Health Resources, Investment and Expenditure

A Study of Health Providers in a District in India

Edited by

Shirish N. Kavadi

Foundation for Research in Community Health

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Pune / Mumbai

First published in 1999 by
The Foundation for Research in Community Health

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Mumbai 400 018

3 & 4 Trimiti B Apts.,
85, Anand Park,
Aundh,
Pune 411 007

Graphics, Typesetting and Layout :

Rajesh Ingle at the FRCH Computer Unit, Pune

Printed at :

Shailesh Printers,
Pune - 411 030

Summary

Health Resources, Investment and Expenditure

A Study of Health Providers in an Indian District

Available information on health expenditure in India is inadequate and unreliable, making sound health policy formulation and planning difficult. Expenditure incurred and investment made by health providers for the running of a health service is an important component of health expenditure. The present study seeks to enrich the information base on health expenditure, especially of the non-government or private sector with the focus on a district in India. The study was undertaken largely as an exploratory exercise in understanding and critically analysing the investment and expenditure patterns in health care delivery.

The study was carried out in the district of Ahmednagar in the state of Maharashtra. The district was selected on the basis of the CMIE indices for levels of socio- economic development for the year 1980.

1. Objectives of the Study

The study had two objectives : (1) To conduct a comprehensive survey of the nature and volume of health resources available and accessible to the population of a district.

(2) To analyse the nature and pattern of health investment and expenditure incurred by health providers.

2.1 The First Phase : Mapping Health Resources

Information on health resources in the district was compiled by scrutiny of official sources such as registers of Medical Councils, the Civil Surgeon's Office, the District Health Office, Panchayat Samiti Offices (taluka level), town municipalities, Food and Drug Administration. Private sources such as associations of doctors such as the Indian Medical Association, National Integrated Medicine Association, Medical Sales representatives and their association and medical stores also provided the necessary information.

The accuracy and reliability of the collected data was verified in two ways : A sub-sample survey was planned in villages randomly selected. Also through Questionnaire schedules prepared for community members, Medical Officers and paramedics in government establishments and for private practitioners, the authenticity of the information gathered was ascertained.

A postal survey was also carried out through a questionnaire mailed to all the listed health providers. In the questionnaire in addition to information regarding the practice and delivery of health care in their area, the respondents were also asked to identify other practitioners in their locality.

2.2 Findings

The final list identified 3059 doctors (qualified and unqualified) located in urban and rural areas, representing all systems of medicine. Though doctors from both the public and private sector were included, nearly 92 per cent were from the latter sector. Overall the health institutions numbered 860 which included around 274 hospitals - with bed strength ranging from 3 to 200 beds, while 565 medical stores were found to be functioning in the district.

The report looks into questions of availability of and accessibility to these health providers and the nature of the services provided. The analysis highlights the volume, distribution over sector (public and private), geographical location and services available with the health providers for both individual practitioners and medical establishments. The geographical distribution of medical practitioners, and hospitals in particular, only confirmed the generally known bias in favour of urban and developed areas. The report also presents a profile of the practitioners, qualifications, system of medicine and practice.

Allopathic doctors were outnumbered by non-allopathic health providers, both qualified and non-qualified. Those practicing Indian (Ayurvedic and Unani) systems of healing constituted 41.7% of the total, while homeopaths made up 16% RMPs were 3.5% and non-qualified quacks and folk healers formed 0.2% of the names collected and dentists accounted for 1.5%, for the entire district. The low proportion of non-qualified and Registered Medical Practitioners' (RMP) was due to the fact that they were not likely to appear

in published lists.

The geographical distribution pattern for doctors reflected the same urban bias so evident in all developing countries. The overall distribution of doctors appeared even, with 51% doctors based in urban areas and the remaining 49% spread out to the rural areas. But the unequal distribution of doctors between the urban and rural was noticeable in the proportion of doctors to population. The doctors to population ratio in urban areas worked out to 3 per 1000 against the ratio of 0.5 doctors per 1000 population in the rural areas. The propensity of modern medical practitioners to be based in urban areas was determined by the availability of 'market'. This'market' is created by the level of economic development. Thus the five economically developed talukas of Nagar, Kopargaon, Sangamner, Rahuri and Shrirampur, had a concentration of doctors accounting for 71% of the total. This unequal distribution was further highlighted in the proportion of doctors to population, wherein the five above mentioned talukas had a ratio of 1.26 doctors per thousand population. As against this the remaining 8 economically backward talukas had a proportion of 0.56 doctors per thousand population.

Hospitals (Nursing and Maternity Homes, TB and leprosy hospitals included) were distributed on a pattern similar to that of doctors. The five developed talukas accounted for 80% of the total hospitals, and urban centres 77% of the total.

3.1 The Second Phase : Investment and Expenditure Study

For the second phase of the study a second set of mailed questionnaires to doctors and health establishments was prepared. The questionnaire addressed such issues as fees from patients and expenditure incurred on maintaining their establishment. This questionnaire was only sent to the respondents of the first round of the postal survey. the response rate was around 20 per cent. All this information was then entered into the computer.

Another techniques used to gather information on medical practice was the holding of 3 workshops for a few selected practitioners from among the respondents to the mail survey. The focus of the workshop was on the setting up of medical practice - the economics of setting up practice, problems and constraints encountered in setting up and continuing practice etc.

3.2 Sample Selection and Techniques

For the second phase of the study on expenditure and investment 137 units from 6 talukas were randomly selected mainly from respondents to the mailed questionnaires. It was decided to have 80 per cent of the sample from the respondents to the mailed questionnaire and 20 per cent from the non-respondents.

The six talukas were randomly selected, however, keeping in mind the regional differentials in socio-economic development. Thus, from the developed talukas Nagar and Kopargaon were selected, while Akole, Pathardi, Shrigonda and Shevgaon fell in the underdeveloped category. Almost all of the various categories of selected health providers were located in these talukas, distributed between the rural and urban areas. Nagar and Kopargaon towns were in the underdeveloped talukas of Pathardi and Shrigonda. Thus, there was equal urban representation between the developed and underdeveloped talukas.

The study covered various categories of health providers some of which were not located in the selected talukas. These categories had to be identified and selected from other talukas. Thus, besides units in the above mentioned six talukas, units in Sangamner and Shrirampur talukas were also studied. These covered private practitioners representing all systems of medicine (qualified and unqualified), general practitioners and specialists, and public and private health facilities with varying bed strength, located in the urban and rural areas of these talukas. Health personnel categories were based on qualification, system of medicine, specialization and geographical location - both regional and urban/rural.

Health establishments were selected from the three subsectors, public, private and NGO, also by social geography, bed size and type of services offered. The questionnaire focussed on historical information about practice or facility, information on investment and finance, experience related to raising finance, revenue and current health care provision and expenditure profile.

3.3 Findings

It is apparent from the present study that the private health sector in Ahmednagar district began expanding during the 1980s. This trend conformed to the national trend. During this period there was an increase in the number of private medical colleges in

the State contributing to an increase in the number of doctors passing out. The non-availability of sufficient public sector jobs and the reluctance of doctors to serve in rural public health services contributed to the further growth of the private sector. Government policies were no less important factors in encouraging the private sector. Besides supporting the establishment of private medical colleges, the government created opportunities for doctors to avail of loans for setting up medical practice. For example, the Maharashtra State Finance Corporation and Nationalised banks extended loans to doctors to set up dispensaries and nursing homes. This availability of capital gave a boost to the private sector.

The study shows investment was made mainly for the creation of infrastructure. Money was spent on buildings, furniture and medical equipment. This suggests expansion in specialised medical care and emphasis on technology based medical care.

The public sector barely expanded during this period. Very little investment appears to have gone into creating new public health facilities. Most of the units covered by this study came up more than a decade ago. Very rarely did additional investment go into expanding their services, despite the burden of providing medical care on the public health services, a fact that is well known. This suggests both the non-availability of funds in the public sector and also the low priority the government attached to health services.

The study showed that the burden of expenditure incurred by health providers was on recurring heads of expenditure. Thus, the salaries, drugs and maintenance of equipment consumed the bulk of the funds spent by health providers in delivering health care.

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Acknowledgements

Our most sincere thanks to : **The Ford Foundation for financial support;**

In Ahmednagar, Pune and Mumbai

Shri P. P. Mahana, former Health Secretary, Government of Maharashtra; District Collector, Chief Executive Officer (Zilla Parishad), District Health Officer and other staff, Civil Surgeon and staff of Civil Hospital, Ahmednagar; Staff of various PHCs; Chief Executive Officers and staff as well as Medical Officers of all Municipalities and Municipal Councils; Block Development Officers and staff of the Taluka Panchayats; Staff of the Food and Drug Administration; National Informatics Centre; Maharashtra Medical Council, Dental Council; Maharashtra Nursing Council; Maharashtra Board of Ayurved and Unani Systems of Medicine; Board of Homeopathic and Biochemic Systems of Medicine; Directorate of Health Services; Directorate of Census Operations; Maharashtra State Finance Corporation; Directorate of Economics and Statistics; Library staff of Gokhale Institute of Politics and Economics, Pune.

Indian Medical Association; National Integrated Medical Association, Association of the Medical Sales Representatives; numerous doctors; owners of medical stores; distributors of pharmaceuticals, and all our respondents.

At FRCH

Dr. N. H. Antia for his constant support and encouragement; Aruna Deshpande for her statistical help; Devendra Dalal and Pratibha Mane for helping out in the field work; Prof. R. K. Mutatkar, Dr. Sujata Rao and Anuradha Gupte for their suggestions and comments; Shubha Gadkari for editing; Maria Pinto, Gautam Jadhav, Joyeeta Sinha, Anita Nair, Sushma Joshi, Nitin Tilekar, Rajam John, Rajiv Kulkarni and most important Rajesh Ingle for patient typing and pagemaking; Avinash S. Pandit for his suggestions and comments and undertaking the publication of the study.

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Foreword

There has been a vast expansion of the health services in both the public as well as the private sectors since Independence in terms of infrastructure, manpower, drugs, equipments and supplies in both urban and rural areas.

Meaningful planning for the future of our country's health can only be undertaken provided we know the present status of the above as well as its distribution and utilisation.

Unfortunately there is a dearth of comprehensive information for this purpose. The information presented in this book is in the form of a preliminary study undertaken by FRCH to evolve a methodology for similar studies, which should be undertaken on a larger and possibly countrywide scale. The Ahmednagar district represents an average district with urban as well as rural population. It not only examines the nature of pattern of investment and expenditure incurred by health providers in this district but also provides a census of the various providers in both the public and private sectors.

The difficulties in undertaking such study have also been highlighted and hopefully will serve as a guide to others who may undertake such a task. This includes the lacunae and inadequacies of the official data and the mode of its collection.

It is hoped that this report will stimulate both the government as well as non-governmental organisations to undertake similar studies so essential to the undertaking and more appropriate utilisation of funds as well as available manpower and facilities.

Dr. N. H. Antia
Director

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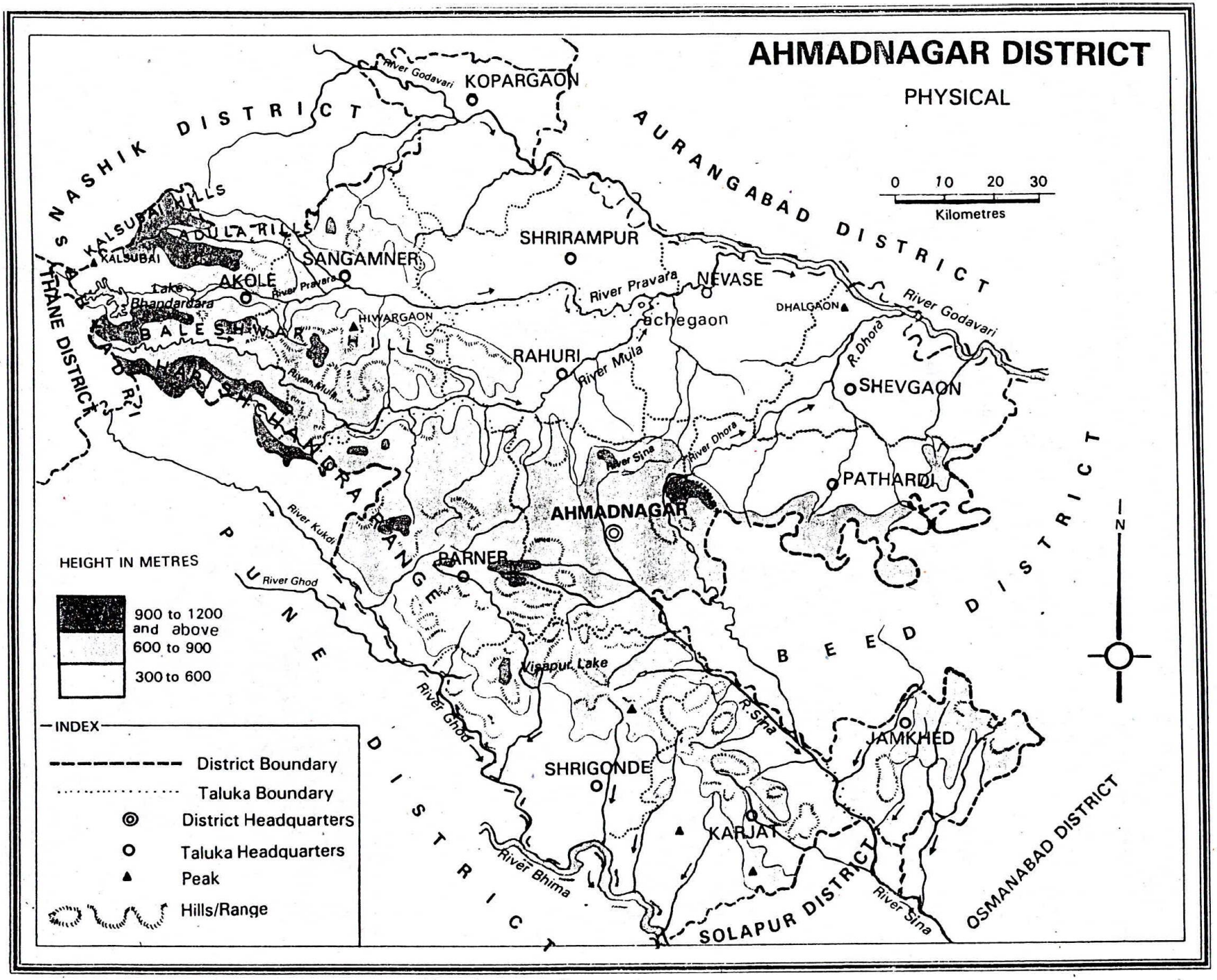
AHMADNAGAR DISTRICT
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Peak
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N

1

Introduction : Objectives and Study Plan

In most developing countries there exists a wide discrepancy between the actual health situation and the desired health situation. Comprehensive and effective health care services which are affordable, adequately equipped and easily available in adequate number to those who require it can partly help to bridge the gap. The lack of universal health care, the poor quality of health care, the disparities in the health services available to different groups of people in these countries reflect not just the wider socio-economic reality but poor planning, ambiguous policies and inefficient implemention. The remedy lies in purposeful and meaningful planning which aims at equitable distribution of available resources for optimal use. Well defined policies and full implementation of government plans and policies would be a major step towards the creation of a comprehensive health system.

A major weakness of health planning in developing countries is the absence of a holistic view of health care development for want of reliable and trustworthy data on health services, their size, growth and distribution. Such a database is essential to planning. Most governments have shown a singular lack of awareness and inefficiency in the generation and creation of such databases. It is an accepted fact that government data in these countries is not dependable. In India, for instance, the governments' data on health service institutions, other than their own, are poor and at least a decade old. The present study attempts to show how a health resources database can be created at the district level.

The liberalization of the Indian economy has further opened up the market for private sector health care. An important fallout of economic reforms has been that areas such as health which had so far been accorded low priority are attracting the attention of policy makers, scholars and activists. There is recognition that the available information is poor and that there is need for a reliable database for proper planning.

Under the IMF/World Bank sponsored Structural Adjustment Programme (SAP) the government begun to curtail social spending which has affected the health sector. There is a definite decline in government allocations to health and especially in the transfers from the Central to State Governments. As the funds for health have begun to decline, the issue of health expenditure has become important. Available official data is inadequate and unreliable once again highlighting the need for creating expenditure database and understanding health spending.

Since the mid 1980s studies have been carried out of government expenditure on health care delivery or on specific national disease control programmes. A recognition of the inadequacy of information on health spending initiated studies of private spending such as that incurred by households. Expenditure incurred and investment made by health providers for the running of a health service is an important component of health expenditure. The present study seeks to enrich the information base on health expenditure, especially of the non-government or private sector. The study is largely an exploratory exercise in understanding and analysing the nature of investment and expenditure health care providers.

Objective of the Study

The purpose of this study was to conduct a comprehensive survey of the nature and volume of health resources available and accessible to the population of a district. Analysing the volume and distribution of health facilities and providers, it was believed, would help to facilitate an estimate of the total investment in the health sector at the district level.

The original objective of estimating total investment for the district was dropped, primarily because of the constraints experienced in data collection and the lack of certain data or incomplete data. For instance, investment figures for public units were not available, nor were disaggregated expenditures recorded by agencies concerned. Municipal Councils did give total health expenditure figures but not the expenditure per municipal health unit. Hence, the study restricts itself primarily to looking at the nature and pattern of health investment and expenditure. The main features of this investment are analysed.

Selection of the District

The district of Ahmednagar in the state of Maharashtra was selected for the study as representative of a district in India with average socio-economic development. The selection was based on the CMIE indices for levels of economic developments of 1980. (See Appendix A.1 - District Profile.) The development index for Ahmednagar was 132 and for Maharashtra, 164, the All India index being constant 100. Although the development index for Ahmednagar was higher than the all India index, the district is representative of the disparate economy and unequal levels of underdevelopment in the country. This is so because of the thirteen talukas only five are developed while the other talukas are underdeveloped. The former talukas have managed to progress due to irrigational facilities, sugar cane cultivation, the setting up of sugar co-operatives and location of industries. The underdeveloped talukas affected by lack of water and drought have been unable to make much economic progress. It is this disparity within the district which does not present a correct picture of the level of socio-economic development. The high development index is more due to the pockets of high level development in the district. This presents a misleading picture of the district and hence was considered average for socio-economic development.

The First Phase : Mapping Health Resources

Information on health resources was compiled by scrutiny of official sources and private sources. To verify the accuracy and reliability of the collected data. A sub-sample survey was carried out in villages randomly selected.

Lastly a postal survey was carried out through a questionnaire mailed to all the listed health providers requesting the respondents to identify other practitioners in their locality. This process of preparing a census of health providers in the districts is discussed in detail in Chapter 2.

The first part of this report looks into questions of availability of and accessibility to these health providers and the nature of the services provided. The analysis highlights the volume, distribution over sector (public and private), geographical location and services available with the health providers for both individual practitioners and medical establishments. The geographical distribution of medical practitioners, and hospitals in particular, only confirmed the generally known bias in favour of urban and developed areas. The report also presents a profile of the practitioners, qualifications, system of medicine and practice.

The Second Phase : Investment and Expenditure Study

For the second phase of the study to begin with a second set of mailed questionnaire addressed to doctors and health establishments was prepared. The questionnaire asked for information related to fees from patients and expenditure incurred on maintaining their establishment. This questionnaire was only sent to the respondents of the first round of the postal survey. The response rate was around 20 per cent. All this information was then processed by the computer.

Another technique used to gather information on medical practice was the holding of three workshops for a few selected practitioners from among the respondents to the mail survey. The focus of the workshop was on the setting up of medical practice - the economics of setting up practice, problems and constraints encountered in setting up and continuing practice etc.

Sample Selection and Techniques

For the actual study on expenditure and investment 137 units (individual practitioners and health institutions) from six talukas were randomly selected mainly from our respondents to the mailed questionnaires. It was decided to have 80 per cent of the sample from the respondents to the mailed questionnaire and 20 per cent from the non-respondents.

The six talukas were randomly selected, keeping in mind the regional differentials in socio-economic development. Thus, from the developed talukas Nagar and Kopargaon were selected, while Akole, Pathardi, Shrigonda and Shevgaon fell in the underdeveloped category. Almost all of the various categories of selected health providers were located in these talukas, distributed between the rural and urban areas. Nagar and Kopargaon towns are in the developed talukas of Nagar and Kopargaon talukas while Pathardi and Shrigonda are in the underdeveloped talukas of Pathardi and Shrigonda. Thus, there was an equal urban representation between the developed and underdeveloped talukas certain categories of health providers were not located in the selected talukas and hence had to be identified and selected from other

talukas. Thus, besides units in the above mentioned six talukas, units in Sangamner and Shrirampur talukas were also studied. The selected units covered private practitioners representing all systems of medicine (qualified and unqualifed), general practitioners and specialists, and public and private health facilities with varying bed strength, located in the urban and rural areas of these talukas. Health personnel categories were based on their qualifications, system of medicine, specialization and geographical location - both regional and urban/rural. One hundred and sixteen were selected. However, given the poor quality of information or owing to incomplete data twenty cases were dropped them the actual analysis. Hence only 96 private practitioners were studied.

Twenty seven health establishments were selected from the three subsectors, public or Government, private and voluntary, also by social geography, bed size and type of services offered. The questionnaire focussed on historical information about practice or facility, information on investment and finance, experience related to raising finance, revenue and current health care provision and expenditure profile. Of the twenty seven selected health establishments seven were from the public / Government sub sector, seventeen from the private subsector and three from the voluntary sub sector.

The chapters that follow are organised as below. Chapter 2 describes the process, the methods and techniques used to create a census of health providers in Ahmednagar district. Chapter 3 presents a profile of individual medical practitioners in the district, their geographical distribution, system of medicine, graduation and specialisation etc. Chapter 4 describes health institutions in the district, their geographical distribution, types of units, types of facilities and services offered etc. Chapter 5 examines the investment and expenditure patterns of individual medical practitioner. Chapter 6 analyses the investment and expenditure incurred by health institutions. The final chapter briefly summarise the main findings and makes relevant comments and suggestions.

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Health Resources, Investment and Expenditure
(A study of health providers in Ahmednagar District)

UNITS ACTUALLY STUDIED

1. Private Practitioners

Area & System / Talukas	Urban						Rural					
	Allo	Ayur	Hom	Sp.	Others	Total	Allo	Ayur	Hom	Sp.	Others	Total
Nagar	2	6	1	20	0	29	2	2	2	---	---	06
Akole	---	---	---	---	---	---	3	1	4	1	2	11
Kopargaon	1	1	---	5	---	07	4	2	2	---	---	08
Pathardi	1	1	---	---	1	03	1	3	3	---	3	10
Shevgaon	---	---	---	---	---	---	1	4	4	2	1	12
Shrigonda	---	1	---	---	---	01	2	3	2	---	1	08
Shrirampur	---	---	---	1	---	01	---	---	---	---	---	---
Total						41						55

Grand Total = 96

Notes :

Allo = Allopathy (General Practitioners)

Ayur = Ayurveda

Hom = Homeopathy

Sp = Specialists (Allopathy)

Health Establishments

Area / Talukas	Urban		Rural			
	Public	Pvt.	Voluntary	Public	Pvt.	Voluntary
Nagar	Municipal Mat. Home - *1* Municipal Dispensary - *1*	Childrens Hospital-*1* Nursing Homes - *2*	Hospital - *1*		Nursing Home -*1*	
Akole				Poorly Utilised PHC - *1*	Maternity Home-*1* Nursing Home - *1*	
Kopargaon	Municipal Hospital - *1*	Ayurved Hospital-*1* Allopathy Hospital-*3*	Hospital - *1*	Rural - *1* Well Utilised PHC - *2*	Hospitals - *2*	
Pathardi				Rural Hospital/ Mother PHC - *1*	Maternity Home - *1*	
Shevgaon					Hospital - *1*	
Shrigonda		Nursing Home - *1*				
Shrirampur		Poly Clinic - *1* Maternity Hospital - *1*	Hospital - *1*			
Sangamner	Cottage Hospital -*1*					

2

Mapping Health Resources

This chapter describes the various methods used to prepare the inventory of health resources in the district. The techniques used to estimate the volume of health providers are also described.

Objective of the Study

The aim of the study was a comprehensive survey of health resources/providers in Ahmednagar district to determine the volume of health care facilities and practitioners.

Methodology, Techniques and Sampling

Health resources/providers comprise of all health personnel and health establishments involved in providing health and medical services. Therefore to begin with, definite categories of health providers were identified, with a view to making them as comprehensive as possible. The health providers, as identified, covered

* **Health care facilities** - dispensaries, hospitals, clinics, polyclinics, special hospitals, PHCs, sub-centers, medical stores, indigenous/folk and other non-allopathic facilities.

* **Practitioners** - allopathic doctors, indigenous and other non-allopathic doctors, nurses and all other paramedics from the private and public sectors in both urban and rural areas.

The exercise involved the listing of all health care providers in the district by tapping all known official and non-official sources. Three techniques were used for listing:

1) Collecting information from official and non-official sources: Information gathered from these sources, for both health personnel and health establishments, was cross-checked, compiled and then classified. Classification was done mainly on the basis of social geography, system of medicine, qualification and sector.

2) Sample survey: To check the validity of these data and specifically the sources, a sample check was conducted.

3) Mailed questionnaires : The last exercise involved a postal survey. Questionnaires were mailed to all the listed practitioners and hospitals to generate information on providers within their locality.

The second and third techniques were used owing to the inadequacy of data collected from official and non-official sources.

Official Sources of Information

Official Registration with their respective Councils is a statutory requirement for all qualified medical graduates who wish to practice. The Councils are statutory bodies and it is obligatory for them to maintain updated records of qualified practicing doctors. Hence, the Councils were the major source of information regarding medical practitioners in the district. The five Councils from whom information was obtained were :

* Maharashtra Medical Council (Allopathic)
* Maharashtra Board of Ayurved and Unani Systems of Medicine
* Board of Homeopathic and Biochemic Systems of Medicine
* Maharashtra State Dental Council
* Maharashtra Nursing Council

From the Council directories/registers, 1887 doctors were listed.

In addition, information on private practitioners and doctors working in public health services was recorded through the District Health Office, Civil Hospital, Medical Officers of Municipal Councils and Cantonment Hospital and the Extension Officers of Health at Panchayat Samitis. Lastly, information on the total number of health professionals was also collected from the National Informatics Centre, Pune.

The major sources of information on health establishments were: the *"Directory of Hospitals in India (1988)"* published by the Health Ministry, Government of India, and the lists provided by the District Health Officer, Municipal Councils and Panchayat Samitis.

The office of Food and Drug Administration provided a list of medical stores and licensed drug sellers in the district.

