HOSPITAL BASED URBAN HEALTH CARE SERVICES

Sonya Gill
Lalitha D'Souza
Anagha Pradhan
Dina Patel

The Foundation for Research in Community Health
Mumbai/Pune

1999

What is FRCH ?

The Foundation was established in 1975 as a non-profit voluntary organisation to promote the concept of health care rather than the mere care of illness. This entails the study of health in its wider perspective, in order to improve the health of our people. The emphasis is on the problems of the underprivileged sections of our society, especially women and children.

Our staff from various disciplines are engaged in conducting both conceptual research as well as field studies into the problems faced in achieving Health for All. This is to help in devising alternative models of health and medical care in keeping with the social, economic and cultural reality of our country. The aim is to influence government policy and sensitise the people at all levels to the problems and possibility of achieving good health at affordable cost.

FRCH believes that health is a reflection of the overall quality of life; in fact 80% of the diseases in India are the diseases of poverty and true health can exist only when there is a positive improvement in the socio-economic scenario of the country. This can only be achieved through the people's own efforts. Hence, FRCH aims to create a People's Health Movement by demystifying medicine and increasing public awareness on health, especially at the grassroots, and by strengthening the age old health culture of our people based on our own systems of health and medical care. This is to be achieved, by publishing and disseminating information on all aspects of health and related subjects, by conducting participatory training and interacting with the community.

HOSPITAL BASED URBAN HEALTH CARE SERVICES

Sonya Gill
Lalitha D'Souza
Anagha Pradhan
Dina Patel

The Foundation for Research in Community Health
Mumbai/Pune

1999

Foreword

The present health system has an over-riding emphasis on medical care and that too of a curative nature, 80% of which in quantity, and even more so in quality, is located in the urban areas. Three quarters of the health personnel, as also the nation's health expenditure, is in the for-profit private sector which is almost entirely restricted to curative medicine and caters only to those who can afford to pay for the services.

The entire load of preventive and promotive health care, as well as curative services for those who cannot afford the services of the private sector, is borne by the public sector consisting of government health services (chiefly the PHCs) for the rural population and a combination of municipal and government services in the urban centres. Even in the public sector, the per capita expenditure for the rural population who comprise 74 per cent of the total, is Rs.30 while that for the urban is about Rs.100/-, despite the fact that the health status of the rural people is twice as poor as that of their urban counterparts.

Due to poor Primary Health Care facilities in dispensaries and health posts, it is the large hospitals with expensive secondary and tertiary care services that are swamped by patients who may not require such services. This not only raises the cost of patient care but the tertiary and secondary care services, including training of students, are over-loaded with problems that could be adequately catered to at a peripheral hospital.

The aim of this study was to understand the level of care required by the patients attending the four major speciality departments of one of the most reputed hospitals in the city, namely the King Edward Memorial Hospital affiliated to the Seth Gordhandas Sunderdas Medical College.

The study reveals that about 30 to 40% of patients daily attending the selected Out-Patient Departments could have been adequately attended to at Primary Health Care facilities, and that of the remaining only about 5% required tertiary care services provided by this reputed Institution.

This study could not have been made without the full cooperation of Dr. Pragnya Pai, the Dean, and the Heads and staff of the concerned Departments. FRCH was also fortunate in having the dedicated services of Ms. Sonya Gill, Dr. Lalitha D'Souza, Ms. Anagha Pradhan and Ms. Dina Patel who not only collected but also analysed the massive data which emerged.

It is hoped that the findings of this study will help the Health Authorities of the Municipal Corporation to look into the reasons why patients do not avail of the primary care facilities near their homes. Improvement of these facilities will not only reduce the unnecessary load on the expensive tertiary care facilities. Efficient basic care within easy reach of the people, with basic facilities such as X-ray and pathology would not only be very welcome but also highly cost-effective. There is also no reason why Community Health Care Centers with smaller 200 bedded hospitals with broad based medical and surgical speciality services cannot be established at the 1,00,000 to 2,00,000 population level in urban areas as recommended by the ICSSR/ICMR report Health for All: An Alternative strategy in 1981. This would provide a more humanized, personalized and cost-effective service leaving relatively few cases for the higher secondary and tertiary care institutions. This would result in a far more efficient and cost-effective public health service in our burgeoning cities, reduce the problems of transportation and provide a more job satisfying employment to the doctors, nurses and specialists who crowd our cities. It would also check the proliferation of the private nursing homes by providing a far more efficient service even for the middle class leave aside the poor.

N.H Antia, FRCS,FACS(Hon.)
Director

FRCH Research Team

Sonya Gill	Research Officer
Dr. Lalitha D'Souza	Medical Consultant
Anagha Pradhan	Junior Research Officer
Dina Patel	Research Assistant
Savita Yedekar	Research Assistant
Swati Kadam	Research Assistant
Asha Vadair	Research Assistant
Sushma Jhaveri	Research Assistant

Acknowledgements

The initiative and encouragement to look at the problems of public hospitals goes to Dr. N.H. Antia, our director. The study, itself, owes its existence to the encouragement, interest and complete support of the Dean of KEM Hospital, Dr. (Mrs) Pragnya Pai. The Dean and the Heads of the departments of General Medicine, Paediatric Medicine, General Surgery, Gynaecology & Obstetrics and Preventive & Social Medicine readily gave their permission to approach the patients seen by their out-patient units (OPDs). In turn, the Heads of the selected OPD units and their team of doctors, not only bore our intrusion in the OPDs, but patiently explained medical conditions and assisted us by recording a diagnosis wherever this was possible. The same co-operation was extended by the OPD nurses and attendants who managed the patient flow. Above all, inspite of their illness and the stress of long waiting time, the large majority of patients and their families willingly answered our questions and gave us time to copy down the medical notes.

Our efforts to gather data on the health care system in Bombay and the primary care services in the vicinity of the KEM Hospital were greatly facilitated by the assistance extended by Dr (Mrs) Alka Karande, the Executive Health Officer of the Public Health Department (Municipal Corporation of Greater Bombay) and her senior staff. The Medical Officers of the F/s ward and their staff at the ward office and the dispensaries, too, gave their time and help whenever it was needed.

Many other people, both outside and within FRCH, gave valuable assistance to this study. Dr. Aparna Narayana undertook the pilot study that helped us to formulate the study design. Dr J.C. Sharma of Tata Institute of Social Sciences guided us in arriving at the sample size. The staff of the Medical Records department of the KEM Hospital assisted us with all necessary background data. M.P. Jardosh of Pristine Cartographers made the maps. At FRCH, Dr. M.W. Uplekar gave shape to the proposal and remained a sounding board for all medical queries; Sunil Nandraj helped to formulate the initial questionnaire; Sandeep Khanvilkar, Aditi Iyer and Aruna Dehpande made valuable inputs in methodology, coding and statistical analysis; and Sheela Rangan has minutely commented on every draft chapter of the report. Mr. R.S.Thipse gave library support; and administrative and secretarial help were given by J. Eklahare, Maria Pinto, Gautam Jadhav, Sashikant More and Pramod More and Nitin Mane, Avinash Pandit and Sanjay Juvekar. Type-setting and layout by Jayashree and Venu.

CEBEMO, Netherlands provided the financial support for this study.

Executive Summary

The most basic indicators of human development point to the relatively better status of urban residents in India in comparison to the deprivations faced by the rural majority. However, gross inequalities mark the urban centres. As a result, the urban poor and lower income groups are highly disadvantaged in their ability to benefit from the better infrastructure and the greater provision of amenities. The poor condition of public health — high rates of infectious diseases and malnutrition and an increase in chronic and degenerative diseases — reflect the growing inequalities in living standards in urban areas. This, in turn, strains the health care services. The latter are the inevitable recourse of the poor and lower income groups as they cope with a complex pattern of ill health and premature death.

Until the mid-80s health care services for the urban areas were not seen as an issue. The urban population was considered highly privileged in its access to a vast supply of medical and hospital services. However, concern has been expressed whether these services meet the needs of the urban poor and lower income groups. The growing load on specialist out-patient services of the public hospitals, poorly organised and underutilised public primary services and multiple private providers point to the problems in meeting these needs.

The public health care system reaches the underprivileged sections largely through its hospital services. The present study explores the nature of health needs and problems for which people seek the out-patient services of the public hospital, the level of care needed for these ailments and people's help-seeking behaviour and utilisation of the health care services. In all 1,763 users were interviewed in the out-patient departments (OPDs) of a large public teaching hospital. The clinical notes recorded on their case papers were also taken down. The OPDs belonged to the four basic specialities of Medicine, Paediatric Medicine, General Surgery and Gynaecology-Obstetrics. These were some of the most heavily utilised OPDs and were likely to handle the widest range of illnesses and disabilities, including common and simple ailments.

Major Findings

1. There is little systematic information on the socio-economic background of the people using the public hospital OPDs or the geographical location from which they are drawn. A large teaching hospital would be expected to have a very wide catchment area that would go beyond the city in which it is located. Such information would also aid the formulation of a systematic referral system. Moreover, any discussion of raising additional revenues for the hospital by imposing user fees must take into consideration the economic condition of those using the OPD services. Over half the users (54 per cent) belonged to the urban unorganised sector and two-thirds of the user households had per capita income of less than Rs. 500 per month. Groups most 'vulnerable to poverty' by virtue of an insecure and irregular labour force status predominantly benefited from the hospital OPD services. However, over half the users (54 per cent) were drawn from the close vicinity of the hospital itself, with only a quarter (23 cent per cent) coming from outside Greater Bombay. As a specialist clinic, the Gynaecology OPD had the widest catchment within the metropolis, utilised equally by women in the suburbs and the inner city.

2. In order to strengthen the primary care services and rationalise the load on hospital specialist clinics, it would be necessary to understand the level of care needed for the illnesses seen in the OPDs. The hospital OPDs were handling a large load of poverty-related infectious and

parasitic diseases. In the range of diagnosed conditions, diseases due to infections took up over one fourth of all OPD cases, ranging from 40 per cent in Medicine and Paediatric Medicine OPDs to 20 per cent in Surgery to 12 per cent in the Gynaecology OPD. Tuberculosis was by and large the most common disease among the infectious conditions. The majority of the people (60 per cent) needed secondary level care, indicating a limited scope for decreasing the load on public hospitals so long as specialist services are centralised in them. However, this varied among the OPDs. The Gynaecology OPD was the most optimally used for the secondary and tertiary level services associated with a teaching hospital. Conditions requiring general (primary) care were more frequently seen in the Medicine (38 per cent) and Paediatric Medicine (45 per cent) OPDs, indicating the clear need to strengthen the first contact and general medical care services. This was all the more necessary as many of the patients needing specialised services for investigation and stabilisation of dosages could be subsequently referred to a lower level facility for follow-up and long term management.

3. Public hospitals in Bombay are free and openly accessible facilities. It is often assumed that people 'unnecessarily' use higher level facilities for lower levels of health care. However, not only was specialist care indicated in about half the cases, but over two-thirds (70 per cent) of the users had sought prior treatment. The provider most commonly contacted (50 per cent) at the onset of the illness was the private practitioner. Long lasting relationships, close proximity to their residence and convenient timings were some of the reasons for using private practitioners. Hardly 5 per cent of these users had come to the OPD after using the municipal dispensaries — the general medical care services available through 159 general dispensaries in the public sector. There were, however, limits to continuing private treatment. Lack of quick relief that people associated with minor conditions and the prospects of costly treatment led them to seek public hospital care. The average cost of Rs. 50 for a short duration (on an average 3 days) of private treatment ranged from 10 per cent of the monthly per capita household income of Rs 500 to 17 per cent for those households that were just above the poverty line. For the destitute poor this amounted to a huge 33 per cent of the household's monthly per capita income.

The most common reason for changing the prior provider, especially the private practitioner (57 per cent), was 'no relief'. Does this indicate an inadequate handling of illnesses at the first level of care? No mechanism exists in the current organization of health services to monitor the care, or update the professional knowledge, of an ever increasing supply of private providers.

Only 28 per cent of all users who had taken prior treatment had cited referrals as a reason for coming to the hospital. No referral system integrates the huge health care services in this metropolis despite the existence of the three tiers of public health care facilities. Recorded data on the utilisation of municipal dispensaries in the vicinity of the hospital showed heavy load on some facilities and poor utilisation of others. Observations of three dispensaries showed that there was hardly any interaction between these first level facilities and the hospital specialists to whom patients were referred. The unplanned expansion of private practitioner services in the localities served by the dispensaries was highly visible. Estimates based on data published by the Municipal Corporation found that there was one private practitioner for less than 2,000 people in the municipal ward (4.2 lakh population) in which the hospital is located. In comparison the dispensary was meant to serve a population of 50,000. The public system could hardly be expected to match the coverage of the private sector or consider itself the main provider of first level care. There was an obvious need to review the organisation and performance

of the public primary care services. At the same time, the development of a referral system would need to view the existing health care services as a whole, integrating both the public and private services into a holistic urban health system.

Conclusion

There is no doubt that the health care services need to be integrated within a properly functioning referral system. Such a system is urgently needed in the urban setting where the over supply of medical humanpower, duplication of services and increasing competition and costs of care adversely affect the health care available to the poor and lower income population.

This, however, needs to be done in stages. The access of the poor to the quality services of the public hospital should not be cut off without providing an adequate alternative at the first level of care.

(i) Strengthening the first level of services in the public sector based on the dispensaries, maternity homes, health posts and health centres. All facilities would have a catchment area; staggered timings that would be convenient for working people; and adequate supply of essential drugs. To increase the quality of services in these units the first referral specialist clinics and a wider range of basic investigations could be decentralised to them. These clinics could be the out-reach services of the local hospital, simultaneously providing the necessary experience to medical students about conditions and health needs in the community.

(ii) Developing a system of monitoring of private practice patterns and mandatory record keeping by practitioners. This would form the basis for integrating them within the referral system.

(iii) A properly worked out system of referrals for accessing the hospital, including communication and referring back the patient to the original doctor.

(iv) Administrative reorganisation of the urban public health departments to achieve co-ordination and decentralisation.

Abbreviations

AFB	Acid Fast Bacilli
ANC	Ante natal care
ANM	Auxillary Nurse Midwife
APD	Acid Peptic Disease
ARI	Acute Respiratory Infection
BEST	Bombay Electricity Supply and Transport
BMC	Bombay Municipal Corporation (now Brihanmumbai Municipal Corporation)
BP	Blood Pressure (Hypertension)
CGHS	Central Government Health Scheme
CHV	Community Health Volunteer
CNS	Central Nervous System
CT	Computerised Tomography
Disp.	Dispensary
ESIS	Employees State Insurance Scheme
FP	Family Planning
FTMO	Full Time Medical Officer
G.Surg.	General Surgery
Gen. Hosp.	General Hospital
Govt.	Government
GP	General Practitioner
Gy./Gynaec	Gynaecology
Hb	Haemoglobin
HIV	Human Immuno-deficiency Virus
Hosp.	Hospital
HP	Health Post
i/c	In charge
IMP	Insurance Medical Practitioners
IMR	Infant Mortality Rate
IPP-V	India Population Project - V
LRTI	Lower Respiratory Tract Infection
MCGB	Municipal Corporation of Greater Bombay (now
Municipal	Corporation of Greater Mumbai)
MCH	Maternal and Child Health
Med/G.Med.	General Medicine
MO	Medical Officer
MOH	Medical Officer - Health
MPW	Multipurpose worker
MTP	Medical Termination of Pregnancy
Munc.	Municipal
Nurs.H.	Nursing Home
Obst.	Obstetrics
P.Med.	Paediatric Medicine
PHN	Public Health Nurse
PID	Pelvic Inflamatory Disease
PP/Pvt.Pract.	Private Practitioner
Pvt.	Private
RV fistula	Recto-vaginal fistula
Spl. Hosp.	Speciality Hospital
Spl./Spec.	Specialist
Tert.	Tertiary
UP	Uttar Pradesh
USG	Ultrasonography

DEPRIVATION AND HEALTH CONDITIONS IN URBAN AREAS

The most basic indicators of human development point to the relatively better status of the urban residents in poor countries such as India as compared to the deprivations faced by the vast majority residing in the rural areas. The basic chances for survival and development reflected in the higher infant and maternal mortality and illiteracy or the huge numbers below the poverty line, lag far behind the conditions in India's urban centres. The large urban centres in particular benefited from the investments in infrastructure as priority was given to building the industrial and commercial sectors of the economy after Independence. As a result these urban centers also held out the promise of employment and higher purchasing power that would keep the labour force above the poverty line.

However, deprivation, poverty and precarious employment mark the urban centres as well. Behind the aggregate figures of social development lie gross inequalities. The top 20 per cent of the urban population consumes five times more than that consumed by the lowest 20 per cent.[1] The poor and lower income groups are, hence, far more disadvantaged in their ability to benefit from the better infrastructure and the greater provision of amenities. And 86 million (38 per cent) urban people were living below the poverty line in 1992, a proportion that had not changed significantly since the 1970s despite official claims. [2]

The large majority of the urban poor and lower income groups face harsh and dehumanising living conditions and worsening basic facilities. Acknowledges the Eighth Five Year Plan, "More than one quarter of the population in the country now lives in urban areas. In metropolitan and large cities about 40-50 per cent of the urban dwellers are estimated to be living in slum areas where the health status of the people is as, if not worse than, in rural areas." (GOI, Planning Commission, 1992: 323)

Small, congested and poorly ventilated slum tenements are tightly clustered in densely populated localities with over a thousand people per square kilometre. These tenements are often labour class areas that adjoin major industries and are also the location of small commercial and manufacturing units. The lower income groups are, therefore, the *most* exposed to environmental pollution in their homes, workplaces and neighbourhoods.

