Along with other appropriate readjustments in functional relationships, there should be experimentation with ways of using clinical auxiliaries.

c. The present conflicts between health and community development workers require systematic elimination of the present sources of friction. Regular channels of communication should be established perhaps through block *samitis*, by more precise allocation of administrative responsibilities, or through reorientation in joint seminars.

*2. Reorganization of the Regionalization Pattern*

a. Decentralization within a regionalized pattern requires a systematic and unified flow of authority, responsibility and professional support from the directorate through regional directors to the district officers.

b. The greatest present gap in the integration of curative and preventive services is at the district level. This gap could be narrowed if the stated primary importance of preventive services were established through a required preventive orientation for responsible district officers.

c. The state Assistant Directors of Health for specific technical functions should be placed in a staff or policy-making role rather than being administratively responsible for detailed and fractionated programs in the health centers.

d. Present inadequate arrangements for consultation and referral could be drastically improved by including district and medical college specialists in regional routines.

e. The visits of district and state officers to primary health centers should be supportive and educational rather than purely for inspection.

f. Certain health centers should be selected for special demonstration, research, and evaluation purposes. Technical specialists in health directorates could then use these centers for working out new ways of meeting particular health needs within the framework of comprehensive health services.

g. Immediate attention should be given to the development of a continuing system of evaluation. A set of standards should be established and there should be a systematic flow of relevant data that can be rapidly assessed for prompt feedback to the health centers.

h. Because the legislators have an important potential role in supporting health center activities, health officials should make special efforts to get their interest and participation in the work of health centers.

*3. Recruiting and Reorienting Doctors for Rural Health Service*

a. Idealistic hopes of finding rural doctors who are sufficiently dedicated to serve under the present inadequate conditions are impractical. The few such individuals who appear spontaneously will never meet the mass need. Immediate attention should be directed, therefore, to making the health centers decent places for doctors to work and to providing reasonable inducements, especially with regard to living conditions and pay. Rural service should be required as a precondition for promotion or graduate study. Ways should be found to solve the long list of practical obstacles to rural service which have come out of this survey.

b. A period of compulsory service may be a necessary measure, but such a course would require even more attention to developing an appropriate orientation in doctors to insure that effective work rather than resentful inaction would result.

c. The crucial role of medical colleges in developing the proper orientation in rural doctors has been reiterated throughout this study. This requires major alterations in the total teaching program of medical colleges, with particular attention to integration of curative and preventive teaching in rural health centers. The

ir volvement of clinical departments in rural health center service and research will improve the prestige and image of rural work.

*4. Further Research and Evaluation*

a. The new approaches of operational research need to be applied to health centers, with particular stress on functional analysis of the roles of various categories of healthworkers and community development personnel.

b. Professional organizations, such as the Indian Association for the Advancement of Medical Education, should organize seminars and conferences to examine teaching methods. They should also set up educational experiments which are specifically designed to introduce basic innovations and improvements in teaching content and methods.

c. Directorates of health services should devise evaluation and planning units with multidisciplinary representation to work out ways of improving routine operations of primary health centers. In addition, they should conduct research in the methodology of planning and evaluation.

d. The most crucial immediate need is to work out better ways of using the health centers for the local implementation of the national family planning program.

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# INDEX

THE HEALTH CENTER DOCTOR IN INDIA

By Harbans S. Takulia, Carl E. Taylor,
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Health services in developing countries increasingly depend on networks of rural and urban health centers. Organized around a base hospital, such health centers provide comprehensive care, including both curative and public health services. They are the principal mechanism for bringing medical and family planning services to local communities.

This unique study of the attitudes and insights of the men and women playing leading roles in the rural health center system in India is based on interviews with 170 doctors, administrators, medical teachers, and legislators. The authors—who include a social scientist, two physicians, and a statistician—discovered that, although the health center concept is basically sound, the operation of health centers in India has been greatly hindered by the lack of clear definition of what the doctor is supposed to do. In theory, he is supposed to be a community doctor providing comprehensive services for a population of from 70,000–100,000 persons, both sick and well. He is supposed to work through a team of medical auxiliaries who handle the great mass of routine work. In practice, however, the typical health center doctor is swamped by vast numbers of patients, many with inconsequential illnesses. Ninety per cent of the doctors interviewed were able to devote less than five minutes to each patient, and one-third spent only thirty to sixty seconds with each patient.

The root of the problem, the authors conclude, lies in the mistaken view that the health center doctor takes of his own role. Often the product of a Western medical tradition which stresses the doctor's close contact with individual patients, he is inclined to undertake too much direct patient-care himself, rather than delegating routine functions to paramedical subordinates. His proper role, the authors suggest, should be that of a team leader with significant time for the high priority areas of public health, preventive medicine, and health education.

After analyzing the interview materials and placing the Indian health center movement in historical perspective, the authors discuss recommendations for improvement as agreed on by Indian health authorities. Their methodology and findings will be of value to all countries where health services are being planned as an integral part of general economic and social development.

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