Non-Official/Private Sources

Information was also gathered from private sources. The sources included the *"Medical Directory Ahmednagar District"*, published by the Maharashtra Sales and Medical Representatives Association, Ahmednagar Unit in 1986, for private circulation. Directories published by some pathological laboratory owners, pharmacists and medical associations in talukas like Shrirampur were also used. In addition to this, membership lists of the local branches of Indian Medical Association (IMA), National Integrated Medical Associations (NIMA) and other taluka-level associations were sought. Also, along with distributors of pharmaceuticals and drugs, the associations of medical stores and pharmacies at both the district and taluka levels were tapped. The former mainly provided information on medical stores. The private and public sources (non-council) elicited the names of 1773 doctors. The overall impression was that the non-official sources and non-council lists were more reliable (though not necessarily exhaustive) since these lists contained names of doctors who were actually practicing in the district.

Limitations of the Sources

Since none of the Councils had updated the published directories of the registered medical graduates till 1990, their unpublished registers had to be referred to. From the directories and registers, doctors having their professional addresses (if available) or residential addresses or both in Ahmednagar district, were listed.

The Allopathic Council does not specify whether the addresses of doctors are residential or professional. The Ayurvedic Council registers only residential addresses. The Homeopathic and Dental Councils give both professional and residential addresses but not all doctors have registered with professional addresses even for these Councils. As a result, in the case of a majority of doctors from these four Councils, only the residential addresses are known. This makes it difficult to identify or trace doctors who have either emigrated out of or immigrated into Ahmednagar district and not intimated their change in residence; or, doctors who practice in Ahmednagar but reside in neighbouring districts. Visits to the offices of the Civil Surgeon, DHO, Panchayat Samitis and Municipal Councils also revealed that the obligatory registration of practice, especially for the nursing homes under the Bombay Nursing Home Act, is not complied with by medical practitioners, particularly so in rural areas. The Medical Officer of the Ahmednagar Municipal Council confirmed that the legally required registration was not being complied with and that only 25 per cent of privately run health units had bothered to register. Only the Shop and Establishment Departments of the Municipal Councils of Shrirampur, Sangamner and Kopargaon, however, had lists of registered doctors and hospitals in their respective areas. The information from these lists was however, neither complete nor adequate and hence not fully reliable.

All other official sources gave lists that were either informally prepared for us or were prepared for some other purpose with little concern for accuracy. The exception was the Ahmednagar Municipal Council. The Health Department of this Council had an updated list of general practitioners, consultants and hospital owners in Ahmednagar city. The Chief Medical Officer has undertaken to prepare such a list almost every year. The *"Directory of Hospitals in India"* a government publication) was also found to be most inadequate especially regarding units with a small bed strength. A possible explanation for this could be that since most nursing homes do not register with Local Boards as required under the Bombay Nursing Home Act, they remain officially non-existent. The directory depends entirely on official sources. Hence, the listing of private medical establishments encountered the same problem as in the listing of medical personnel. Information on the number of beds and facilities available, types of establishments (general/special hospitals, nursing homes, dispensaries, clinics) and ownership was also not available or incomplete for most hospitals in these published sources. Data gathered from the sources other than the Council records was not always accurate as far as qualifications and names were concerned.

Organization and Processing of Data

Each list was entered into the computer and a database of the practitioners was constructed. Whatever information was available about doctors - address, sex, degree, registration number, year of qualification, university etc. - under each list, was included. Subsequently, all the lists were tallied and thoroughly checked to remove errors and repetitions. A similar exercise was carried out for hospitals and nursing homes. A list of pharmacy shops was also compiled.

An indication of the inadequacy and unreliability

of the Council lists was seen from the fact that only 604 of the 1887 doctors who had registered with the Councils were identified amongst the 1773 practitioners listed from other sources. It was also found that names of about 1170 of the 1773 practitioners, having Ahmednagar addresses, could not be located in the Council registers. Cross checking was an arduous and time consuming task. After going through the whole process, a single master list of medical practitioners from Ahmednagar district was compiled. All duplications were deleted from the list, giving a final total of 3059. Given the limitations of the exercise carried out, we decided to undertake a sample survey with a view to determine both, the reliability of our sources and validity of available data. The sample survey had also, as one of its objectives, the identification of non-qualified and non-conventional medical practitioners who could not be listed from the earlier mentioned sources.

The Sample Survey

The second technique involved a sample check in over 65 villages and 2 towns in 4 talukas.

Sampling

Sampling was based on rural-urban and regional (developed and under-developed) differentials in the distribution of health resources and on the doctor-population ratio (high, average and low). Accordingly, the talukas of Nagar, Shrirampur, Parner and Akola were selected. The last was selected specifically for the presence of a sizeable tribal population.

Rural Sampling

Villages from the selected talukas were classified as those having high, average and low doctor-population ratios and those villages having no doctors. Sixteen villages were randomly selected in this fashion. Four villages within a 5 km. radius of every selected village were included, to form village clusters, for a doctor's area of operation extends to the adjacent villages as well. Thus village clusters rather than isolated villages became the basic units for the survey.

In the first round of the survey in Parner taluka all villages in a cluster were visited. Subsequently, in the remaining sample talukas the strategy was changed to cover only the central or PHC village within each cluster. This was so since it was felt that the medical information about the whole cluster could be gathered from the central or the PHC village itself. In cases where the centre had shifted to the PHC village, the village clusters also changed slightly. After the Parner experience, only three village clusters in each of the remaining three talukas were surveyed. Thus instead of 16, our sample consisted of only 13 village clusters with 5 villages each, making a total of 65 out of altogether 1503 villages in the whole district.

Urban Sampling

The two towns, Nagar and Shrirampur were automatically selected, being the only urban centers among the targeted talukas. These towns also fell in the categories of high and low concentration of doctors respectavely in the urban areas of the district. Various difficulties were encountered in the urban survey and a different approach was adopted. Physically cross-checking 836 and 184 doctors in Nagar and Shrirampur respectively was not possible unless a ward-to -ward survey was done. Instead, we decided to approach medical stores. Prominent areas in Nagar and Shrirampur were marked. A centrally located medical store in each locality was identified. Ten medical stores in Nagar and four in Shrirampur were accordingly selected. Names of doctors in the respective locality were listed with the help of employees/owners of the medical stores. (See Table 2.2.)

Questionnaires

The main objective of the questionnaire was to seek information on medical practitioners in the locality with a view to counter-checking our list. However, before enquiring about the health providers within their locality, we planned general interviews with doctors, paramedics, folk healers and with the lay community in order to establish our credentials and develop a good rapport with them. The questionnaire was pre-tested through a pilot survey in Purandar taluka of Pune district. The interview schedules began with background information regarding the villages, families, occupations, amenities available in their areas, disease patterns, problems in giving and receiving medical care etc. Only towards the end did we enquire about the health personnel in that area.

Validity of Information Sources

The fact that only 72 out of the 127 listed doctors actually practised in the areas that they were expected to be practicing in, exposed the inadequacy of our sources of information, in particular the Council

directories. (See Table 2.3.) Of the remaining 55 doctors, some had shifted to other places, some had retired or expired while others could not be traced at all. In all, 42 new doctors practicing in the sample areas were added to our list. Out of these 42 additional doctors, about 11 doctors came from the same district and had already been included in our inventory, but with different addresses. We could not determine whether those who had shifted or were untraceable were practicing elsewhere in the same district.

The actual number of doctors practising in the sample areas was thus calculated at 114. (See Table 2.1.) Out of the 114 practising doctors, only 33 had registered with their respective Medical Councils with their current addresses. The percentage of doctors who had shifted from their original residence (26.4%) and of those who were untraceable (12.8%) was very high. Among the Medical Councils, the Board of Homeopathy and Biochemic Systems of Medicine provided a comparatively more complete and valid list of doctors. It was information acquired from informal sources that proved to be more accurate than that gathered from various Councils and Boards.

Table 2.1
Taluka -wise break up of exisiting doctors in comparison with the original list.

Sample Taluka	No of Doctors	
	Original List	Verified List
Nagar	11	11
Akola	20	22
Parner	30	28
Shrirampur	66	53
Total	127	114

Table 2.2
No. of urban doctors verified through Sample Survey

Town	No.of Doctors originally listed	No.of Doctors Med.store list	No.of Doctors Cross checked + Additions
A'nagar	836	140	122+ 18
Shri-rampur	184	82	53+ 29

Taluka-wise assessment of the sample list

For Parner taluka, which had very few doctors, our estimation was most accurate, whereas for Shrirampur, with more doctors our estimation was least accurate. In both the talukas there were more doctors than those listed . But on an average the list of practicing doctors fell short of the original sample list (See Table 2.1). During the sample check the team experienced great difficulty in identifying and locating folk practitioners. Often, community members were reticent and would not talk about them; at times we were even laughed at, saying that such practices were no longer prevalent; at other times persons so identified when personally met, denied that they practiced folk medicine. Practitioners of traditional medicine (Ayurveda/Unani) were also difficult to locate , since the practise of this medicine as a hereditary or caste profession appeared to have died out. Against the background of difficulties encountered in the first two techniques, we decided to mail questionnaires to the listed doctors and asked them to provide information on the fellow practitioners in their locality or within their knowledge.

Postal Survey

A postal survey was carried out by mailing questionnaires to all the listed health providers (3059), and to 274 hospitals primarily in the private and

Table 2.3
Validity of sources - Status of listed practitioners

	Source										New
	Allopathy council		Indian Systems council		Homeopathy council		Dentistry council		Other		
Taluka	1 *	2 #	1	2	1	2	1	2	1	2	
A'nagar	01	03	04	00	01	00	00	00	02	01	03
Akola	00	02	02	02	02	03	01	00	11	01	06
Parner	02	00	02	06	04	01	00	01	14	01	06
Shrirampur	01	06	11	15	11	10	00	01	13	04	17
Total	04	11	19	23	19	12	00	02	40	07	32
	36%	64%	45%	55%	61%	39%	0	100%	85%	15%	

Notes : Status
1. * existing 2. # non- existing

voluntary sectors, very few were from the public sector, thus attempting to cover the whole district. Besides seeking information regarding their practice and the delivery of health care in their area, family background, medical education, charges, utilisation of their services the respondents were also asked to identify other practitioners in their vicinity. The questionnaire was aimed at verifying the information gathered during the sample check exercise and field trips, and generating information other than that gathered during the field trips. An incentive was held out through these questionnaires as a means for attracting a positive and early response from the doctors. This incentive was in the form of workshops to be organised by FRCH in Ahmednager for the responding doctors.

Response to Postal Questionnaires

Out of the 274 hospitals to which the questionnaires were sent, 90 replied and we were able to add the names of around 15 more hospitals and delete a few. Out of the 3059 doctors to whom the questionnaires were mailed, 460 (15%) replied to us. Eight per cent (249) of the questionnaires came back

Table 2.4
A breakup of the doctors status

Doctor's Status	No. of Doctors	% of Total
Shifted	14	(5.6%)
retired	10	(4.0%)
Expired	09	(3.6%)
Not traceable	216	(86.7%)

unopened because the doctors concerned had either shifted, expired, retired or were untraceable. (See Table 2.4.) We received 177 new names of individual doctors, not recorded elsewhere in our list. During our subsequent tours of the district a number of doctors who had not replied, informed us that the questionnaires reached them only after the last date for sending replies; otherwise, the response rate would have been better.

Findings

The original list was cross-checked with lists prepared through the sample check and postal survey. All duplications were taken care of. The final list showed 3059 doctors (qualified and unqualified) located in urban and rural areas, representing all systems of medicine. Doctors from both the public and private sectors were covered. Nearly 92 per cent were from the latter sector. Around 860 health establishment including 274 hospitals (with bed strength ranging from 3 to 200 beds), PHC's, sub-centres etc. were also listed, while 565 medical stores were found to be functioning in the district.

From both the surveys, the status of 1164 doctors (294 non- existing and 870 existing) could be determined, leaving the status of 1895 (62%) doctors undecided. In the total of 870 practicing doctors (determined through the study), the names of 209 doctors were added as a result of both the surveys. After adding and deleting from the final list as per our information, we found that the original list of 3059 doctors was overestimated by a mere 3 per cent. There was still the possibility of a certain number of doctors being inadvertently left out by us and hence, the number 3059 was considered a fairly reliable figure of practicing doctors in the district.

Through the various techniques used we were able to determine the volume of health resources in the district. This data base of health resources for the district may be considered as fairly reliable. We managed to overcome most of the inadequacies in the official sources and have been able to show that number of health personnel and health units exceeds those in the official sources. In the process we have been able to expose the specific inadequacies in official sources and the drawbacks in official enumeration of health resources. Here the attempt was also to delineate an approach for determining the size of health resources within a specific territorial and administrative unit.

An important constraint in conducting an exercise of this kind covering a large territory is that of logistics. Such an exercise can be carried out only in a district or a smaller territorial unit. Yet, it may be said that in spite of the various limitations and constraints, the FRCH team was able to prepare a fairly reliable inventory of health providers in the district which also enabled them to better understand the distribution pattern of medical personnel according to the sector and system of medicine. Keeping in mind the various limitations encountered by the FRCH team, other researchers can improvise upon the above described approach by improving the techniques and better dealing with local conditions.

□□

3

Health Manpower In The District

The chapter describes and discusses the nature and volume of health personnel in Ahmednagar district, as regards their distribution systems of medicine and geographical areas of the district. Also some issues arising from inaccessibility of treatment for those seeking it. In the process, answers to some of the questions raised in Chapter 1 will be sought.

The survey shows that the total of 3059 doctors in the district as against total district population meets the Bhore Committee standards. There was one doctor to serve a population of 1099. And yet there were communities to whom medical care was both unavailable and inaccessible. These 3059 doctors were both qualified and non-qualified practitioners of modern and traditional systems. The first section of this chapter gives information on them. The survey also attempted to generate information about paramedical personnel; but, this was difficult, due to those working in the private sector. An attempt was made to provide some information about paramedical personnel in the district.

Medical Practitioners in the District

The information was drawn from the census exercise discussed in Chapter 2. For enumerating quality of services rendered, the information is drawn from 474 responses to the postal survey which will be discussed sector-wise, system-wise and sex-wise along with the distribution of specialists.

Sector-wise Distribution

Out of total of 3059 doctors identified in the district, 93% were in the private sector and 7% in the public sector. The private sector is basically made up of individual self-employed practitioners providing medical care through dispensaries, clinics, polyclinics and even small bedded nursing homes. The majority of them were general practitioners with a small percentage of specialists. The situation in the district was similar to the all India scene. In India, according to an IAMR study in 1963-64, all doctors in the private sector, (88.4%) were self employed. Even in the 1990s the percentage was the same. With the rapid increase in medical colleges, especially private and of non-allopathic systems of medicines, the turnout of non-allopathic doctors has risen. In the absence of any significant increase in the employment opportunity, there was further increase in the volume of self-employed practitioners (Jesani A., 1993). There were very few large health units in the private sector in the district which offered employment opportunities to doctors. Though the employment opportunity is very slim in the private sector, practitioners are reluctant to join the public sector which is a problem discussed in the Five year plans as also by various Committee and Commission reports. In India a mere 13 to 15% of all doctors were estimated to be employed in the public sector (Jesani A., 1993). In the district this proportion was 7 per cent, out of which, 151 were MOs of PHCs, 23 were amongst the staff of the civil hospital, and 38 were the MOs of the municipal hospitals and dispensaries, the rural and cottage hospitals.

This percentage of public sector employment could be higher as information about the public employees in the district may not be accurate. Information on the medical staff of the central and state government units (such as the railway, police and prison hospitals) could not be gathered. Secondly, the list of PHC, MOs given by the District Health Office was not updated. The State assembly was informed that in Ahmednagar district, 92 posts of MOs (the highest in the state) in 82 PHCs were vacant. (*Times Of India,* 1st Dec. 1992). Each PHC is supposed to have two medical officers., one each of class one and class two respectively.

The responses to the mailed questionnaire gave more information on the employment trend amongst practitioners of all systems in the public and private sector as seen in the following sections.

General Practitioners and Specialists

The lack of employment opportunities is also reflected in the higher proportion of general practitioners in the private sector. We have assumed that the graduate degree holders of all systems are general practitioners and post-graduates are specialists.

Table 3.1 shows a higher proportion of specialists amongst urban private practitioners whereas

Table 3.1

Geographical distribution - G.Ps. and specialists

	General Practitioners	Specialists	Qualifications not known
Urban	77%	13%	9%
Rural	85.5%	1.8%	11.9%
District	81.9%	8.1%	10%

in rural areas it was quite negligible. The percentage of those whose qualifications were not known was higher in the rural areas. We assume that most of these were general practitioners. Other studies have shown that specialists generally do not set up practice in rural areas owing to the absence of any infrastructural facilities and modern amenities.

There were 234 specialists (8.1% of total 3059) in the district. Amongst the 234 specialists in the district, 22% were gynecologists, 20.5% were surgeons, 12% were physicians, 10% pediatricians, 7% ophthalmologists and orthopaedics together 4% ENT specialists, 2% psychiatrists, 6.5% were others (such as radiologists, pathologists, cardiologists, plastic surgeons etc.)

The following discussion of the system-wise distribution of the doctors shows a higher proportion of non-allopaths. These non-allopaths have virtually none or limited employment opportunities in government/public health institutions. In the private sector the opportunities are also limited and in private hospitals, their status is secondary with low salaries. The absence of employment opportunities for the non-allopaths explains the high percentage of general practitioners amongst this category.

System-wise Distribution

Graphs 1 and 2 show that the percentage of non-allopathic doctors are almost identical at the district and the national levels.

As seen in graph 1, the high percentage of non-allopathic graduates explains the high percentage of general practitioners. Along with these non-allopaths, 728 of total 959 allopaths (76%) with only graduate degrees. A majority have been assumed to be in general practice considering that employment both in the public and private sector is limited.

In the district, the percentage of non-qualified practitioners (0.1%) was smaller than expected. Published sources do not list them and the State Government's decision in 1991, to ban their practice perhaps made community sources wary about passing on information regarding them. According to the DHO, the number of non-qualified practitioners in Ahmednagar district was 197, though the actual list was never shown to us. We were informed the names had been passed on to the police for action. Information whether any action was actually taken and cases filed was not given to us. The information about number of non-qualified practitioners may not be accurate as it was obtained by getting all private practitioners in a PHC area to submit their professional degree/diploma certificates at the PHC. No specific and carefully planned method was used to identify non-qualified practitioners. Hence, the number may be even higher than stated. The CMO of Ahmednagar Municipal Council informed us that once the process of identification began, several non-qualified practitioners fled the city.

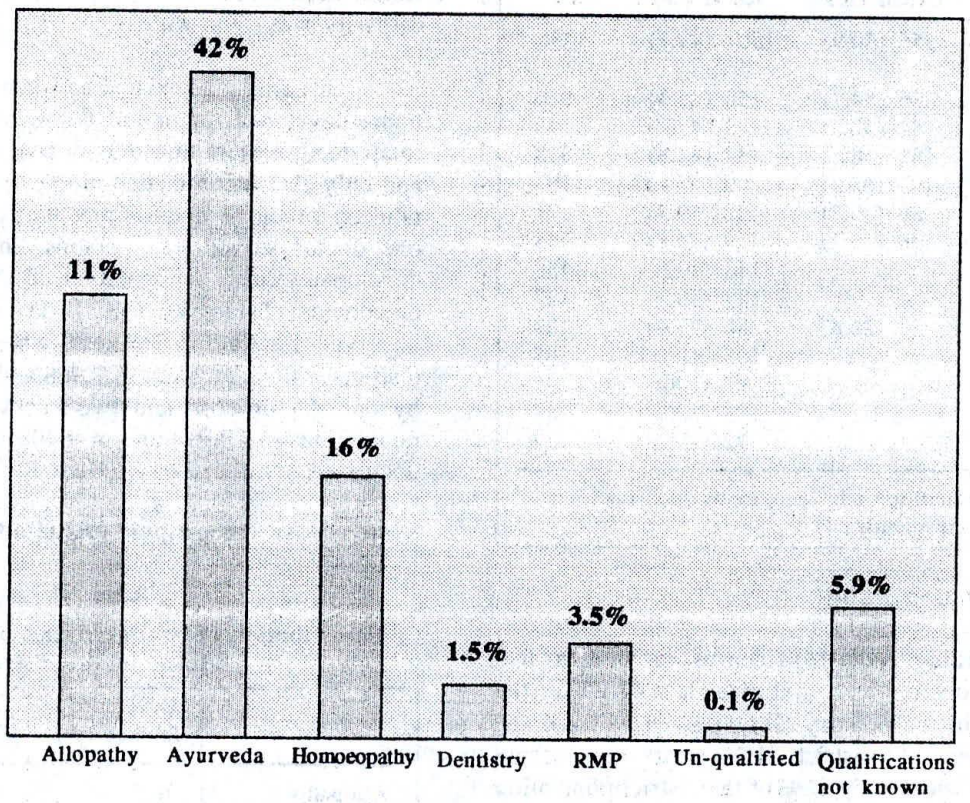
Sex-wise Distribution

From amongst 3059 practitioners information regarding gender was available for 2781. The Gender distribution for the 2781 doctors, showed 2335 (84%) were male and 446 (16%) were female. This corresponds to the national pattern. In 1977 amongst the doctors registered with the Medical Council of India, 81% were male and 19% were female (Bang R.,n.d). Of the total male doctors, 93% were general practitioners and 7% were specialists, while 88% of female doctors were general practitioners and 12% specialists. The proportion of female specialist doctors in the district total was 234 specialists (21%).

Geographical Distribution of Medical Personnel

The availability and accessibility of health personnel depends on their number and their distribution across the geographical areas. So far we have discussed the nature of volume of medical personnel in Ahmednagar district. The following data about their geographical distribution, will explicitly confirm the nature of inequalities in availability and accessibility of health care services to the population in both the rural and underdeveloped areas and the urban and developed areas.

Graph 1
System-wise Distribution of Doctors
In the District



Graph 2
System-wise Distribution of Doctors
In India

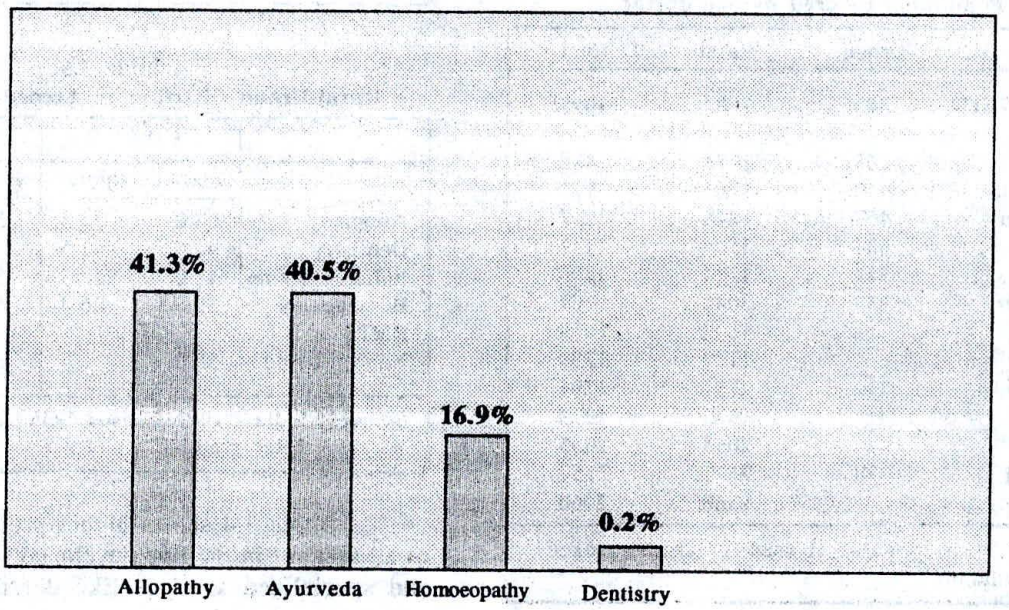


Table 3.2
Rural-urban distribution - medical practitioners

Taluka	Urban (%)	Rural (%)	Total
Ahmednagar (district)	1556 (50.9)	1501 (49.1)	3056 *
Nagar	836 (84.7)	150 (15.3)	986
Shrirampur	184 (52.8)	163 (47.2)	347
Kopargaon	189 (58.5)	134 (41.5)	323
Sangamner	193 (65.9)	100 (34.1)	293
Rahuri	89 (40.3)	132 (59.7)	221
Pathardi	36 (23.2)	119 (76.8)	155
Newasa		138 (100)	138
Akola		127 (100)	127
Shrigonda	29 (26.6)	80 (73.4)	109
Parner		105 (100)	105
Shevgaon		95 (100)	95
Karjat		85 (100)	85
Jamkhed		72 (100)	72

(* TheTaluka and/or social geography of 3 doctors could not be identified)

Doctor-Population Ratio

According to the 1981 census, urban areas had 58.8% of the doctors and rural areas had 41.2% of the total doctors in the country (Jesani A., 1993). Of the 3059 doctors from the district, 51% doctors were located in urban areas where only 16% of the district population resides whereas 49% (apparently slightly less) of the doctors were in rural areas with 84% of rural population. In the urban areas population to doctor ratio was 343 persons to one doctor while in the rural areas it was 1883 persons to one doctor. Thus, while the difference in urban-rural distribution of doctors appeared to be very small, seen in terms of doctor-population ratio, this disparity was very wide.

Table 3.3
*** Population covered by one doctor**

Taluka	Urban	Rural	Total
AHMEDNAGAR (District)	**343**	**1883**	**1099**
Nagar	265	1735	488
Shrirampur	430	1585	971
Kopargaon	467	1848	1037
Rahuri	604	1504	1141
Pathardi	542	1394	1196
Sangamner	253	3046	1207
Jamkhed		1653	1653
Akola		1739	1739
Shevgaon		1791	1791
Newasa		1973	1973
Parner		2035	2035
Shrigonda	738	2671	2157
Karjat		2160	2160

(* 1991 Census population used & talukas ranked by last column)

Disparity also existed between the developed and under-developed regions of the district. About 71% of total doctors were located in five developed talukas and only 29% were located in the eight underdeveloped talukas. In the five developed talukas taken together, one doctor served 812 persons. In the eight under-developed talukas a population of 1806 was served by one doctor (Tables 3.2 & 3.3). The same disparity was observed in Andhra Pradesh where two developed districts with population of 7,968 and 8,051 were served by one doctor each and two backward districts with populations of 10,994 and of 9,408 were served by one doctor each respectively. (Baru R., 1993).