Compounding these health hazards is the inequitable distribution of basic services. According to the Planning Commission, protected water supply covered 85 per cent while sanitation facilities were available to 48 per cent of the urban population (Tiwari, 1992). Yet the average water supply available to slum localities is about 40-50 litres per capita per day (LPCD) as against the government's norm of 125-200 LPCD. Even this supply is intermittent and of poor quality resulting in a high load of water borne diseases and intestinal infections. [3] Exposing the Government's claims, the WHO report of the Commission on Health and Environment found that only 7 per cent of the country's 3,119 towns were *partially* covered by sewerage and sewage facilities (Economic and Political Weekly, 1995: 1541). In poor localities of Bombay, this can mean an average of 98 persons per toilet which are often in very poor condition. [4] Defecation in the open, uncleared garbage and overflowing drains are the daily deprivations faced by the urban poor.

These deprivations are growing as the rate of urbanisation (3.14 per cent per annum) remains higher than the national growth rate (2.13% in 1981-91). In spite of a low level of urbanisation (26 per cent) the absolute numbers residing in urban India (217 million) are larger than those living in cities in the United States of America.

Within the urban centres, the larger cities (Class I with one lakh and above population) are absorbing the greatest growth. The metropolitan cities - over 1 million population - almost doubled in number between 1981-91 putting severe pressure on their otherwise better infrastructure (GOI, 1991; Bose, 1995). The urban poor are concentrated in these metropolises. In 1981 the 12 metropolitan cities accounted for 43 per cent of the total slum population (NIUA, 1988: 24).

This rapid increase in urban population is occurring at a time when the Government has initiated major economic reforms in conformity with the stabilisation and adjustment programmes mooted by the International Monetary Foundation and the World Bank. Aimed at greater liberalisation and market orientation, the reforms have led to sharp rise in food prices and further reduced the purchasing power of the poor and lower income groups (PIRG, 1995: 63-91; PIRG, 1994). Public investment in social infrastructure has declined while prices of all utilities and civic amenities have been raised.

Liberalisation has also intensified the decline in employment in the organised sector, particularly

the urban manufacturing employment. In the first two years of reform, the share of self-employed and casual labour increased for urban males at the expense of regular employment, while female participation in wage labour rose reflecting the squeeze on family income (NSS 48th round, quoted in PIRG, 1995: 21). All new activities in manufacturing and services are based on contract, casual, temporary or unpaid family labour or piece-rate and home-based work. Not only are minimum wages not paid, but also work conditions are unregulated, unhygienic and variable. There are very few protective and social benefits to tide over illnesses, accidents and deaths.

The State of Public Health

The poor condition of public health reflects these growing inequalities in living standards in urban areas. Diseases thought to have been controlled or eradicated in the urban setting have reappeared. The outbreak of cholera in Delhi, plague in Surat and the spread of virulent forms of malaria and dengue fever point to the worsening sanitary conditions (Quadeer et al 1994). Poor ventilation and overcrowding underlie the high rates of respiratory infections. There is hardly any decline in the morbidity caused by TB. Most alarming are the emergence of new strains of viral infections and drug resistant strains of diseases that are rapidly transmitted in congested conditions.

There is little disaggregated data available on the differentials in morbidity and mortality among different socio-economic classes. Microstudies show that the poor bear the burden of higher rates of infectious diseases and malnutrition. An epidemiological study of four slums in Delhi found the incidence of diarrhoea among pre-school children to be 3 - 4 times higher than that of the national average (Bhatnagar, 1989: 79-80). Water borne infections are endemic in poorly serviced tenements and slums. Surveys of different slum localities in Bombay found that 63 - 68 per cent of children below five years of age were undernourished which was higher than the average (46 per cent) reported for urban Maharashtra (Geetha et al 1996: 898-899).

Alongside the load of infectious morbidity, there is a substantial rise in chronic and degenerative diseases. Very high levels of air pollution in Bombay have led to a 10 per cent increase in cases relating to breathlessness, cough, chest pain and high blood pressure between 1983-95 (Times of India, January 24, 1995). [5] Heart attacks and heart diseases and accidents are becoming the major cause of mortality in urban areas. Occupational hazards and the morbidity related to the burden of work, though poorly investigated, contribute greatly to this complex pattern of ill health and premature deaths in urban areas.

Any improvement in the health status of the urban poor calls for wider action on part of governments to change the material conditions of living — the determinants of health. In its absence, people are inevitably thrown back on the medical and health care services to cope with illnesses and disease.

Urban Health Care Services

Until the mid-80s health care services for the urban areas were not seen as an issue. The urban population was considered highly privileged in its access to a vast supply of medical and hospital services. A quarter of the Indian population was served by 69 per cent of the country's hospitals and 80 per cent of its hospital beds. While rural India had still to achieve the minimum norm of 1 bed per thousand population in 1992, urban areas —more so the metropolitan cities — had 2 beds per thousand (GOI, CBHI, 1993: 117).[6] The census in 1981 found that 73 per cent of total allopaths and 41 per cent of the indigenous practitioners —predominantly private — were similarly concentrated in urban centres.[7]

The public sector investment in health services infrastructure has mainly favoured the urban areas. Approximately 70 per cent of hospital beds are in the public sector, particularly in the larger and better equipped secondary and tertiary segments, making it the main provider of in-patient care. Around 84 per cent of public sector beds are located in the urban centres (Duggal, 1994: 11). Since the 1980s the growth of public hospitals, the main source of public health care services in urban areas, has been stagnant (Baru, 1994). Yet the concentration of medical services in urban areas continues, as from the mid-70s, there has been a rapid expansion in the supply of private doctors, and small hospitals and nursing homes (Jesani and Ananthram, 1993).

Does this huge supply of urban curative services meet the needs of the poor and lower income groups? A country-wide survey of utilisation of health services showed that both the urban and rural people approached private practitioners for three-fourths of all routine illness care.[8] The public sector handled only one-fourth of general (ambulatory) care, with the bulk provided by the out-patient departments of the public hospitals. In other words, the public health system and particularly the public first level (primary) services — emphasising both curative and preventive-promotive care —were handling only a tiny proportion of people's day to day health problems. On the other hand, 60 per cent of hospitalisations —the more expensive services— were handled by public hospitals especially

for the poorer classes.

Public hospitals have a major role in serving the poorer strata and as a result, in the current pattern of a poorly organised health system, these carry a dual burden. They manage huge out-patient departments which are overloaded with patients seeking the entire range of care from minor, self limiting ailments to serious diseases. The out-patient attendance in Bombay —one of the most overprovided cities — ranges from 5,000 daily outpatients in the biggest teaching hospital, to an average of 1,700 in the four major general hospitals, to 700 in the ten smaller peripheral hospitals.[9]

This is, however, secondary to their role of providing in-patient care. Unlike private hospitals, these are also called upon to handle emergency, medico-legal and high-risk care services. Often their bed utilisation goes beyond 100 per cent as they have to accommodate large numbers of seriously ill people.[10] While such high levels of utilisation severely strain the hospital resources, especially at a time when public health budgets are stagnant, the overcrowding and patient queues and centralisation of services are extremely inconvenient for ill people. As urban centres expand, people would need to travel longer distances and spend greater time in accessing public hospital services. Moreover, the expansion of public hospitals is hardly likely to keep pace with either the growing urban periphery or the saturation of population in the settled poorer neighbourhoods.

As many public health analysts have pointed out, urban areas need planned and integrated primary health services providing the whole range of basic curative, preventive and promotive care. In such a system, hospital services would provide referral, technical support and teaching facilities. As experiences of other countries have shown, the health services need to be planned as a whole and based on a well functioning referral system (Gupta, 1995:153-161). The need for a referral system was to a limited extent reflected in the recommendations of early government committees but was never implemented (Murthy et al 1983:31).

This is all the more urgent today as major policy reforms are being put forward in a piece-meal manner. The reorganisation of urban health services considered by a government committee in 1982 remained limited to reaching out very selective preventive services — family planning and immunisation— to the urban slums (GOI, MOHFW, 1982). All other first level care services are by default to be left to the private sector, except for the small number of under-utilised public dispensaries or the overcrowded hospital OPDs.

The public health authorities have at no time looked at the condition of the private sector and its implications for public health. Health reforms visualise a major role for the private sector (GOI, Planning Commission, 1992: 324). The few studies that exist, however, raise serious doubts on the quality, practice patterns, high costs and lack of regulation that characterise a sector on which a majority are highly dependent (Duggal and Nandraj, 1991; Bhat, 1993; Nandraj, 1994; Phadke, 1994).

At the same time, alternative methods of funding public hospitals and curtailing their 'excessive' use are being considered. These include levying or raising user fees on hospital services and charging higher rates to those who lack referral from a lower level public facility (World Bank, 1993; GOI, Planning Commission, 1992). There is, however, little systematic information on the socio-economic background of the people that public hospitals serve nor on the nature of health needs for which people crowd the OPDs. As a result, such reforms may only restrict the access to needed services without providing any alternative source of good and affordable general (primary) care.

The problems of the public hospitals, poorly organised public primary care services and the quality and affordability of private care —these are the factors that determine whether the health care needs of the urban poor are being adequately met. The current study focuses on the day-to-day health problems seen in the out-patient departments (OPDs) of a large public hospital in an attempt to understand the functioning of the urban health services as a whole.

Notes:

1 The NSS data for 1992 showed that in urban areas the lowest 3 deciles or consumption classes spent 13 per cent of the total private consumption expenditure, the middle 4 deciles spent 32 per cent while the share of the top 3 deciles was 55 per cent. The share of the lowest 20 per cent (lowest 2 deciles) was 8 per cent and this was equivalent to the share (9 per cent) of the lowest 20 per cent in total private consumption expenditure in the rural areas. NSS, 1992, Consumer Expenditure and Employment Survey. Quoted in S.P. Gupta, 1995.

2 S.P. Gupta, 1995: 1296 & Table 3. This estimate is based on the NSS data using the methodology recommended by the Expert Group on Estimation of Proportion and Number of Poor set up by the Planning Commission in

1989. The Planning Commission, however, continues with the old method of estimating poverty levels. The official estimate of urban poverty was 13% for 1992. However, both methods showed a trend towards increase in poverty from 1990-91 onwards, both for urban and rural areas, reflecting the adverse impact of the policies of economic reform and structural adjustment.

3 BMRDA 1989 survey data, quoted in C. Sengupta, 1991; for inequalities in coverage, see S. Gokhale, 1996: 5; for micro-level data on quality of water supply and sanitation, see M. Swaminathan, 1994: 137-138.

4 Based on 1981 census data on 619 notified slums in Bombay. Quoted in M. Swaminathan, 1994: 138.

5 Data collected by Dr A.A. Mahashur, Prof. of Chest Medicine, KEM Hospital., Bombay

6 See GOI, Planning Commision, Seventh Five Year Plan 1985-90, vol. II: 274 for the minimum population norm for bed strength and distribution of different sizes of hospitals.

7 GOI, Registrar General, Census of India 1981. A. Jesani (1991: 8) calculated the population coverage in 1981 was 1 allopath per 817 urban residents as against 1 per 7,189 rural persons. The combined coverage of all allopaths and indigenous practitioners came to 1 per 408 urban and 1 per 1,917 rural persons.

8 NSS 42nd round on Morbidity and Utilisation of Medical Services. GOI, NSSO, 1992: 69-70.

9 Average total OPD attendance calculated from the data for 1995-96 on 14 Peripheral Hospitals belonging to the MCGB. Data obtained from MCGB, Public Health Department.

10 (Dr) Pragnya Pai, 'Health Care Scenario in Public and Private Sector with special reference to the Municipal hospitals of Bombay'. Lecture presented to the Bombay Management Association.

STUDY DESIGN AND METHODS

This study explores the problem of overloading of the public hospital out-patient services in the metropolis of Bombay. This problem is seen from the perspective of those who use these services — their social background and their health needs and ailments that have brought them to the out-patient department. The choice of providers used by them for the initial treatment of their problem and their reasons for changing over to the hospital out-patient service help to pinpoint the problems of the wider health services infrastructure in Bombay. The study suggests some of the measures that could help to rationalise the load on the public hospitals OPD services.

Health care services are organised at different levels of care. The first level, termed as the 'peripheral' or 'primary' care level, is the point at which people should come in contact with the health services. The first level services are located in health posts, dispensaries, General Practitioner clinics and maternity homes. These are meant to handle the most frequently occuring conditions for which simple technologies for prevention and cure exist. The bulk of health care needs in a community can be handled at this level. The more complex and serious conditions needing specialised investigations and treatment are seen by specialist medical professionals at the 'secondary' level facilities such as the General Hospital. The rare and serious cases would need the care of superspecialists based in 'tertiary' care facilities, equipped with sophisticated medical technology. The public teaching hospitals are sought for all levels of health care which is a major factor in overcrowding in these hospitals.

Objectives

1. To study the socio-economic profile, morbidity and help-seeking pattern of the users of the out-patient services of a public teaching hospital in Mumbai.

2. To broadly assess the level of care needed for the illnesses seen in the out-patient departments.

3. To study the hospital based out-patient care in terms of accessibility, convenience and costs.

4. To review the peripheral levels of the public health care services in Mumbai and to identify interventions needed to rationalise the load on the public hospital.

Study Design

Study Area : The King Edward VII Memorial (KEM) Hospital, Bombay was selected as the site of the study. Built in 1925, the hospital is located in Parel in south-central Bombay. Parel and the adjoining neighbourhoods constitute the old industrial areas of cotton textile mills. The KEM hospital is the largest public sector hospital in Bombay in terms of the bed strength, the number of departments, the number and range of specialist and superspecialist clinics conducted every week and the total attendance of out-patients seen in a day (Appendix B Table 1). It has a strength of 1,800 beds and a total of 28 departments belonging to the basic and superspecialities. These departments conduct a total of 64 out-patient clinics. On an average, 5,000 people daily attend the out-patient departments (OPDs) in the hospital.

The KEM Hospital is also one of the four public teaching hospitals in the metropolis. It is attached to the Seth Gordhandas Sundardas Medical College, — one of the three medical colleges with affiliated tertiary care hospitals that are owned and administered by the Municipal Corporation of Greater Bombay (MCGB). (The fourth medical college and teaching hospital belongs to the State government, the Government of Maharashtra.)

Sampling for the Survey: The study focused on the users of out-patient departments (OPDs) belonging to the basic specialities only. These users, or outpatients, referred to all patients living at home who were coming to the hospital for treatment. Four basic specialities were selected, namely, General Medicine, Paediatric Medicine, General Surgery and Gynaecology-Obstetrics. These specialities are the most commonly available services at any secondary level hospital and constitute the first level referral services in a health care system. These were amongst the first seven most heavily utilised specialist OPDs in the KEM hospital (Appendix B, Table 2).

The selected OPDs were also the most likely to handle a wide range of illnesses, disabilities and maternal care needs, including common and simple problems. This would allow us to explore the possibility of categorising the conditions into the three levels of care mentioned above.

A pilot study, conducted in June 1993, had focussed on the morbidity profile of 250 users in five out-patient departments (OPDs) of the KEM Hospital. It was undertaken by a MBBS doctor who had assessed the level of care needed by the sample users in terms of the percentage needing primary, secondary and tertiary level care. A statistical formula1 was applied to the findings of the pilot study

to derive the sample size of 1,763 out-patient users for this study.

The entire sample was distributed over the selected departments in proportion to the share of their out-patient load in the total out-patient attendance of the hospital (ie. using the proportionate probability sampling (PPS) method). The distribution of the sample is given in the chart below.

Total OPD Users Sample
n = 1,763

Medicine OPD n = 747		General Surgery. OPD n = 521		Paediatric Medicine OPD n = 206		Gynaecology OPD n = 190		Obstetrics OPD n = 99	
New n=504	Old n=243	New n=346	Old n=175	New n=122	Old n=84	New n=120	Old n=70	New n=26	Old n=73
Male : 454		355		113					
Female : 293		166		93		190		99	

Period of Data Collection in OPDs :

Round 1 : Jan 94 283	Feb-March 94	January 94 : 81	June-July '94
Round 2 : Apr 94 216		April 94 : 66	
Round 3 : Jul-Aug 248		July-Aug 94 : 59	

In order to get accurate and complete morbidity profile of these OPDs, the sample for each OPD was further devided into new and old patients and male and female users. This was based on the pattern of attendance recorded in the previous year (1993). The ratio of new to old patients was approximately 2:1 with the pattern being reversed in the Obstetrics OPD. Male patients were double the female patients in General Surgery OPD with differentials narrowing over Medicine and Paediatric Medicine OPDs. All relevant data on out-patient attendance was obtained from the medical records department of the hospital.

Techniques and Tools of Data Collection: The constraints of the OPD setting such as the fixed timings, ill people and a moving queue necessitated the use of a quantitative approach to data collection. A survey method based on brief interviews and fairly specific questions was considered the most appropriate technique of data collection. However, since this was an exploratory study some open-ended questions for qualitative information were also included in the schedule.

(a) Quantitative Method: The survey of OPD users, therefore, relied on semi-structured interviews. The components of information covered by the interview schedule included (i) general information and socio-economic background of the patient and the patient household; (ii) duration and nature of symptoms of the current episode; (iii) prior self-medication and utilisation of health care services for the current episode, the costs incurred and reasons for changing the providers; (iv) the reasons for choosing KEM hospital and the costs and waiting time involved; and (v) the overall knowledge and use of the municipal dispensary or any other primary level facility in the public sector; and (vi) the utilisation of health care services in general by the user and the household members. At the end of the interview schedule there was space to take down the clinical notes and diagnoses, if any, recorded on the patient's medical case paper by the attending doctor in the OPD (Appendix C).