System wise Geographic Distribution

Table 3.4

Distribution in developed and underdeveloped talukas of the district

	Developed Talukas (%)	Under-Developed Talukas (%)
Allopathy	76.5	23.5
Dentistry	98	2
Indian systems	68	32
Homeopathy	71	29
RMPs and Non-qualified	65	35

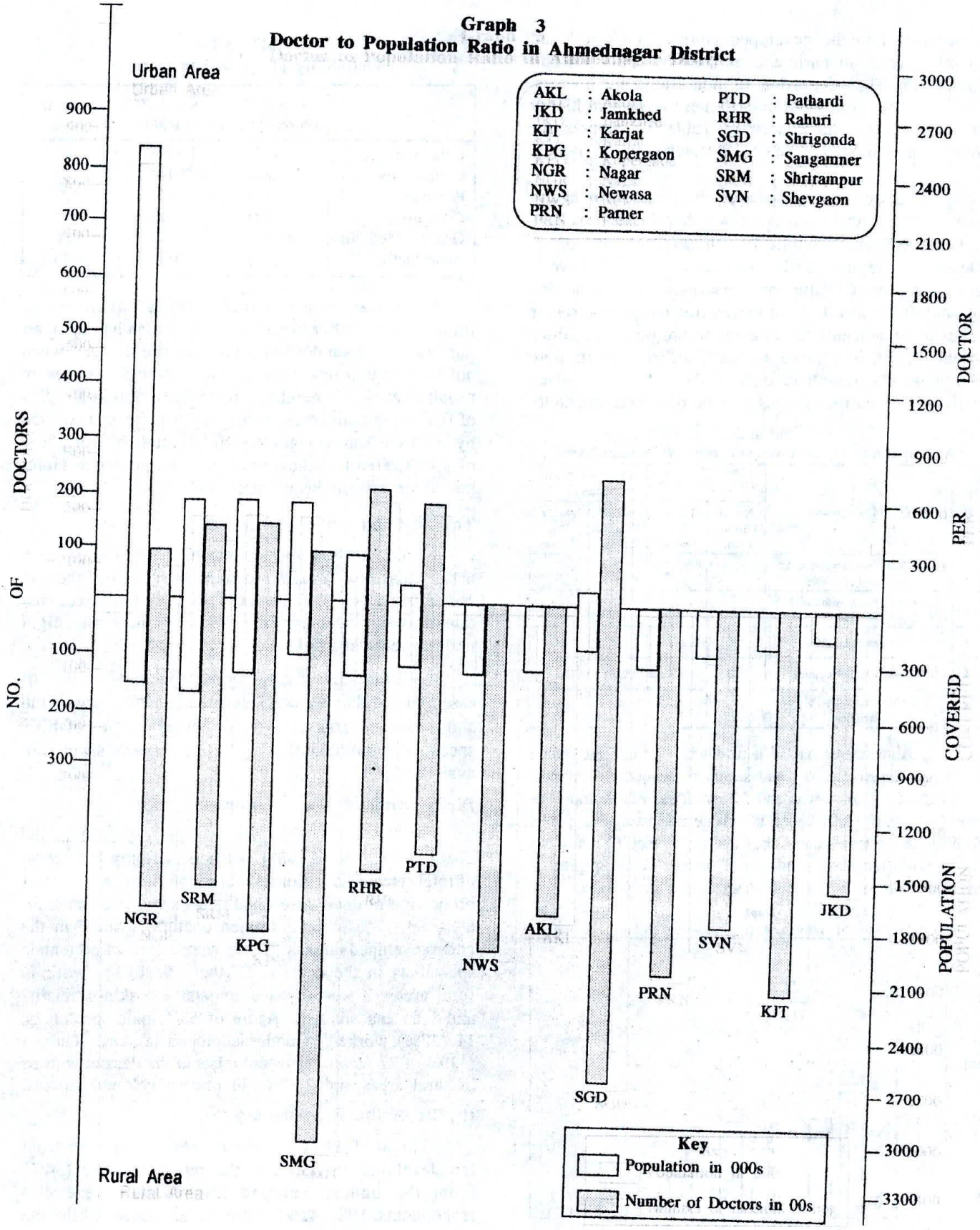
Table 3.5
Rural-Urban Distribution According to System

	Urban %		Rural %	
	District	India	District	India
Allopathy	63.0	72.8	37.0	27.2
Dentistry	91.5	81.5	8.5	18.5
Indian systems	48.0	51.95	52.0	51.95
Homeopathy	39.0	36.3	61.0	36.3
RMPs and Non-qualified	38.0	---	62.0	---

Source : India - 1981 Census GOI District figures
Refer graph 1

Table 3.4 shows higher proportion of doctors of all systems in the five developed talukas. Allopathic and specialized services like dentistry were highly

Graph 3
Doctor to Population Ratio in Ahmednagar District



concentrated in the developed talukas in general and in urban areas in particular as seen in Table 3.4 and Table 3.5. The proportion of non-allopathic doctors, RMPs and non-qualified practitioners was much higher in rural areas. As is seen in Table 3.5 figures for Ahmednagar district more or less match national figures.

An additional aspect of the location of health procedures is the manner in which private providers concentrate where public health services also exist. Developed regions and urban areas tend to have a concentration of health care services - both public and private. It has also been observed that the private sector tends to be concentrated in areas where public facilities already exist. The private sector, utilising to its own advantage the dissatisfaction of the general populace with public facilities is thus assured of a large clientele.

Table 3.6
Average no. of doctors per type of village/town

No.	Type of village/town	Developed talukas		Under developed Talukas	
		No. of Villages/ Towns	No. of Pvt. Doctors	No. of Villages/ Towns	No. of Pvt. Doctors
1	Towns with Civil Hospital and/or Municipal Facilities	5	1428	0	0
2	Towns/Villages with Rural Hospital	3	115	9	287
3	Villages with PHCs	37	233	39	273
4	Villages with Sub-centres	182	284	240	237
5	Villages without any Public Facilities	324	163	673	107

Ahmednagar has 13 talukas with five of these falling in the developed category and seven in the under-developed. The district has 10 towns and 1503villages. An attempt was made to identify the location of private doctors against public facilities in the towns and villages of the district. Graph 4 and Table 3.6 indicate the tendency of doctors to set up practice in towns/villages where public services already exist.

Graph 4
Average No. of Doctors per type of Village/town

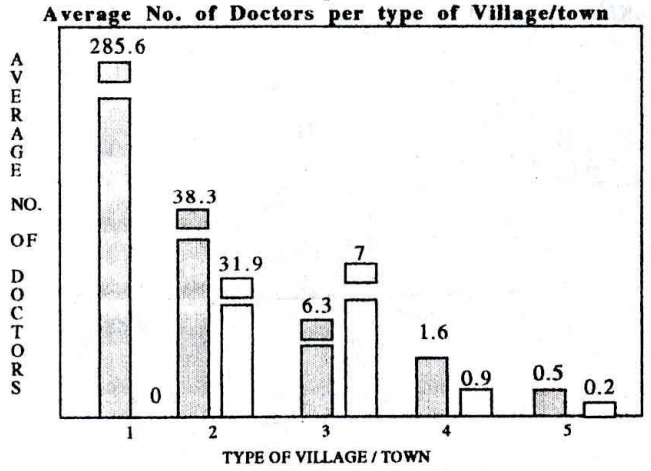


Table 3.7
Availability of specialists services

	Urban (%) [Percentage in	Rural (%) Brackets]	Total
General Surgery	35(73)	13(27)	48
Gynecology	44(86)	7(14)	51
Paediatric	21(91)	2(9)	23
Dermatology	11(92)	1(8)	12
General Medicine	26(93)	2(7)	28
Anaesthetic	13(93)	1(7)	14

It was observed that villages having no or limited accessibility to public services also had the least number of private doctors. Many private doctors, when not located in a town/village with public facility, were usually based in a neighbouring village within a radius of five to ten kilometers, which was also the area covered by a PHC. The villages falling outside the periphery of a PHC area had thus, no immediate access to either public or private health providers.

The Distribution of Specialists

Of the 234 specialists, 206 (88%) worked in urban areas and 28 (12%) in rural areas. Out of the 234 specialists 214 (91%) worked in the five developed talukas while a mere 20 (9%) worked in the eight underdeveloped talukas.

Table 3.7 gives comparative availability of essential specialized services in urban/rural areas and shows that in rural areas important services as of ENT specialists, ophthalmologists and orthopaedics were not available at all.

Distribution of Women Doctors

The 446 female practitioners recorded in the district form 16% of total practitioners. Only 116 (26%) of total female practitioners worked in rural areas. Their proportion in underdeveloped talukas was even smaller. Only 80 (18% of total women doctors) worked in the underdeveloped talukas. There were a total of 50 female specialists in the district. Of these 5 (10%) work in rural areas, 3 were gynaecologists, 1 a skin-specialist and 1 an anaesthetist. Again of 50 female specialists, 11 (22%) worked in underdeveloped talukas. Only 3 (11%) of 27 female gynaecologists in the district worked in rural areas and 2 (7%) in underdeveloped talukas.

Profile of the Respondents

Out of 474 respondents, 311 (66%) were from the developed talukas and the remaining 163 (34%) from the underdeveloped talukas. Of these 474 respondents 198 (42%) were urban based while the

remaining 276 (58%) came from the rural areas.

Male respondents from amongst them numbered 429(90.5%) and the female respondents 45(9.5%).

The average age of the respondents was 40 years. The degree holders amongst them were 264 in number (56%), diploma holders 137 (29.5% most of them had done earlier diploma courses of Ayurveda, like GFAM, MFAM, etc. and 21 had done postgraduate diploma courses for specialization), 52 had some certificates, 2 had both degrees and diplomas for specialization, 11 had degrees and certificates, 7 had diplomas and certificates.

Out of them 69 (14.6%) were specialists while 404 (85.2) were general practitioners.

Of the 474 doctors 132 (27.8) were allopaths, 69 of them being general practitioners and the remaining 63 specialists. The number of pure Ayurveda degree holders was 147 (31% of the total) of which 3 had done specialization. The integrated course of Ayurveda and allopathy (BAM & S) was studied by 74 (15.6%) of 474 doctors and of these one was a specialist. There were 90 (19%) homeopath degree holders, out of which 2 claimed to have done some kind of specialization. Dentists who responded were 6 (1.3%) in number. There were amongst the respondents 18 (3.8%) RMPs, 4 (0.8%) who had qualified in two systems (2 in allopathy and homeopathy; 2 in ayurveda and homeopathy) and 3 (0.6%) had certificate of some non-recognized systems.

The majority of the 429 male respondents were Ayurveda graduates (pure and integrated courses together - 205 i.e 47.8%) allopaths were 111 (25.9%), homeopaths 85 (19.8%), dentists 4 (0.9%) RMPs 17 (4%) and others of (1.6%). On the other hand of the 45 female respondents majority were allopath doctors - 21 (46.7%), followed by Ayurveda graduates - 14 (31.1%), 5 (11%) homeopaths, 2 (4%) dentists females and 1 RMP. Of the 132 qualified doctors in allopathy, 5 said that they practiced Ayurveda and homeopathy also. The extent of cross-practising was however higher amongst the non-allopathic graduates. Of 147 Ayurveda degree holders 13 (8.8%) said that they practised only allopathy, while 83 (56.5%) practised both allopathy and Ayurveda, 3 practised all the systems and 1 practices homeopathy.

Out of the 74 graduates of integrated Ayurveda course, 4 practiced complete allopathy and while 3 practised. Ayurveda the remaining 67 practised both allopathy and Ayurveda.

From amongst the 90 homeopath graduates 16 (17.8%) practised only allopathy, 31 (34.4%) practised only homeopathy and 36 (40%) practised allopathy and homeopathy both. Of the remaining 4, 3 practised allopathy, Ayurveda and homeopathy and one practiced allopathy and Ayurveda.

Of the 18 RMPs, one practised allopathy, 3 Ayurveda, 1 both Ayurveda and allopathy and 12 had not mentioned their system of practice.

Of the 474 respondents 432 (91.1%) had their own practice, 11 (2.3%) were employed in the private sector, 22 (4.6%) were employees in the public sector and 9 (2%) were employed by NGOs.

Of the 132 allopaths 108 (81.8%) were engaged in private practice while of the 221 Ayurveda graduates (pure and integrated) 205 (92.8%) were private practitioners. Employment was available more to allopaths: 24 (18.2%) were employed - 4 at private practitioners, 15 in government service, and 5 with NGOs, while of Ayurveda doctors 16 (7.2%) were employed - 5 at private practitioners, 7 in public sector, and 4 with NGOs. The other practitioners, homeopaths, dentists and RMPs were completely dependent on private practice.

Of 432 private practitioners, 140 (32%) doctors provided indoor facilities. The average bed capacity of these 140 units is about 8 beds. Of 108 allopath private practitioners, 58 (54%) provide indoor facilities; on an average each one had about 11 beds.

Of 205 Ayurveda doctors (of pure and integrated course) units, 51 (25%) had indoor facilities with average bed strength of 6 beds.

Of 89 homeopaths having their own practice, 25 (28%) provided bed facilities with average strength of 5 beds.

Of 17 RMPs, 4 had bed facilities, each having on an average 3 beds.

Those practicing pure Ayurveda (49) or pure homeopathy (32) on an average held a negligible bed strength. Thus bed facility was basically provided by qualified allopaths and non-allopathic doctors practicing allopathy.

Issues Arising from Unequal Distribution

As discussed above, the volume and distribution of medical professionals in the district confirmed the bias towards developed and urban areas. Information on characteristics of these services gathered from the postal survey and the workshops in the district show how unequal distribution of services was the result of economic factors as also other socio-political and cultural factors. All these contributed to make the health services inequitiable in the provision of health care.

All these factors in composition were reflected

in the choice made by qualified and specialist professionals to practice in urban and developed areas, the employment opportunity available to graduates from different systems, the high proportion of cross-practice and the demand for allopathy.

Dominant Private Sector

The mailed responses to questionnaires also throw some light on the employment pattern according to the systems of medicine. Of a total of 474 respondents 432 (91.1%) had their own practice, 11 (2.3%) were employed in the private sector, 22 (4.6%) were employees of public sector and 9 (2%) were employed in the voluntary sector. But when classified according to system, it was found that of 132 allopaths 108 (81.8%) had their own practice while of 221 Ayurveda graduates (pure and integrated courses), 136 (62%) were private practitioners. It can be said that allopaths have more job opportunity as 24 (18.2% of total 132 allopaths) were employed - 4 with private practitioners, 15 in government services, and 5 with the voluntary sector, while only 16 (7.2% of total 121) Ayurveda doctors were employed - 5 with private practitioners, 7 in public sector, and 4 with the voluntary sector. The homeopaths, dentists and, of course, RMPs who responded had their own practice.

With rapid increase in the private sector in the seventies and eighties the attraction of setting up private practice became so strong that qualified allopaths are unwilling to accept government services. Perhaps this ground reality influenced the Health Minister of Maharashtra to declare that government was thinking of creating posts of class III Medical Officers to be filled-up by the degree-holders like Ayurvedacharya, Ayurvedateertha, etc. to attract doctors to rural services (*Sakal*, 1993). This is a fairly distorted form of the proposed and planned integration of indigenous systems into public health services.

Demand for Allopathy

The haphazard and adhoc attitude of the government towards the development of alternate systems has caused degeneration of Ayurveda, Unani and Homeopathy, which is reflected in the extent of cross-practice done by non-allopaths. There is a clear gap between the policy rhetoric on alternative medicine and implementation of the declared policy.

A majority of non-allopaths engaged in cross-practice, either completely or in combination with their own system. This was explicitly reflected in the mailed responses and discussed earlier under profile of respondents.

The issue of cross-practice is a complex one. The threat to development of alternate systems is aggravated when attempts are made to legitimize cross-practice. Inspite of the decision of the Supreme Court over-ruling the verdict of Kerala High Court allowing allopathic practice by non-allopaths, the Maharashtra government issued an order on 25th November, 1992, allowing Ayurveda graduates to practice allopathy.

Table 3.8
Bed-Provision by private practitioners

Systems	Total	Those having indoor facilities	Average Bed strength
Allopathy	108	58 (54%)	11
Ayurveda	205	51 (25%)	6
Homeopathy	89	25 (28%)	5
RMP	17	-	-
Total	432	140 (32%)	8

Another issue involved is that of economic pressures and market competition forcing non-allopathic practitioners to submit to cross practice. The participants at the workshops held in Ahmednagar district for both rural and urban practitioners of all systems cited that an allopathic medicine gives a quick relief to the patients. Therefore, there is a great demand for allopathy especially in rural areas, where people cannot afford to lose their working days because of illness. Because of this demand, non-allopathic doctors lack opportunity to prove the efficiency of their particular system of medicine.

This demand for allopathy, for injections, for saline, from the people has encouraged commercialization of the profession. The profit making attitude developed by market demand has resulted in over-medication, unnecessary hospitalization etc.

Table 3.8 gives the comparative bed-holding capacity of the doctors of all systems.

Those who have said that they practice pure Ayurveda (49) and pure homeopathy (32) on an average held a negligible bed strength. This meant that qualified allopaths, most of them being specialists, provided indoor facilities (the extent of over-medication, unnecessary surgeries and uncalled for hospitalization by them cannot be decided by this study, hence is not discussed here) and non-allopaths practicing allopathy provided bed facilities, owing to the 'demand' for allopathy.

This demand for allopathy and the legitimacy offered to the non-allopaths (by masses who ask for it and by the government which legalised it) has encouraged the tendency to seek any valid or even

suspect and doubtful degree holder to start private medical practice, basically in allopathy. This explains the spurt of non-allopathic medical colleges in the district over the last few years. To set up a non-allopathic medical college is much easier than setting up an allopathic medical college. The non-allopathic medical education is in demand because it is cheaper than allopathic medical education but in no way a hindrance to allopathic practice and money-making. If in the name of demand for allopathy, these non-allopaths practice allopathy, this is another important issue to be considered.

Various studies have demystified the claim of natural cultural affinity for indigenous medicine and the demand for allopathy since its introduction in India. The reasons for this demand might be in the natural tendency of accepting everything that the elite/ruling class pursues as best or the perceived successful development of allopathy as a science against Ayurveda or in the ineffective policy-making and policy implementing regarding health manpower, medical education and the distribution of services.

Urban/Rural Preference

In the workshops held for doctors in Ahmednagar district this issue of preference of allopathic practitioners for urban areas and of non-allopathic practitioners for rural areas was discussed. The allopaths with rural and semi-urban family background speaking on their preference for urban areas cited reasons such as the rise in their material expectations corresponding with those of their urban colleagues, knowledge of their market potentials in urban areas and that a high standard of living unavailable to them in the rural areas, within their reach in urban areas. Non-allopathic practitioners complained about the poor standards of educational facilities available to them as compared to those available to allopathic colleges. The accommodation, mess and teaching facilities, they said, are so poor that as soon as a student gets his degree he preferred to go back home, even if it was in the rural area.

For many, training in non-allopathy medical course was a second choice. It was not because of faith in the inherent soundness of the alternative system that they chose to study it. Unable to get into allopathy colleges and because of expensive education in these colleges, they opted to join non-allopathy courses. Rural background, socio-economic background, lack of efficient educational facilities and proper coaching all combined to become constraining factors in the entry to allopathy colleges. Entry into these courses is highly competitive and rural students suffer several disadvantages as compared to their urban counterparts in this competition. Non-allopathy courses therefore offers and becomes the choice for rural students who wish to acquire a medical degree. Acquiring a medical degree becomes the goal and not acquiring knowledge of a particular system of medicine out of faith and desire to practice that healing system.

The more practical reason mentioned for this tendency was related to the economics involved. In the towns with the availability of allopathic practitioners, the demand for non-allopathic doctors, practising allopathy was relatively low. In the urban areas their status would always remain second to that of allopathic doctors. Non-allopaths work in urban institutions for a short duration, gain experience in allopathic treatment. On the basis of this experience gained, they return to their rural homes to practice allopathy, which ensure a certain status and prestige. They also have the advantage of family contacts to carve out their clientele. They have the additional advantage of supporting their income from agriculture or other inherited businesses. Considerations such as ancestral or agricultural property do not appear to compelled allopathic graduate to return to their rural homes and set up practice. This appeared to be so because of the confidence they had in their own system and the demand for and prestige attached to it. Non-allopaths appeared to lack that kind of confidence. In addition, most people have little knowledge and awareness of the alternative systems, even of traditional systems as Ayurveda and Unani. Their own faith in the healing potential of the alternative systems is limited because of the slow process and long duration taken for treatment. Allopathy ensures quick relief. For daily workers who perhaps constitute a large sector of rural potential this is important.

The demand for allopathy from the masses and an unequal distribution of qualified and specialists services in urban areas has created a ready market in urban areas. This was reflected in the proportion of doctors visiting surrounding villages to carve out the clientele. In a week only 30% of 182 private urban doctors regularly visited other villages that too at the most one-or-two surrounding villages. As against them, 89% of 250 private rural practitioners visited other villages and quite a few of them visited upto 5 villages only. Again when 60% of urban private practitioners go for home visits almost 85% of rural practitioners go for house visits. On an average urban practitioner was available for 8 hours in a day and rural practitioner was available for 10-11 hours a day.

The average weekly OPD of the practitioners of allopathy both qualified and non-qualified (157.2) was much higher than that of the practitioner of pure Ayurveda (126.6) and of pure homeopathy (93). The non-qualified practitioners of allopathy were all those who practised allopathy without any formal training.

The percentage of practitioners of allopathy without any formal training amongst pure Ayurveda and homeopathy degree holders in urban and rural areas (64.0% and 65.9% respectively) differed by only about 1.9%. But the proportion of qualified practitioners being much higher in urban areas than in rural areas inaccessibility to proper allopathic treatment was much higher in rural areas.

Health of Rural Women and Health Personnel

According to one study in rural Maharashtra, about 92% of the women observed, suffered from one or more gynaecological or sexual disease and on an average each woman suffered from 3.6 diseases (Bang R.n.d.) But health care needs of women do not get adequate medical attention, more so in rural areas because of other social problems and cultural taboos. Say Khan and Patel in *'Access to Health Care'*., "Health planners do not realise that the subordinate status of women in Indian society prevents them from accessing health facilities as the men". (Khan M. and Patel B. 1993). In a study conducted at Safdarjung Hospital in Delhi male admission was 65% and that of females was 35%. According to other study reports this ratio varies from 2.1 : 1 to 1.3 : 1, the latter being in the south.

Part of the problem of women's inaccessibility to health care arises out of cultural values of a conservative rural society. Women patients would prefer to be treated by women doctors. But women doctors are few in number overall and far too few in the rural areas. This small group of women professionals are hardly able to provide their services where they are most needed. A substantial increase in the number of lady doctors and their proper distribution will perhaps help to achieve better health status for women in the rural areas.

PARAMEDICAL PERSONNEL

The census was to cover all those who were engaged in the delivery of health care services. Accordingly, the paramedics who physically or directly provide their services and were in immediate contact with health care, were obviously the object of the census, along with the medical personnel. By paramedics we meant the vaccinators, innoculators, medical assistants, dental assistants, pharmaceutical assistants, nurses, auxiliary nurses midwives, traditional midwives and health visitors.

When we undertook our survey of the district we realised that this section being not organized, their volume in private sector was difficult to estimate. The *Socio-Economic Review of Ahmednagar District* for the years 1991-92 gives the total number of qualified nurses as 833 in the district. The information has to be read with caution as the same source gives the figure of doctors and Vaidyas together from the district as 265, whereas our census covered 3059 doctors of all types. The only source for any information on them as far as the private sector was concerned, was through their employers. This was done through the mailed questionnaire.

Paramedical in Private Sector

Quite a few respondents to the postal survey gave some information on their paramedical staff. Since the responses were not controlled, and further queries were out of question, any details or further classification as was expected earlier was not available. Hence the responses detailed only nurses, compounders and other paramedics. What these other paramedics meant was difficult to define. Secondly, the qualifications of the staff employed were not given. The nurses in the responses could be midwives, traditional *ayahs* or *dais*. The compounders could be helpers, assistants or attendants.

The Nurses

Of 474 respondent doctors, 432 were self-employed practitioners. Of these 432 practitioners 36

Table 3.9

The qualification system and bed-provision of the employers of nurses

Beds	0	1	2	3	4	Total
Allopathy	1	3	6	10	1	21
Pure Ayurveda	0	1	2			3
Homeopathy	1		3	1		5
Dentistry	1					1
Integrated Ayurveda	2		1		1	4
RMP & Others		2				2
Total	5	6	12	11	2	36

had employed nurses in their institutions of which 20 were in urban areas and 16 in rural areas.

Of the 20 urban doctors, 10 had employed one nurse each, five had employed three nurses each, 1 had employed four nurses and there was a lone instance who claimed to have employed nine nurses. Three respondents did not mention the number. Of the 16 rural doctors, 12 employed one nurse each and one each employed 2,3 and 4 nurses respectively. One doctor did not mention the number of nurses employed. That meant 17 urban doctors employed 36 nurses, and 15 rural doctors employed 21.

Table 3.9 shows the system of qualification of doctors who have employed the nurses and the number of beds they provided.

Table 3.9 also shows there were 5 doctors who had employed nurses in spite of not having any indoor facility.

It has to be kept in the mind that the qualification and the definition of the term 'nurse' is not known.

Table 3.10
Qualification-system and bed-provision of the employers of compounders

Beds	0	1	2	3	4	Total
Allopathy	7	6	6	6		25
Pure Ayurveda	18	12	5			35
Homeopathy	11	6	5		1	23
RMP	1	2				3
Integrated Ayurveda	10	4	3		1	18
Total	47	30	19	6	2	104

The Compounders

Of 432 self employed practitioners, 104 had employed compounders. Of these doctors 41 practiced in urban areas and 63 in rural areas. Of the urban doctors, thirty employed one compounder, seventeen 2 compounders and one each employed 3 and 5 compounders respectively. Two did not mention the number of compounders employed. Of the rural sixty three doctors, 54 employed one compounder each, six employed 2 each and two employed 4 each. One doctor had not mentioned the number of compounders he employed. Thus, 39 urban doctors employed 52 compounders and 62 rural doctors employed 74 compounders.

Table 3.10 shows the system of qualification of doctors who have employed compounder and the number of beds provided by them.

Other Paramedics

Of 432 self employed respondents, 43 doctors stated that they employed paramedics other than nurses and compounders - 26 in urban areas and 17 rural areas.

Of the urban doctors 12 employed one paramedic each, 4 employed 2 paramedics each, 4 employed 3 paramedics each and one each employed 4, 6 and 8 paramedics respectively. Three doctors did not mention the number of paramedics employed by them. Of the 17 rural doctors, 5 employed one paramedic each, 4 employed two paramedics each, 1 employed thrice paramedics, 4 employed four paramedics each, 1 each employed five and six paramedics respectively, while one did not mention the number of paramedics he employed. Thus the 23 urban doctors employed 50 other paramedics and the 16 rural doctors employed 43 other paramedics.

Table 3.11 gives the system of qualification of doctors who employed the paramedics other than nurses and compounders and the number of beds provided in their facilities.