The researchers were also instructed to record any narrative details that might be provided by the users during the course of the interview. They were also expected to record their observations of the OPD setting and of the incidents and situations that arose from the crowded conditions.

After the first hundred schedules were completed the socio-economic, morbidity and help-seeking data were listed. This enabled the researchers to identify the gaps in the information and refine the guidelines for data collection accordingly. The research team did not have access to comparable studies and these listed responses became the basis for developing the codebook.

Table 2.1: Size and Distribution of Daily Sample

OPD	Av. no. of interviews/day	Male New cases	Male Old cases	Female New cases	Female Old cases	Daily sample as proportion of average daily attendance
General Medicine	29	12	6	7	4	8%
Paediatric Medicine	16	5	4	4	3	26%
General Surgery	31	14	7	7	3	12%
Gynaecology	17	—	—	11	6	18%
Obstetrics	9	—	—	2	7	8%

(b) Secondary Data Collection: The study was supplemented by secondary data on the health care services in Greater Bombay available with the Public Health Department of the Municipal Corporation (MCGB). The network of peripheral health facilities provided by the municipal corporation in the F/South Municipal Ward within which the KEM Hospital is located, was profiled. The focus was on the first level curative facilities located in the municipal dispensaries rather than on the outreach preventive services of the health posts.

Data on the morbidity recorded at, and the attendance load of, the municipal dispensaries was collected from the F/South Ward Public Health Department. Brief visits were made to three of the better utilised dispensaries in this ward. The qualitative insights gained through discussions with the staff and the observations of the researchers were recorded. The profile of the ward level services and insights into their functioning suggested the need for a larger systematic study of the public peripheral services in Bombay which was outside the scope of the present research.

Conduct of the Study

The Survey - Data Collection in the OPDs: The out-patient departments selected for the study function on six days of the week. The Medicine, Surgery and Gynaecology OPDs work from 8.30 a.m. to 12 noon while the Paediatric Medicine and Obstetrics OPDs work in the afternoon from 1.30 p.m to 4.00 p.m. Each clinic is conducted by a unit of specialists and resident doctors. Separate units of the respective departments conduct the OPDs on different days of the week.

For each speciality OPD the period of data collection was fixed as four to six weeks. For General Medicine and Paediatric Medicine OPDs, the user sample was divided into three rounds of interviews in order to arrive at the morbidity profile across the different seasons. Such a procedure was not used for the other two OPDs as the existing literature on morbidity and health utilisation surveys did not suggest variations in conditions likely to be seen in the Surgery and Gynaecology OPDs.

Field work was carried out by women research assistants. For each department depending on the size of the total sample two or three days per week were fixed for data collection. The same days of the week, and therefore the unit of doctors responsible for running the clinic on that day, were retained during the entire period of fieldwork for each department. The selection of the units was random. The researchers had to complete a fixed sample of daily interviews. The daily sample was divided into new and old cases and within these into the male and female users (Table 2.1).

The data was collected in two phases, i.e. before and after the user had seen the doctor. The research assistants started their interviews half an hour before the OPD began as soon as the registeration desk opened. The early patients, after collecting their stamped case papers, would queue up on the long benches in the main hallway outside the out-patient clinic. Separate queues were maintained for male and female patients in the Medicine OPD whereas the Paediatric Medicine OPD had separate queues for the new and old cases. In the rest, there was only a single queue.

The day's interview began with the first patient in the queue. The respondents were selected in as random a manner as was possible. The OPD setting presented several constraints that made it difficult for a systematic selection of the respondents. There was no serial order stamped on the case paper nor was any token system used to regulate the flow of patients into the OPD. Any casualness on the part of the doorkeeper would see the queue break up as soon as the ward boy or ayah opened the OPD doors to collect a batch of case papers or let in some patients. Within the OPD there could be several queues depending on the number of cubicles and the sitting arrangements for the doctors.

Efforts were made to select every fourth patient in the Medicine OPD, every fourth patient in the

Paediatric Medicine OPD, every seventh male and every eighth female patient in General Surgery and every fourth in the Gyneacology OPD. Such a systematic procedure could be managed only unevenly as it meant a great deal of co-ordination among the investigators who had to select old and new respondents separately and within these the male and female respondents.

Almost all the information was recorded while the respondent waited to go into the clinic or stood in the queue in the clinic itself. Each interview took between 15-20 minutes. The help of accompanying relatives was sought when the respondents were children, old persons or diffident women. Almost no respondent refused us an interview although a small number of women were highly diffident about talking to unknown persons. However, there were certain items of information that some women respondents, youth or accompanying female relatives could not provide such as the break-up of income of earning members in the household or costs of prior treatment.

In the case of old patients with multiple visits, the notes of the first day, the investigations conducted in the course of the various follow-up visits and the diagnosis, if any, were recorded during this first phase of the interview itself.

As each interview continued, the researcher would simultaneously watch out for the respondents interviewed earlier. After they had seen the doctor, the researcher would once again approach the respondent and take down the doctor's clinical notes and diagnosis, if any, from the case papers. This procedure demanded a great deal of concentration on part of the researchers who had to wait a long time before the respondents were able to get their turn at the doctor's desk. By that time the respondents were in a rush to leave in order to queue up at the pharmacy or undergo tests before the pathology closed. It was particularly difficult to keep track of the users of the Gynaecology OPD as there were three separate cubicles which the users could enter at random. As a result clinical notes could not be recorded for the entire sample of respondents.

Data Analysis: All responses to the closed questions were coded and entered on the computers. The data were analysed using the Fox Pro2 and SPSS-PC packages. The open-ended responses were listed and categorised and used to illustrate the quantitative data.

Methodological Issues and Limitations

A major component of this study was to categorise the morbidity data into different levels of care. However, the profile of illnesses and ailments seen in the OPDs relied mainly on the trend shown by confirmed diagnoses. Diagnoses constitututed a little over a third of all morbidity recorded for the User sample. As a result, the categorisation of the levels of care was based on the management of the condition by the attending doctors themselves. These being specialist clinics a bias towards secondary level care was present. The exception was the General OPD managed by the Department of Preventive and Social Medicine which screened the new patients in the Medicine OPD.

The rest of the morbidity data has been presented as symptoms reported by the patients themselves and have been classified as the 'main symptom' or the 'most disturbing symptom'. This needs to be analysed further to get s detailed picture of the conditions that can be effectively handled at the first (primary) level of care.

The accessibility and convenience of using hospital services could be studied only in a limited way. The data on expenditure on drugs and investigations towards the treatment in the hospital has many limitations. This data could only be collected for the old patients where recall was a major problem.

The discussion of the municipal dispensaries and health post were based on brief visits and preliminary observations which need to be developed into a detailed study.

Note:

1

$$n = \frac{Z^2 pq}{d^2}$$

Where Z = *normal value 1.96*

p = *probability of the KEM out-patient needing secondary care (based on findings of a pilot study)*

q = $(1 - p)$

d = *10% of p*

S.K. Lwanga & S. Lemeshow, 1991: 1.

The above formula was applied to the findings of a pilot study conducted in six OPDs in this hospital in 1993. The main findings of this study had dealt with the level of care required by the sample of out-patients.

THE USERS OF PUBLIC HOSPITAL OPDs

Who are the main users of the crowded out-patient clinics of the public hospital in a metropolitan city? What are their socio-economic characteristics? Hospital clinics handle the larger load of routine out-patient care in the public health system. Are these clinics serving a larger proportion of the city's poor?

Bombay: The Urban Poor *As India's foremost industrial and commercial centre, Bombay is easily the most affluent city in the country. Occupying a tiny area of land (603 sq. kms), the population of Greater Bombay (9.9 million in 1991) and its adjoining urban periphery is set to become one of 13 megalopolises in the world. Greater Bombay, itself, consists of three zones comprising the island city, the western and eastern suburbs. It is administered by the Municipal Corporation of Greater Bombay which has divided the district into 23 municipal wards.*

Despite the strong economic base, glaring disparities exist between different sections of the population. By 1991 an estimated 55per cent to 68per cent of the people lived in slums that occupy only 6 percent of the total land area (CRD,1994:74-75; Swaminathan,1994:136). Another 2 lakh people were living on the footpaths without any amenities and 4 lakh resided in dilapidated and unsafe tenements in the inner city area (Sengupta, 1991:22). The enormous profits in real estate and construction industry has put decent housing beyond the purchasing power of the large majority. As many micro studies have shown, the people in these areas face enormous deprivation from the environmental squalor, inadequate amenities and very high levels of air pollution. [1]

Not only do the lower income groups face declining conditions of living, they are also confronted by a deterioration in the employment situation. The expansion in employment slowed down considerably during the 1980s, with almost negligible growth in industrial and manufacturing jobs (secondary sector). This sector had initially attracted the enormous migration of the labour force to the city. By 1991, the services sector had overtaken the industrial sector to become the main source (60per cent) of employment. More and more people are today engaged in non-financial services and trade which provide little protection, no benefits and poor wages. In the production sector, jobs are increasingly concentrated in the small establishments —the urban informal sector— that do not come within the perview of protective legislation (CRD,1994:32-33).[2] *It is this constellation of deprivation and vulnerability that constitute the character of the poor and lower income groups in Bombay.*

The OPD Users

The out-patients of the specialist clinics at the public hospital were mostly the younger workers in the early or mid-occupational stage, new entrants into the workforce, women household workers and young dependents. Over three-fourths of them lived in Greater Bombay (76 per cent) itself or in its metropolitan region (7 per cent urban Thane).

Ramesh, 22 year old vendor of betel leaves, had studied upto Std. 10 and lived with four family members in a single room chawl (tenement) at Wadala in Central Bombay. He approached the Surgery OPD complaining of stomach pain. He had been experiencing pain in the left side of his abdomen for the last 4-5 years but this had got aggravated in the past two years. The last four days had been particularly uncomfortable and he had stopped working, losing his daily earnings of Rs. 30/- to 40/-, as well as the Rs 200/- he had invested in the stock of betal leaves. In the absence of his earnings the family was dependent on his mother's daily earnings of Rs. 55/- from selling bananas on the footpath.

Mahindra was a peon with a private export unit dealing in carpets and furniture. He earned Rs 1500/- per month out of which he sent Rs. 200/- to his parents, both agricultural labourers in Belgaum district, Karnataka, and gave Rs. 500/- to his athiya (father's sister) with whom he was lodging for four years at the BDD chawls in Worli, another locality in Central Bombay. In late 1993 he began to have acute spasms of pain in the right side of his chest and rib cage. Initially he did nothing, but as the pain increased relatives suggested that he have a check up at the hospital. He was diagnosed as a case of lung tuberculosis and put on treatment .

(Profiles constructed from the schedule)

Age Profile

Three quarters of the users interviewed in the Medicine, General Surgery, Gynaecology and Obstetrics out-patient departments (OPDs) belonged to the economically active age group of 15-45 years. Over half of them were the youth and young adults between 26 to 30 years of age. The women coming for Obstetrics care were younger (median 23 years) while children in the Paediatric OPD had an average age of 4 years. The less mobile dependent persons over 60 years, who otherwise have higher health needs, did not seem to be frequent users of these OPDs (Table 3.1).

Table 3.1: Age-Wise Distribution Of OPD Users

Age Group (years)	Male n=805 %	Female n=730 %	Total n=1535 %	Age Group (years)	Male n=113 %	Female n=93 %	Total n=206 %
<14	4	2	3	0 - 1	15	24	19
15-29	51	56	54	1 - 5	38	42	40
30-44	25	29	27	> 5	47	34	41
45-64	16	12	14				
>65	4	1	3				
Median	26	26*					4

Note: Only respondents included.

*Excludes users of Obstetrics OPD (median age 23 years).

Adults in the 16-35 years range emerge as the biggest group in baseline surveys of poor localities in Bombay. One of the reasons for this may be the presence of young migrants in these localities. The proportion of the elderly has been found to be low either due to a shorter life-span, the movement back to the village after retirement or retrenchment from job, which has increased in the last decade with the decline in the formal manufacturing jobs. Children, on the other hand, make up one-third of the population in these localities (Yesudian and Parsuraman, 1990:38). More males, rather than females, avail of the Medicine, Surgery and Paediatric OPD services. This differential was built into the sample for the survey and does not emerge as a finding of the study.

Education Level

Reflecting the overall higher literacy levels and access to education in Bombay, the average female users had middle level schooling (Std. V-VII) while males had reached the secondary level (Std. VIII-X), although few had successfully completed it. Only 18per cent of the users were non-literate. About 14per cent had qualifications beyond the secondary level but graduates and professionals were very few (Table 3.2).

Other surveys, too, have noted the trend towards secondary level educational attainment among the younger generation belonging to low-income families in Bombay. One survey, carried out nine years ago, covered the Naigaum maternity home area adjacent to the hospital. The chawl and slum dwellers in this area were almost evenly distributed into the non-literate category and the primary, secondary and higher secondary

Table 3.2: Education Profile Of OPD Users

Education of Patient	Male n=806 %	Female n=744 %	Total n=1550 %
Non-Literate	12	23	18
Primary (Stds. I- IV)	9	11	10
Middle (Stds.V-VII)	19	27	23
Secondary (Stds.VIII- 1X)	43	29	36
High Sec.\Dipl\Tech\ Undergraduate	12	8	10
Graduate\Professional	5	3	4

Note: Only respondents included.
Excludes users of Paediatric Med. OPD

levels of scool education (Yesudian,1988a:43). [3] However, this trend is uneven due to the high drop-out rate among children studying in the schools run by the municipal corporation which overwhelmingly cater to the low - income groups.

Employment Status

Around 41per cent of the users were economically active as wage workers or self-employed (table 3.3). Working men, and more so, working women used the Surgery and Gynaecology-Obstetrics OPDs respectively, in larger proportion to their share in the workforce(Appendix A Table 1). On the other hand, 58per cent of the users were economically dependent on their households as they were women household workers, children and unemployed men (Table 3.3). Among all the OPDs, General Surgery was utilised by a higher proportion of both the economically active and the unemployed, ie. predominantly male workers. This is probably a reflection of the greater expense of these services in the private sector.

Table 3.3
Employment Status Of OPD Users

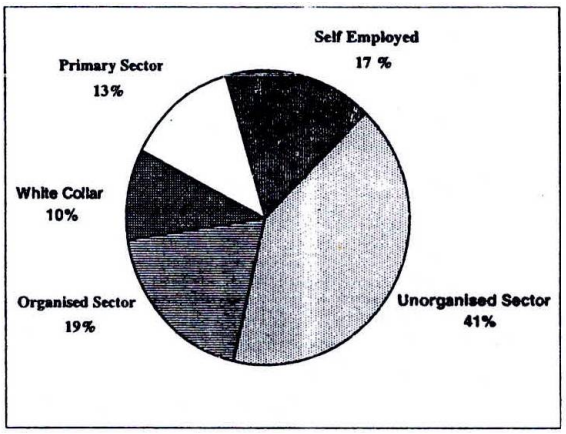
Employment Status	Male n=922 %	Female n=839 %	Total n = 1761 %
Earners			
Wage earners/ Self employed	60	20	41
Income from rent, pension, savings, part-time work	2	1	2
Non-Earners			
Not earning/ Lost job due to illness	3	1	2
Unemployed	13	1	8
Household workers	1	63	30
Students/ Children*	19	15	17
Retired	3	<1	1

Note : Only respondents included
*Refers to users of Paediatric Medicine OPD

Occupational Profile

Over half the economically active users (54 per cent) worked in the urban unorganised sector, either as wage workers or as self-employed (Figure 3.1; Appendix A Table 2). A major metropolitan economy such as that of Bombay, is nevertheless highly heterogeneous and unequal. People's command over resources is greatly determined by their status in the labour force. It is groups most " vulnerable to poverty" by virtue of an insecure and irregular labour force status that predominantly benefit from the hospital OPD services.[4] This is borne out by the concentration of the economically active patients in mainly four occupational groups.

Figure 3.1: Occupational Profile of OPD users
n = 710 (working patients)



Unorganised sector workers:

The largest group of users (19 per cent) were the lower level service workers. These were peons, watchmen, gardeners, lift operators in private establishments and housing societies; salespersons, shop assistants and counter workers; small hotel and canteen workers; compounders; domestic workers; theatre extras; telephone operators and xerox assistants. The majority worked on a contract basis while a small proportion (3 per cent) were self-employed.

The non-factory skilled workers, in wage or self employment, constituted the second largest (13 per cent) group. These were the laboratory assistants; taxi, rickshaw and truck drivers; electricians, carpenters, masons, painters working in the construction industry; tailors and embroidery workers; machinery fitters and mechanics; barbers and others. The third largest group (12 per cent) consisted of the semiskilled workers. These were mostly in small and medium private manufacturing units such as pharmaceuticals, garments, leather, cassettes and printing presses. A

much smaller proportion of the users (6 per cent) were the very poor vendors, hawkers and stallkeepers. But other marginal workers — rag pickers, garbage sifters, women home-based workers — did not appear to access to the OPD services in large numbers.

Among the self-employed, 4 per cent of the users had small retail businesses or were shop owners and traders. These are relatively secure activities and have been excluded from the discussion of the unorganised sector. The expanding unorganised sector within Bombay's economy implies insecure and irregular work, varying wages and complete lack of protective legislation or social security. This sector is set to expand greatly under the current liberalisation policies.

Organised sector workers:

The working patients from the organised sector (19 per cent) formed a smaller proportion of the OPD users. Among these, the lower level workers in public utilities, formed the single largest (10 per cent) group. These were mainly employees of the municipal corporation for whom the municipal hospital is the main facility. Blue collar workers in the organised sector did not appear to utilise these OPDs. Special hospital facilities are available for the organised sector workers under the Employees State Insurance Scheme (ESIS) or employer schemes. These facilities are also concentrated in south-central Bombay and would explain the very small utilisation of the OPDs by these sections.

White collar workers:

A small proportion of the lower level white-collar employees, mainly clerks, accountants, municipal school teachers, computer operators, supervisors, also used these OPDs. A larger proportion of these were women using the gynaecology and obstetrics services (Appendix A, Table 2). The higher income professional groups were hardly found using these services in the public hospital.

Rural groups:

Apart from the urban workforce, a small but significant proportion of the OPD users (13 per cent) belonged to the cultivating groups of cultivators. Even among them the low-income and vulnerable sections of small and marginal farmers, and to a lesser extent, agricultural labourers largely utilised the city's public hospitals. In the Gynaecology OPD 18 per cent of the women workers belonged to these sections.

Income level of User Households

The overall labour class background of the urban users is reflected in the income levels reported by them for the earning members. In the Bombay-Thane region, an average household of six members was supported by two earners. Two-thirds (64 per cent) of the urban households had a per capita income of less than Rs. 500 per month (Table 3.4). Among these 11 per cent constituted the abject poor with monthly

Table 3.4: Monthly per capita income of User Households

Per capita Income (Rs.)	Med OPD n=522 .%.	G. Surg OPD n=386 %	Gynaec OPD n=131 %	Obst OPD n=70 %	P. Med OPD n=171 %	Total n=1280 %
. < 150	12	10	10	9	16	11
151-300	26	24	16	21	32	25
301-500	30	26	24	24	31	28
501-1000	24	29	32	26	17	26
1001-2000	7	10	15	17	4	9
>2000	1	2	2	3	——	2
Median PC (Rs)	400	450	531	500	313	415
Median HH (Rs)	2,000	2,100	2,225	2,000	1,818	2,000

.Note: Only respondents included .
PC - per capita per month; HH - household per month.
Excludes households belonging to agricultural (primary) sector. Average household size for Bombay-Thane sample was 6 (range 1 - 23) and the average number of earners was 2 .
For the non-Bombay / Thane households, the average size was 7 (range 1 - 32) and average number of earners was 2.

per capita income less than Rs. 150.[5] A larger proportion of the poor used the Paediatric Medicine (median household per capita income of Rs. 312) and Medicine (Rs. 400) OPDs. In comparison, a larger proportion of the Gynaecology-Obstetric OPD users reported relatively better levels of income (median Rs 500).

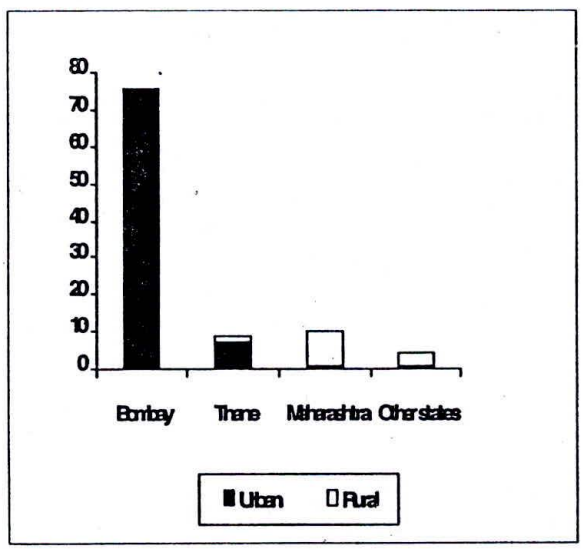
The need for two incomes is again apparent in the occupational background of the households of the non-earning users. Overwhelmingly, their earning members were concentrated in the unorganised wage and self-employed sectors (Appendix A, Table 3).

The official definition of poverty based on the income norm is inadequate as a measure of deprivation experienced by low - income groups in Bombay. Poverty lines estimate purchasing power or expenditure levels that only just allow households to meet their survival needs. As Swaminathan points out, this excludes any discussion or estimate of expenditures on other basic needs such as housing, clothing, education and health (Swaminathan, 1995:134). Apart from these essential expenditures, urban poverty has the added dimension of environmental degradation that poses serious health hazards for people residing in slums and congested neighbourhoods. Even though incomes show wide differentials among the labouring groups, the small surpluses are hardly sufficient to change the quality of their housing or the insanitary and polluted condition of the environment. Added to this is the lack of job security and social benefits in the growing unorganised sector.

Residence of OPD users

Three fourths of the users (76 per cent) were from Greater Bombay (Figure 3.2; Appendix A Table 4). Another 20per cent had come from other districts in Maharashtra, with the adjacent Thane district contributing 9per cent of them. The common metropolitan public transport system, location of jobs in Bombay and visits to relatives were some of the reasons for people in the far-flung suburbs and urban centres of Thane to resort to a city hospital. A small proportion (4 per cent) belonged to other states, particularly Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and some southern states, all of which have contributed considerably to the workforce in Bombay. Among the basic specialty clinics, General Surgery had a higher utilisation by non-Bombay users.

Figure 3.2: Residence of OPD Users
n = 1,760



The majority of these users (81 per cent) had come to the city specifically for treatment. The rest were people who had fallen ill while on a visit to relatives and had been brought to the hospital for treatment. In all 14per cent of these users belonged to rural areas.

Catchment area of the KEM Hospital out-patient clinics:

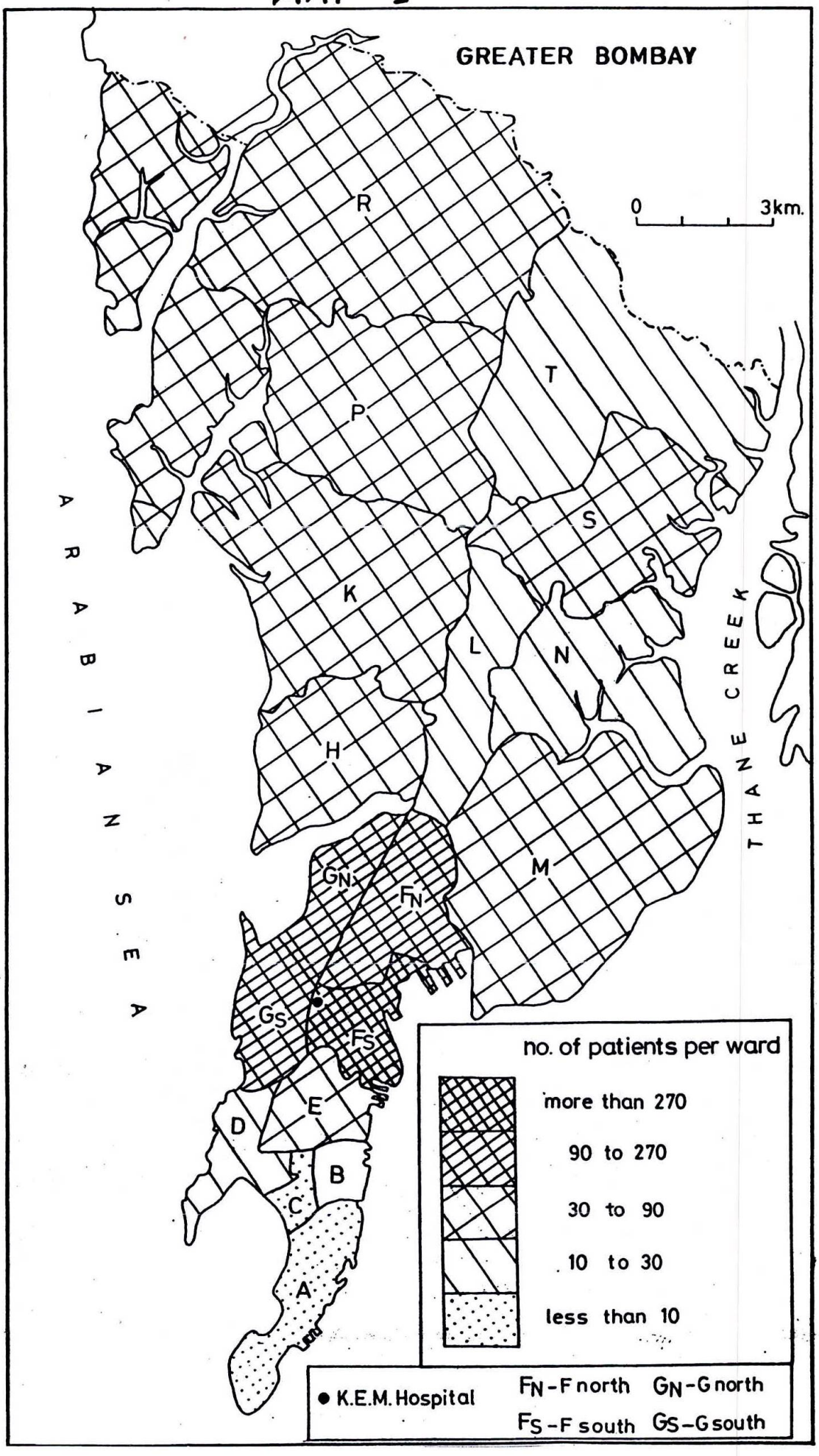
The majority of the users, around 58 per cent, were from the city zone of Greater Bombay, while 17 per cent belonged to the suburbs and extended suburbs. As a highly specialised and technologically well equipped facility, the teaching hospital is meant to serve a large geographical area. Since the concept of a catchment or referral area has not been developed in planning for hospital services, these can be openly accessed by the general public residing anywhere in the metropolis or outside of it.

In the case of these OPDs, a little over half the users (54 per cent) were drawn from the close vicinity of the hospital itself, municipal wards namely the F (south and north) and G (south and north) of south-central Mumbai (map 1; Appendix A Table 5). Densely populated with 51,000 to 61,000 population per sq. km. respectively, these four wards account for 1.85 million people. Even within these, the utilisation was predominantly from the labour class residential areas.

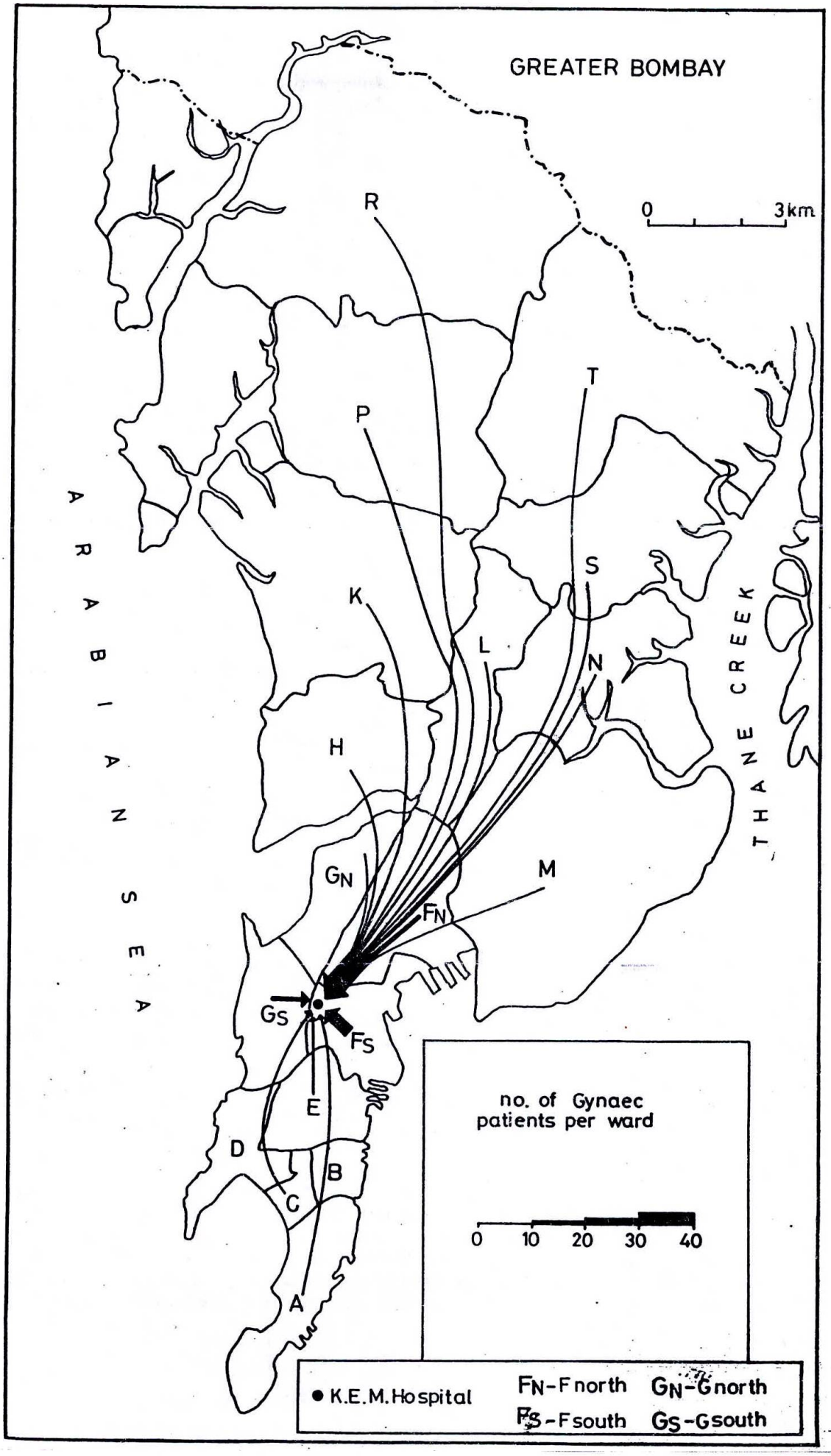
As a specialist, clinic the Gynaecology OPD had the widest catchment with a relatively higher proportion of utilisation (28 per cent) by women residing in the suburbs (map 2). This, as shown by the morbidity profile of this OPD, is due to its relatively greater use as a secondary and tertiary facility.

Medicine, Paediatric Medicine and Obstetrics OPDs were more heavily utilised by residents from the near-by localities. Historically, these localities have had a large concentration of the Bombay working class and are the locus of the early labour tenements built for the textile mill workers around 1920s.

MAP 1


GREATER BOMBAY
0
3km.
R
T
P
S
K
L
N
H
M
GN
FN
GS
FS
E
D
B
C
A
ARABIAN SEA
THANE CREEK
no. of patients per ward
more than 270
90 to 270
30 to 90
10 to 30
less than 10
● K.E.M. Hospital
FN - F north
GN - G north
FS - F south
GS - G south

MAP 2


GREATER BOMBAY
0 3km
R
T
P
S
K
L
N
H
M
GN
FN
GS
FS
E
D
B
C
A
ARABIAN SEA
THANE CREEK
no. of Gynaec patients per ward
0 10 20 30 40
● K.E.M. Hospital
FN-F north GN-G north
FS-F south GS-G south

The central part of the Bombay city region was favoured for the location of the textile mills in the early phase of Bombay's industrialisation. The need for a captive labour force encouraged the building of labour tenements close to the mills, thereby effectively segregating labour class areas from the better ventilated elite residential localities along the western seaboard (Crook et al, 1989; Ramasubban and Crook,1992). These are some of the areas worst affected by industrial pollution and congested neighbourhoods. Local industries and the textile mills, as well as the polluted air from the petro-chemical industry in the east, contribute to the high levels of air pollution (Crook et al., 1989: 43). Along with this area forms the old inner city localities that have a high proportion of decaying tenements.

Although the study did not elicit information on the conditions of housing and the provision of basic amenities available to the users, it was evident from the addresses that the overwhelming majority lived in old, often dilapidated, one-room tenements or 'chawls', newer single-room housing board residential blocks and slums (CRD, 1993:72-73). A similar pattern of shanty dwellings and single-room tenements characterised the people residing in the suburbs. The hutment colonies are more widespread in the suburbs of Greater Bombay.

Although large sections of the population in the inner city areas live in 'pucca' chawls, a single building houses around 100 households where large families live in a single room of 120 to 150 sq. feet. These do not have a separate cooking area or bathing place. Despite water connections and provision of taps, whether common or private, the water supply is in short supply. The number of common toilets are totally inadequate and poorly maintained, drainage systems are often choked and garbage is removed irregularly (Yesudian, 1988a: 43-54). The environmental conditions are even more degraded in the slum areas. A large number of the users were residing in the congested slum colonies located in the Sewree - Wadala belt.

Discussion: The specialist out-patient clinics of the public teaching hospital were being used mainly by the younger workers, overwhelmingly urban, largely male and belonging mainly to the unorganised workforce. On the other hand, over half the users - women, children and the unemployed - were economically dependent on their mainly labour class households. They were mainly residing in the labour class residential areas in the vicinty of the hospital Since the largest section belonged to the unorganised workforce, these users lacked social security or coverage of protective legislation and the public hospital's quality services was one of the few safety nets available to them.

Notes:

1 See Madhura Swaminathan, 1994 for a discussion of the living conditions among the homeless and the slum dwellers of Bombay and the health risks faced by them. See C. Sengupta, 1991 & S. Gokhale, 1996 for an overview of the living conditions of the poor in Bombay.

2 The deterioration in the employment situation accelerated in the 1980s, according to the Socio-economic Review of Greater Bombay. The expansion in employment slowed down considerably from 2.7 per cent growth per annum in the 1960s and 1970s to 1.8 per cent in the 1980s. This was mainly due to the negligible growth of secondary sector jobs—0.6 per cent per annum in 1980s as against 2.5per cent in 1970s. It is estimated that only a third of Bombay's workforce is in the organised public and private sectors. Almost 46 per cent of all workers in the 1990 (as compared to 27.4 per cent in 1971) were employed in establishments with less than 10 workers. CRD, 1994: 32-33.