Table 3.9 shows that majority who employed nurses were allopathic practitioners having bed care facility. But non-allopathic doctors with or without indoor facility also employed nurses. As far as compounders were concerned, as seen in Table 3.10 majority of them were employed by those who were qualified in Ayurveda and did not have indoor facility. It seemed that all those (regardless of their system of

Table 3.11
Qualification-system and bed-provision of the employers of paramedics

Beds	0	1	2	3	4	Total
Allopathy	5	10	10	1		26
Pure Ayurveda	2	5				7
Homeopathy	2					2
RMP	1	2				3
Integrated Ayurveda	1	1	1	2		5
Total	9	3	18	10	3	43

qualification) and who do not have indoor facilities, employed compounders, rather than other staff. All others having indoor facilities, mainly employed nurses and other paramedics. The reasons were obvious. Most of the former dispensed medicine and therefore required compounders, whereas nursing staff was required more for the latter category of doctors.

Paramedics in the Public Sector

The paramedics in the public sector were employed in facilities run by central government, state government and local bodies. They were known to work in the following institutions :

District Hospital	1
Rural Hospitals	12
Primary Health Centres	87
Subcentres	485
Dispensaries run by local bodies	6
Hospitals run by local bodies/cottage hospitals	5
Dispensaries run by state government	3
Railway Hospital	2
Other Central Government Hospital	2
Prison Hospital	1
Police Hospital	1

The total paramedical staff working in these institutions consist of nurses, nurse midwives, auxiliary nurse midwives, compounders, health assistants, health workers, etc. The total staff strength of these institutions could not be made available.

In the district hospital, at Ahmednagar there were about 100 nurses employed in various capacities, one pharmacist, three X-ray technicians and compounders were working in the same hospital. This information was unofficially collected from some staff of the district hospital. The Civil Surgeon after persistent requests made available only the list of medical personnel of the hospital.

A full-fledged working 30-beds rural hospital, at Pathardi had the following paramedical staff sanctioned as on 31st December, 1993 : Compounder, lab technician, nurse and x-ray technician one each in class III cadre and X-ray assistant and cab assistant one each in cadre IV.

Generally, in the PHCs paramedical staff consists of one compounder, one health assistant, one nurse midwife, four attendants and one ANM. Each subcentre has one ANM. Within a PHC area, there can be about 20 trained dais and about 35 CHVs depending on the exact number of villages covered by the PHC. During the sample check study it was found that each village has at least one untrained or traditional dai.

A Cottage Hospital of 50 beds at Sangamner jointly run by the State Government (through the Civil Hospital) and the municipal council, had 2 compounders, one x-ray technician, 1 lab technician, 7 nurses, 6 aayahs, 7 wardboys, 1 vaccinator, on daily wages 2 male and 3 female nurses.

The volume of paramedics in the public sector was thought to be easier to determine but neither through personal contact or the structured questionnaires sent to both the Civil surgeon and the District Health Office (DHO) could we elicit this information. Hence, the census was not very successful as far as paramedics were concerned in both public and private sectors.

In conclusion it may be said the pattern of health services in the district corresponds to the already known pattern, namely the dominance of the private sector particularly so of private individual practitioners in the delivery of medical care; the concentration of health personnel in urban areas and developed regions; rampant cross-practice amongst non-allopaths; and non-availability of specialized medical care in rural areas.

□□

4

Health Institutions In The District

Diverse types of health care are delivered to the people by various providers operating in the health care system. One of these is institutional care. Treatment provided in the confines of institutions for a certain duration is of a domiciliary character and is also referred to as hospitalization or indoor care. Treatment in these institutions could be for the purpose of examination and diagnosing the illness, curing, recuperating, maternity and related purposes among others. Institutional care can also be ambulatory care but our concern is more with institutions offering patient care.

In India health care in the public sector is mainly provided through a network of various teaching, non-teaching, district level three-tier health system with its civil hospitals, rural/cottage hospitals and primary health centres and certain specialty hospitals meant for specific illness such as tuberculosis, leprosy, mental etc. and maternity homes. In addition to the above the state provides health care for its employees through the Central Government Health Scheme (CGHS) and for the organized sector employees through its own hospitals. Other ministries and department of the government like defence, railways, police etc. have their own hospitals and other health units that provide care to their own personnel.

Private health sector institutions also provide indoor care. These may be broadly classified on the basis of their (i) bed strength, (ii) ownership and (iii) services and facilities provided. Bed strength may vary from 5 to 200 beds - even more at times. Bed strength may indicate the nature of facilities and services provided by the health units. As for ownership there are corporate hospitals set up by corporate bodies as a business venture; then there are private industrial/ plantation enterprises who have their hospitals to provide medical care to their employees; and there are voluntary and private charitable trusts hospitals. In India, as in several other countries, a substantial component of private health establishments consists of those owned by private individual practitioners singly or in partnership.

The services provided by the health care institutions are varied. There are some hospitals which provide specialized service in any one of the specialties, but many of them provide more than one speciality. These services include maternity, medical termination of pregnancy (MTP), gynecology, orthopaedic, ophthalmic, ear-nose and throat, paediatric baby care and new born center, intensive care unit, day care and other types of general services and surgical services. Single specialty institutions that provide services only for certain illness or specialty e.g. maternity, paediatric, ENT hospital etc.

The Present Study : Health Establishments

The first modern hospital to be set up in the district was the Ahmednagar Civil Hospital. It is difficult to ascertain the exact date of its establishment since two different sources state two different years, 1877 and 1882 respectively. However this difference in dates is of small importance. Besides the Civil Hospital, the district had three grant-in-aid dispensaries at Sanagamner (the present cottage hospital), Nevasa and Shevgaon. Dispensaries with indoor facilities were also available at Parner, Akola, Mirajgaon and Jamkhed. Christian missions the foremost being the American Mission were very active in the district from the late 19th century. They too set up 2 medical dispensaries to begin with, which were later converted into hospitals, one at Rahuri in 1880 and another in Ahmednagar in 1904. Since then the number of Christian mission hospitals in the district has gone up to six.

In the post independence period, the number of government aided and government hospitals and dispensaries went up from 16 in 1951 to 38 in 1957. These 38 facilities had 165 beds offering medical care to 7000 indoor patients and ambulatory care to 2.15 lakh outdoor patients per annum. In 1970, the number of public and public aided health units showed 14 dispensaries, 4 hospitals, 5 health centres and 20 primary health centers and the availability of 650 beds. Domicialary care and ambulatory care was made available to 55062 and 427407 patients respectively per annum through these health establishments. These health institutions offered employment to 103 doctors, 16 Vaidyas and 223 nurses. In 1971 there were a total of 752 health establishments in the district. Of these 535 were rural based (employing 1346 personnel) and

217 (employing 1217 personnel) were located in urban areas. Sectorwise disaggregated figures were not available.

In the present study 860 health institutions in the district including 366 institutions having bed facilities were recorded from all the available sources. These included private dispensaries/ clinics with as few as three beds, private hospitals and nursing homes, rural hospitals and comparatively bigger public, voluntary and missionary hospitals, and government PHCs and sub centers. A total count of all health establishments showed that in the public sector alone there were in all 605 health units, including PHCs, sub centres and units run by the Central, State Governments, Zilla Parishad and Municipal bodies. In Ahmednagar district the public sector health network consists of units as shown in Table 4.1

Table 4.1
Public health institutions in the district

District hospital	-	1
Rural hospital	-	12
PHCs	-	87
Subcentres	-	485
Dispensaries run by Municipal Councils	-	6
Hospitals run by local bodies (including one by Cantonment body)	-	6
Dispensaries run by Zilla Parishad	-	3
Military hospital	-	1
Railway hospital	-	2
Prison hospital	-	1
Police hospital	-	1
Total	-	605

Of the 605 public health establishments 587 were located in rural areas and 18 were urban based. On the basis of bed strength of the 605 health units, 494 health units had no beds, while 111 health institutions offered indoor care. But of the latter, 87 were PHCs which offered limited indoor care and five offered medical care both domiciliary and ambulatory to only defined groups of people e. g. military employees and their dependents or railway employees and their dependents. Only 19 public institutions were available to the large general population offering institutional or indoor care. Out of the 19 public hospitals, 7 were in the urban area and 12 in the rural areas.

Of the 366 institutions with beds, 225 were in the private sector, 111 were public sector units and 11 belonged to voluntary and missionary sectors. The sources could not give information about ownership for the remaining 19.

The information about type of services offered was not available for about 82 of the total hospitals. Of the 82, 57 are general hospitals, 11 belonged to the public sector, 4 to the voluntary and 42 to the private. According to information gathered, 74 were maternity homes, 5 in the public sector, 1 was a voluntary unit and 68 were private. Psychiatric, orthopaedic, ENT and opthalmic services, surgical and specialized services for treatment of leprosy, cancer, heart-diseases, TB and other infectious diseases were provided by the remaining 62 institutions. All services general and maternity care were provided other than by private practitioners (91%). The remaining (9%) services were provided by the voluntary sector.

According to available information, 16% of general hospitals and 7% of maternity homes were run by non-allopathic doctors.

Table 4.2
Rural-urban distribution of hospitals according to bed strength

Bed-strength	Number of Hospitals Urban	Number of Hospitals Rural	Total
Upto 10	56	-	56
11-20	33	1	34
21-30	7	7	14
31-40	4	-	4
41-50	1	-	1
51-100	2	-	2
101-150	4	1	5
151-200	3	-	3
Above 201	-	2	2
Total	110 (91%)	11 (91%)	121

Of the total hospitals especially those in the private sector 74% were located in urban areas and 26% are located in rural areas. As with the case of health personnel bias was towards the urban areas in developed taluka. About 70% of hospitals were concentrated in urban areas of the 5 developed talukas. Remaining 30% were spread throughout the rural areas of the district and two urban centres of the underdeveloped talukas (Shrigonda and Pathardi).

While 366 institutions were known to have beds, data on bed strength was available only for 121 of the total listed health units, of which 92% were from urban and only about 8% are from rural areas. If we look at the bed-strength of these 121 hospitals, we find that 90 (74%) of them were smaller hospitals having beds upto 20. But again 99% of these health units up to 20 beds were located in urban areas.

There were two hospitals having beds above 200, and both of them were in rural areas. One was a TB sanitorium in Arangaon, at 6 km from Ahmednagar town and the other was Pravara Medical Trust's Hospital at Loni, a semi-urban place.

Profile of the Institutions

Questionnaires were mailed to 274 health establishments, which excluded PHCs and subcentres, identified during the survey. Of these 90, i.e 32% responded.

Out of the 90 health units that responded, 75 were from the private sector, 8 from the voluntary / Non Governmental Organization (NGO) sector and 7 from the public sector. The account that follows describes and analyses the information elicited from these 90 respondents.

Of the 90 respondents, 5 hospitals were from the pre-independence period, one of them dating back to 1917. Two each of the units were from the voluntary and public sector respectively and 1 was from the private sector. Between 1946 to 1969, 12 units were established, between 1971 to 1980, 24 units were established and between 1983 to 1991 40 units. The national trend in the post independence years showed growth in the private sector. Expansion of private health units can be noticed at the National level also. In India, during 1974, 16% of the health institutions and 21.5% of the hospital beds were in the private sector. This proportion increased in 1990 to 57.95% of the hospitals and 29.12% hospital beds. (CBHI, various years).

The trend corresponds at both the national and district level. The private sector increased from the seventies onwards and in the eighties witnessed rapid growth. Out of 40 institutions established between 1983 to 1991, 38 were from the private sector.

Thus by its increased presence the private sector became dominant during the seventies and eighties. One of the foremost reasons was the economic policies followed by the Government whereby the private sector could enlarge unhindered. There was a general undermining of public health services due to deficiency of funds for health facilities in rural areas. Between the years 1985 and 1991 the ratio of national government expenditure on health as percentage to total government expenditure halved from 6.3% to 3.68%. (George A. 1993) The State took up the responsibility of preventive and promotive health care services and left the curative care which was the main need of the people largely in the hands of the private health sector. The demand of the people from rural areas was more for curative services; instead primary health care was thrust upon them which ultimately became a instrument for pushing family planning services.

The findings with regard to the locations of the

Table 4.3

Geographic distribution of hospitals

	Urban	Rural	Total
Private	52	23	75
Voluntary	5	3	8
Public	2	5	7
Developed Talukas	57	5	62
Under developed Talukas	2	6	28
Total Hospitals	59	31	90

Table 4.4

Type of management and ownership

Management	Private sector	Voluntary sector	Public sector
Individual Proprietorship	70	---	---
Partnership	3	---	---
Trust/Society	1	8	---
Private industrial Enterprise Ownership	1	---	---
Government	---	---	7
Total	75	8	7
Ownership of premises	Private	Voluntary	Public
Owned	61	6	4
Long Term Lease	1	2	---
Rental	12	---	---
Any Other	1	---	3
Total Number of health units	75	8	7

hospitals in the district was that 57 hospitals were located in the developed talukas, bulk of them in urban areas. Ahmednagar and Kopargaon talukas alone accounted for 38.88% of the hospitals in the district. This corresponds with a study conducted in Andhra Pradesh which found that the highest concentration of hospitals and nursing homes were in the towns and cities of the advanced districts. Even in the backward districts they were restricted to major towns (Rama Baru, 1993).

The present study also shows that out of the 75 hospitals in the private sector 52 were located in urban areas. The private sector functions in areas where there is a paying capacity. The growth of the private sector in health care is directly related to the level of economic development. This link is logical because it is the economically developed areas which not only provide the market for these services but also the surplus to invest in commercial enterprises (Rama Baru, 1993).

With regard to the location of voluntary sector hospitals in the district 5 of them were located in urban areas, again in the developed regions. A study conducted by the Foundation for Research in Community Health (FRCH) found that 34% of the NGO projects working in health care were located in districts with above average socio-economic development, 36% in districts with average development and 30% in districts with below average development. Majority of the NGOs prefer to locate where infrastructural facilities are better developed (Jesani A,1986,). That this was a trend common also to the voluntary sector was confirmed by the Andhra Pradesh study which observed that NGO run health institutions tend to be located in developed districts and within them in developed tehsils (Rama Baru, 1993).

The findings with regard to the type of management/ownership (Table 4.4) revealed that among the private hospitals, 70 were owned by individual proprietors, 3 were run on partnership basis, one was run by a Trust and one by an industrial enterprise. The high number of individual ownership of hospitals appeared to be due to the increasing number of doctors passing out from the medical colleges and limited employment opportunities in the public and private sectors. In the public sector opportunities were available but primarily in the rural areas. Most allopathy doctors were reluctant to join government health units in the rural areas. In the private sector - including voluntary - large hospitals with employment potential were very few. In the last decade and a half banks and government institutions such as the MSFC (Maharashtra State Finance Corporation) have begun to offer financial loans for setting up nursing homes/hospitals. As a result, it attracted doctors towards establishing their own health units with indoor facilities. Growing competition forced doctors desirious of attracting as large a clientele as possible to offer as many services as possible. New developments in medical technology facilitated the expansion of specialized medical care, and given the financial constraints of the government sector, health units offering such care came up primarily in the private sector.

The trend towards establishing private health

Table 4.5

Profile of responding health establishments

	Sector			Geographical Distribution		
	Pvt	NGO	Pub	Urban	Rural	Total
Total No. of Units	75	8	7			
Total No. of Beds	1085	906	286	1738	539	2277
Avg no. of beds (per hospital)	14	113	41	29	17	24
Avg floor space (sq.ft.)	2068	29678	4643	5196	9570	4723
Avg No. of OPD cases p.m	805	2802	1791	998	1174	1059
Avg no. of admissions p.m	70	221	144	94	80	89
Avg days of stay	5	5	13	7	5	6
Avg occupancy rate	142	187	82	145	157	148

units was evident as seen from private ownership of the premises. Out of a total of 75 private hospitals, in the case of 61 the premises were owned by individual doctor-proprietors and only in the case of 12 hospitals were the premises rental. The information on type of management and ownership of the premises clearly establishes the trend amongst many medical practitioners of setting up and constructing their own hospitals/nursing homes. Hospitals, the voluntary sector were registered either as Trusts or under the Cooperative Societies Act since the primary concern of this sector was to reach out to the poor and the underpriviledged for whom quality medical care was often financially inaccessible. Out of the seven public hospitals that responded five of them were run by the State Government and two by municipalities.

There were a total of 2277 beds in the district amongst the hospitals that responded. Three fourths of the beds were in the urban areas, most of them in the developed talukas of the district. There were a total of 904 beds amongst the 8 voluntary sector hospitals, the seven public sector hospitals totalled 287 beds and the private sector accounted for 1085. Although at the all India level the growth in private hospitals has been tremendous, the increase in number of beds has been very modest. Bed strength in the country in private sector increased from 21.5% of the total in 1974 to merely 30% of the total in 1988 (Jesani A., Anantharam S., 1993). In Ahmednager District amongst the 90 responding health units the average bed size was 14 in private hospitals while in the voluntary and public sectors it was 113 and 41 respectively. Though the total number of beds in the private sector were more, in terms of beds per hospital, the average is small. This trend is explained by the fact that small nursing units expanded rapidly in the private sector while hospitals with a large number of beds, requiring large capital attract less investors. Corporate hospitals with a sizeable number of beds and state-of- the-art technology are a phenomenona common to the metropolitan cities of India. The majority of the privately owned health units were small nursing home with bed strength ranging from three to thirty beds.

Services and Facilities Provided by Responding Health Establishments

Few studies have been conducted of the services and facilities provided by hospitals from the private and voluntary sector. Several studies are available on the hospitals in the public health sector. Data and information with regard to the functioning of private and voluntary sector is not forthcoming. Figures regarding cases treated, diagnosis, type of treatment provided, amount charged etc. are not easily obtainable from private hospitals and nursing homes. In the present study since information was collected through a mailed questionnaire, there were limitations to the data with regard to the services, facilities and staffing and qualification of the staff. There were no physical verification of the various claims made in terms of the

Table 4.6
Services provided

	Sector			Geographical Location				
	Pvt	NGO	Pub	Devl	Undevl	Urban	Rural	Total
Gen. Medicine	48	7	5	30	30	32	28	60
Gen. Surgery	33	7	3	29	14	30	13	43
Maternity	46	7	6	34	25	37	22	59
MTP	26	4	6	23	13	25	11	36
Cardiac	15	3	3	14	7	15	6	21
Opthalmic	18	5	4	14	13	16	11	27
Orthopaedic	20	4	2	21	5	22	4	26
Paediatric	37	7	5	30	19	33	16	49
ICU	3	2	0	5	0	5	0	5
ENT	20	2	1	16	7	16	7	23
Infe Diseases	21	5	5	14	17	17	14	31
Others	4	2	2	7	1	7	1	8
Total Hosp.	75	8	7	59	31	62	28	90

facilities available and services offered. Inspite of the limitations, the study does contribute in terms of understanding the general trend.

As observed earlier the services offered by hospitals vary. There were some hospitals which provided specialized service in any one field, but many of them provide more than one specialised service. These services broadly fall under surgical and medical services.

Table 4.6 gives information on the services provided by the responding health institutions, distribution across the three main sectors, and social geography indicating the availability non-availability of these to urban and rural population. The presence of some health units offering certain services does not, however, mean the services were also accessible to the population.

More than half of the private hospitals provided services in general medicine, surgery, maternity and paediatric care. Less than a quarter provided services in cardiac, opthalmic, orthopaedic, ENT and infectious diseases. Only three of the 75 hospitals provided services for Intensive Care Unit. Among the seven public

Table 4.7
Facilities provided

	Sector			Geographical Location				
	Pvt	NGO	Pub	Devl	Under Devl	Urban	Rural	Total
Minor OT	40	5	4	34	17	31	20	51
Major OT	40	7	4	42	9	40	11	51
Labour Room	42	7	6	38	21	35	24	59
X-ray	32	7	3	30	12	27	15	42
Fluoroscope	9	1	1	7	4	6	5	11
Rout Path	33	7	6	33	13	31	15	46
Special Path	6	0	2	5	1	5	1	6
Anaesthesia	30	7	4	31	10	30	11	41
ICU	4	2	0	6	0	6	0	6
Ultra-Sono	6	0	0	6	0	6	0	6
SPL Dign Test	2	0	0	2	1	2	1	3
Any Other	6	1	0	7	0	7	0	7
Total Hosps	75	8	7	62	28	59	31	90

Table 4.8
Personnel

Category	Sector			
	Pvt	NGO	Public	Total
Full/Part time RD	104	39	16	159
Visit/Atth Doc	172	32	17	221
Qualified Nurses	68	34	32	134
ANMs	49	48	12	109
Paramedics	114	22	15	151
Pharmacist	2	5	2	9
X-ray Technicians	3	15	0	8
Lab-Technicians	12	10	0	22
Others	284	107	59	450
Total	808	302	153	1263

hospitals that responded six hospitals provided care for maternity and Medical Termination of Pregnancy (MTP), five of them for general medicine and paediatric respectively. Merely three hospitals provide services for surgery, two for orthopaedic and one for Ear, Nose and Throat (ENT). In the NGO sector the provision of services followed a similar pattern as that of the public sector. Out of eight NGO hospitals, three had services for cardiac care and two provided services for ICU and ENT services respectively. Most specialized services are available in the private/NGO sector which are mainly based in the developed talukas and urban areas. No ICU service is available in the rural areas or underdeveloped talukas. The cardiac, paediatric and ENT services are available to a limited degree in rural and underdeveloped areas. General medicine and maternity homes are commonly available in the rural and underdeveloped areas. There are services that are commonly in demand. Institutional delivery has gradually increased over the years.

Table 4.7 shows distribution of facilities over sector and social geography. The table shows clearly the technology approach even high technology base of private medical care. Evident also is the urban /rural and developed/undeveloped differential in terms of services and facilities available. Orthopaedic services were provided by twenty six hospitals, twenty two being were located in urban areas. Out of the twenty one hospitals providing cardiac care, fifteen hospitals were in urban and the rest in rural. Out of 6 hospitals where facilities for special pathology were available, five were in urban areas of the developed talukas. The services of ICUs were available only in the urban areas of developed talukas. Out of the five hospitals providing ICU's three were from the private sector and two from the NGO sector. Facilities for anaesthesia were available in forty one hospitals, were in private and in urban areas of the developed talukas. Same was true of x-ray facilities. Six hospitals providing facilities for ultra-sonographies were in the private sector located in the urban areas of the developed talukas. Same was also the case with facilities for special diagnostic facilities. There were two hospitals providing special diagnostic facilities both of them in the private sector located in urban areas of the developed talukas.

Personnel in the Hospitals

Health care delivery being a labour intensive service the presence of trained personnel in the hospitals is an important determinant for the provision of medical care. There are diverse categories of health personnel broadly classified by their qualification or even lack of qualification. Among the qualified personnel training could be in the various systems of medicine as amongst doctors or for the services and role they are expected to perform. There are doctors, nurses, paramedics, pharmacists, various types of technicians to handle equipment and conduct various tests and the other supportive staff like ward boys, ayahs, receptionist, typist, security personnel etc.

Questions regarding the staff strength and type of various personnel elicited information enumerated

Table 4.9
Visiting doctors (Sectorwise)

	Pvt	NGO	Public	Total
Gynaec	26	3	0	29
Paediatric	18	1	0	19
Ortho	12	2	0	14
ENT	22	1	0	23
Surgeon	26	5	0	31
Physician	15	0	0	15
Pathologist	2	0	0	2
Eye/Optho	16	3	0	19
Anaesthesia	19	2	0	21
Dentist	5	0	0	5
General Medicine	15	2	0	17
Cardio	5	4	0	9
Neuro	2	0	0	2
Any Other	20	3	0	23
Not MBBS	1	2	0	3
Total	204	28	0	232

in Table 4.8. The table shows distribution of various categories of personnel across sectors. Private hospitals tend to depend more on visiting/attached doctors to provide medical care than on fulltime employed doctors. Most often private nursing homes offer specialized medical care through these visiting/attached doctors. Few small size private health units offering domiciliary care employ resident doctors.

The availability of the doctor during times of emergency for the patient is of utmost importance. It has been observed that most owner-doctors stay in the hospitals or close to the hospital premises. A second important observation was that doctors trained in other systems of medicine administered allopathy treatment in these hospitals. Various practices prevail in hospital admissions. Some private hospitals admited patients of the owner-doctor/s alone. In some hospitals indoor care was available to patients of consultants/specialists attached to these hospitals or on the recommendation of general practitioners who have entered into such an arrangement with these institutions. The present findings show that most private units choose to have visiting specialists instead of offering fulltime employment.Of 204 visiting doctors in the private sector twenty six were surgeons, twenty six gynecologists, twenty two ENT specialists, ninteen anaesthetists and eighteen pediatricians. There were only two pathologists, five cardiologists and two neurologists. Information on specialization of doctor employees in the public sector was not available.

Few qualified nurses appear to be employed in these private units, except perhaps those in the voluntary sector, where some professionalism appeared to exist. Thus as far as trained personnel requirement were concerned, private hospitals fell very short of the requirement. Majority of them employed unqualified staff.

There appeared to be no corresponding link between the availability of certain facilities/services and the employment of trained medical personnel in the provision of these services. Thus, while thirty two private hospitals provided X-ray facilities only three had X-ray technicians. There were only twelve lab-technicians for routine pathology offered by thirty three of the private hospitals in the study. In the voluntary sector run hospitals, the situation appeared to be better with seven providing X-ray facilities and having the services of five X-ray technicians. There were ten lab technicians in the seven hospitals providing routine pathology. In the public hospitals there were no X-ray technicians in 3 hospitals inspite of the availability of this facility. The same was the case with the various pathological facilities. This can be explained by the common problem faced by all public/governmental systems namely redtapism and bureaucratic indifference causing undue delay in the filling up of various vacancies in these health units.

Findings : Medical Stores

As a part of listing of health establishments

Table 4.10
Rural-urban distribution of pharmacies

	Urban	Rural	Total
Ahmednagar (district)	116	19	135
Akole		28	28
Jamkhed		13	13
Karjat		22	22
Kopargaon	29	24	53
Newase		36	
Parner		30	30
Patharadi		21	21
Rahuri	9	38	47
Sangamner	35	16	51
Shevgaon		22	22
Shrigonda	2	28	30
Shrirampur	37	34	71
Total	228	331	559

(Social geography and taluka of 6 pharmacies could not be identified)

medical stores were also listed with the help of the Food and Drug Administration, Ahmednagar. There were 565 licensed drug-sellers in Ahmednagar district. 416 (71%) of them were medical stores while the remaining 149 (29%) were grocery shops, stationary stores, cloth shops and even pan-stalls which were licensed to sell a limited number of medicines. Insufficient availability of qualified services discussed earlier explains the presence of 72% of the latter type in rural areas.

Like doctors and hospitals about 63%.of medical stores are located in developed talukas. Unpredictably, out of the total 565 drug sellers about 46% were located in urban areas while 54% were in rural areas. This fact needs further investigation, especially the possibility of drug sellers functioning as unlicensed practitioners, and a substantially high sale of medicine without prescription due to non-availability of adequate health personnel in rural areas.

The above analysis thus closely brings out the unequal rural-urban distribution of health services, highlights the inadequacies of official and non-official records in the enumeration of health institutions and reflects the lack of any regulation of the private health sector.