3 See also Yesudian & Parsuraman, 1990: 43. The 1991 census shows the literacy rate in Bombay to be 82.5 per cent (male - 87.8 per cent; female - 75.8 per cent) while urban Maharashtra and urban all-India rates are 79.2 per cent and 73.1 per cent respectively. The 1989 BMRDA survey of slums in the Bombay metropolitan region found only 22per cent of the slum dwellers were illiterate (C. Sengupta, 1991: 28).

4 Studies have shown that the character of the urban poor is hetrogenous. The destitute, or those below the poverty line and officially designated as the poor, constitute a subgroup. According to Rodgers, "many more will be vulnerable to poverty by virtue of an insecure or irregular labour force status: for instance, many types of casual workers, or the erratically self - employed" (1989: 5).

5 The Expert Group of the Planning Commision had given Rs. 162.2 as the per capita monthly poverty line expenditure in 1989-90 for urban areas (EPW, 1994 : 1233). The estimates of poverty in Bmbay based on the official income norm is lower than for other urban areas. L. Deshpande et al estimated that 16per cent of Bombay's population was below the poverty line in 1983 (1990 : 52-53). According to the 1989 household survey by ORG, 27per cent of households in the Bombay Metropolitan Region had a household income of less than Rs. 1,290 per month (at 1989 prices), the income level taken as the cut-off to identify poverty in 1989.

AILMENTS AND THE NEED FOR HOSPITAL OPD SERVICES

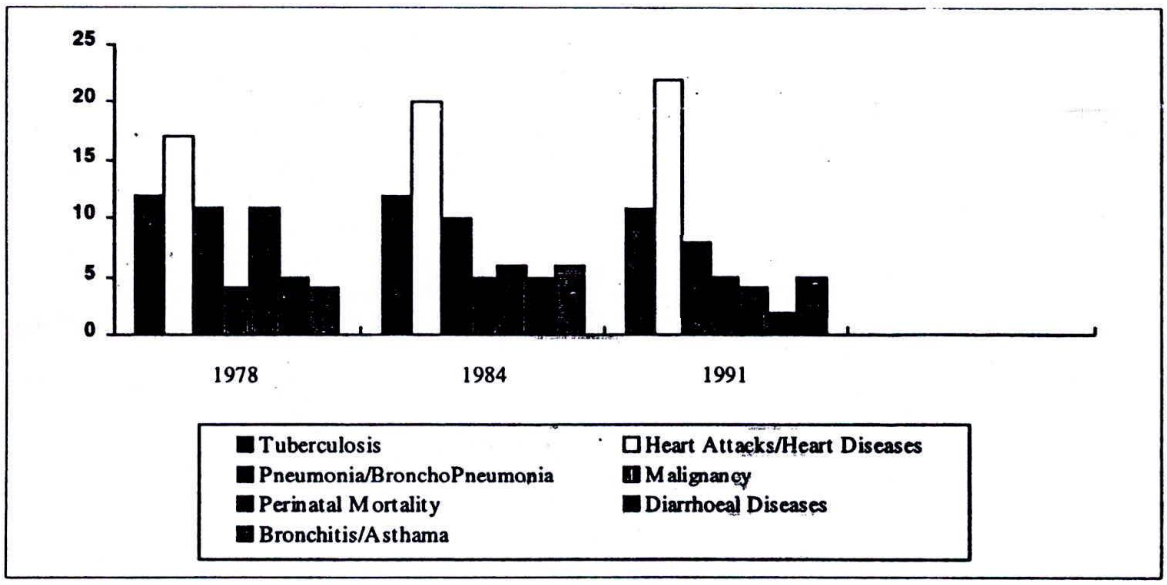
What are the health conditions for which the lower income users seek hospital out-patient care? Are these ailments and illnesses of a minor nature? Could a large proportion of these have been handled by a primary care provider or facility?

Bombay: Mortality and Morbidity *Reliable and systematic information on disease conditions and morbidity is almost totally lacking for Greater Bombay. The major causes of mortality are, however, fairly well recorded as registration covers 90per cent of all deaths. Mortality has been declining over the past three decades but is currently higher (7.6 deaths per 1000 population in 1990-92) than the urban all-India (7 per 1000) and the urban Maharashtra (5.7) levels (MCGB, 1991 & 1992-93; Economic and Political Weekly,1994b:1302). Within this declining trend, deaths due to degenerative conditions, specifically 'heart diseases' and 'heart attacks', have been intensifying. At the same time, deaths caused by major infectious diseases of the respiratory tract — pulmonary tuberculosis, pneumonia and broncho-pneumonia — have hardly shown any decline in the last decade (Fig. 4.1. MCGB,Public Health Department,1980,1987 & unpublished data for 1991). These diseases together are responsible for the higher than average mortality in the city zone (10.5 per 1000 in 1990-92) as against the suburbs (7/1000) and extended suburbs (6\1000.) MCGB, Public Health Department 1991 & 1992-93).*

On the other hand, there has been a decline in deaths due to diarrhoeal diseases, and among infants due to causes of peri-natal mortality. Infant mortality at 48 per 1000 live births is lower than the urban all-India (65 in 1990-92 period) and urban Maharashtra (52/1000) levels. However, this is unacceptably high for the country's premier industrial city. It, in turn, reflects the vast disparities between different social classes. This is evident from the large variations in the infant mortality rate (IMR) among different localities.

Higher than average infant deaths continue to take place in the highly congested industrial wards, such as Chembur (M/E) in the eastern suburbs with a rate of 65 per 1000 in 1993 and Parel (F/S)in the city zone (60/1000). In contrast, the elite western suburb of Bandra (H/w) and Malabar Hill (D) in the city had a low rate of 31 infant deaths (MCGB, Public Health Department, Unpublished data for 1993). At present the focus of public health concern in the Bombay Municipal Corporation appears to be almost exclusively on child survival (and family planning) as a result of the India Population Project-V (IPP-V) funded by the World Bank. The Socio-economic Review also argues that any improvement in mortality levels in Bombay will depend upon reductions in infant and maternal mortality (0.5 per 1000 live births) (CRD, 1994:17). [1]

Figure 4.1 : Leading Causes of Mortality in Greater Bombay



It is obvious that the pattern of mortality is a mixed one. There is a growing share of degenerative conditions and a continuing large load of communicable diseases and infections arising out of highly congested and polluted work and living environments. Acute respiratory infections (ARIs) were also the largest cause of infant deaths in 1991. There are also large differentials between the poor and affluent sections of the population although this can be judged only on the basis of mortality pattern according to wards.

A much greater focus on the health needs of the urban poor is required from the public health authorities. As pointed out by Rammasubban et al., the decline in mortality has not led to an equalising in the different mortality levels in different localities. Large differentials exist in TB and heart disease mortality. In 1991, the deaths due to TB were four to five times higher in the worst affected inner city E (Byculla) and F/S (Parel) wards compared to the less affected localities on the western seaboard (H/w, P/S and R/S wards). Even in the case of heart diseases considered as a disease of affluence, the industrial wards (E, F/S and F/N) had mortality levels comparable to the elite localities (D, K/W and H/W). The range in infant mortality between the worst and the best wards is about two to one. "These are substantial differentials when one considers that we are recording them by ward, not by social class, and that wards consist of very large population: from 300,000 in the H West to 560,000 in M, for example."(Ramasubban and Crook, 1992:23-24).

Alongside the focus on child survival, a greater urgency is needed in tackling the large load of communicable and respiratory diseases. Unfortunately, there is very little data on the changing trends in morbidity. There have been no large community surveys designed to document morbidity patterns. Some trends are shown in studies on utilisation of health care services in Bombay. For instance, a survey of 1,257 households (8,015 population) spread over three municipal wards, covering Mahim-Dharavi and Bandra, was conducted in 1989. It showed that, on an average, there were 5 to 6 new illness episodes (of short duration) per 100 persons in the community every 14 days. About 89per cent of these short-duration illnesses consisted of fevers, cold and other infectious conditions and aches and pains (Yesudian, 1990).

The Public Health Department of the Municipal Corporation also publishes data on the symptoms and conditons recorded for new patients seeking treatment at the General Dispensaries. Keeping in mind the very uneven quality and reliability of these records, the pattern of fresh illnesses seen in Dispensaries, nevertheless, points to a large load of infective and parasitic diseases and respiratory disorders (Appendix B Table 3). More recent records from eight dispensaries in the F/S ward within which KEM Hospital is located shows no change in the pattern of illnesses for which people, and largely the poor and low income groups, are seeking basic care. Such institutional morbidity data can be used to improve preventive services in the locality served by a dispensary; for instance, the huge load of diarrhoeal diseases should direct public health activities towards improving the sanitation and water supply in the low-income neighbourhoods. The application, if any, of this data to direct the local (ward-level) public health measures is not indicated in the annual reports and bulletins of the public health department.

However, since the majority utilise private practitioners for their basic and short-term care,[2] the data from public dispensaries may not capture the range of conditions for which people need primary and secondary care. The presence of a large private medical sector handling the bulk of out-patient care complicates the collection of morbidity data. Leave alone statistics on general morbidity, even the load of communicable diseases is probably under represented in the official statistics. The rising cases of malaria in recent years has highlighted the neglect of private practitioners in notifying these to the Public Health Department. Under the BMC Act 21 diseases have to be notified to the municipal authorities to enable them to undertake prevention and control measures.

Morbidity Profile of Hospital OPD Users

The specialist OPDs of public hospitals do not maintain any medical records and little is known about the morbidity profile of these clinics. The present study looked at the range of ailments, diseases and disabilities for which people approached the specialist out-patient services of the public hospital. Institutional morbidity data helps to identify the prevalent problems, illnesses, disorders and emergencies for which the urban poor and lower-income groups seek health care (Bannerji D., 1984).[3] Self-reported and self-perceived illnesses define the actual demand for health care services, including the public hospital out-patient care.To meet this demand effectively, specialist out-patient services in the hospital need to act as support and referral services within an integrated health care system. A common perception about the public hospital out-patient services is that they are heavily utilised by people with minor ailments or problems needing good general care.

The present study explored both these issues. It identified the illnesses and disabilities most

commonly handled by these OPDs. It also broadly assessed the level of health care — ie. basic general care, specialist and super-speciality care — needed to treat these conditions.

Morbidity and the level of care needed: There were over two hundred different symptoms which were being considered by the doctors attending the out-patient departments of Medicine, Surgery, Paediatric Medicine and Gynaecology - Obstetrics. For each OPD, a profile of the main symptom or condition for which people sought treatment has been developed on the basis of the person's own description. This is complemented by the profile of confirmed diagnoses available from the patient's case sheets. Being a teaching hospital, the case sheets had lucid clinical notes, confirmed diagnoses were available for one-third (33 per cent) of all patients interviewed and in its absence, 'impressions' or 'provisional diagnosis' were put down in another 26 per cent of cases.

The hospital OPDs handle a large load of poverty-related infectious and parasitic diseases. In the range of diagnosed conditions, diseases due to infections took up over one-fourth (27 per cent) of all OPD cases (Appendix A, Table 6). These ranged from about 40 per cent in the Medicine and Paediatric Medicine OPDs, to 20 per cent in the Surgery OPD and 12 per cent in the Gynaecology OPD. Tuberculosis was by and large the most common disease among the infectious conditions. It was confirmed in as many as 20 per cent of the patients who were given a diagnosis. It was also the most frequently investigated condition (17 per cent of all provisional diagnosis). This points to the magnitude of tuberculosis cases being diagnosed and treated in the public hospitals.

Among the diagnosed conditions, tuberculosis ranked first in Medicine (31 per cent) and Paediatric Medicine (26 per cent) and third in General Surgery (11 per cent). An overview of the major conditions seen in these OPDs is presented in Table 4.1. A detailed discussion of the profile of conditions seen in each OPD follows in the next section.

The level of care needed to treat the problems seen in the OPDs was also assessed (Table 4.2). This was based on the actual management of the patients' condition by the attending doctors themselves (Appendix A, Table 7). Each OPD was handled by a unit of specialists and resident doctors of the concerned department. The only exception was the General Medicine OPD. In the latter all new patients were being handled by a General OPD managed by the Department of Preventive and Social Medicine. The former screened all new patients in an effort to reduce the load on General Medicine and ensure speedy treatment and accurate referrals.

People needing specialist (secondary) or tertiary care were all those who *(a)* underwent higher level investigations, *(b)* were hospitalised or *(c)* were referred to other clinical specialities and superspecialties in the hospital. Those users who were only given treatment were assessed as needing basic (primary) curative care. Basic medical care is available in the municipal dispensaries or provided by private general practitioners. The majority of these cases were treated and disposed at the first visit itself. Also included in this category were a small proportion of people who underwent basic (1st level) investigations (Appendix A, Table 9). Only a few of these routine tests are available in the upgraded municipal dispensaries.

Table 4.1 : Ranking of Confirmed Diagnoses in OPDs

OPD	First	Second	Third
General Medicine	Tuberculosis	Hypertension	Lower Respiratory Tract Disorders
Paediatric Medicine	Tuberculosis	Seizure Disorder	Lower Respiratory Tract disorders
General Surgery	Minor Surgical Conditions	Anorectal Conditions	Tuberculosis
Gynaecology	Infertility	Pregnancy	Menstrual Disorders

Table 4.2 : Level of Care Needed by OPD Users

Level of Care	Medicine OPD n = 700 %	Paed. Med OPD n = 190 %	G. Surgery OPD n = 459 %	Gynaec. OPD n = 158 %	All OPDs n = 1507 %
Primary	38	45	25	8	32
Secondary	57	42	67	68	60
Tertiary	5	13	7	23	9

The majority of the people seen in these OPDs needed secondary level out-patient care. This was also evident from the pattern of diagnosed conditions in each OPD, as discussed in the following section. A closer scrutiny of the clinical notes showed that many of the patients needed specialised services for investigation and stabilisation of dosages. These patients could be subsequently referred to a lower level facility for follow-up and long term management. Hardly 5per cent of the patients were admitted from the OPDs (Appendix A Table 7). The latter were functioning as consultant clinics which, in the public health system, are centralised in the hospitals. Until some decentralisation is undertaken, public hospitals will be burdened with a heavy load of out-patients seeking treatment for major diseases and disablities.

Overall, 9 per cent of the patients required the opinion of superspecialists and sophisticated (3rd level) investigations. The Gynaecology OPD was the most frequently used for tertiary level services associated with a teaching hospital.

The level of care provided varied among the different OPDs. Conditions requiring general (primary) care were more frequently seen in the Medicine and Paediatric Medicine OPDs. These conditions added to the overloading of the specialist OPDs, which could hamper the doctors in spending sufficient time on serious cases. Ill patients were severely inconvenienced by the long waiting time and the consequent tensions in the waiting areas.

A General OPD was established in the Medicine OPD by the Department of Preventive and Social Medicine to redress some of these problems. This OPD was able to reduce the load on the Medical specialists by screening all new patients. One third (34per cent) of the new cases were given treatment and disposed at the first visit. Another 29per cent were referred to the other clinical departments in the hospital (Appendix A Table 8). Only 6per cent of all referred cases needed to see the medical specialist. This pattern confirms the need for a referral system to relieve the load on the specialist services.

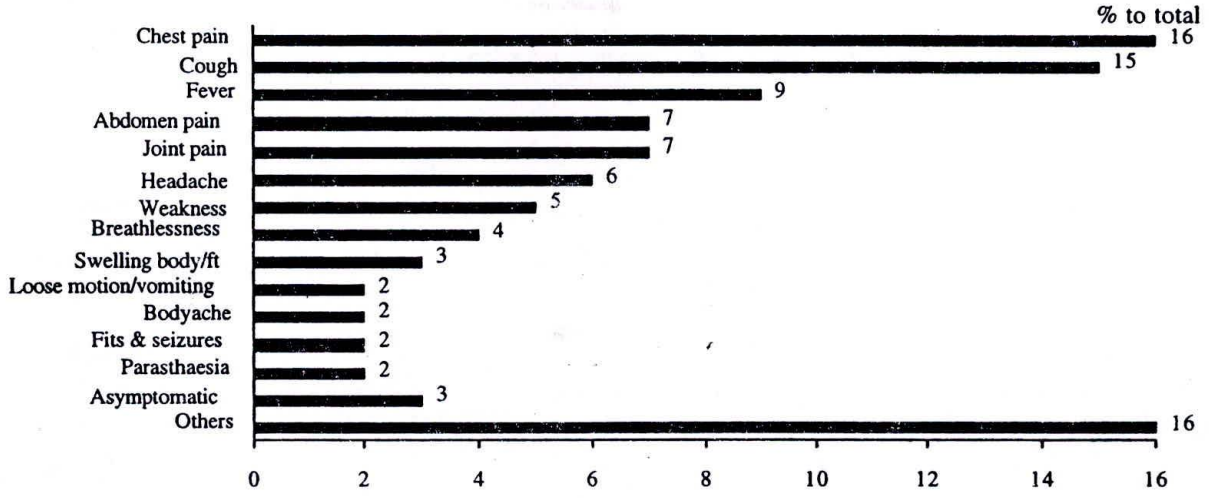
1. General Medicine and General OPD

People reported to the General OPD and General Medicine OPDs with a wide range of symptoms. Over half (59per cent) of the complaints

Chart 4.1: Symptoms and Related Diagnoses
(in ranked order)

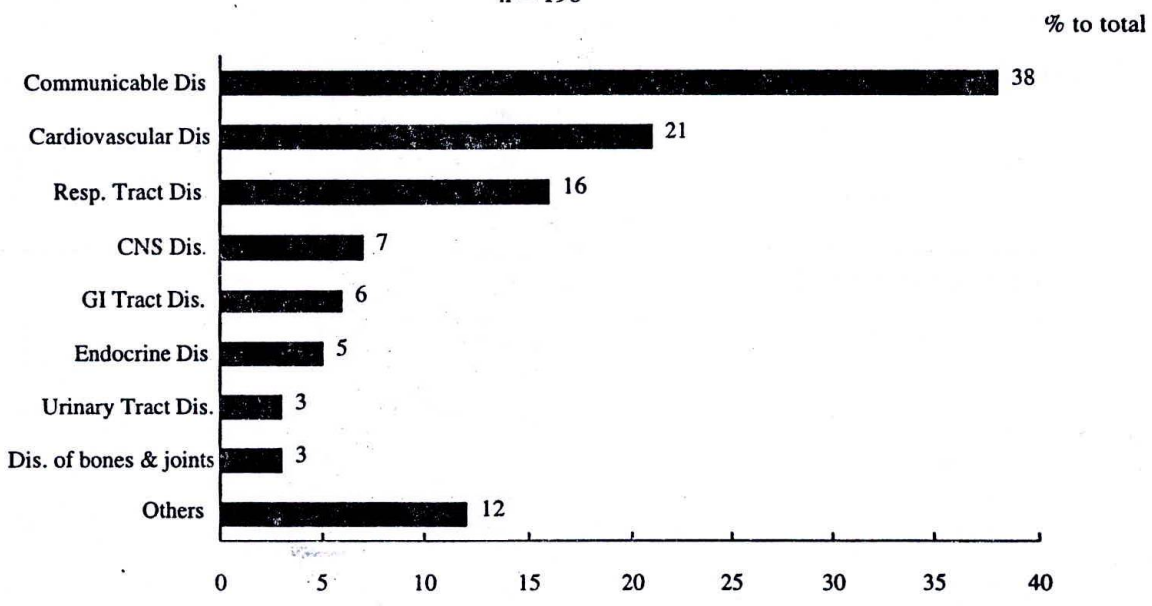
Chest Pain (16 %)	Cough (including cough with fever & cough cough with breathlessness) (14 %)	Fever (9 %)	Abdominal Pain (7 %)
Tuberculosis	Tuberculosis	Tuberculosis	Tuberculosis
Lower Respiratory Tract Infections	Upper/Lower Respiratory Tract Infections	Upper/Lower Respiratory Tract Infections	Acid Peptic Disease
Hypertension/ Ischamic Heart Dis.	Asthama/ Chronic Obstructive Pulmonary Dis.	Malaria	

Figure 4.2: General Medicine
Main Symptoms
n = 747



Others include oedema, injuries, urinary complaints, eye complaints and lumps.

Confirmed Diagnoses
n = 196



Others include SLE, injuries, anaemia, varicose veins, mental illness

related to chest pain, cough, fever, abdominal pain, and aches and pains (Figure 4.2). The most common illnesses diagnosed in the case of these symptoms are presented in the chart below (chart 4.1).

Overall 47 per cent of the patients were accorded one or more diagnosis, although confirmation was available for 35 per cent of the people. The range of diseases for which help was being sought in the Medicine OPD is presented in Figure 4.2 (Appendix A Table 10). Even among other cases in which the diagnosis was not clinically confirmed, the trend of illnesses largely followed the same pattern as the diagnosed ailments. Surprisingly, the cases of diarrhoeal diseases in these OPDs were low as compared to the prevalence in the city and, particularly, the large numbers recorded at the municipal dispensaries.

The trend in the illnesses remained the same over the different seasons. However, among some of these conditions variations occurred. For instance, people reporting with chest pain related to upper and lower respiratory tract problems were maximum in the winter (January) season and least during the monsoons (July-August); on the other hand, fever cases due to malaria were highest in the rainy season. Diarrhoeal diseases hardly showed up during the latter season.

Level of care : From a range of almost one hundred ailments varying from infectious and degenerative disorders to nutritional diseases, injuries and congenital disorders, a little over one-third (38 per cent) of the people needed primary level care. These were patients who were only given treatment, were following-up at the OPD for collection of drugs and all those who underwent only first level investigations. For instance, among the new cases (39 per cent) that were sent for investigations, only 10 per cent underwent first level investigations. The ailments needing primary level care included upper respiratory tract infections, skin diseases, worms, acid peptic disease and cases of fever (Appendix A, Table 7). Among all the new cases, 34 per cent were only given treatment and disposed by the General OPD.

Just 5 per cent of the patients (both old and new) needed tertiary level care in the form of super-specialist opinion and third level of investigations. These were cases of Systemic Lupus Erythmatosus (SLE), Aquired Immuno-deficiency Syndrome (AIDS), coronary heart disease (CHD), seizure disorders, transient ischemic attacks (TIA) and complicated cases of ischemic heart disease (IHD).

Only 2 per cent of the patients were hospitalised. The majority (59 per cent) of the people needed secondary level out-patient care offered by this OPD. However, after investigations, consultant opinion and stabilisation in the hospital OPD, more than half these cases could be followed up at a general medical level facility, such as the municipal dispensary.

2. Paediatric Medicine OPD

Children between the ages of one month to 12 years were brought to this afternoon OPD by their parents, mostly mothers. They came with complaints ranging from cough and fever (47 per cent of all symptoms) to seizures (9 per cent), lumps, mostly in the neck (6 per cent), diarrhoea and abdominal complaints (figure 4.3). Again the numbers of diarrhoea and vomiting were small. These constituted hardly 5 per cent of the complaints, despite the effort to document seasonal variations in illnesses. It would appear that these health problems did not entail a visit to the hospital OPD. The remaining complaints such as 'hole in the heart', 'hole in the palate', 'inability to walk', 'failure to thrive', 'small head', 'big head', 'high blood pressure' were fewer in number; yet they indicate the wide range of problems affecting children using the OPD services of the public hospital.

Overall 37 per cent of the paediatric patients had a confirmed diagnosis. The range of diagnosed conditions is presented in figure 4.3 (details in Appendix A, Table 11). The morbidity pattern shows a large load of infectious conditions (44 per cent) and respiratory problems along with chromosomal and congenital conditions, malignancies and seizures.

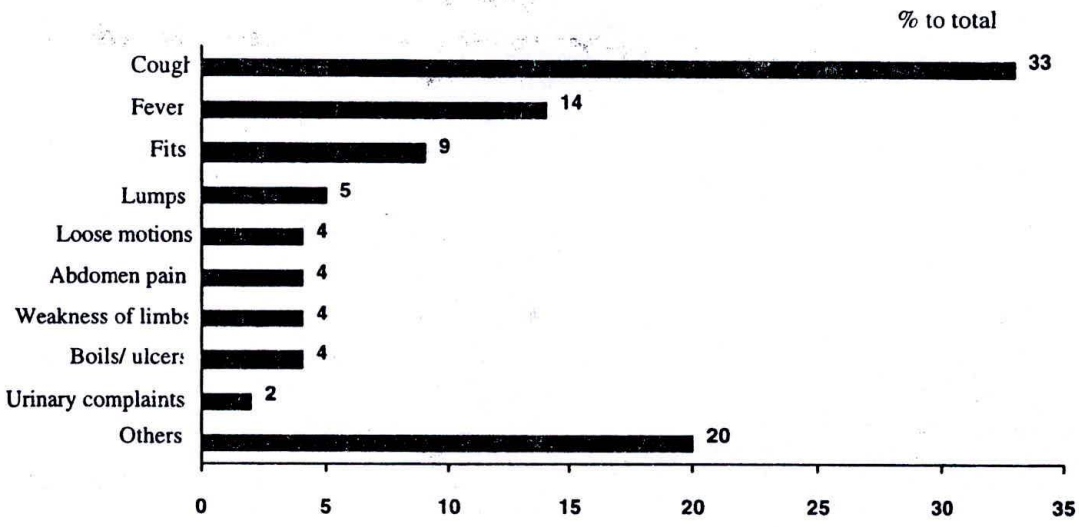
The infectious conditions seen in this OPD showed some seasonal variation. Gastro-enteritis was significant in April (the summer season) while mumps and whooping cough were reported only in the monsoon season. Respiratory tract infections were highest in the colder season.

Level of Care : The Pediatric Medicine OPD was very similar to the Medicine OPD in that it handled the full range of conditions requiring primary, secondary as well as tertiary level care. One-third (32 per cent) of the children were checked and given treatment without being investigated or called for a follow-up. These children, including those advised only first level investigations (13 per cent), mostly needed primary level care for conditions like upper respiratory tract infections, diarrhoeas, worm infestations and common skin ailments such as scabies. Other conditions that required only basic care were constipation, urinary tract infection and nutritional disorders.

A small number of children required tertiary level care. They constituted 13 per cent of all patients with the diagnosed conditions ranging from chromosomal, congenital and hereditary disorders, to seizure disorders and infections such as toxoplasmosis and HIV. The wide range of higher (3rd) level investigations ordered in this OPD reflects the above pattern of diagnosis. It is obvious that the Pediatric Medicine OPD was having to handle a very wide range of complex cases even though the number of patients requiring tertiary level care was small.

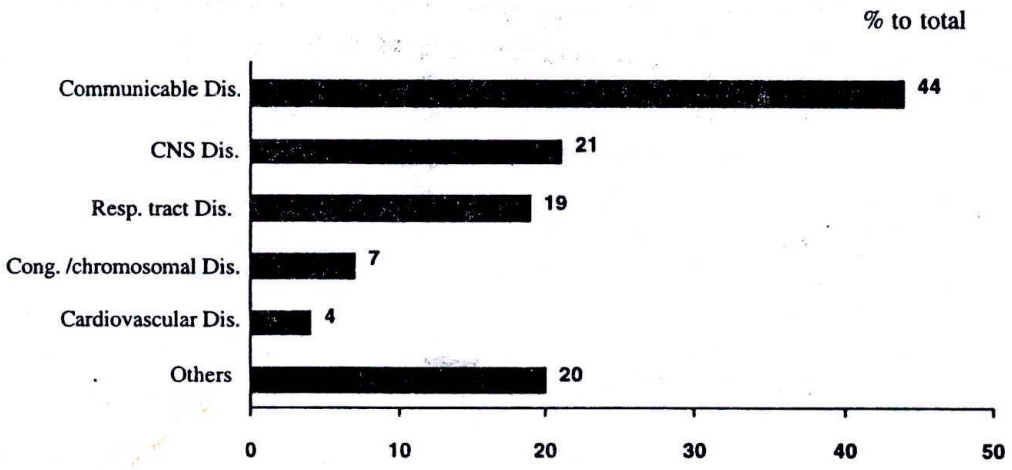
Less than half the children seen in this OPD (42 per cent) needed secondary level care. Chest X-rays and Mantoux test were the most commonly advised investigations. There was an obvious concern and awareness among the attending doctors about the magnitude of TB among children. About 15 per cent of the cases needing specialist care could be followed up at a lower level facility (dispensary) after the OPD doctors had confirmed the diagnosis and stabilised the treatment regimen.

Figure 4.3: Paediatric Medicine
Main Symptoms
n = 206



Others include chest pain, headache, eye complaints, Swelling of body/ limbs, rashes constipation, loss of appetite, failure to thrive and feeding difficulty

Confirmed Diagnoses
n = 70

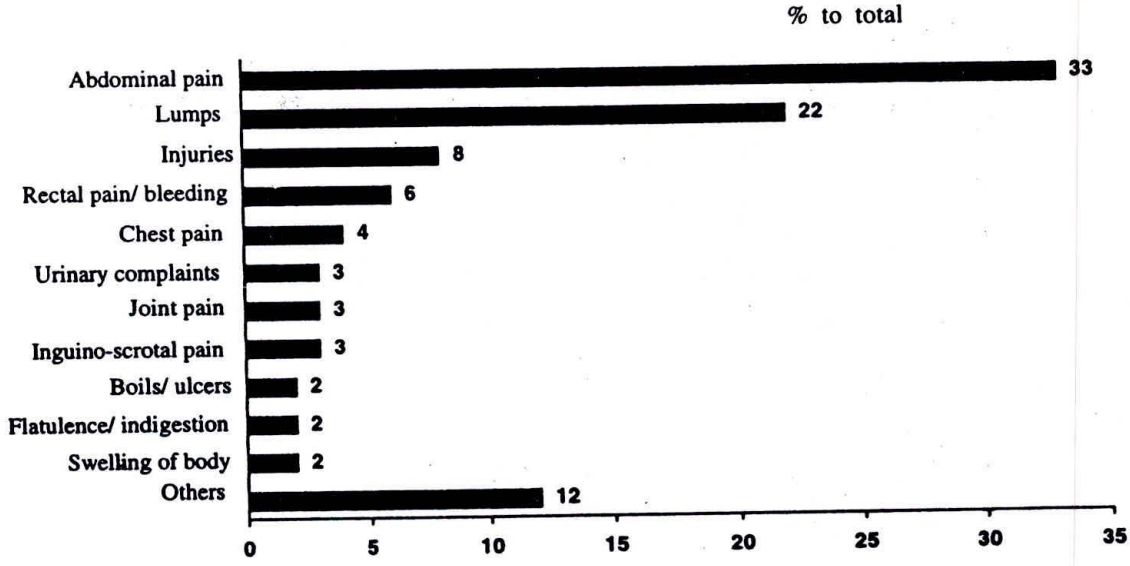


Others include abscesses, boils, cellulitis, ulcer, nutritional diseases, prematurity, vitamin deficiency, sepsis

3. General Surgery

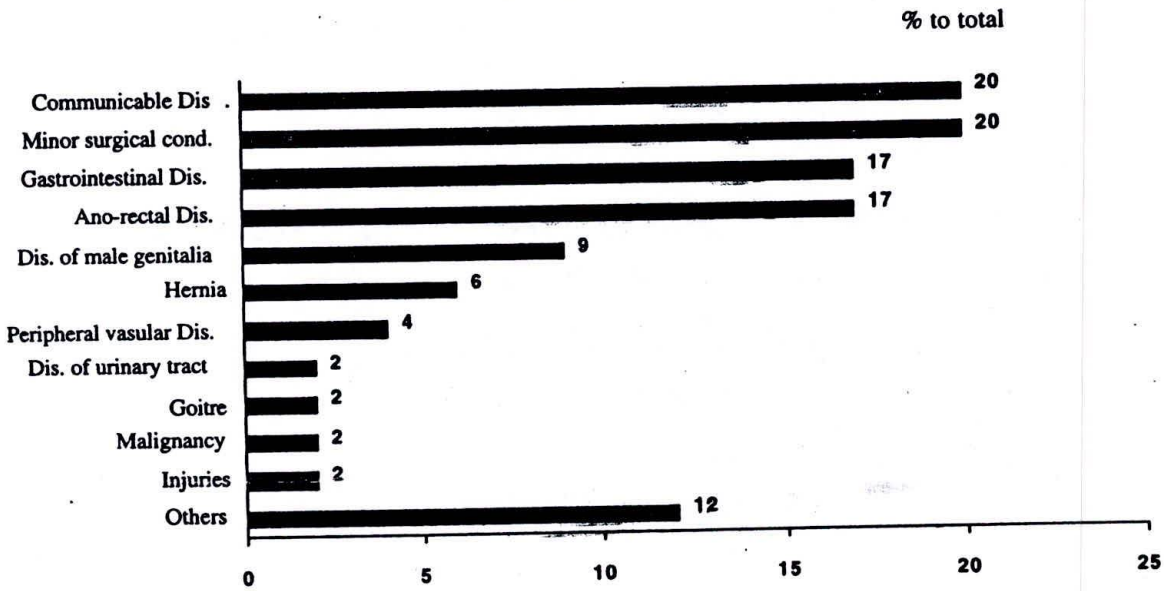
Over half (55 per cent) the people visiting this OPD came with complaints of abdominal pain and lumps (figure 4.4). The prominence of the complaint of 'abdominal pain' in the Surgery OPD is largely due to the level of knowledge of the enquiry clerk who directs patients to one or another OPD. As abdominal pain was collectively the most common symptom over all the four OPDs, the related diagnoses in the different OPDs is given in the chart below (chart 4.2). Lumps in the neck, axilla, groin, scalp, breast, abdomin and extremities were the second most common complaint followed by injuries and burns

Figure 4.4: General Surgery
Main Symptoms
n = 521



Others include cough, headache, vomiting, fits/ seizures, constipation, weakness of limbs

Confirmed Diagnoses
n = 163



Others include lower respiratory tract infection (LRTI), gangrene, cervical/ other lymphadenitis, fibroadenosis,ovarian cysts

which were mostly of a minor nature. Although less common, rectal bleeding, chest pain and urinary complaints were significant and indicated specific conditions.

Overall 36 per cent of the patients had a confirmed diagnosis (although nearly three-fourths had one or more impressions marked on their case paper). Figure 6 shows the pattern of morbidity (based on diagnosed conditions) that characterises the General Surgery OPD (see Appendix A, Table 13).

Level of care : One fourth (25 per cent) of the patients required only primary level care for conditions such

Chart 4.2: Symptom 'Abdominal Pain' and Related Diagnoses In All OPDs
(in ranked order)

General Surgery OPD (33%)	General Medicine OPD (7 %)	Paediatric Medicine OPD (4 %)	Gynaecology OPD (18 %)
Amoebiasis	Tuberculosis	Worm infestation	Ectopic pregnancy
Tuberculosis	Acid Peptic Diseases	Gastritis	Cystitis
Acid Peptic Diseases		Urinary tract infection	Cholecystitis
Appendicitis			
Hernias			
Gastritis			
Calculus			

as amoebiasis, worm infestation, gastritis, acid peptic disease, middle ear infection, minor injuries, constipation, malaria, anxiety and neurosis. These cases were treated and disposed off without investigations or referral, or only underwent first level investigation. No more than 7 per cent of the patients in this OPD needed tertiary level surgical management. These were mainly cases of malignancy, cryptorchidism and thyroid nodule.