□□

5

Individual Health Providers : Investment and Expenditure

The chapter examines investment made by private doctors to set up health units and monthly expenditure incurred by them towards running these health units. The attempt is to analyse the nature and volume of investment and expenditure and to see if any pattern emerges particular to the type of health providers.

Profile of Respondents

Ninty six health providers selected were classified into five groups,namely, allopath general practitioners (17), allopath specialists (29), Ayurveda (24), homoeopath (18) and registered medical practitioners (8). Ninety-two of the total doctors were individual proprietors. One practitioner, an allopath specialist, owned his unit in partnership with another doctor, while one each amongst allopath general practitioners, Ayurveda and homoeopath practitioners had formed trusts which owned and operated the unit from where they provided medical care. Their health units thus legally and technically under trust management were in reality controlled and run by the individual practitioners. The formation of trusts was more of an attempt to ensure tax benefits and other concessions on the purchase of medical equipment which Trusts are entitled to. Amongst the sample of 96 individuals, 26 had started their practice before 1975, 37 during the period 1976-85 and 33 between 1986-1992.

Table 5.1 shows the distribution of these individual practitioners across talukas according to urban and rural location.

Table 5.1
Geographical distribution of doctors

Talukas	Allo-GPs		Allo-SPs		Ayurveda		Homoeo		RMPs	
	U	R	U	R	U	R	U	R	U	R
1 Nagar	2	2	20	-	6	2	1	2	-	-
2 Akole	-	3	-	1	-	1	-	4	-	2
3 Kopargaon	1	4	5	-	1	2	-	2	-	-
4 Pathardi	1	1	-	-	1	3	-	3	1	3
5 Shevgaon	-	1	-	2	-	4	-	4	-	1
6 Srigonda	-	2	-	-	1	3	-	2	-	1
7 Shrirampur	-	-	1	-	-	-	-	-	-	-
Total	4	13	26	3	9	15	1	17	1	7

Table 5.2
Floorspace according to system of medicine

FLSPACE in sq.ft.	Allo-GPs	Allo-SPs	Ayurved	Homoeo	RMPs	Total
up to 500	12	15	23	16	7	73
501-1000	3	8	-	2	-	13
1001-1500	2	1	-	-	1	4
more than 1500	-	5	1	-	-	6
Total	17	29	24	18	8	96

Majority of the practitioners, including specialists had units with area less than 500 square feet, as shown in Table 5.2. This appears so because of mainly two reasons. The first factor was that a majority over 50% had rented premises. Second, was the fact that a majority (81 out of 96) did not offer indoor care and hence had no beds. (See Table 5.3.)

Table 5.3
Beds according to system of medicine

Beds	Allo-GPs		Allo-SPs		Ayurved		Homoeo		RMPs		Total
	U	R	U	R	U	R	U	R	U	R	
0	3	11	21	-	8	15	1	14	2	6	81
10-20	1	2	4	3	1	-	-	3	-	-	14
20 and more	-	-	1	-	-	-	-	-	-	-	1
Total	4	13	26	3	9	15	1	17	2	6	96

Fifteen from amongst the total 96 practitioners had beds of which 11 were allopath practitioners, 1 an Ayurveda practitioner and 3 homoeopath practitioners, as shown in Table 5.3

Employment of medical, paramedical or non-medical staff was not common except in the case of those who provided indoor services. Only 2 allopath specialists had employed doctors to assist them. Fifty one per cent of the practitioners did not employ any paramedical staff. Forty five per cent practitioners employed upto 5 paramedical workers. Four out of the total 29 allopath specialists employed about 10 paramedical workers each. Sixty nine per cent of the practitioners did not have any non-medical staff. The remaining 31% employed non-medical staff such as receptionist, office-boys, sweepers.

The above discussed features of the respondents are important indicators for analysing investment made and expenditure incurred. However, only the three factors having an important bearing on the extent, nature and pattern of the money involved in setting up and running health units are considered. (1) the system of medicine in which the particular practitioner had been trained and; (2) the geographic location of the unit; and (3) bed strength. Hence for the purpose of analysis the provision of bed facility, system of medicine and social geography are considered.

Factors considered for analysis

The system of medicine determines the nature and volume of investment primarily because it can determine the type of services an individual practitioner may offer. Since the non-allopathic systems are essentially non-technology oriented, hardly any investment is made in technologically advanced medical equipment or state-of-the art medical technology. Ayurveda practitioners and homeopath dispense medicine, but are not dependent on medical technology for diagnosis or treatment because of the principles and approach on which their systems are based. They are hence, less likely to invest in medical equipment and more likely to build up an inventory of herbs and of medicines. The allopath and especially the specialist are less likely to dispense medicine (though it may be a common practice in rural areas where access to medical stores is difficult) but do invest in setting up technology based diagnostic and therapeutic facilities and services. Even where non-allopathic practitioners engage in cross-practice there is an inherent limitation to the type of services they are likely to offer. However, there are exceptions.

Secondly, each system, level of qualification and type of specialisation may demand a specific kind and hence size of investment, for instance, the investment likely to be made by an allopathic general practitioner, an Ayurveda practitioner, a radiologist or a physiotherapist. It necessarily differs. Over the years specialisation has grown. New and rapidly advancing medical technology has become easily available and accessible. As a result, even the demand for high-tech treatment has also grown. Along with these factors, government and public subsidy, and various loan and financing schemes for purchasing of medical equipment and setting up medical practice have also been responsible for higher investments in medical practice.

Moreover, it is observed that training in non-allopathic systems is a second choice amongst students opting for the medical profession. This happens because either they fail to meet the minimum qualifying requirements or because financial constraints may lead them to choose non-allopathic medical education which is less expensive. Both the above observations are true to a large extent about students from rural backgrounds and the socially and economically disadvantaged classes.

The geographical location of the unit again determines the money required to meet, match and fulfill the market demands in that particular location. The level of development and urbanization may determine the volume of investment. In the present Indian context where gross socio-economic disparities exist between urban and rural areas the level and quality of education is also disparate. The rural students aspiring for a medical profession are often the victims of this disparity. Unable to get admission to a medical course of their choice they opt for alternative course. Education in indigenous systems of medicine or homeopathy offers such an option. Hence, quite a sizeable number of students of non-allopathic medicine were observed to have come from rural background and lower economic class. Education in a less expensive system of medicine suggests low paying capacity indicating lower economic class. This in turn affects the capacity to invest in setting up practice.

Another important factor playing a role in determining the volume of investment required by health providers in urban areas as against those in the rural areas is competition. Given the concentration private medical practitioners in the urban areas the competition forced by urban practitioners may make them invest and spend substantial amount of money for interior designing of their units. This investment and expenditure may occur on the interiors, furniture facilities and technologies to attract clientele.

The following sections discuss, first the investment pattern and then the expenditure patterns. Each item of investment and expenditure is considered for analysis. The analysis is restricted to only those respondents who provided the information and excludes those who did not. The category, `registered medical practitioners', was not considered for analysis because the number in the sample was not adequate to draw any definite conclusions.

Investment Patterns

The investment data were recorded for broad heads such as building construction, furniture and renovation, equipments and vehicle. Nearly half the respondents conducted their practice from rented premises. Deposits in the case of rented premises were recorded but are not discussed seperately (though included in total investment figures) because the practice of collecting deposits for rental premises was not found to be much prevelant in the district.

Table 5.4 shows Allopath specialists made the largest investment while ayurveda practitioners made the least. This is easy to explain and understand. Allopath specialists by the very nature of the services they offered required to have more facilities and equipment and hence needed to invest more in setting up their practice. Interestingly, except the ayurveda practitioners, in urban areas the investment of all categories of practitioner was in the same range of (330-390) whereas for rural areas the investment range was almost same for all categories of doctors (210-270). Rural practitioners spent less than their urban counterparts. The services extended by rural practitioners are limited, more over cost of land and construction is less in rural areas than in urban.

Table 5.4

Average investment of each category according to social geography (in Rs. '000)

Social Geography	Allopath-GPs	Allopath Specialists	Ayurveda Doctors	Homeopath Doctors	All categories Average
Urban	338 (3)	388 (14)	192 (8)	344 (1)	320 (26)
Rural	226 (12)	263 (3)	207 (14)	276 (17)	219 (46)
Average	248 (15)	366 (17)	201 (22)	223 (18)	255 (72)

(Figures in parenthesis indicate the number of practitioners)

Table 5.5

Average Investment of each category according to bed facilities (in Rs.'000)

Bed Facilities	Allopath-GPs	Allopath Specialists	Ayurveda Doctors	Homeopath Doctors	All categories Average
Without beds	199 (12)	359 (12)	207 (21)	202 (15)	234 (60)
With Beds	446 (3)	384 (5)	81 (1)	327 (3)	360 (12)
Average	322 (15)	371 (17)	144 (22)	264 (18)	255 (72)

(Figures in paranthesis indicate the number of practitioners)

Allopathy specialists made the highest investment (3,71,000). Their average investment worked out to 3.6 lakhs (for the no-beds category) which rose to 3.8 lakhs for those with beds. In contrast, allopathy GPs made the lowest average investment (approximately 2 lakhs), but allopathy GPs with beds led all others in terms of investment (4.5 lakh). This appeared to be the case because allopath non-specialists to meet the competition did not restrict their practice to general practice but provided modern services, or ran maternity homes.

Specialists without beds and with beds made nearly the same amount of investment, as seen in Table 5.5. In all cases except the Ayurveda practitioner, the investment was directly related to the availability of bed facility. [The single Ayurveda practitioner with beds had only one bed and hence was not considered for a comparative analysis.]

There was a general increase in investments made by allopath and homoeopath general practitioners in the years between 1976-1985 and 1986-1992 (Table 5.6). Some decrease in the investments of allopath specialists and Ayurveda doctors who had set up practice after 1985 was noted. Investments made by these two categories of doctors between 1976-1985 was more. This can be explained for by the size of the unit and other facilities provided.

Investment in building construction furniture and equipment are the two major components of the total investment made. Table 5.7 shows a high difference in the investment for building construction in urban and in rural areas for each of medical practitioner category. The difference is obvious because of the higher cost of construction including the prices of the land in urban areas than in rural areas. As far as furniture is concerned there is no particular pattern.

Most of the investment in furniture was on such common items as tables, chairs and cupboards except in the case of individual practitioners who had bed facilities or major/minor OT where the investment was on beds and furniture required in the OT.

Of the total of 96 only 48 gave information on investment in equipment of which 36 were from the rural areas and 12 were urban based.

Table 5.6

Average investment of each category according to the period of establishment (in Rs.'000)

Establishment Decade	Allopath-GPs	Allopath specialists	Ayurveda Doctors	Homoeopath Doctors	All Categories Average
Before 1975	213 (4)	237 (4)	175 (8)	166 (1)	198 (17)
1976 - 1985	224 (7)	454 (8)	229 (9)	213 (4)	240 (28)
1985 - 1992	325 (4)	350 (5)	193 (5)	231 (13)	256 (27)
	248 (15)	366 (17)	201 (22)	223 (18)	255 (72)

(Figures in paranthesis indicate the number of practitioners)

Table 5.7

Average investment in various heads for each category (in Rs. '000)

Heads	Allopath GP		Allopath Specialist		Ayurveda Doctor		Homoeopath Doctor		All Categories
	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	
Building	525 (1)	89 (10)	225 (2)	95 (2)	85 (2)	47 (4)	-	122 (5)	116 (26)
Furniture	6 (3)	14 (11)	49 (18)	36 (2)	13 (8)	8 (13)	7 (1)	10 (15)	21 (71)
Equipment	40 (1)	10 (8)	161 (2)	12 (3)	12 (8)	5 (12)	125 (1)	7 (13)	17 (48)

(Figures in parenthesis indicate the number of practitioners)

Investment in equipment was on four types a) imaging equipment, b) diagnostic c) surgical, and d) therapentic. Only 4 of the urban allopath GPs spent on equipment whereas 8 of the 13 rural practitioners spent on equipment. Of the 26 specialists in the urban area only 2 stated they had invested in equipment whereas all the three rural based specialists stated they had spent on buying equipment. Interestingly a majority of both Ayurveda and homoeopath practitioners had invested in equipment as against specialists. The real explanation for this is that majority of the respondents from amongst the specialists did not provide information on the investment made in equipment. Thus, it merely means that specialists did invest in equipment but declined to give information. The higher investment in equipments by the urban allopath general practitioners and specialists owes to the high-tech modern nature of the system. The lone homoeopath, who has invested more than Rs. 1,00,000 in equipments owns a computer.

Since nearly half of the individual practitioners operate from rented premises, and still a few others from premises which were part of intented property, the number of doctors investing in building was small. Almost those who had invested in building were those with large bed facilities. They essentiallly owned and ran nursing homes. The number of doctors investing in equipment was half of the total respondents. But 71 of the total practitioners stated their major investment was in furniture.

Sources of Investment

An important and interesting area to examine was the sources of finances. The study shows institutional loans, were the single most important source of finance. Table 5.8 shows the number of loans taken by the practitioners of each category for the purpose of setting up and expanding their practice.

Of the 96 practitioners studied, 33 (34.4%) did not go in for loans, they had either invested money they had inherited or their own earnings/savings from earlier jobs or practice. Of the total 96 respondents, 33 did not take any loans, 39 took one loan each, 16 took 3 loans each, 7 took loans each and only one an urban specialists took 4 loans. Sixty six of the total respondents took loans. Of these 35 were from rural areas and 28 from

Table 5.8

Frequency table for the number of loans

Loan no.	Allo-GPs		Allo-SPs		Ayurved		Homoeo		RMPs		Total
U R	U	R	U	R	U	R	U	R	U	R	
0	4	3	7	-	1	6	-	5	2	5	33
1	-	6	11	1	5	5	-	10	-	1	39
2	-	4	1	2	2	4	1	2	-	-	16
3	-	-	6	-	1	-	-	-	-	-	7
4	-	-	1	-	-	-	-	-	-	-	1
Total	4	13	26	3	9	15	1	17	2	6	96

Table 5.9

Average monthly expenditure of each category according to social geography (in Rs.)

Social Geography	Allopath-GPs	Allopath Specialists	Ayurveda Doctors	Homoeopath Doctors	All Categories Total
Urban	3613 (4)	10369 (22)	3519 (9)	5940 (1)	23441 (36)
Rural	5920 (11)	8984 (3)	3124 (15)	3330 (16)	21358 (45)
Total	9533 (15)	19353 (25)	6645 (24)	9270 (17)	44,799 (81)

(Figures in parenthesis indicate the number of practitioners)

the urban areas. None of the urban allopath GP, took a loan while 10 of the 13 allopath GPs did. Of the total 29 specialists 22 had borrowed money of which 19 were from the urban area and three from the rural. Eight urban Ayurveda practitioners borrowed money while nine rural practitioner went in for loan. The lone urban homeopath took a loan against 12 out of 17 of the rural homeopaths. Interestingly only one RMP took a loan. Most loans were taken by specialists and the homeopaths.

Nationalized banks are the major source for borrowing finances. Of a total of 63 loans taken 55 (87%) were from nationalzed banks, 7 (11%) from co-operative banks, 5(7.9%) were from Maharashtra State Finance Corporation (MSFC), 15 (23.8%) were from other institutions like LIC etc. Of all the loans 8 (12.7%) were taken from informal sources.

Most of the respondents said that the general experience of raising loans was good. The hassle free experience doctors had in raising loans meant primarily that they faced no red tapism or bureaucratic hurdles in their efforts. Part of the explanation may be found on the fact that both nationalised banks and MSFC had special loan schems for medical practitioners.

The procedures for borrowing are well defined. Since these doctors mainly borrowed under these schemes, they faced no difficulties as long as they followed procedures and met basic requirements. The lending agencies themselves also appeared to have an open mind and willingness to entertain the loan applications from doctors. Doctors were good customers. In our informal discussion with bank officials and MSFC officials, we were informed that doctors were least likely to default on repayment. Indeed records showed that doctors hardly defaulted on repayment of loans. In the case of co-operative banks, as a few doctors told us, local contacts were useful. Co-operative banks being local banks, friends and relations in cooperative banks, especially at the Board of Directors or management level were important and useful contacts.

Expenditure Patterns

The monthly expenditure figures were recorded for broad heads such as supplies (included expenditure on drugs, medical supplies, equipments and maintenance of equipments), maintenance for running a unit (includes telephone and electricity bills, taxes, fuel, stationary and other maintenance), salaries, rent, vehicles - fuel and

Table 5.10

Average monthly expenditure of each category according to bed facilities (in Rs.)

Bed Facilities	Allopath-GPs	Allopath Specialists	Ayurveda Doctors	Homoeopath Doctors	All Categories Total
Without Beds	5178 (12)	7953 (18)	3249 (23)	2861 (14)	19241 (67)
With Beds	5812 (3)	16410 (7)	3815 (1)	6387 (3)	32424 (14)
Total	10990 (15)	24363 (25)	7064 (24)	9248 (17)	51665 (81)

(Figures in parenthesis indicate the number of practitioners)

repairs, and other (included premises repair, newspaper, magazines and other if any).

Rural practitioners of all categories except allopath general practitioners spent less than those in the urban area (Table 5.9). Higher expenditure of allopath general practitioner in rural areas may be explained by the break-up in various expenditure heads. The monthly expenditure of allopath specialists in both urban and rural area was high suggesting that urban and rural location made little difference.

Expenditure may be directly related to the availablity of bed facility. Table 5.10 shows that those with beds spent more than those without beds. Allopath specialists and homeopaths with beds spent far more than those without beds. These two categories of practitioners also spent more than allopath general practitioners and ayurveda practitioners with bed facilities spend. This is so because amongst Allopath GPs and Ayurveda doctors, most of them have fewer than 5 beds, used more for the purpose of day-care facility rather than long term stay. The substantially high expenditure of allopath specialists can be explained in relation to number of beds as seven of the allopath specialists had up to 10 beds and 1 had 16 beds. Allopath specialists did not merely offer out door services but ran nursing homes and hospitals. The number of beds they had in their units was higher than those in units run by non-allopaths practitioners. Specialised services being technology oriented specialists spent substantially high to maintain and operate their practice.

Table 5.11 shows that supplies, maintenance and salaries are the major expenditure components for all categories of doctors. But it is salaries and supplies which takes up the larger share. There is a greater degree of difference between urban and rural for all categories suggesting that there is co-relation between social geography and expenditures. The allopath GP and specialist spent more on salaries than the Ayurveda doctor or the homeopath. This may have been so because amongst Ayurveda doctor and homoeopaths there were few who offered indoor care. They were general practitioners with outdoor services and hence did not requisition the service of the paramedical staff. More of the allopath GPs and specialists offered indoor service which required employing paramedical staff and even doctors. This would be true more of those offering specialised services.

Interestingly rural allopath GPs spent more on supplies than those in urban areas. Rural practitioners tended to store more supplies especially medicine because access to medicines is difficult in rural areas. Urban specialists spent more on supplies than rural specialists and the urban homoeopath spent more on supplies than the rural. In the last case it needs to be emphasised that this homeopath practised his own system of medicine namely homeopathy and hence needed to spend on medicines. Rural homeopaths engaged in allopathy treatment rather than homeopathy. Urban practitioners spent more on maintenance than the rural practitioners.

Concluding Remarks

The study was exploratory. It is possible on the basis of the present study to identify newer areas of research for generating further and finer data to get a better picture of investment and expenditure in the health

Table 5.11
Average monthly expenditure in various heads for each category (in Rs.)

Heads	Allopath GP		Allopath Specialist		Ayurveda Doctor		Homoeopath Doctor	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Supplies	1250(2)	3266(12)	7128(15)	4460(3)	1610(8)	1809(15)	5000(1)	2306(16)
Maintenance	987(3)	385(12)	2112(20)	399(3)	557(9)	205(14)	410(1)	158(17)
Rent	210(2)	250(1)	934(14)	212(2)	371(6)	210(10)	400(1)	175(10)
Salary	1512(4)	597(7)	4462(21)	2633(3)	622(9)	380(12)	---	544(8)
Other	290(3)	415(11)	2208(17)	294(3)	153(7)	206(13)	90(1)	185(11)

(Figures in parenthesis indicate the number of practitioners)

system especially health providers in the private sector.

The study shows there was not wide disparity between urban and rural practitioners except in the case of allopath specialists, in the area of investment and expenditure. But as far as practitioners with beds and without beds was concerned, a disparity was noticed, thus indicating a link between number of beds and investment and expenditure. The study has shown that premises except in the case of practitioners with bed facilities did not invite much investment. This suggested that since rented premises were still easily available, rents were low and deposits still not demanded, doctors found it convenient and easy to conduct practice from rented premises and did not feel the need to invest in building and construction. Moreover, there was the other factor of family property from where it was possible to make requisition of space for a clinic or dispensary. Space did not appear to be a major constraint. Those who opted to spend money on buildings were those running nursing homes rather than mere outdoor service. But where money is spent on construction, it is high. Equipment purchase was the other area of major investment. In the case of specialists this was common given that the services they offered were technology oriented. But for the majority furniture was the main area of investment.

Expenditure study showed that salaries and supplies took up the greater share. Salaries was high with urban practitioner especially allopath GPs and specialists. Supplies was high with rural practitioners who needed to maintain a stock.

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6

Health Institutions - Investment and Expenditure

The present chapter examines investment and expenditure incurred by health establishments offering in-patient or specialised health care. The units offered either general or specialised services or both and belonged to both the Public and Private sectors. The latter includes the voluntary sub-sector. Geographically these were distributed over both urban and rural areas. One of the questions the chapter seeks to answer is whether a pattern can be discerned in this investment and expenditure. Are there any preferential areas of investment while setting up and developing in-patient health establishments ? What factors influence the nature and volume of investments? The chapter further analyses the expenditure incurred by the health units in running their services. Actual data collection and the subsequent analysis highlighted the various difficulties in conducting a study of this nature. The most apparent aspect of this study was that organized and disaggregated data on investment in particular in the public and voluntary sub-sectors was difficult to come by. This was partly due to a refusal to disclose information and partly due to the system in which

Table 6. 1
Public health units / Health establishments

Type of Units	General Information	
	Staff	Gen/Special
Municipal Dispensary	3 doctors 4 paramedics 3 non-med.	Special
Municipal Maternity Hospital	3 doctors 12 visiting doctors 4 paramedics	Special
Primary Health Centre	2 doctors 11 paramedics 2 non-med.	General
Municipal Hospital	30 paramedics 3 non - med.	Special
Primary Health Centre	3 paramedics 1 non - med.	General
Rural Hospital / Mother Primary Health Centre	11 paramedics 11 non - med.	General
Cottage Hospital		General

accounts were maintained. Data for investment and expenditure were available from individual private proprietors of nursing and maternity homes. The study throws up several issues concerning investment and expenditure which will also be discussed.

Public Sector

Seven public sector units were selected for study which included muncipal dispensaries, maternity homes and hospitals, Cottage and Rural hospitals and Primary Health Centres. (See Table 6.1) Out of these seven, information on investment was available for only two units, namely a Municipal Dispensary which offered only X-ray services and the Municipal Maternity Hospital. This indicates the difficulties in conducting such a study. Moreover, this information was available for only a few investment heads. Recurrent monthly expenditure was available for only five units. Hence only the expenditure of these units has been examined.

Investment in the Public Institutions

As already stated, this information was virtually not available for public sector units. Limited information was available for two municipal units. The two municipal units were set up in Ahmednagar town in 1959 when the initial capital investment was made. Additional investments were made over the years to expand and extend services. Capital investment in the municipal dispensary appears to be have been made till the year 1980 after which there was no new investment In the case of the maternity home the last known additional investments appear to have been made in 1993. The initial investment made for the erection of the municipal dispensary was Rs.12,300 (in 1959 value) and in the subsequent years Rs 33,640 were invested, 1980 being the last year. This money was spent on purchasing or replacing imaging equipment, like a X-ray unit.

In the case of the maternity home, the initial capital investment made in 1959 was Rs.1,05,000 and in the subsequent years upto 1993, the capital expenditure was Rs.64,300. Land for the maternity home was donated to the Municipality by a prominent citizen of the city. This has been a common feature since pre-independence days when government run units were initiated by private charity or those set up by charity were later handed over to government agencies such as municipal councils. The initial investment in both cases was made for construction of the building and part of it was spent to buy equipment and instruments. The exact division between amount spent on construction and equipment was not available. All additional capital expenditure in subsequent years was incurred mainly on equipment and instruments.

Once the physical area/ premises of the establishment were defined and the structure constructed, in subsequent years no extension of the structure was undertaken. It appears that the major constraint was finance. The available information on investment suggests that most of the additional capital expenditure was incurred in extending or creating new facilities and making available technology based medical care such as X-ray. Thus, most additional capital/ development expenditure went into the purchase of medical equipment and at times furniture-mostly of everyday use such as tables and chairs. Although new medical technology was introduced in the form of various instruments and equipment, it was also apparent that expenses in this area were constrained by the lack of finance as seen by the long and gradual process of acquiring this equipment. The establishment of modern health units providing technology based medical care indicates the growing need for health services which would meet the new health needs of the urban population increasingly exposed to and victim of urban and modern diseases as of the heart and lungs; respiratory diseases, cancer etc. Urbanisation and industrialisation created new health needs and problems.

Expenditure in the Public Sector

The DHO's office provided information on expenditure of the 81 PHCs in the district for the year 1992-93. This amounted to a total of Rs.2,92,24,469 which on calculating worked out to Rs.3,60,796 per annum per PHC. Disaggreated expenditure was shown for only three heads, - establishment costs, medicine and vehicles. Establishment costs included salaries, maintenance and purchase of stationery and other miscellaneous expenditure. Available separately were expenditure figures for medicine and expenses incurred on official vehicles during the year 1992-93. The establishment expenditure for all the 81 PHCs in 1992-93 was Rs. 24,845,581; for medicines Rs.37,76,685 and for vehicles Rs.6,02,203. Calculations show that

Table 6.2

Monthly Expenditure of Public Sector Units (1991 - 1992)

(Actuals in Rs.)

Type of unit	Drugs	E. S.	Tele.	Elec.	W. T.	S. S.	Rme.	Rmp.	Rmv.	Pet/Oil	O.F.	Other
Primary Health Centre	2,500	—	300	200	—	25,000	—	500	—	330	—	—
Muncipal Hospital	12,500	4,170	300	1,670	—	1,50,000	170	170	2,080	1,000	400	1,500
Primary Health Centre	2,500	—	—	330	200	49,000	—	—	170	170	—	—
Mother Primary Health Centre	30,000	—	—	—	—	90,000	—	—	—	—	—	—
Cottage	26,120	—	—	2390	—	56,600	170	—	—	—	—	700

Drugs - Drugs

E.S. - Equipment and Supplies (including repairs and maintainance)

Tele. - Telephone

Elec. - Electricity

W.T. - Water Taxes

S.S. - Staff Salaries

Rme. - Repairs and Maintainance of Equipments

Rmp. - Repairs and Maintainance of Premises

Rmv - Repairs and Maintainance of Vehicles

Pet/Oil - Petrol, Oil etc.

O.F. - Fuel

Other - (Laundry, misc. expenses)

establishment expenditure consumed 85% of the total expenditure, while 12% was spent on medicine and a mere 3% on vehicles. Information on expenditure was sought from three PHCs one of which was a mother PHC, being upgraded to a rural hospital, hence receiving funds from both the civil surgeon (state government) and the District Health Office. During the course of our data gathering, Medical Officers at the PHCs did not always appear to be in a position to give us information on expenditure incurred under most subheads. In the case of medicine, since all PHCs get a standard Rs.2500 per month or Rs.30000 per annum this figure was common. The mother PHC, however, received Rs.30,000/- per month for medicines.

Other heads showed low expenditure, for example, repairs Rs. 1000/. The diesel expenditure for the jeep of the Centre used for Subcentre visits and Family Planning Programme from April 1992 to Dec. 1992 was a mere Rs. 9947/- and for repairs Rs. 2355. The low expenditure on fuel and repairs on the jeep confirms the information given to us that the jeep was left unused for long periods for want of necessary funds. Table 6.2 shows that staff salaries took up the bigger share of monthly expenditure for PHC. The figure varied from PHC to PHC depending upon the actual numbers of incumbants on the various posts. One thing which was noticeable was the low expenditure incurred on maintainance and upkeep of the establishments. This was due to deficiency of funds for this purpose.

There does not appear to be much difference between PHCs and Municipal and Cottage Hospitals with regard to expenditure as Table 6.2 shows. Salaries and drugs consume the larger shares. But of interest is that in the case of this particular Municipal Hospital listed here, information on expenditure for almost all heads was available. These figures were made available by the Chief Medical Officer of the Hospital who maintained these detailed records. The Municipal Council of this town ran, apart from this Hospital, only one more dispensary. Other municipal bodies of large towns operating a numbers of units do not seem to keep unit wise expenditure data. It is difficult to explain the difference in accounting procedures.

The above stated disaggregated expenditure reinforces the most common criticism of public health services, that the establishment consumes the largest share of the expenditure. Thus, more money was spent on maintaining the staff leaving a smaller share for those heads concerned with actual delivery and facilities essential to provide basic medical care. The oft made criticism that public services suffer from shortages of medicine and supplies in relation to the population they cover, or that shortage of funds immobilizes the staff and disrupts transportation was seen from the amount available for the maintenance of vehicles. In rural areas where transport facilities are either lacking or are poor, the break down of PHC vehicles or the non-availability of these hampers the provision of medical care.

The need is to better distribute financial resources to areas which would ensure the delivery of health care, the improving of PHC functioning, and increasing its efficiency. Given that it is a widely acknowledged fact that rural health services suffer from shortage of paramedical and professional resources and that the proportion of doctor /nurse to population ratio is low, we cannot call for a reduction of staff whose salaries and allowances take up a sizeable portion of the expenditure. The whole issue of how much salaries take up at the local level where the setup is least bureaucratic and forms the immediate and first level contact in the 3 tier health service structure needs to be examined in the context of the non-availability or shortage of essential health human power.

It would be in order to discuss some of the difficulties encountered in calculating expenditure, especially disaggregated expenditure, for each type of health unit. A major difficulty is that expenditure accounting is centralised with Government departments. Moreover, more than one Government department may be responsible for allocation of funds or expenditure. For example, the Rural Hospital/ Mother PHC was supplied drugs from both the District Health Office and the office of the Assistant Surgeon from time to time as per the demand. The same is true of equipment. Equipment is provided again either by the office of the Asst. Surgeon or the Dy. Director of Health Services. The Civil Surgeon gave Rs. 1000/- for the purchase of stationary and a contingency amount of Rs. 1,296/- to the Mother PHC. These figures are not constant and would differ from time to time and unit to unit. There was, thus, no one common source of finance. The above discussion brings out some of the difficulties in studying expenditure incurred by government health units in the provision of health care.

Profile of Private Institutions

Before examining investment and expenditure of health establishments in the private sector, it is essential to have a profile of the units being studied with regard to social geography, bed strength, staff employed, faculties and services offered. In all twenty private health units were examined for their investment and expenditure. Private institutions fell into two main categories defined by ownerships/management, wherein seventeen had individual proprietors while three were run by Trusts or in other words belonged to the voluntary subsector. Ownership/Management can determine the capacity to spend and hence make a difference to expenditure incurred. Ownership/ Management can also determine the size of the unit and types of services/facilities offered. The Trust managed hospitals, were all, located in towns. As for social geography of the seventeen individual owned units a mere five were located in rural areas while twelve were urban based. The number of beds in a hospital / nursing home is an important indicator of size, the nature and type of facilities available and services offered. This too impinges on expenditure involved in running the unit. The units being studied here have been split into three categories according to bed strength. A total of eleven units belonged to the bed range of 3-16. There were six units in the bed range 20-40. Three trust run hospitals had a bed range between 80-110 which suggests that the financial capacity of voluntary sector units was strong.

Table 6.3
Staff in private health establishments - according to social geography

Social Geog.	No. of units	Doctors	Nurses	ANMs	Para medics	Lab Tech.	Other
U.	12	12	4	3	9	4	6
R.	5	5	2	---	4	1	3
Total	**17**	**17**	**6**	**3**	**13**	**5**	**9**

Table 6.4
Staff in private health establishments - according to bed strength

Bed Strength	No. of units	Doctors	Nurses	ANMs	Para medics	Lab Tech.	Other
3 - 16	11	11	2	1	8	2	6
20 - 40	6	6	4	2	5	3	3
Total	**17**	**17**	**6**	**3**	**13**	**5**	**9**

Staff salaries are a very important component of expenditure. The category of staff employed their qualifications and skills determines the salaries paid and the expenditure made. The type of staff besides profiles the nature and type of services / facilities offered by the health unit. Our information revealed

that in the urban institutions eight had visiting doctors, while only two rural units had visiting doctors. Going by bed strength in the 20 - 40 capacity 4 had visiting doctors while the two had 3 and 2 full time resident doctors mainly a husband and wife team.

The table also shows employment of paramedic and non-paramedic staff. Most units, especially those in rural areas are not known to employ trained paramedic staff. Indeed not much staff is employed. This is mainly due to dearth of skilled and qualified staff. Also at times doctors are known to be not inclined to appoint the essential supporting staff so as to cut costs. This is well reflected in Tables 6.3 and 6.4

Tables 6-5 and 6-6 show facilities with respect to social geography and bed strength. The most common facilities in urban areas were lab / routine pathology, radiology and maternity. In the rural units, maternity services were offered by all the five, other facilities being offered by two each. These units had operation theatre for minor surgeries. This suggests that urban units have set up medical equipment required for diagnostic purposes while in the rural areas such facilities are far less available. This tells us something about the kind of investment in rural units made especially with respect to medical equipment.

Facilities seen in the context of bed strength represent a similar picture where maternity, routine pathology and radiology facilities are most common to both categories. Although major OT is found, mainly in the second category which has a bed strength of 20 - 40. Units with a lower bed strength show that just one has a major OT while two have a minor OT, maternity being more common.

The facilities extended reveal the type of services offered. In addition it can tell us about the investment in equipment. Equipment is mainly of five types, diagnostic, imaging, pathological, therapeutic and surgical. Investment made for buying any of the above mentioned types of equipment helps to explain the size/ volume of investment made.

Table 6.5

Facilities / services in private health establishment according to social geography

Social Geography	ICU	Lab/ Path	Major OT	Minor OT	Maternity Labour Room	Radiology*
U. (12)	1	8	4	1	7	8
R. (5)	---	2	2	3	5	2
Total 17	1	10	6	4	12	10

Table 6.6

Facilities / services in private health establishment according to bed strength

Bed Strength	ICU	Lab/ Path	Major OT	Minor OT	Maternity Labour Room	Radiology*
3 - 16 (11)	---	5	1	2	7	6
20 - 40 (6)	1	5	5	2	5	4
Total 17	1	10	6	4	12	10

Foot Note : * Includes X-ray, Ultra Sound, Sonography

Table 6. 7

Staff - voluntary sector hospitals

No. of Units	Doctors	Nurses	ANMs	Paramedics	Lab. Tech.	Others
3	2	2	2	2	2	3

Of the three voluntary sector hospitals all were urban based with a bed strength between 80-110. Hence, staff according to social geography and bed strength is not being analysed separately. Table 6-7 shows that of the three only two had employed regular staff from the various categories. The leprosy hospital had only one visiting doctors and three administrative staff. Rest of the medical relief work was carried out by volunteers. Patients in this hospital were sent to the Government Hospital for any other major illness afflicting them or for any surgeries required. The other two hospitals had a regular staff but also had a few visiting doctors. The largest of the three had 17 Resident doctors, two visiting doctors, 34 Qualified Nurses, 6 ANMs, 2 pharmacists, 6 technicians, 50 paramedics and 15 administrative staff. The other followed the pattern but with slightly less numbers.

Table 6. 8

Facilities offered by voluntary sector hospitals

No. of Units	ICU	Lab/Path	Major OT	Minor OT	Maternity Labours	Radiology
3	2	2	2	2	2	2

Excluding the leprasy hospital the other hospitals had facilities offering services common to large hospital as seen in Table. Both the hospitals stressed that they catered to the poor and needy patients.

Investment by Private Health Providers *

Investment according to years of establishment

Of the 17 private health establishments studied, one was set up in 1957, 5 in the decade 1971-1980 and the remaining 11 between 1981-1991. Given that there was just one unit for the decade 1951-1960, only those cases from the decade 1971-80 and 1981-1991 were examined for purpose of comparing and contrasting investment patterns. See Table 6.10

Here too the pattern was similar to the observations made earlier. Construction, equipment and land in this order took up the larger share of total investment. The situation was not very different for the health units which came up between 1971-1980 and 1981-1991. In terms of percentage share of total investment the order remained the same. However, what was noticeable was that the difference between money invested in construction and medical equipment was wider during the decade 1981-91. During 1981-91, the investment going into construction was very high at 56.76% against 21.74% spent on medical equipment whereas during 1971-1980, the same investment heads took up 39.02 and 28.86 respectively. This can be explained by the fact that construction costs in the 1980s suddenly shot up, especially in the early 1980s when a shortage of such construction material as cement was greatly felt. A few of the doctors reported having to buy cement in the black market. The other factor which explains this rise in construction costs, as stated earlier, was due to the fact that the same building formed both the health unit and the residential premises of the proprietor practitioner. However, individual units showed a few cases where the investment into medical equipment for exceeded construction. This may be explained as done earlier - `that once the physical stucture of the unit came up, doctors invested in medical equipment to build up, develop and expand medical practice by offering more facilities and better medical care i.e. technology based care.

If health units which came up between 1981-91 were taken separately according to social geography (see Table 6.9) then it was noticed that the gap between investment in construction, on land, and medical equipment was far less in urban unit as compared in the rural units. The reasons for this has been fairly well explained in the previous sections.

** This excludes the voluntary sub-sector hospitals for want of data.*

Table 6.9

Investment made in 1981-91 by establishments according to social geography

Actuals and as percentage of Total (in Rs.)

Unit	year	Land	Buil.	Depo.	Reno.	Furn.	Equi.	Total
U.	1981-91	228800	680000	60000	170000	168000	557000	1863800
	(6)	12.27%	36.48%	3.21%	9.12%	9.00%	29.88%	
R.	1981-91	107000	1485000		5000	80500	272500	1950000
	(5)	5.48%	76.15%	---	0.25%	4.12%	13.97%	

Investment according to Social Geography

Examination of investment according to Social Geography showed that both in the urban and rural areas individually construction took up the largest percentage share of total investment. But the difference in the investment share going into construction between urban and rural was large. The explanation can be found in that, urban health units invested heavily into equipment. Most urban units were offering specialised medical care. They invested in buying up the latest medical technology. These health units offered services, that rural health units did not. Although in the rural areas too investment in medical equipment followed that of building construction as with the case of urban health units, the proportion of total investment was less. Rural health units while offering indoor care offered general or maternity service, rather than specialised care. Hence, these units needed to invest less in medical technology. As seen in the previous chapters doctors trained in allopathy and with specialisation tended to be urban concentrated and were hardly rural based.

With urban units offering specialised medical care, they tended to spend on medical technology. Moreover, urban land prices were higher than in the rural areas. As a result the proportion of investment going into construction of building as part of the total investment was less. Investment into land and medical equipment competed with construction. In the rural areas while construction costs were certainly less than in urban areas unlike in the urban areas construction took up the largest share of total investment. The other reason why construction takes such a large share was that both in urban and rural, but particularly so in the latter, the constructed building apart from the area built for the health unit, consisted of the residential premises of the individual doctor proprietor. Loans taken for the construction units were also used to construct residence of the doctors as a part of the entire premises.

Table 6.11 does, however, show that in individual cases, money spent on construction was far less than money spent on buying medical equipment and in a few cases even money spent on land. This happened where once the health unit premises were in place. doctors offering specialised medical care gradually made additional investment for in procuring medical equipment. More and more medical technology has been coming into the market in the last two decades. New developments are taking place in the creation or updating of medical technology. In the increasingly competitive profession and with harder marketing by manufacturers, doctors acquire more of the latest medical equipment.

As for average investment per unit is concerned the difference between the urban and rural units was very wide with urban units investing far more than rural units. Disaggregated investment showed that, however, when it came to land, the urban unit paid far more than the rural unit. It was a very high and noticable difference so too with medical equipment though not so much with construction.

Hospitals/ nursing units in rural areas had not opted for very high tech equipment. Most of those who had bought medical equipment, surgical equipments required for minor surgeries or such basic imaging equipment as X-ray machine or equipment required for routine pathology tests. Some of these can be said to have become a part of the essential paraphernalia of a doctor's practice. The poor quality of public health services turns the population to private practitioners who offer these facilities which are absent or inadequate in public services. But in the rural market doctors can afford just this type of equipment not anything expensive. Another reason is virtually all doctors offering indoor patient care are general practitioners and not specialists. For specialised services they offered rural nursing unit proprietors were dependent on the service of visiting specialists. Given this situation of having to depend on outside help may also explain why the majority do not opt for very high tech equipment. Another reason is inadequate infrastructural support. Electricity failures are common and transport facilities are poor. Getting repair and back up service for expensive and high tech medical equipment is difficult for the rural nursing units.

Table 6.10

Investment according to years of establishment

Actuals and as percentage of Total (in Rs.)

Unit	Year	Land	Buil.	Depo.	Reno.	Furn.	Equi.	Total
1	57	---	130000 81.50%	----	---	2500 0.63%	27000 16.92%	159500
1	71	2100000 41%	1500000 29.41%	---	---	500000 9.80%	1000000 19.60%	5100000
2	73	30000 6%	70000 14%	----	----	50000 10%	350000 70%	500000
3	74	40000 2.95%	560000 41.32%	---	---	70000 5.16%	685000 50.53%	1355000
4	79	150000 15%	750000 76.53%		40000 4%	----	40000 4%	980000
5	79	40000 2.46%	850000 52.34%	---	---	50000 3%	684000 42%	1624000
Total 5	**1971-80**	**2360000 24.68%**	**3730000 39.02%**		**40000 0.41%**	**670000 7.00%**	**2759000 28.86%**	**9559000**
1	81	13800 4.69%	150000 51%	---	---	30000 10.21%	100000 34%	293800
2	83	---	---	30000 10.32%	170000 59.64	25000 8.77%	60000 21%	285000
3	85	----	50000 32.67	---	---	18000 11.76%	85000 55.55%	153000
4	85	90000 21.68%	80000 19%	---	---	20000 4.81%	225000 54.21%	415000
5	86	125000 22%	400000 70%	----	----	15000 2.65%	27000 4.70%	567000
6	91	----	----	30000 20%	---	60000 40%	60000 40%	500000
7	80	----	---	---	5000 33.33%	5000 33.33%	5000 33.33%	15000
8	85	30000 29.70	70000 69.30	---	---	500 0.49%	500 0.49%	101000
9	86	7000 1.03%	440000 64.80%	---	---	40000 5.89%	192000 28.27%	679000
10	87	20000 1.99%	900000 89.82%	---	---	20000 1.99%	62000 6.18%	1002000
11	89	50000 32.67%	75000 49%	---	---	15000 9.80%	13000 8.49%	153000
Total 11	**1981- 91**	**335800 8.80%**	**2165000 56.76%**	**60000 1.57%**	**175000 4.58%**	**248500 6.51%**	**829500 21.74%**	**3813800**

Table 6.11
Investment according to social geography
Actuals and as percentage of total (in Rs.)

Soc. Geo	Land	Buil.	Depo.	Reno.	Furn.	Equi.	Total
1. U.	125000 22%	400000 70%	----	---	15000 2.65%	27000 4.76%	567000
2. U.	150000 15%	750000 76.53%	---	40000 4%	----	40000 40%	980000
3. U.	90000 21.68%	80000 19%	----	----	20000 4.81%	225000 54.21%	415000
4. U.	40000 2.46%	850000 52.34%	---	---	50000 30%	684000 42%	1624000
5. U.	----	----	30000 10.52%	170000 59.64%	25000 8.77%	60000 21%	285000
6. U.	2100000 41%	1500000 29%	---	---	500000 9.80%	1000000 19.60%	510000
7. U.	----	130000 81.50%	----	---	2500 0.63%	27000 16.92%	159500
8. U.	----	----	30000 20%	---	60000 40%	60000 40%	150000
9. U.	30000 6%	70000 14%	----	----	50000 10%	350000 70%	500000
10. U.	----	50000 32.67	---	---	18000 11.76%	85000 55.55%	153000
11. U.	40000 2.95%	560000 41.32%	---	---	70000 4.81%	685000 54.21%	1355000
12. U.	13800 4.69%	150000 51%	----	----	30000 10.21%	100000 34%	293800
Total (12) **Percentage**	**2588800** **22.35%**	**4540000** **39.13%**	**60000** **0.51%**	**210000** **1.81%**	**840500** **7.25%**	**3343000** **28.86%**	**11582300**
1. R.	7000 1.03%	440000 64.80%	---	----	40000 5.89%	192000 28.27%	679000
2. R.	50000 32.67%	75000 49.00%	---	---	150000 9.80%	13000 8.49%	153000
3. R.	----	----	---	5000 33.33%	5000 33.33%	5000 33.33%	15000
4. R.	30000 29.70%	700000 69.30%	---	---	500 0.49%	500 0.49%	101000
5. R.	20000 1.99%	900000 89.82%	---	---	20000 1.99%	62000 6.18%	1002000
Total (5) **Percentage**	**107000** **5.48%**	**1485000** **76.15%**	---	**5000** **0.25%**	**80500** **4.12%**	**272500** **13.97%**	**1950000**

Table 6.12
Investment according to bed strength
Actuals and as percentage of total (in Rs.)

Unit	No. of Beds	Land	Buil.	Depo.	Reno.	Furn.	Equi.	Total
1	3	---	---	30000 20%	---	60,000 40%	60,000 40%	1,50,000
2	4	---	---	---	5,000 33%	5,000 33%	5,000 33%	15000
3	6	50,000 32.67%	75,000 49.00%	----	----	15000 9.80%	13000 8.49%	153000
4	7	---	50000 32.67%	---	---	18000 11.76%	85000 55.55%	153000
5	9	---	---	30000 10.52%	170000 59.64%	25000 8.77%	60000 21%	285000
6	10	90000 21.68%	80000 19%	---	---	20000 4.81%	225000 54.21%	415000
7	10	---	130000 81.50%	---	---	2500 0.63%	27000 16.92%	159500
8	10	13800 4.69%	150000 51%	---	---	30000 10.21%	100000 34%	293800
9	14	7000 1.03%	440000 64.80%	---	---	40000 5.89%	192000 28.27%	679000
10	15	30000 29.70%	70000 69.30%	---	---	500 0.49%	500 0.49%	101000
11	16	30000 6.0%	70000 14%	---	---	50000 10%	350000 70%	500000
Total 3-16 (11)		**220800 7.60%**	**1065000 36.66%**	**60000 2.06%**	**175000 6.02%**	**266000 9.15%**	**1117500 38.47%**	**2904300**
1	20	40000 2.95%	560000 41.32%	---	---	70000 5.16%	685000 50.53%	1355000
2	20	20000 1.99%	900000 89.82%	---	---	20000 1.99%	62000 6.18%	1002000
3	23	125000 22%	400000 70%	---	---	15000 2.65%	27000 4.76%	567000
4	24	150000 15%	750000 76.53%	---	40000 4%	---	40000 4%	980000
5	24	40000 2.46%	850000 52.33%	---	---	50000 3%	684000 42%	1624000
6	40	2100000 41%	1500000 29%	---	---	500000 9.80%	1000000 19.60%	5100000
Total 20-40 (6)		**2475000 23.28%**	**4960000 46.66%**	---	**40000 0.37%**	**655000 6.16%**	**2498000 23.50%**	**10628000**

Investment according to Bed Strength

Although doctors were asked about deposit paid by them for rented premises and expenditure incurred on renovation this is not being discussed in detail sence the number of units incurring this investment was negligible. The discussion pertains to other heads listed in the table. Investment information was available for only 11 out of the total 12 individually owned health units.

Bed strength could indicate type of facilities available and services offered. It could also indicate physical size of the health unit. Here two categories were made - one category consisted of health units with a bed range of 3-16 and the other 20 - 40. (see Table 6.12). In these cases too investment in construction and medical equipment took up the larger share of total investment. Thus, in the first category, 36.66 per cent of the total investment went into construction and 38.47 per cent into buying medical equipment. In the second category it is 46.66 per cent and 23.50 per cent respectively. This is because there is a strong desire among individual proprietors to have their own premises which meet their requirements in terms of area, size and locality rather than go for rented premises. There is also the practice of combining professional and residential premises. One floor of the constructed building is used a residence. While units seek to offer competitive services and create facilities with available modern technology, -- however, an extremely miniscale number of specialists have opted for highly developed medical technology. Most technology falls in the diagnostic, imaging, pathology or therapeutic categories which though high priced is not very expensive. Investment in high-tech diagnostic and therapeutic is made in the larger units which had larger bed strength because these were the ones who did and who could after specialised care. Units with smaller beds strength, apart from the occassional X-ray machine or routine pathology equipment, invest mainly in surgical equipment. Partly due to perceived needs of its clientele or the patients it expects to serve and partly due to affordability.

The lowest investment made in 3-16 category was Rs. 15,000 while the highest is Rs. 6,79,000. This was so because of the difference in bed strength, the first had a more 4 beds while the other had 14 - beds. Moreover, the first had inherited the premises where the unit was located, thereby making no investment in premises and making barely any as far as furniture and equipment is considered. The unit with 14 beds had its own premises and had spent more on furniture and equipment though not the highest. A 16 bedded unit had spent Rs. 3,50,000 on equipment. It was however difficult to link up investment in equipment with bed strength as Table 6.12 shows where a fifteen bedded unit reported less investment in equipment than a 3 or 4 bedded unit. It can partly be explained by the fact that investment was related to facilities and services offered rather than number of beds and partly by the fact that the respondent may not have been entirely honest in disclosing and stating the information.

In the bed range 20 - 40, the difference between the lowest and highest was noticeble. The difference between the bed strength was wide - virtually double. The difference in investment made in medical equipment between one 20 bedded unit and the 40 bedded is wide but on the other hand is a second 20 bedded unit which had made a huge investment in medical equipment. Although within the two categories may be found wide gaps between the lowest and highest investment it is difficult to link it up with the lowest and highest bed numbers. Even with respect to the two categories of units it is difficult to discern a very wide gap as far as investment is concerned, whether total or in medical equipment.

A matter of special notice was that the difference in investment into land buying between the two categories was very high. This could , however, be explained by the fact that in the second category just one unit had made a very large investment in buying land, spending a sum of Rs. 21,00,000 as seen from Table 6.10. All other units had spent far less on land.

The reason furniture took up only a small part of the total investment was because except the number of beds, all other furniture pieces were restricted to the bare necessary items such as tables, chairs, small cupboards etc.

Sources of Finance

Table 6.13
Investment sources according to bed strength

		Institutional Loans			Personal Contribution
Units	Bed Strength	Nationalised Banks	Coop. Bank	MSFC	Self
6	20-40	5 (12)	1 (1)	1	6
11	3-16	9 (16)	4 (7)	1	3
17		14	5	2	9

(Figures in parenthesis denote number of loans)

An important aspect in understanding investments being made by private sole proprietory units would be to examine their source of investment. Two broad sources may be identified : 1) Institutional loans and personal contributions. The former consists of nationalised banks, Cooperative banks and State owned institutions such as the Maharashtra State Finance Corporation. Personal source consists of inherited money intented, personal savings and loans taken from close relatives as father, brother etc. (in our study there was just one such case). The most interesting aspect here was that five out of six units with bed strength 20-40 made investments which were sourced as institutional loans as well as personal contributions. Only one doctor informed that his investment was made entirely out of his own personal contribution which amounted to Rs. 5,67,000. A large part was pitched in by family members with more than 93% of it going into land purchase and building construction. However, again this was so because the building also housed the residential premises of the joint family. A mere seven per cent was invested in furniture and equipment.

fact that nationalised bank have developed a wide network of branches covering not just urban areas but also rural areas. Local branches of nationalised banks also extended loans. MSFC has its offices only in the District head quarters. Cooperative banks may be area specific not having a network of branches. Moreover, in Maharashtra where Cooperative Banks, as with Sugar Cooperatives or other Cooperative societies are closely linked with local political leadership, it may be difficult for individuals to get loans from these bank unless they have the necessary influence for the Cooperative banks are known to service the political leadership or parties concerned more, than the general category. Indeed, our field study shows that more often than not those doctors who were able to avail of loans from Cooperative banks were those who in variably had close family members or relatives associated with the management of these banks. Doctors not having those connections turned to nationalised banks. In rural areas the doctor is a valued customer of nationalised banks and the doctor and bank manager may be persons having regular social contact. These interaction could facilitate loans from the banks.

Table 6.14
Investment sources according to social geography

		Institutional Loans			Personal Contribution
Unit	Social Geography	Nationalised Banks	Coop. Bank	MSFC	Self
12	U	10 (20)	5 (8)	1 (1)	7
5	R	4 (8)	----	1 (1)	2
17		14	5	2	9

(Figures in parenthesis denote number of loans)

The above table shows that units from both urban and rural areas took more loans and more often from nationalised bank. This can be explained by the MSFC was seen as too distant and bureaucratic on the other hand.

Expenditure of Private Health Providers*

Expenditure according to Ownership/Management

Table 6.15 shows average monthly expenditure incurred by health units classified by ownership/management. An examination of the table reveals the major heads identified as staff salary, drugs, and equipment and supplies did not display much difference as far as expenditure was concerned between the two categories. The above mentioned heads took up major portion of the monthly expenditure while the difference as far as the minor heads such as telephones, electricity, taxes etc. was notable.