A relatively larger number of people seen in this OPD (62 per cent) needed specialist opinion and care. Surgery was advised in 8 per cent of all diagnosed conditions and consisted of an equal number of major and minor surgical procedures. [4]

4. GYNAECOLOGY OPD

The single most common and specific complaint for which young women were approaching this OPD was the inability to conceive (16 per cent). An equally large number of complaints related to menstrual problems such as menstrual irregularities, heavy bleeding and painful menses. These conditions, along with the need for a check-up for 'missed period' and the general symptom of 'stomach pain' constituted two-thirds of the complaints for which women sought the OPD services (figure 4.5).

Diagnosis was available for 39 per cent of all the women interviewed. Among these almost one-third needed treatment for primary and secondary infertility (Figure 4.5; Appendix A, Table 12). Pregnancy was confirmed in 21 per cent of the women, the majority of whom had approached the OPD to terminate their pregnancy. Only a small proportion of the women (12 per cent) had sought the OPD services for infectious conditions of the reproductive tract, mainly lower reproductive tract infections and pelvic inflammatory disease (PID).

Level of care: In comparison to the other three OPDs, this OPD was providing a larger amount of superpecialist care and treatment. This was indicated in 23 per cent of the conditions including the treatment of infertility, primary amenorrhoea and toxoplasmosis. Primary level care was needed in a mere 8 per cent of cases while the proportion needing secondary level care (68 per cent) was the same as in the Surgery OPD. As a teaching hospital department, the Gynaecology OPD was the most optimally used for secondary and tertiary level care.

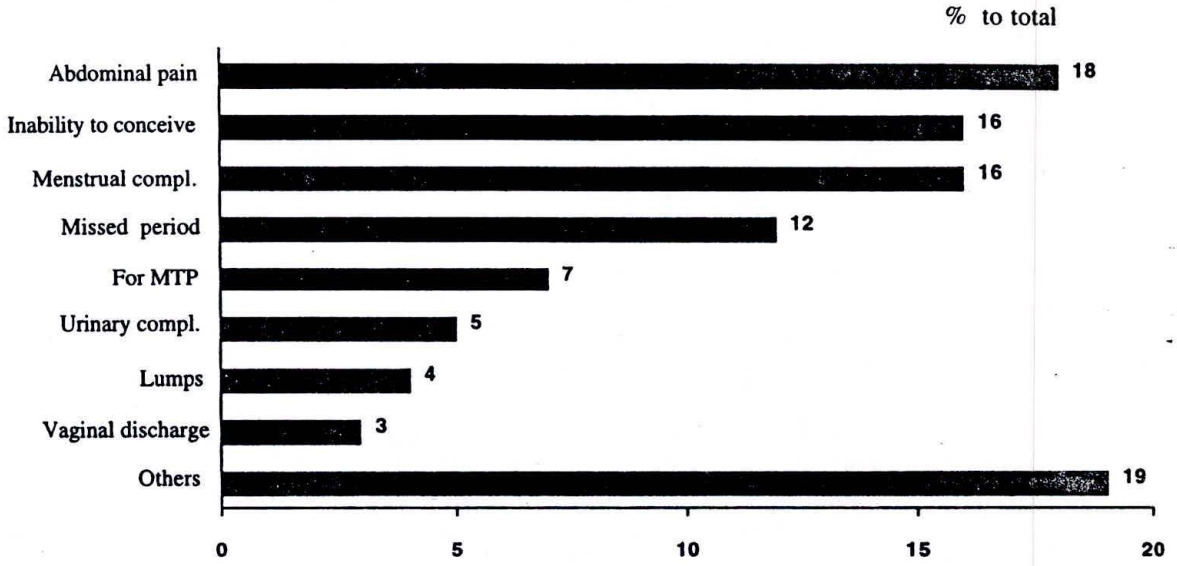
OBSTETRICS

All women were registered with this OPD for their deliveries. The majority (75 per cent) of the pregnancies were normal. Less than a third (31 per cent) of the women reported one or more complaints. These included abdominal pain, fatigue and weakness, aching limbs, anorexia, urinary complaints and vaginal discharge.

Very few (4 per cent) had an additional diagnosis other than pregnancy. However, 25 per cent of the women had either a bad obstetric history, mainly repeated abortions and still-births, or were having problems with their current pregnancy such as heavy bleeding.

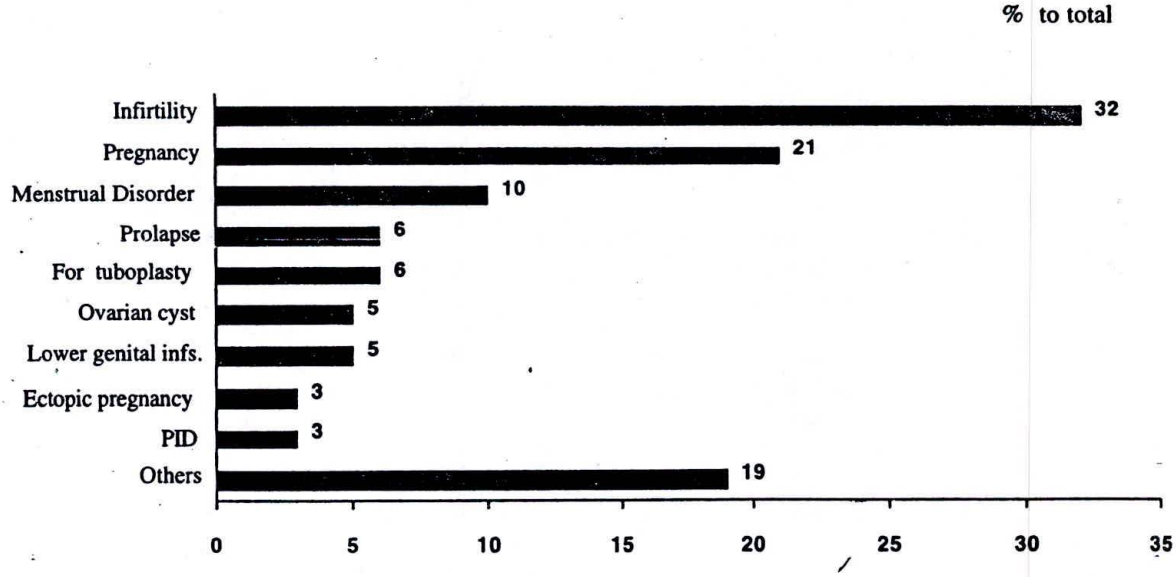
The largest (60 per cent) proportion of women had registered with the hospital in their 2nd trimester of pregnancy, mainly in the fourth or fifth month (Appendix A, Table 14). As 75 per cent had come directly to the hospital, this was the average duration of first contact for ante-natal care. One-fourth (26 per cent) had come in their first trimester (1-3 months) while a smaller number (14 per cent) had first ANC contact in the last trimester (7-9 months) of pregnancy. The utilisation of ANC services among these users is an improvement over the pattern for poor households in Bombay as a whole. A 1990 baseline survey of slum localities spread across the city found that 74per cent of the women had registered

Figure 4.5: Gynaecology
Main Symptoms
n = 190



Others include recurrent obortion, repeated stillbirths, menses not began, vaginal irritation, joint/ limb/ backache

Confirmed Diagnoses
n = 62



Others include TB, toxoplasmosis, abscesses, RV fistula, diabetes, hypertension, chromosomal disorder, still-birth

for ANC in the last trimester of their pregnancy. As many as 11 per cent did not have any ante-natal care (Yesudian and Parsuraman, 1990: 80-81).

Discussion: The public teaching hospitals were set up in the city region of the old Bombay city between the 1840s and 1960s. They functioned as both general and super-speciality hospitals. Today they centralise a vast range of services — secondary and tertiary care— under one roof. The current study has looked at the morbidity profile of selected specialist OPDs. These OPDs on the one hand, are the more commonly used first level referral services. On the other hand they also help to refer patients to the tertiary services.

The load of out-patients attending the hospital has been increasing every year. As the study showed, these OPDs cater to the entire range of conditions. Among these about a third of the conditions could be handled by a peripheral health unit or a general practitioner. This would ease the overloading of the Medicine and Paediatric Medicine OPDs in particular.

However, more than half the people seen in these OPDs needed consultant opinion. This indicates a limited scope for decreasing the load on public hospitals so long as specialist services are centralised in them. Infectious conditions formed a substantial load of illnesses, with tuberculosis being the dominant disease among both the diagnosed cases and those under investigation. The substantial use of the OPDs for the diagnosis and treatment of the long-term communicable diseases highlights several concerns, namely (a) a need to assess the performance of the national programmes and disease control activities being implemented by the public authorities in Bombay; and (b) the role of public hospitals in implementing the national programmes such as TB control.

Besides tuberculosis, respiratory tract infections, chronic disorders and certain non - communicable ailments — acid peptic diseases (APDs), hypertension, seizures, menstrual disorders and sterility —constitute a large load of the problems handled by these OPDs. Some of these conditions need specialised services for investigation, consultant opinion and stabilisation of dosages. Subsequently, these could be referred to a lower-level facility for follow-up and long-term management.

These OPDs, barring the Gynaecology OPD, play only a small role in referring patients to the tertiary care services. These are functioning as specialised services for the majority of illnesses but are also having to handle a fair number of simple ailments. This indicates the need to strengthen the first level of care and to establish a well functioning referral system.

Notes:

1. *In 1984 the under-5 child mortality accounted for 26% of total deaths. In 1993 its share had come down to 14%. There is no data at present to show that this decline is due to the control of vaccine preventable diseases targeted by the Universal Immunisation Programme (UIP) and the control of diarrhoeal diseases. Around three-quarters of these deaths (73% in 1991 and 77% in 1993) occur within the first year of life. In 1991 the main causes of infant deaths were prematurity of the new-born (30% of total infant deaths), ARIs (16%) and diarrhoeal diseases (6%). Except for some health education programmes for the latter disease, the current child survival programme of the public health department hardly addresses the other main causes. With 44% of all infant deaths concentrated in the first week (perinatal mortality) and a high rate of still births (19 and 23 per 1000 live births respectively), it is obvious that maternal health, quality of ante-natal care and availability of good institutional facilities for child deliveries need to be addressed. (Unpublished data for 1993 obtained from the Public Health Department, MCGB).*

2. *See the following section on Utilisation of Health Services by OPD Users.*

3. *Institution based data tends to miss out the unarticulated health needs of marginalised groups such as women, the elderly and the abject poor.*

4. *Major surgery was advised for hernia, hydrocele, appendicitis, cholecystitis, gall stones, cryptorchidism and goitre. Minor surgery included piles, paronchia, abcess, cysts and small benign tumours of the skin/ subcutaneous tissue such as lipoma and exterior ganglion.*

FROM ONSET OF ILLNESS TO SEEKING THE OPD

A very wide range of health problems had brought people to the hospital OPDs. How did these people handle their illness or discomfort at the onset of their problem? Did they seek general medical care before turning to the hospital specialists?

Multiple Providers, No Integration or Planning of Services: *The metropolis has an abundance of curative facilities and medical providers. The public health care sector has a large presence, having benefited from the investment made by the most wealthy municipal corporation in the country, as well as the State and Central Governments.[1] This investment has translated into 47 general and restricted public hospitals and a network of lower level outpatient facilities and community outreach services (Appendix B, Table 4)*

Among all the cities, although the profile of services for these have not been documented systematically, Greater Bombay probably has the largest network of public services. Within the public sector the Bombay Municipal Corporation (BMC) is the dominant provider, spending 10 per cent of its total revenue expenditure on public health. Seventy per cent of this public health budget is spent in providing patient care services, including primary preventive care, and the control of communicable diseases. This is a statutory responsibility and also includes a smaller component of regulatory activities to ensure public health and safety and the control of air pollution (Appendix B, Table5). Water supply and sanitation are administered by separate departments of the corporation.

The public health care services conform to the three levels of care. At the top of the health care services hierarchy are the five teaching hospitals (medical and one dental) and attached medical colleges, four of which are owned by the BMC. There are also five special and infectious diseases hospital of the Corporation, as well as hospitals belonging to the State and Central Governments and the Employees State Insurance Scheme (ESIS). A large number of the latter are restricted to occupational and employee groups largely belonging to the organised sector workforce, and run parallel to the general services.

The intermediate and lower level facilites for the general public are provided by the municipal corporation. These include 15 secondary or 'Peripheral' hospitals in the eastern and western suburbs, 27 maternity homes, 159 general dispensaries and 176 health posts (Appendix B, Table 4). No referral system integrates this extensive network of public medical facilities. In the BMC and state government facilities, almost all levels of care except for a few tertiary care services, can be openly accessed by the general public. Open access to free and subsidised services is meant to serve the medical needs of the poor and lower income groups.

The weakest component of the public system are the first level care services. Only 15 per cent of the public health budget is spent on dispensaries, health posts and maternity homes. These, in turn, lack co-ordination and do not have active back-up support and linkages with the hospital system. [2] The greater load of patient care is borne by the public hospitals in Bombay. Another problem facing the public health services isthat of meeting the needs of the rapidly expanding suburban population. This has led to the expansion of small 100-bed general hospitals and health posts rather than organising a comprehensive provision of primary health services.

The bulk of curative care is, however, concentrated in the private sector consisting of the private practitoners, nursing homes and the large trust hospitals. Very little data is available on the number and types of the private practitioners practising in Bombay. These are the largest and most visible private health services, are used widely by all sections of the population and are known to vary greatly in the quality and standards of care provided. However, the regulatory powers of the state medical councils and the local authorities are ineffective leaving the people, particularly the poor, to bear the brunt of uncertain quality and commercialised practice patterns (Duggal and Nandraj 1991:5-7; Yesudian, 1995).

By 1995, 96 per cent of all in-patient facilities and 49 per cent of beds were privately owned (Appendix B,Table 4). Even this data is a gross underestimate of the rapidly growing nursing home sector. The majority are very small nursing homes with a capacity of 4 to 10 beds operating out of residential areas.[3] Criticising the complete lack of regulation and monitoring of private hospital services by the BMC, Duggal and Nandraj point out that many of these facilities operate without being registered. These exist in unhygienic conditions, operate without basic amenities and equipment and lack qualified staff (Duggal and Nandraj, 1991:5-7).

Only an estimated 21 private hospitals have a bed strength of over 100 beds. Among these are the very expensive hospitals owned by business houses but registered as public trusts and research centres, reflecting the trend towards the corporatisation of health care in urban centres. Along with this is the increasing capital intensity of health care as advanced medical and diagnostic technology is concentrated in these hospitals and the growing numbers of diagnostic centres, without any planning or assessment of need (Jesani and Ananthram, 1993). Their services are unaffordable for the majority of the population — the poor and low-income groups.

Undoubtedly the poor in Bombay have access to one of the best developed health care infrastructures in the country. In fact 28 per cent of total beds in the state of Maharashtra are located in Bombay which accounts for only 13 per cent of the state's population. Yet their ability to benefit fully from these services varies greatly. The rapid and haphazard expansion of private services has escalated the cost of health care and the scope for malpractices. Health care as a business has also marginalised the public sector services as medical professionals and para medical staff, trained at public expense, are skimmed off by the private services. It has entrenched a dual health care system whereby the public teaching hospitals which constitute the apex facilities of a health care infrastructure are viewed as services only for the poor. This affects both the quality of care as well as the capacity of the public hospitals to play effectively the role of back-up referral and support centres.

Utilisation of Health Care Services by the OPD Users

Pattern of Health Care Seeking

Priority to curative care: The people we met in the long queues outside the hospital OPDs had sought fairly quick treatment and relief for their current ailments. Most parents had approached a medical provider within a day of their child falling ill. The adult users had sought treatment within three to five days of the onset of their illness. These were either, fresh episodes and new problems or the aggravation of a chronic condition The exceptions were women with gynaecological problems from outside the Bombay Metropolitan area. They had waited upto one and half months before they tried to have their problem attended to (Appendix A, Table 14).

People apparently preferred medical care and drug therapy. Very few (3 per cent) mentioned medicating themselves or using home remedies. Barely two or three said that they had used traditional healers or cultural and ritual practices. The proliferating drug stores, private practitioners, pathology laboratories and nursing homes in the urban setting and a growing presence of practitioners in rural areas would appear to have strengthened the appeal of modern medicine. Young workers in unorganised sector jobs would seek strong drugs giving quick relief as they had little protection against the loss of income or employment due to illness. Unable to improve their work and living conditions, the urban lower income groups depended on medical care to cope with frequent infections and environmental hazards. [4]

Prior medical treatment: Only a little over two-thirds (70 per cent) of the users had taken treatment before approaching the hospital OPD (Figure 5.1). The majority (49 per cent of all users) had sought general —basic or primary— care. The overall pattern was to use a single practitioner or facility and then change over to the hospital OPD. A smaller proportion (16per cent) had also used higher level providers, such as specialists, hospitals and nursing homes, or undergone investigations (14 per cent of those with problems lasting upto a year) prior to the OPD.

Shifting between a variety of providers was not common. Only 10 per cent of the users had approached more than two providers prior to the hospital OPD. Access to a reputed, well-equipped public hospital appeared to reduce the experimentation with providers and thereby,enabled them to manage the costs of private care. [5]

Duration of the problem: The average (median) duration of symptoms at the first OPD visit ranged from nine days in paediatric cases to one to two months, respectively, in the medicine and surgery or gynaecology cases. How ever people from outside Bombay had come with conditions and symptoms that had been persisting for four to six months (Appendix A, Table 14).