The average monthly expenditure for each individual managed unit was calculated at Rs.16,788. The Trust managed hospitals incurred an average monthly expenditure of Rs.2,21,044. In terms of percentage share of the monthly expenditure, staff salary took up 38 per cent and 43 per cent for individual units and trust units respectively. For drugs it was 25.76 percent and 23.42 per cent respectively.

For equipment/supplies including repair and maintenance of equipment, expenditure was 13 per cent and 16.58 per cent. Telephone, electricity, water taxes, other taxes (those paid to local bodies by way of property taxes etc.) repairs and maintenance, fuel, stationery and other expenditure individually took up a smaller percentage of the monthly expenditure. If anything, what it reveals is that for both categories, staff salary, drugs and equipments remain the major heads of expenditure. The monthly average expenditure by each individual owned unit on staff-salary was Rs.6306 and by the trust hospital Rs.95261; on drugs it was Rs.4298 and Rs.51782 respectively. On equipment/supplies it was Rs.2230 and Rs.36668. These were the major heads, for the other heads the Table may be examined. The wide difference in the expenditure between the two categories was apparent. However, what ownership really denotes here is the size and types of services offered. The Trusts managed and ran larger establishments as compared to those owned by individual proprietors. And this was most apparent in bed strength.

Expenditure according to Bed Strength

Table 6.16 gives average expenditure according to bed strength. Three categories were determined by bed strength. Thus there was one category of units in the 3-16 bed range, the second which was 20-40 and the last was in the 80-110 bed range. This last category was also the one consisting of units falling in the voluntary subsector. It was obvious that the Trusts had access to larger and better resources than individual proprietors and hence ran large establishment.

Hospitals in the voluntary sector offered services to specific groups such as leprosy patients, as was the case of one hospital studied here. Or they offered specialised services, attempting to offer services that were lacking in the area, services which were non-available or to which various sections of the population have no access. Since the basic idea was to cater to the needs of as large groups as possible, establishments were also large. Hence, running costs were also high.

The monthly average expenditure for units with bed strength between 3-16 was Rs.8462, for those with a bed strength range of 20-40 Rs.32054, and with those with bed range 80-110 Rs.221044. The average monthly expenditure on staff salary for the first category was Rs.2213, for the second category Rs.13809 and the last category Rs.95261. The average expenditure on drugs was Rs.3447, Rs.5858 and Rs.51782 respectively. For equipment/supplies it was Rs.1025, Rs. 4441 and Rs.36668 respectively. The figures are revealing in that greater the bed strength, greater the expenditure. But of interest was the percentage share in monthly expenditure. Thus staff salary took 26 per cent for the 3-16 category, 43 per cent in case of both for the 20-40 and 80-110 categories. The per centage share of drug expenditure for the twice categories was 40.73 per cent, 18 per cent and 23.42 per cent. In the case of equipment supplies it was 12 per cent, 13.85 per cent and 16.58 per cent. Of interest is the fact that units with bed strength 3-16 incurred less expenditure on staff salary as compared to drugs. This was because smaller hospitals were often one doctor units with few skilled paramedical staff. Often, outside professional help came in the form of visiting or consulting doctors. These units did not normally employ other doctors and depended on the services of the individual proprietors (See Tables 6.3 and 6.4). These unit also did not employ trained nurses or paramedics. Rather they employed the services of less educated personnel who received on the job training. Hence, salaries paid out were far too low. This is not the case with the larger units where dependence on professional services and trained staff was greater owing more often to the nature and extent of services or facilities offered.

** Includes the Voluntary Sub-sector*

Table 6. 15

Average Monthly Expenditure according to Ownership/Management

(in Rs.)

Own. Man \ Heads	Drugs	E.S.	Tele.	Elec.	W.T.	O.T.	S.S.	Rmp	O.F.	Stat.N.P.	Other	Total
Individual Prop. (17)												
Average	4298	2230	507	986	126	329	6306	505	150	393	958	16788
Percentage	25.76	13	3	6	0.75	2	38	3	0.9	2	5.74	
Trust (3)												
Average	51782	36668	2082	3563	1913	1667	95261	11241	2707	3998	10162	221044
Percentage	23.42	16.58	.94	1.61	0.86	0.75	43	5.08	1.22	1.80	4.59	

Notes :

Drugs - Drugs

E.S. - Equipment and Supplies (including repairs and maintainance)

Tele. - Telephone

Elec. - Electricity

W.T. - Water Taxes

O.T. - Other Taxes (local bodies)

S.S. - Staff Salaries

Rmp. - Repairs and Maintainance of Premises

O.F. - Fuel

Stat. N.P. - Stationary and News paper

Other - (Laundry, misc. expenses)

Table 6.16
Average Monthly Expenditure according to Bed Strength
(in Rs.)

Bed Strength \ Heads		Drugs	E.S.	Tele.	Elec.	W.T.	O.T.	S.S.	Rmp	O.F.	Stat. N.P.	Other	Total
3-16	Average	3447	1025	447	482	45	135	2213	212	135	356	13.63	8462
11	Percentage	40.73	12	5	5	0.63	0.62	26	2.50	1.60	4.21	0.16	100
20-40	Average	5858	4441	616	2003	275	685	13809	1043.66	177	460	2689	32059
6	Percentage	18	13.85	2	6.24	0.85	2	43	3.25	0.55	1.43	8.38	100
80-110	Average	51782	36668	2082	3563	1913	1667	95261	11241	2707	3998	10162	221044
3	Percentage	23.42	16.58	.94	1.61	0.86	0.75	43	5.08	1.22	1.80	4.59	100

Notes :

Drugs - Drugs

E.S. - Equipment and Supplies (including repairs and maintainance)

Tele. - Telephone

Elec. - Electricity

W.T. - Water Taxes

O.T. - Other Taxes (local bodies)

S.S. - Staff Salaries

Rmp. - Repairs and Maintainance of Premises

O.F. - Fuel

Stat. N.P. - Stationary and News paper

Other - (Laundry, misc. expenses)

Table 6.17
Average Monthly Expenditure according to Social Geography*
(in Rs.)

Social Geog.		Drugs	E.S.	Tele.	Elec.	W.T.	O.T.	S.S.	Rmp	O.F.	Stat. N.P.	Other	Total
Urban													
(12)	Average	5366	2729	582	1233	159	436	8454	651	131	373	1345	21302
	Percentage	25	12.81	2.731	5.78	0.74	2	39.68	3	0.6	1.75	6.31	
Rural													
(5)	Average	1734	1034	327	395	46.5	72.4	1150	156.8	195	441	30	5582
	Percentage	31	18	5.87	7	0.83	1.29	20	2.80	3.49	7.90	0.53	

Notes :

Drugs - Drugs

E.S. - Equipment and Supplies (including repairs and maintainance)

Tele. - Telephone

Elec. - Electricity

W.T. - Water Taxes

O.T. - Other Taxes (local bodies)

S.S. - Staff Salaries

Rmp. - Repairs and Maintainance of Premises

O.F. - Fuel

Stat. N.P. - Stationary and News paper

Other - (Laundry, misc. expenses)

* *Table excludes hospitals from the voluntary sector*

Expenditure according to Social Geography

Social geography is an important factor determining expenditure. Table 6.17 shows the average monthly expenditure of two categories of units, one urban based and the other rural located. Here the units studied include only individual proprietors and exclude the Trust run units which were all urban based. There were 12 urban based units and five rural located. The average monthly expenditure of each urban unit was Rs.21302 while that of the rural units was Rs.5582. Monthly expenditure on staff salary for the urban units was Rs.8454 and for the rural Rs. 1150. Monthly average drug expenditure was Rs.5366 for urban and Rs.1734 for the rural. Expenditure on equipment/ supplies was Rs.2729 and Rs.1034 for urban and rural respectively.

As for the share in percentage terms was concerned in the case of urban units, 39.60 per cent went into staff salaries while for the rural units this share was 20 per cent. In case of drugs expenditure, the percentage share was 25 for urban and 31 for the rural. Equipment/supplies expenditure was 12.81 per cent for urban and 18 per cent for rural area. These figures reveal that rural units employed less staff or lower paid staff (see Table 6.3). Very often the only professional services available were of the doctor owner and occassionally visiting doctors. Rural units also found it difficult to get trained paramedics due to their rural location although the other possible reason may also be that these units did not always offer specialized services. Indeed most indoor services offered were overnight stay, or minor surgeries requiring one or two day stay but most likely were those offering maternity services rather than surgical or other indoor treatment. Given the nature of services there was less dependence on trained staff.

Concluding Remarks

The present chapter examines the pattern and nature of investment and expenditure incurred by private individual proprietor in setting up practice and in the delivery of medical care. It is by now a well acknowledged fact that the private health sector witnessed a steady expansion over the years. It is well entrenched and the period after 1980 saw a rapid expansion of the private sector. What helped the private sector was that the government formulated policies that favoured its growth. This was substantiated by the scheme created by the government or other public agencies to assist the setting up private practice. A primary hurdle in the establishment of private practice in India has been finance. The difficulty was relatively eased as a result of these schemes. The study of investment by medical care professionals had shown the various channels available to both rural and urban practitioners to raise loans with relative ease. They are utilized to finance permanent capital expenditure heads such as land, building, furniture and equipment. These heads especially land and building construction take up the bulk of the investment. Medical equipment in several instances followed taking up a fairly large share. This in a way corresponds to Sukanya's study (1996) in Madras wherein medical equipment was seen as consuming the largest share of total investment. Examination of expenditure showed that medicine, supplies and staff salaries took up much of the expenditure. Staff salaries would be expected to take up the largest share of the monthly expenditure. While it was true of the public sector and the voluntary sub sector, it did not always apply to the private sector. This was so because individual doctor proprietors, choose not to employ paramedics, and if they did, depend less on them. These were not necessarily qualified and fully trained paramedics. Sometimes trained paramedics were not simply available. Individual doctor proprietors thus saved on salaries.

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7

Conclusion

The study on health resources, investment and expenditure carried out in Ahmednagar was primarily exploratory in nature. The objectives were to determine the volume of health providers in the district and to examine the nature and pattern of investment and expenditure by the health providers. The study identifies and brings out the main characteristics of the health care delivery services in the district.

The district level census of health providers is an important contribution of this study. It shows that the problem of non-availability and inaccessibility to health care is as much due to unequal distribution of health services as shortage of health resources. The factors responsible for this maldistribution of health resources in the district have also been examined.

The study brought out the lacunae and inadequacies of official data and data collection. The data generated through the study is a more reliable representation of the size of available health care services in the district. Such an exercise at the district level is not known to have been attempted elsewhere. The second part of the study covered investment made and expenditure incurred by the health providers in the provision of medicine. The study examined the areas in which investment was made, the amount of money invested in each; the preferences and factors influencing decisions regarding investment. The sources from where investment money was raised were identified and examined as an important factor in the growth of the private sector. Items on which expenditure incurred were analysed and the reason why spending was more on some and less on the other.

Health Resources

In India inaccessibility to health care is not always and necessarily a matter of lack of resources but of their distribution. Maldistribution of health resources is an important factor in the inaccessibility and non-availability of health care. Centralised planning contributed to the development of a nation-wide but inequitable public health services infrastructure in India. Easy and convenient access to health care services is an important determinant in the use of services. Under-utilisation or non-utilisation of existing public facilities suggests inaccessibility. Any attempt to remedy the situation and to ensure equitable distribution requires a reliable database. The survey conducted in Ahmednagar attempted to create such a database at the district level. The objective of determining the volume of health resources was meant to overcome the flaws in official sources where the number of health providers was grossly underestimated.

The exercise described in the previous chapters aimed at bridging the gap between grossly underestimated figures of health providers from official sources and the actual number of health providers operating in the district. This objective was fairly well met when the census showed the number of health providers as double the officially known figure. These health providers included all individual practitioners representing all systems of medicine, qualification, specialisation, trained and untrained, private and public sector and urban and rural based. These also included all kinds of health establishments providing medical care from both public / private sectors, urban / rural location. The difference between the two revealed the inadequacies of official resources and highlighted the drawbacks of depending on the same.

The final results justified the exercise, demonstrating the extent to which health resources were numerically underestimated. This census exercise was able to highlight the limitations of official sources, namely lacunae in registration in Medical Councils; the inadequacies arising from the lack of definite official policies; ambiguity in registration procedures of local self-government bodies; lack of knowledge / information amongst Government officials, Medical Councils and health providers themselves about registration and government rules and regulations; and, non-implementation of these regulations.

The main features of the health services in the district as they emerged from the survey were : unequal distribution of health resource reflected in geographical imbalance-urban/ rural and developed/ undeveloped differentials; geographical imbalance in population served by doctor; low doctor to paramedic ratio; low paramedic to population ratio; shortage of medical professionals in government health services co-existing with underemployment or unemployment of doctors; decline of general practitioners amongst allopaths; rampant cross-practice arising out of the great demand for allopathy and under-utilisation of the traditional systems of medicine; the imbalance between promotive/ preventive health care and curative health care (medical care) in rural public health services; the lack of both specialised medical care and basic health care to underprivileged sections, for instance, women; the growth of the private sector in the last two decades; the dominance of the unregulated private sector in health care delivery; relatively limited growth of the government health delivery system; and,tendency of private health providers to set up medical practice where public facilities already exist.

All of these in composite may be considered responsible for the lack of accessibility and availability of health care to the various sections of the district's population wherever this situation exists. The unequal distribution in the health system can be attributed to the absence of proper priorities with regard to development of health care, medical human power, medical education and indigenous systems of medicine; the growing support for the ideology of privatisation of medical care; the bias in favour of medical health professionals; the low priority given to training of para medical staff; bias in favour of specialised, technology oriented, hospital based medical care; a shift away from general practice to specialisation amongst allopaths; and, a decline in the concept of the family physician.

Investment and Expenditure

The years after independence in India witnessed an expansion and extension in the health care services. Centralised planning ensured growth of government run health services but this development was gradual and slow. In contrast the private subsector grew rapidly. The impetus for rapid expansion of private health care came from the late 1970s onwards as finance for setting up practice became easily available. The overproduction of medical professionals and constraints of the government sector (inhibited) employment in that sector. The low attraction for government employment meant doctors turned to setting up private practice, if they did not migrate abroad. Migration abroad, however, is possible only for those trained in allopathy and again mainly specialists. Those trained in the other systems besides having extremely limited openings in government employment have virtually no opportunity for migration. As the study shows, the proliferation in private colleges has also meant an increasing and large turnout of doctors trained in the non-allopathic systems. These medical personnel set up individual practice contributing to the burgeoning private medical system in the district. The various available sources of finance facilitated the establishing of independent individual practice.

If the availability of investment funds helped the expansion of private medical practice and medical units, financial constraints limited the growth and expansion of health services. This suggests that much of the investment in health care was in the private sector rather than the government sector. This is evident in the volume of and dominance of the private sector in health care. Individual practitioners have better access to institutional loans. Nationalised banks, co-operative banks and societies, State run institutions such as the Maharashtra State Finance Corporation offer loans at reasonable rates of interest. Procedures for loans are easy and client friendly. Government policy has been to encourage institutional loans and thus support the privatisation of health care.

A large proportion of the investment goes into land purchase, construction and buying of medical equipment. The study has shown that the latter consumes, when not the largest share of investment, at least second to land and building. This suggests growing specialisation of medical care and dependence on medical technology. But it also implies that medical care has grown more competitive. Setting up practice is expensive requiring large investment. In order to recover this money spent, doctors conduct medical practice where the 'market' is i.e. where the purchasing power is. This is available only in urban areas or the developed rural regions. It is this that leads to unequal distribution of medical facilities making health non-

available.

High investment can also make medical care inaccessible. Medical care becomes expensive putting up a financial barrier to accessibility to health care. In other words, large investments by health providers can make medical care unaffordable and hence inaccessible to many who need it.

Hospitals in the voluntary sector, especially the mission run or those managed by religious trusts are better placed in their capacity to raise funds for investment. These hospitals, even when spending on providing specialised care or departments with high technology, being motivated by charity, offer subsidised or free health care. Hence, large investment in the setting up or expansion of trust run hospitals may not neccessarily invite high cost medical care for the patients.

Of late even hospitals in the voluntary sector are beginning to charge user fees. This is a new trend as privatisation of health care is increasing and being encouraged. Although it has been said earlier that the voluntary sector has less difficulties with raising money more recent developments such as the globalisation of the economy has affected the funding of these health units. Foreign funding is becoming increasingly difficult to come by.

Examination of the expenditure shows salaries, supplies and medicines consume the larger share of total expenditure. These are essentials in health care delivery. The share of other expenditure heads such as rent, maintenance, taxes was too small or negligible to consider for detailed analysis. In several cases, salary was a relatively smaller component of total expenditure. This was because no paramedic staff or other staff was employed and where it was employed, the staff had no formal training, receiving on the job training. Hence, they tended to be paid lower salaries than those paid to trained and skilled staff. The employment of untrained staff may have been due to non-availability of trained paramedics or may have been a deliberate act to save on salaries. Small units with bed facilities often did not employ doctors, but depended on visiting doctors or the services of the doctor proprietor. Sometimes the proprietors were husband-wife doctor couples who then dispensed with the services of additional medical professionals. In this manner salary expenditure was kept low.

This was not true of the larger hospitals especially those with bed strength of 80 to 110. Hospitals belonging to the voluntary sector, as stated earlier had better access to financial resources which ensured employment of medical and semi-medical professionals.

In some health units, expenditure on medicines and medical supplies was kept at the minimum by having patients buy the required drugs and materials from outside. Patients would be asked to replace the medicines used. By passing on the burden to the patients, doctors often kept their own expenditure low.

Several difficulties and problems were faced while studying investment and expenditure. These are difficulties that any researcher wishing to conduct research in this area will encounter. These relate to nature of data, reliability of data, collection of data, the accounting systems of the agencies concerned, attributing financial value to land or building donated or inherited and used for establishing a health unit or medical practice. A sector wise and period wise comparative study can be difficult. This could as well apply to units geographically distributed between urban/ rural and developed/underdeveloped regions.

In the government, historical information on health units was difficult to access, often because of disorganised records keeping. None of the mission hospitals approached were willing to divulge any financial information whether it be investment, expenditure or fees. Ahmednagar has a more than century old history of missionary activity. It has several mission run hospitals. But information on these was limited and sketchy, while financial data was simply not available. Even those units from the voluntary sector who gave expenditure data were unable to give information on investment.

In the case of individual private practitioners, some refused to give information. There were others who did. But the question remains as to how reliable could some of this information be. Investment in several cases was spread over several years. This information was based on personal recollection. In empirical research there have always been questions relating to recall period,

and the reliability of data thus recollected. Moreover, it was difficult to get disaggregated information. Often the exact break up between expenditure incurred on renovation of premise and furnishing could not be given. Medical equipment would be clubbed together with furniture. Getting the respondent to recollect information on the disaggregrated investment would require repeated probing, cajoling and coaxing by the researcher. In the private sector there is no access to documentary evidence since the papers are personal and confidential. There are also cases where no documents are maintained about transactions especially in rural areas.

How does one analyse investment in cases where medical practice is inherited or carried out from inherited premises? How and what financial value does the researcher attach to these premises ? Or does the researcher disregard the premises from the study of investment ? There are cases of doctors who have inherited practice from their parents or spouses. There are cases of doctor couples operating from the same premises. The value of land and building differs from locality to locality, region to region within the same territory. The same is true of cost of construction.

All of the above issues and questions apply to expenditure. In the government sector, the difficulty is getting disaggregated data where several agencies are involved. Thus both the State Government and Zilla Parishads contribute to rural health services. Municipal bodies may not keep disaggregated data for the different health units they run. These may vary from being a fifty bedded maternity home to a Radiology Clinic to an Ayurveda dispensary.

All these issues will have to be addressed by researchers. Well defined techniques and methodology will have to be worked out for more detailed and indepth analysis of investment and expenditure in the health sector.

Database for Decentralised Planning

Preparing a database as outlined in this study has utility for decentralised health care planning especially as discussed in the context of Panchayati Raj in India. A corollary to the primary health care approach enunciated at Alma Ata was decentralising of health care planning. The Declaration of Alma Ata outlining the primary health care approach had stated, "The people have the right and duty to participate individually and collectively in the planning and implementation of their health care". The report of the WHO Expert Committee further stated "Health can never be adequately protected by health services without the active understanding and involvement of the individuals and communities where health is at stake." It meant involving all individuals and institutions providing health care in the district whether governmental, social security, non-governmental, private and traditional. In India the ICMR / ICSSR Report 'Health for All' of 1982 and the 1983 National Health policy emphasised decentralised health care. But nothing much happened by way of implementation.

The World Health Assembly meeting at Harare (Zimbabwe) in 1988, brought out a Declaration on strengthening Distict Health Systems based on Primary Health Care. Here, district health system was defined as a more or less self contained segment of the national health system which comprises a well defined population living within a clearly defined administrative and geographical area, either rural or urban and all instituting and sectors whose activities constructed to improve health. In India panchayati administrative and geographical units match well the requirements outlined in the above definition.

Recent years have seen a renewed interest in strengthing Panchayati Raj institutions. The 73rd Constitutional Amendment relating to Panchayati Raj seeks to ensure decentralised planning and community participation. With a decentralised administrative structure more or less in place, this could facilitate a decentralised health system. Health in India has constitutionaly been a state (provincial) subject. The 73rd Amendment has identified 29 subjects to be handed over to Panchayati Institutions. Health is one of these 29 subjects. The Indian Constitution has thus attempted to empower Panchayats to plan for health care. The need is to seriously work towards this goal.

In recent years, there is a growing realisation and recognition that the goal of Health for All is unattainable by the year 2000. Moreover, with the crisis in the public health system , as reflected in the outbreak of Plague in Surat, Cholera in the North East, Malaria in various regions, and regular reporting of the breakdown of government health services, there is a

growing realisation that national centralised planning has its limitations. Centralised planning overlooked and ignored local and regional factors resulting in skewed planning. Lopsided development and maldistribution of resources were the consequences of this planning process over the years.

There is now a greater awareness of the dynamics of regional and local forces and recognition of the wide diversity in situations at the regional and rural levels. The need for a more concerted efforts at decentralised planning with a flexible framework that responds to regional needs and disparities in the health care situation is recognised. Regional disparities are so wide and the development process including health service development so diverse that planning at regional level, and at district level particularly, is not only necessary but also relevant.

The 73rd Constitutional Amendment on Panchayati Raj is a recognisation of this urgent need. It provides us with the opportunity for institutionalising a localised planning process involving the community. Community based planning is emphasised thus favouring a shift towards decentralised planning.

To achieve community participation the action programme should aim to generate informed and knowledgeable participation. It is essential to build up the capability of the people and their local institutions to respond to local needs and situation. Developing this capability means above all to equip people and their institutions with the requisite knowledge and skills. Only then will existing health care delivery systems become more responsible and responsive to people's needs.

The study carried out by FRCH in Ahmednagar district shows how a database of health providers can be created, the techniques and methods that can be used. Moreover the study addresses the issues of geographic distribution of health provides, systems of medicine, volume of health providers, type of services offered, investment and expenditure incurred to establish and run medical practice all of which are important from the point of view of planning.

Appendix A

District Profile

Selection of the District

The district of Ahmednagar was selected for the study as representive of Indian district with average socio-economic development. The selection was based on the CMIE indices for levels of economic developments of 1980. The development index for Ahmednagar was 132 and for Maharashtra it was 164, the All India index being constant 100. Although the development index for Ahmednagar was higher than the all India index, it fell between the all India index and that of Maharashtra and hence was considered average for socio-economic development. Moreover the district is representative of the disparate economy and unequal levels of underdevelopment in the country. [See Table A.1]. It is this disparity within the district which does not present a correct picture of the level of socio-economic development. The high development index is more due to the pockets of high level development in the district.

The present Ahmednagar district was formed in 1869. Ahmednagar district has to its west Thane and Pune districts, to the South and South-east are Solapur and Osmanabad, to the East is Beed, to the North and North-east is Aurangabad and to the North and North-west is Nashik.

The district has thirteen talukas, five of which - Nagar, Kopargaon, Rahuri, Sangamner and Shrirampur - are relatively developed talukas having better infrastructure facilities with sugar dominated industry and trade. The remaining eight talukas, Akola, Jamkhed, Karjat, Newasa, Parner, Pathardi, Shevgaon and Shrigonda are underdeveloped. Akola taluka has a pre-dominantly tribal population. Local self-government bodies in the district consist of ten Municipal Councils, one Cantonment board and 1175 grampanchayats.

The 1991 census recorded a population of 3,372,935 which is 4.3% of total population of Maharashtra and is spread across 5.54% of geographic area of the state. The average population density (198 persons/sq km.) for Ahmednagar district is lower than the average for Maharashtra (256). Shrirampur taluka has the highest density (420) and Parner taluka the lowest (120). The concentration pattern for population, shows that the 5 developed talukas are densely populated (346 persons/sq. km.) while the remaining 8 underdeveloped talukas have a population density of only 152 persons/sq. km.

The sex ratio for the district 949 : 1000 is slightly better than that for Maharashtra 933 : 1000. Shrirampur has the lowest proportion of females (941) to males and Parner has the highest (1020). This can be explained by the disparity in development levels between the Northern and Southern regions of the district. The latter constitutes the labour reserve areas for the former and also for the other industrially developed areas of the state.

About 84% of total population of Ahmednagar district lives in rural areas while 16% in urban areas. Of the total population of Ahmednagar district 76% is engaged in agriculture. Of the total geographic area 78% land is cultivable and only 68% land is actually cultivated. Only 25% of total cultivable land is irrigated. Out of the total cultivable land only 6% is irrigated by canal water. This canal irrigated land lies mainly in the developed talukas (61%) and the underdeveloped talukas depend on the low rainfall or on wells wherever available.

The cooperative movement in Western Maharashtra has a long history contributing to the social development and economic prosperity of the region. The cooperative movement encompasses Milk and sugar cooperatives, weavers cooperatives, banks and credit societies. But it is sugar cooperatives above all that have brought around most visible economic prosperity in Western Maharashtra and Ahmednagar district. The Ahmednagar District Cooperative Bank is said to be one of the largest cooperative banking enterprises in south Asia.

The first sugar cooperative in India was established at Pravaranagar in Ahmednagar in 1950 which by the 1980s had gone up to 18. In 1991-92 Ahmednagar produced 17% of total sugar output in Maharashtra which was the highest in Maharashtra which produces 40% of total sugar output of India (Sudhakar Joshi, 1992). The sugar industry has helped in the overall

Table A.1

Ahmednagar : Some Selected Economic Indicators

Indicator and Year		Ahmednagar	Maharashtra	India
1) CMIE Index of Levels of Economic development	1980	132	163	100
2) Bank Credits for agriculture (Rs.)				
a) Per hectare of cropped area	1981	324	203	245
b) Per capita	1981	158	63	61
3) Value of output of major crops (Rs.)				
a) Per hectare:Avg.of five yrs ending 1979-80	848	855	1468	
b) Per Capita Avg.of five yrs ending 1979-80	386	250	307	
4) Per Capita production of food grains (kg.) Avg. of five yrs ending	1979-80	184	149	166
5) Per Capita bank credit to small-scale industry (Rs.) :	June 1981	61	86	45
6) Per Capita bank credit to all industries (Rs.) :	June 1981	96	430	168
7) No. of bank offices per lakh population :	December 1983	5.6	6.8	6.5
8) Per capita bank deposits (Rs.)	December 1983	361	1731	897
9) Per capita bank advances (Rs.) :	December 1983	363	1605	603

[Source : Centre for Monitoring Indian Economy, : Profile of Districts, Mumbai 1985].

development of the district but the development and wealth is mainly concentrated in 5 developed talukas, where 65% of total sugarcane growing land lies and which gives 71% of total sugar output in the district.

In recent years, however, the sugar cooperatives have not been able to assure a sustained economic growth. Inadequate supply of sugar-cane, low-rates for sugar-cane,factional politics within the cooperatives, corruption and some impractical policies have had adverse effects on both the sugar industry and the cooperative movement. As a result by 1988 out of 18 sugar co-operative factories seven had closed down and a majority of the remaining units, were running in loss. *(DSA 1988-89).*

Agro-industries constitute the major section of the industrial sector in Ahmednagar district with 76% of the industrial employment and 64% of the total industrial value production. *(Ahmednagar, DSA, 1988-89).* The district has, however, witnessed an industrial spurt in the 1980s. A few major corporate industrial concerns have manufacturing units in diverse fields, polyester filament yarn, nylon filament, paints, cinema carbon, basic drugs, metal tubes and pumps.

Notwithstanding the presence of these industrial units the district as a whole lacks a strong industrial base and agriculture remains the mainstay for a majority of the population. However, agriculture dependent on a scanty rainfall has not contributed much to the economic growth and development of the district. An excessive emphasis on the cultivation of sugar-cane, has had negative impact for agriculture in the district. Sugar-cane is known to require more water than subsistence crops and it adversely effects availability of water for the latter. It is primarily the small and marginal farmers who are engaged in the cultivation of subsistence crops, which are mainly jowar, bajra and wheat. The area under jowar cultivation was 48.64% of the total district area under cultivation, for bajra 26.97% for wheat 4.61%. It is clear that these subsistence crops occupied far more land than sugar-cane did. But seen in terms of production value as percentage of the district total, sugar-cane scores much higher than the other three. The percentage value for sugar-cane is 40.86%, for jowar 19.49, for bajra 5.69 and wheat 5.49.

Sugar cooperatives dependent upon sugar-cane cultivation prevail upon government to divert limited irrigated water supply to sugar-cane cultivation to the exclusion of subsistence crops. Thus the developed northern region with 71% of the total sugar-cane cultivation receives a greater share of irrigation. Of the total irrigated land 63% belongs to the north.

The District at a Glance

Area in Sq.Km.

Total	17048.00
Rural	16702.26
Urban	345.74

Population

Total	3372935
Rural	2839454
Urban	533481

Density (Population/sq.km)

Total	197198
Rural	170170
Urban	15431543

Sex Ratio Females/1000 males

Total	949
Rural	956
Urban	915

Literacy Rate

Total	50 %
Males	62 %
Females	38 %

	Number	Percentage of Total
Electrified Villages (as on 31.3.1992)	1497	99.5%
Villages where drinking water is available (as on 1.4.1991)	1436	95.4%
Villages connected by Road (as on 31.3.92)	1087	72.2%
Total Primary Schools	2613	(as on 30.9.1990)
Total Primary Students	427000	"
Total Secondary Schools	386	"
Total Secondary Students	249000	"
Total Colleges	19	"
Total College Students	36000	"
Birth Rate	28.1%	
Death Rate	6.3%	
Infant Mortality Rate	5.4%	

Sources :

1) *1991 Census Maharashtra Primary Census Abstract (Final) Census Directorate, Maharashtra.*

2) *Ahmednagar District, 1991- 92, Economic and Statistical Bureau, Government of Maharashtra, Bombay.*

3) *Provisional Vital Rates, Survey of Cause of Death (Rural).*

4) *Sudhakar Joshi, "Sahkar Samriddhi Pudhil Awhane" Saptahik Sakal, Pune.*

□□

Appendix B

Health Investment and Expenditure in a District

(For Preliminary Investigation into PHC Services through Medical Officers)

Objective of present survey : To map out all the existing health resources in Ahmednagar district covering both public and private sectors with a view to study investment and expenditure pattern in health care.

To make this possible we request you to kindly fill up the following questionnaire. Information provided by you will be kept in strict confidence and used only for research purposes.

This study is being conducted by the Foundation for Research in Community Health, Mumbai.

1. **Location :** _____ (1.1 PHC village) _____ (1.2 Taluka) Ahmednagar (1.3 District)

2. **No. of subcentres** _____ and villages _____ under the PHC.

3. **Population covered by PHC** _____ (3.1 (latest year)) _____ (3.2 (population))

4. **Biographical Profile**

4.1 Personal Information

Name _____ Designation _____ Salary Rs. _____ p.m.

Sex _____ Age _____ Marital Status _____

4.2 Educational Qualifications

Highest Degree _____ Year of Passing _____ College/University _____

4.3 Family Information

Native Place : _____ (Village/Town) _____ (Taluka) _____ (District)

4.4 Educational Qualifications : Parents/ Spouse

_____ (Spouse) _____ (Father) _____ (Mother)

4.5 Occupation :

_____ (Spouse) _____ (Father) _____ (Mother)

5. **Work Experience :**

5.1 Did you join government service immediately after graduation ? Yes / No

5.2 If no, what did you do ? _____

5.3 Which year did you join government service ? _____

5.4 Since when have you been working in the present PHC ? _____

5.5 What are the major health problems in your area ? _____

_____

_____

5.6 What is the average daily OPD attendance in your PHC ? _____

5.7 What are the factors that hinder your day to day functioning in providing health services to the people ?

_____

_____

5.8 What are the advantages you see in government service as a contrast to private practice ?

_____

_____

_____

6. We also seek the following information from you on the private health services in your PHC area.

	Name of Doctor/Hospital/Disp.	Qualifications	Village / Town
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

If you need to use extra space to record the above information, please use a separate sheet. We thank you for your participation in this study. Please put the filled up questionnaire in the self addressed and stamped envelope and post it.

Appendix C

Health Investment and Expenditure in a District

(Sample Survey of Private Services through Private doctors)

Objective of Present Survey : To map out all the existing health resources in Ahmednagar district covering both public and private sectors with a view to study investment and expenditure pattern in health care.

To make this possible, we request you to kindly respond to the following questionnaire. Information provided by you will be kept in strict confidence and used only for research purposes.

This study is being conducted by the Foundation for Research in Community Health, Mumbai.

1. Name :

   Sex : Age :

2. Address : Locality

   Village

   Taluka

3. Qualification : System :

   University :

   Year of Passing :

   Year of Registration :

4. Native Place : Village

   Taluka

   District

5. Family Background

	Educational Qualifications	Occupation
Father	_____	_____
Mother	_____	_____
Spouse		

6. Whether any of your brothers and sisters are in the medical professions ? Deliberate - why ?

7. Please give an overview of the status of people in this village

   a) Main Occupations
   b) Economic Class
   c) Caste / Religion
   d) Education
   e) Living conditions / Drinking water / Sanitation

8. What are the prevalent diseases in this area ?
9. With what frequency ?
   With what intensity ?
10. How many patients did you treat last weak ?
    a) How many from the same village ?
    b) How many from the neighbouring villages ?
11. Do you visit other villages ?
    Which ones ?
12. Do you make home visits ?
13. How do you deal with emergency cases ?
14. Where and to whom do you refer patients ?
15. What are the facilities do you offer to the patients ?
16. Do you have any other staff to help you ? Give details.
17. Whether you dispense medicines or prescribe them ?
18. From where do you by drugs ?
19. How far is the nearest medical store ?
20. Have you seen any medical representative visiting this area ?
21. How long you have been practising in the village ?
22. Did you start your private practice immediately after your graduation / post - graduation ?
23. Did you practice somewhere else before you started practising in this village ?
24. Are there beds in your clinic ?
25. Do you offer indoor facility ?
26. Identify other medical practitioners in this area.
27. How much do you charge per consultation ?

Appendix D

A Study of Investment and Expenditure in Health Services

(Sample Survey of PHC services thruough PHC paramedics)

The FRCH, Mumbai has undertaken a research project on the Investment and Expenditure by those providing Health Services in Ahmednagar District.

Initially, as a part of the project, we are preparing a list of persons and governmental / semi governmental/ non-governmental / private organisations which provide health services.

We request you to fill - in the following questionnaire.

We assure that the information will be kept confidential and use only for the research project.

1. Information about the following where you work

   Primary Health Centre Subcentre

   Taluka District

2. Information about the following in the jurisdiction of the PHC where you work

   Total number of subcentres

   Total number of villages

   Total population

3. Information about the following in your jurisdiction (if you work at a subcentre)

   Total Villages (number)

   Total population

4. Information about yourself

   4.1 Name

   Sex
   Married / Unmarried
   Salary : Rs.

   4.2 Were you given any training before you joined government service ?

   Year
   Place
   Duration

   4.3 About the Family

   Place of origin
   Taluka
   District

4.4 Educational Background of the family

Husband / Wife
Father
Mother

4.5 Experience of Work

Did you immediately join the government service after completing your education ? Yes / No

If no, other details

5. Year of joining government service

5.1 Since when have you been working in the present subcentre ?

5.2 What is the nature of your work ?

5.3 What are the difficulties encountered while making available government medical service and facilities to the general public ?

5.4 Amenities re : water supply in the settlements under your jurisdiction

closed pipes / river / canal / wells / handpumps / other

6. Information regarding medical services and facilities under your jurisdiction

6.1	Name of the doctor	Degree	Address
6.2	Vaidya / Hakim	Degree	Address
6.3	Dais / Godmen / Others		
	Name	Category (As above)	Address

Please attach separate sheet if you wish to provide additional information

Thank you for your co-operation !

Appendix E

A Study of Investment and Expenditure in Health Services

(Sample Survey through indigeneous practioners)

The FRCH, Mumbai has undertaken a research project on the Investment and Expenditure by those providing Health Services in Ahmednagar District.

We seek your help in finding out the problems faced while providing health services.

We assure that the information will be kept confidential and used only for the research project.

Name :

Sex : Age :

Education :

Address :

Name of the village :

Taluka :

Business :

1. You wish to use your knowledge about diseases and their treatment for the service of the people. However, do you encounter any problems while reaching the people ? Do government officers, private doctors or any one else obstruct you ?
2. What problems do you face in obtaining means (medicines etc.) essential to treat people ?
3. Since when have you been providing service to people ?
4. How did you obtain knowledge about the same ?
5. What steps will you be taking to train the next generation in your knowledge ? Do you contemplate any difficulties in it ?
6. Which are the main diseases round the year in the village ?
7. For which particular disease, do people visit you for treatment ?
8. How may people called on you for treatment ?

   last Year last month last week
9. What is the fee given by people for the services provided by you ?
10. Do you feel that it is adequate ?
11. While treating a patient, do you face any problem while seeking health during an emergency ?
12. Can you name other persons who offer services in this context ?

    12.1 Vaidya / Hakim Degree Address

    12.2 Dais / B/M / DR (Folk healers) / Others

    Name Category (as above) Address

Appendix F

Profile of Practising Doctors in Ahmednagar District

(Through Postal Survey - I)

(The information provided will be used only for research purposes and the confidentiality of the individual will be strictly maintained.)

1) Name : _____

Sex : _____ Age : _____

2) Address : Locality _____ Village : _____

Taluka _____

3) Qualification : Degree _____

Diploma _____

Certificate _____

4) System of qualification : (Please ✓ appropriate one)

Allopathy	Ayurved / Unani	Homeopathy	RMPs	Other (Specify)

System of practice : (Please ✓ appropriate one)

Allopathy	Ayurved / Unani	Homeopathy	RMPs	Other (Specify)

5) University / Board : _____

Year of Passing : _____

Year of Registration : _____

6) Do you practice at present ? _____

7) Native Place : Village _____ Taluka _____

District _____

8) How many patients did you treat last week ? _____

a) How many from the same village ? _____

b) How many from the neighbouring villages ? _____

9) Do you visit other villages ? _____
How many ? _____

10) Do you make home visits ? _____

11) Do you have any other staff to help you ? Give details.

_____

_____

12) Whether you dispense medicines or prescribe them ? _____

13) From where do you by drugs ? _____

14) How far is the nearest medical store ? _____ km

15) Do medical representatives visit you ? _____

16) How long have you been practicing at this place ? _____

17) Did you start your private practice immediately after your graduation / post-graduation ? _____

18) Did you practice somewhere else before you started practising at this place ? Where ?

Village / town _____ Taluka _____

District _____

19) Are there beds in your clinic ? _____ How many ? _____

20) Please list names and qualifications of other medical practitioners in a 5 km. radius from your place.

Kindly indicate your interest in participating in a trilingual seminar on `Economics of Health Care Provision : Dynamics and Problem' to be organised by us.

I am interested / not interested in attending the seminar.

If interested, Name of Representative : _____

Convenient Day of the week : _____

Thank you for participating in this study.

Appendix G

Profile of Practising Doctors in Ahmednagar District

(Through Postal Survey - II)

This questionnaire is a supplement to the earlier one you had responded to. We request you to kindly fill - in the additional information needed by us in the following proforma. As assured earlier all information provided will be treated in strict confidence and used for research purpose only.

1. Name :

2. Address :

3. Family Background : (including those members presently not residing with you)

	Education (highest level)	Occupation (present)	Location (rural / urban)
Father			
Mother			
Wife / Husband			
Brother			
Brother			
Sister			
Sister			
Any other (specify) _____			

4. Is your present family nucleus (husband, wife, unmarried children) or joint / How many persons?
   Male _____ Female _____

5. Do you or the family own any agricultural land ? If Yes how many acres ? _____

Professional Background

6. Which medical college / institute did you study in ?
   Name of College : _____
   Place (City and district) : _____

7. How did you pay for your medical education ?
Scholarship / parents / loan / other (specify) _____

8. Are you a member of any professional bodies ? If Yes, which ones ? _____

9. Have you attended any refresher courses after you basic medical qualification ? If Yes, specify where and how ? _____

10. Do you subscribe / read any professional (medical) journal / magazine ? If Yes, give names.

11. Please list the equipment (for medical practice) owned by you. _____

12. How many hours daily do you practice ? _____
How many days in a week is your clinic open ? _____

13. Cost of Practice : Please indicate the monthly expenditure for the following or any other items to run your clinic :

(a) Rent _____
(b) Fuel / Transport expenses for practice _____
(c) Any salary paid to helper/asst./Compounder etc. _____
(d) Drug purchases _____
(e) Any other expenses of clinic or practice (specify)

14. What do you normally charge a patient ? _____
How many days medicine is included in this charge ? _____
What do you charge for giving an injection ? _____
with vial _____ without vial _____

15. Do patients pay in kind (grain, etc) ? If Yes, how many of your patients pay in such manner ?

16. We are aware that a few patients may not pay / or be able to pay for your services. In this case

(a) What do you do ? _____
(b) How many such patients have you encountered during the last one year ?

Thank you for participating in this study.

Appendix H

Sample Survey
Health Personnel Data
Card for Community

Sample Survey

(Through non-qualified practitioners)

Name of the Interviewer : _____

Name	Type/ Qualification *	Type of treatment *	Dispensary Own/Rental None	Local/ Outstation (From which place)	If outstation, how many days in the town	Time	Since how long do you have the dispensary ?	Do you visit other towns ? Where ?	Remuneration Nature ? Amount ?

Type / Qualification :

1) Allopathic
2) Ayurvedic
3) Unani
4) Homeopathic
5) Employees in PHC / SC
6) Trained Dai
7) Traditional Dai
8) Vaidya
9) Herbal
10) Godman
11) *Bhagat*
12) Spiritualist
13) Others

Type of Treatment :

Medicines / Tablets

1) Allopath
2) Ayurved / Unani
3) Homeopath
4) Herbal
5) Massage
6) Incantation
7) *Angara*
8) Others

Appendix I

Questionnaire for Information on Health Establishments in Ahmednagar District

(Postal Survey for Hospitals)

(The information given will be used only for research purposes and the confidentiality of the individual institution will be strictly maintained)

1) Name of Hospital / Nursing Home and Address : _____

_____

_____

_____

2) Name of Person incharge _____

3) Type of Institution :
(Please ✓ appropriate one)

Public Sector	NGO or Voluntary	Private Sector

4) Type of Management (Please ✓ appropriate one) :

Government	Municipality	Panchayat Body	Individual Proprietor

Partnership	Trust	Society	Co-operative	Other (Specify)

5) Year of Establishment : _____

6) Ownership of Premises : (Please \/ appropriate one)

Owned	Long term lease from Govt. or local body	Rented

7) Staff Strength :

(a) Full time / Resident Doctors : _____

(b) Visiting / Attached Doctors : _____

(c) Qualified Staff Nurses : _____

(d) Auxiliary Nurse Midwives : _____

(e) Pharmacist and other technicians and paramedics : _____

(f) Other employees : _____

8) Names, qualifications and specialisation of doctors
(if you need more space, use separate sheet)

(a) Resident Doctors

	Name	Qualifications	Specialisations
1.			
2.			
3.			
4.			

(b) Visiting / attached Doctors

	Name	Qualifications	Specialisations
1.			
2.			
3.			
4.			

9) Number of Beds : _____

10) Total floor space
(area in square feet) _____

11) Main types of indoor cases handled (Please ✓ those applicable)

General Medical	General Surgery	Maternity	MTP	Cardiac	Opthalmic

Orthopaedic	Pediatric	Intensive Care	ENT	Infectious Diseases	Other (Specify)

12) Special facilities offered : Minor operation theatre / Major Operation (Please ✓ those applicable)

Minor Operation Theatre	Major Operation Theatre	Labour Room	X-Ray	Fluoroscopy

Routine Pathology	Special Pathological Tests (Please specify)	Anaesthesia Equipment	ICU	Ultra Sonography

Special diagnostic or Therapeatic Procedures (please specify)	Any other (please specify)

13) Average number of admissions in a month : _____

14) Average length of stay of patients : _____ days.

15) Average occupancy rate _____ per cent.

16) Do you have an out-patient department ? YES/NO

If yes, average number of OPD cases in a month : _____

17) Any other information you would like to give.

_____

_____

18) Kindly indicate your interest in participating in a seminar on `Economics of Health Care Provision : Dynamics and Problems' to be organised by us.

I am interested / not interested in attending the seminar

If interested, (a) Name of Representative : _____

(b) Convenient Day of the week : _____

Note : Please look at the list enclosed of hospital and nursing homes in your taluka and indicate any missing hospital / nursing homes as well as those which have closed down.

Thank you for participating in this study !

Appendix J

Study of Health Care Providers with reference to Investment and Expenditure in Ahmednagar District

(For Individual Practitioners)

Note : The present task is an important link in series of studies on the "Economic Dimensions of Medical Care Provision". The present concern is aimed at analytically understanding and recording the processes and experiences of setting up health care establishments (clinic, nursing home, hospital, diagnostic services), their growth and their place in the overall economy.

The establishments included in the study have been selected randomly (through well known statistical principles) and in no way are a reflection of an individual establishment and / or providers achievements or shortcomings. The identity of individual establishments and providers will be kept confidential and the data obtained used only as aggregates for research purposes.

Name of interviewer :

Place :

Date :

A. Biographical Sketch

1) Name of the respondent : _____

Sex : _____ Age : _____

2) Address : Locality : _____

Village / Town : _____

Taluka : _____

Dist : Ahmednagar Pin : _____

3) Individuals : Qualifications

Premedical Qualifications : _____

Basic Medical Qualifications : _____

Additional Medical Qualifications :

Specialization : _____ Other system : _____

4) Year of passing : _____

5) Year of registration with council : _____

Name of the council : _____

Registration No. : _____

Address of registration : _____

6) What did you do after completion of your medical education ?

Jobs : Where ? _____ Period :_____

7) When did you start your own practice ? _____

8) Awareness about legal registration (NH Act / Shop & Establishment Act etc.)

If registered, where _____ When _____ Reg. No. _____

9) No. of other units associated with : Visiting _____

Attached : _____ Where : _____

B. Historical Information on Private Practice

Year	Place	Type of Mgmt.	Services Provided	Ownership of Premises	Floor Space (Sq.ft.)	Staff Position

Notes : (Include all other current units).

C. Historical Information on Private Practice

1) Investment and Sources

Year	Place	Land/Build.	Deposit	Renovatn.	Furnish.	Equip.	Vehicle & Other (if any)

Note : (Ask for the amount and its break-up into following sources

1) Self
2) Contributory/inherited
3) Deviations / Funds / Grants
4) Loans (Institutional)
5) Loans (informal)
6) Other (specify))

2) Loan repayment pattern :

Source	Amount	Year	Interest	Repayment	Monthly	Current

3) Experience in raising finances :

4) Decision Making Process in Setting-up Practice

i) Did factors such as family and financial background, market availability etc. determine your decision with regards to

a) Type of services : (Facilities / Staff)
b) Location of your unit :
c) Initial pattern of fees (Did financial background like investment, loans, competition, market availability or any other factors decide your charging system ?)
d) Other decisions regarding practice :

ii) Efforts taken to establish and develop practice :

D. Current Provision Profile

			Reference Period
1)	Total no. of admissions	_____	_____
2)	Indoor cases according to each type	1) _____	_____
		2) _____	_____
3)	Current OPD attendance	_____	_____
4)	OPD attendance during rainy season	_____	_____
5)	No. of home visits	_____	_____
6)	No. of cases to which each facility is offered	1) _____	_____
		2) _____	_____
		3) _____	_____

E. Current Expenditure Profile

1) Current Expenditure :

Exp. Head	Amount (Rs.)	Reference	Period
1) Drugs			
2) Equipments/Suppliers			
3) Rent			
4) Medical Indeminity			
5) Telephone			
6) Electricity			
7) Water taxes			
8) Other taxes			
Local bodies 1)			
2)			
9) Staff Salary			
10) Repairs & Maintenance & Insurance of equipments			
11) Repairs & maintenance & insurance of equipments			
12) Repair & maintenance of vehicle			
13) Petrol / Oil / Diesel for vehicle			
14) Other fuels for clinical purposes			
15) Stationary			
16) Newspapers (Magazines)			
17) Other (specify)			

F. Revenue Resources for Running Present Medical Units

1) Sources other than income by patient charges :

Sources	Amount	Period

2) Patient Charges Profile :

	Amount	Cases	Ref.	Period
1) Only Medicines				
2) Only Consultation				
3) Medicine with Injection				
4) Only Injection				
5) Saline				
6) Home Visits within Village / Town				
7) Home Visits outside Village / Town				
8) Other Available Facilities				
1) _____				
2) _____				

G. Future Plans

Appendix K

Study of Health Care Providers with reference to Investment and Expenditure in Ahmednagar District

(For Health Establishments)

Note : The present task is an important link in series of studies on the "Economic Dimensions of Medical Care Provision". The present concern is aimed at analytically understanding and recording the processes and experiences of setting up health care establishments (clinic, nursing home, hospital, diagnostic services), their growth and their place in the overall economy.

The establishments included in the study have been selected randomly (through well known statistical principles) and in no way are a reflection of an individual establishment and / or providers achievements or shortcomings. The identity of individual establishments and providers will be kept confidential and the data obtained used only as aggregate for research purposes.

Name of interviewer :

Place :

Date :

A. Biographical Sketch

1) Name of the respondent : _____

Sex : _____ Age : _____

Designation of the Respondent : _____

(Owner / doctor in-charge/chief administrator/ other specify)

If the respondent is not owner,

Name of the Owner : _____

Qualifications : _____

2) Address : _____ Locality : _____

Village / Town : _____

Taluka : _____

Dist : Ahmednagar Pin : _____

3) Sector : Public / Private / Voluntary - NGO

_____

4) Year of Establishment : _____

5) Awareness about legal registration (NH Act / Shop & Establishment Act etc.)

If registered, where _____ When _____ Reg. No. _____

B. Historical Information on Private Practice

Year	Place	Type of Mgmt.	Services Provided	Ownership of Premises	Floor Space (Sq.ft.)	Staff Position

Notes : (Include all other current units).

C. Historical Information on Private Practice

1) Investment and Sources

Year	Place	Land/Build.	Deposit	Renovatn.	Furnish.	Equip.	Vehicle & Other (if any)

Note : (Ask for the amount and its break-up into following sources

1) Self
2) Contributory/inherited
3) Deviations / Funds / Grants
4) Loans (Institutional)
5) Loans (informal)
6) Other (specify))

2) Loan repayment pattern :

Source	Amount	Year	Interest	Repayment	Monthly	Current

3) Experience in raising finances :

4) Decision Making Process in Setting-up Practice

i) Did factors such as family and financial background, market availability etc. determine your decision with regards to

a) Type of services : (Facilities / Staff)
b) Location of your unit :
c) Initial pattern of fees (Did financial background like investment, loans, competition, market availability or any other factors decide your charging system ?)
d) Other decisions regarding practice :

ii) Efforts taken to establish and develop practice :

D. Current Provision Profile

				Reference Period
1)	Total no. of admissions		_____	_____
2)	Indoor cases according to each type	1)	_____	_____
		2)	_____	_____
3)	Current OPD attendance		_____	_____
4)	OPD attendance during rainy season		_____	_____
5)	No. of home visits		_____	_____
6)	No. of cases to which each facility is offered	1)	_____	_____
		2)	_____	_____
		3)	_____	_____

E. Current Expenditure Profile

1) Current Expenditure :

Exp. Head	Amount (Rs.)	Reference	Period
1) Drugs			
2) Equipments/Suppliers			
3) Rent			
4) Medical Indeminity			
5) Telephone			
6) Electricity			
7) Water taxes			
8) Other taxes			
Local bodies 1)			
2)			
9) Staff Salary			
10) Repairs & Maintenance & Insurance of equipments			
11) Repairs & maintenance & insurance of equipments			
12) Repair & maintenance of vehicle			
13) Petrol / Oil / Diesel for vehicle			
14) Other fuels for clinical purposes			
15) Stationary			
16) Newspapers (Magazines)			
17) Other (specify)			

F. Revenue Resources for Running Present Medical Units

1) Sources other than income by patient charges :

Sources	Amount	Period

2) Patient Charges Profile :

	Amount	Cases	Ref.	Period
1) Only Medicines				
2) Only Consultation				
3) Medicine with Injection				
4) Only Injection				
5) Saline				
6) Home Visits within Village / Town				
7) Home Visits outside Village / Town				
8) Other Available Facilities				
1) _____				
2) _____				

G. Future Plans

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