Providers at First Contact, Costs and Reasons for Change of Facilities

Direct Use of the hospital OPD

Despite the extensive network of the urban public health services almost a third (32 per cent) of the Bombay-Thane users had come directly to the KEM hospital OPDs for their current problems. Among the people residing outside Bombay and Thane who had come directly to this hospital, most were

visiting relatives or temporarily residing in the city when they had fallen ill and were brought to the OPDs (Figure 5.1).

The direct use of the hospital out-patient services was higher amongst the paediatric (37 per cent) and gynaecology cases (39 per cent). Parents, whose children were born in this hospital or who had been treated satisfactorily in the past, reported having developed strong bonds with particular doctors and becoming long term users of this OPD. Women said they had often followed the advice of relations and friends in seeking out the gynaecology OPD as the department had a reputation for treating specific conditions such as infertility (Appendix A, Table 15).

On the other hand, residence in the vicinity of the hospital, i.e. the F/S and the adjoining labour class localities of F/N wards, was a significant factor in the direct use of the Medical OPD and, to some extent, General Surgery. The availability of a 'free' hospital close to their residence did not necessarily mean regular use of the OPDs. Many people distinguished between minor and more serious ailments and chose providers accordingly.

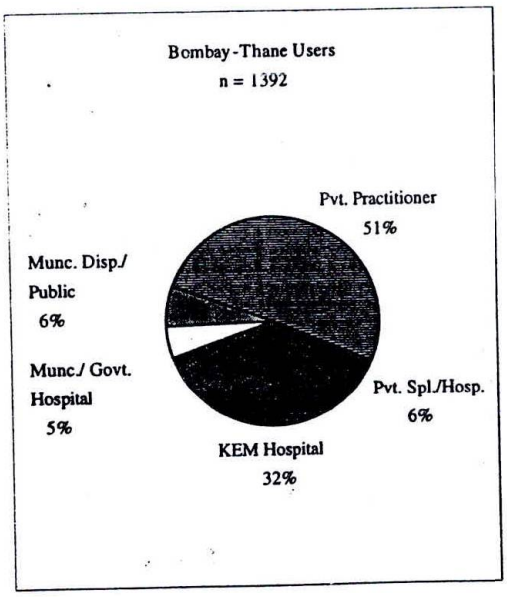
Experiencing burning micturation and pain in the chest Ajit Kumar was sure that this was a "major" ailment. For minor illnesses like cough, cold, fevers this young tailor in the Gopal Nager basti, Worli, was used to seeking treatment from a private "family" doctor of long standing. But this seemed serious, needing a proper check-up. For someone earning Rs 2,000 per month and sending money back to the village, private treatment for a serious illness would be expensive. Without consulting anyone Ajit Kumar decided to directly approach the Medicine OPD. He was put on a seven day course of antibiotics for his urinary infection by the General OPD. A chronic smoker, he was also treated for the next one and half months for chronic obstructive pulmonary disease by the medical specialist to whom he was referred. By the sixth visit Ajit Kumar had recovered. Although he had escaped the expense of prolonged private care, he nevertheless had to buy medicines worth Rs 250 apart from foregoing wages of Rs 40 each time he attended the OPD.

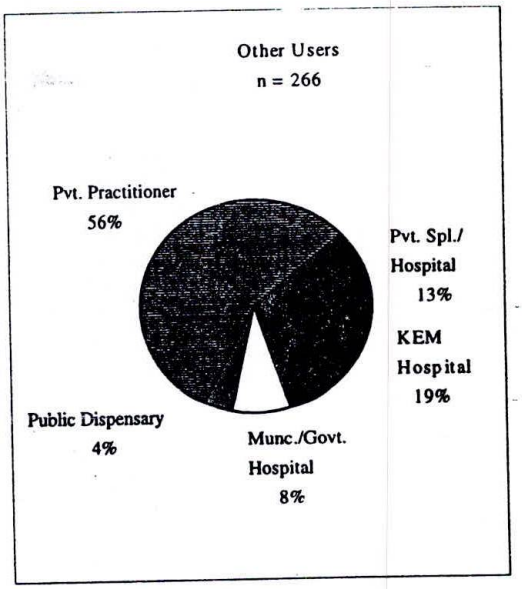
(Constructed from the interview schedule)

There were others who had little idea of the recurring nature of their stomach pain. They had tried various providers in the past and during the current episode of their chronic ailment had decided to try out the hospital services. Another acute bout of gastritis or amoebiasis, and they might go to some other practitioner suggested by friends.

For others, the aggravation of the chronic condition would come at a time when their finances were low and they would try out the free services of the hospital. Another recurring condition was fever. Those who had been treated for malaria in the recent past sought out the hospital, anxious that the problem had not been adequately treated.

Figure 5.1: Provider At First Contact (for the current problem)





Poor utilisation of public primary care facilities:

Many of the simpler chronic conditions and short term infections could be handled cheaply and, probably, more effectively at the primary level facilities such as the municipal dispensaries. It would allow for quicker follow-up compared to the hospital OPD where people returned only after a week to consult the unit that first saw them. It would also allow for a sustained relationship with a doctor who would be in a better position to explain the problem to the patient. Educating people to control their condition, along with giving them drugs to relieve their symptoms, would be easier at this level of care. However, the primary care facilities in the public sector did not figure prominently among the providers people had initially approached. Hardly 5 per cent of the OPD users had approached the municipal general dispensaries at the onset of their problem. Neither did the utilisation of this facility increase among those who changed a number of providers before reaching the public hospital.

This is despite the fact that 55 per cent of the users in Mumbai-Thane were aware of a municipal or government dispensary in the vicinity of their residence. Most of them could even identify the location of the dispensary and 40 per cent said that it was within walking distance from their home. Not only did they know of this facility, but 41 per cent also said that they had used the dispensary for themselves or for family members sometime in the past (Appendix A, Table 16).

Very few, however, ventured any opinion about this facility which gives free treatment and drugs (if available). Some of the reasons people mentioned for using or not using dispensaries are given below. The negative perceptions were voiced by many who had not used the dispensaries themselves but who knew others who had.

A little under half the urban users (45 per cent) were either unaware of such a facility or said that no dispensary was located close to their place of residence.

Obviously, it is not the public primary services that are offloading their users on to therowded public hospital OPDs. At the same time little is known about the utilisation and erformance of the urban primary care units in Mumbai's public health sector. In terms of utilisation, a survey of households in the vicinity of theKEM hospital i.e. the Naigaum maternityhome area, found hardly 3-4 per cent of the people using dispensaries for their short-term or long-term illnesses. The majority used private clinics, public hospitals and the ESIS facilities (Yesudian C.A.K., 1989a).[6]

The peripheral health units such as public dispensaries can handle the bulk of the health needs of the community in which they are located. However, there is hardly any information on how these units are functioning. We present a profile of the network of primary services available at the level of the municipal ward in the next section.

Even among those coming from outside Mumbai, hardly 6 per cent had contacted the rural primary health centre or a government dispensary. As other surveys have shown, the hospital clinics and not the primary care units are the main source of treatment for all those who turn to the public health services for their health needs (Government of India, National Sample Survey Organisation, 1990). 7 Overall 43per cent of all users had first contacted the public sector health services with the overwhelming preference being for the hospital OPDs.

Use Dispensaries:

- *for "minor illnesses" such as cough, colds, fevers, scabies, skin infections, ear problems*
- *for "minor injuries" like cuts, wounds, rat bite*
- *for joint pains*
- *for breathlessness*
- *for children's illnesses*
- *for immunisation of children*
- *for collecting TB drugs*
- *for injections*

Do Not Use Dispensaries:

- *medical care is unsatisfactory*
  - *a) medicines are ineffective*
  - *b) do not check properly*
  - *c) medicines not available*
  - *d) doctors not qualified*
- *no equipment, no facilities, very small*
- *long waiting time, too crowded always a queue*
- *dispensaries are dirty*
- *timings are inconvenient; dispensaries are not open after 4 p.m.*
- *distance is the same for the dispensary and KEM,*

Dependence on private practitioners

The provider most commonly contacted by both the urban and rural users (50 per cent) was the ubiquitous private practitioner. In the brief period of our interview, it was difficult to ascertain the qualification of these practitioners or the system of medicine that they practised. Most people distinguished between the 'ordinary' (general) doctor whom they frequently approached for their ailments and minor problems and the 'big' (specialist) doctor to whom they were sent for investigations by their practitioner. The majority (34 per cent) had come to the OPD after using a single (general) practitioner. Only a few had changed to a second practitioner (8 per cent) or higher-level private and public providers (7 per cent) prior to the OPD.

On the other hand , less than 6 per cent of the users from Bombay and Thane had initially approached a private specialist or nursing home, although a larger proportion (13 per cent) of those coming from outside had depended on this source of care.

Several studies have shown the extensive use of private practitioners, rather than the public health facilities, in treating short-term illnesses. This trend cuts across all socio-economic groups (Duggal and Amin, 1989; Yesudian, 1988 & 1990; Kannan et. al., 1991; GOI, NSSO, 1990; NCAER, 1992; George et. al., 1993). Most OPD users (61 per cent), too, maintained that they and their families depended on private (general) practitioners for their routine care and minor illnesses. "Always go to the private" was the common response of even those who had come directly to the hospital OPD for the current problem.

A significant minority had built up long term relationships with particular practitioners. These were called the 'family doctor' or referred to as the 'same doctor' and, invariably, the practitioners' names were cited. Among the rest who said they "always go to the private" the pattern of using this provider varied widely. Some only made a single contact and one-time payment for medicines before changing over to the hospital OPD.

Feeling feverish, Rajesh had gone immediately to a local practitioner in the Mahim bazaar where he worked as a cleaner of glass. The latter charged him Rs 18/- for some tablets which provided him a "little rest but then the same problem recurred". Within three days Rajesh had approached the hospital. At the General OPD, he was put on malaria treatment and sent for the malaria parasite smear test.

Table 5.1: Reasons for Changing the Provider Last Used (prior to OPD)

Reasons Cited by Users	Private Sector n = 959				Public Sector n = 203				
	Pvt. pract n=769	Spec. n=83	Nurs. Hosp n=95	Oth. n=12	Munc. Disp. n=86	Gen/Spl Hosp n=82	ESIS/ CGHS n= 24	Tert. Hosp n=11	Total n=1162
	%	%	%	%	%	%	%	%	%
Referred (bearing a letter)	25	33	36	42	33	29	63	<1	28
Second opinion/ investigations *(advised or sought)*	13	13	13	25	16	21	13	-	14
No Relief	57	39	33	17	38	32	33	64	50
Problem recurred									
Financial Problems	5	11	19	-	2	-	-	<1	6
Simultaneous treatment	3	8	2	-	1	4	4	-	4
Others	6	7	5	-	11	13	4	18	7

Note: Multiple responses. Only valid respondents included.
Pvt. Prac: private practitioner; Spec.: private specialist; Nurs. H: nursing home; Oth: other
Munc. disp: mu nicipal dispensary; Gen/ spl H: General/ special hospital; Tert: tertiary.
Other reasonsinclude change of residence, timings unsuitable, `no specific reason', etc.
Other private providers include public sector doctors practising privately.

Rekha, studying in Std. 12, had also gone immediately to her "family doctor" in Sewree when the fever rose. He gave her tablets and syrup for a day's treatment, charging her a fee of Rs 22 Only the previous month she had been treated for malaria by him. Worried that malaria had recurred Rekha decided to have a check-up at the hospital. By then the OPDs had closed. She was seen in the casualty department and asked to come to the General OPD the next day. As for the municipal dispensary, she vaguely knew of one at Ram Tekdi (actually an independent health post) but had never used it.

(Constructed from the interview schedule)

Others depended on various practitioners that were abundantly available in the neighbourhood, changing to the public system when they were referred or when they lost confidence in the practitioner's treatment.

Little Meena had been referred to the Paediatric Medicine OPD by the local GP to get investigations done for fever, cough and congestion that were persisting for a month. The harried father, a postman commuting daily to Bandra for work from his residence in the sprawling Jeejamata Nager zopadpatti at Kalachowki, used "whichever doctor is open" at the time of the onset of the illness. He had spent Rs.35 on Dr Amit's "syrup and tablets" before being referred to the hospital. The previous month he had spent Rs 70 to 80 on a neighbourhood specialist for treating her for an episode of fever and loose motions. This is despite the fact that "both the Ambewadi and the Zakaria Bundar (Abhyudaya Nager) dispensaries (were) within five minutes walking distance". The latter is an upgraded dispensary. It could have put the child on the same initial treatment as the OPD specialist except that the basic investigations available at the primary care facility does not include the Mantoux test.

(Constructed from the interview schedule)

The single most common reason for leaving the practitioner was "no relief", "only partial relief' or "felt better and stopped the treatment but the problem recurred" (Table 5.1). The expense of the treatment was not directly voiced. People paid up in the expectation of a quick cure. A small number (8 per cent) had undergone investigations ordered by the practitioner. About 8 per cent had used two practitioners before seeking out the OPD.

Yet the prospect of a slightly prolonged private treatment and an uncertain outcome was a financial burden to them. And investigations were decidedly expensive. The range of costs people had incurred with practitioners even in the short duration of one month of the onset of illness clearly shows the difficulties in sustaining private treatment (Table 5.2). Almost two-thirds (62 per cent) of the OPD users belonged to households with per capita monthly income of less than Rs 500 (Table 3.4). The average cost of Rs. 50 for a short episode of treatment ranged from 10 per cent of the monthly per capita income of Rs 500, to 17 per cent for those just above the poverty line. For the destitute poor this amounted to a huge 33 per cent of the household's monthly per capita income.

Table 5.2: Cost of Prior Private Practitioner Care
(OPD users with one month duration of illness)

Nature of Treatment	No. of PPs Used	Cost Incurred (Rs) Median	Range
Only consultation	22	0*	0 - 40
Treatment with medicines ('syrup, tablets, capsule')	183	40	0 - 800
Injections with or without medicines	101	65	0 - 800
Investigations with or without medicines	23	350	18 - 735
Average Total Cost	329	50	0 - 800

Note: Only valid respondents.
* No drugs dispensed, or treatment taken on credit.

It was at this point that people pressurised practitioners to advise a public facility and even give them a referral note or practitioners themselves advised people to go to the public hospital. One fourth of the users had brought referral letters from private practitioners. The majority, however, had given up the earlier treatment, and guided by friends or their own past experience decided to approach the hospital OPD (Appendix A, Table 15).

Costs of Prior treatment

Among the people who had approached the four OPDs with ailments that were less than a month old, 66 per cent gave details of the costs of prior treatment.[8] This expenditure was almost wholly on private sector care (Table 5.3). On an average, the private (general) practitioner's treatment had been used for three days and involved about two visits. Some users had not paid any charges as they had, either, made a brief contact without taking drugs dispensed by the practitioner or had taken the treatment on credit. The worst affected were the people who had to depend on the private sector for long term treatment.

Shaila was treated for tuberculosis by the local GP. She had spent Rs 500 on injections and tablets in a period of a month. This amounted to one fourth of her family's monthly income which was dependent on three people's wages. Not surprisingly she had left treatment as soon as she had felt better. When her condition worsened again the GP referred her to the hospital with a note of irregular and incomplete treatment.

(Constructed from the interview schedule)

The cost of private specialist care was four-folds that of the ordinary practitioner. For the majority (72 per cent), this entailed an outlay of 50 per cent to 100 per cent of their monthly per capita income on a single ailment. Private specialists' care involved investigations, expensive injections and, in some cases, a few hours of bed stay for observation and administration of a drip.

Four persons had undergone prior hospitalisation in private nursing homes, incurring very large expenditure. These were emergency admissions in cases of angina, heart attack and an episode of focal convulsion. The costs were catastrophic in comparison to the household's financial status.

Public Primary Care Services in Bombay: Municipal Dispensaries and Health Posts

General medical care and preventive services are provided by a variety of public sector agencies in Bombay. The municipal corporation (MCGB), the Central Government Health Scheme (CGHS), railways and police services organise the first level care through dispensaries. The ESIS has both dispensaries and private medical practitioners (IMPs) contracted to the scheme. Freely accessible to all are the 159 general dispensaries, 176 health posts and 27 maternity homes run by the municipal corporation (Appendix B, Table 4).

Structure of the municipal primary care services: As single doctor clinics, each municipal dispensary is expected to serve a population of 50,000 or people residing within a radius of 1.5 kms. In the densely populated city zone, it would be possible for such a large number of people to access a dispensary within a kilometre of their residence. In

Table 5.3: Cost of Prior Treatment - all providers
(OPD users with one month duration of illness)

Facilities /Providers	No. of Users	Average Costs (Rs) Median	Range	Duration of Use (median days)	
Private Sector					
Private Practitioners	329	50	0-800	3	1 - 730
Specialists	21	250	20-1100	4	1 - 11
Nursing Homes / Hospitals	4		1500-7660		1 - 8
Public Sector					
Municipal Dispensary	39	0	0-90	3	1 - 730
Secondary Hospitals	20	0	0-1000	5	1 - 30

Note: Only valid respondents.
* Investigations done privately.
** On and off treatment. New episode of a long-term problem.

Chart 5.1: Municipal Primary Care Facilities

Primary Care Facility	Staffing	Functions	Activities
Dispensary (ordinary) (50,000 Population)	Medical Officer (MO i/c) Pharmacist Dresser (cum-registration-clerk) Labourer	Basic curative care & drugs. Preventive care: Immunisation. Passive malaria surveillance. Treatment of TB patients referred by Area TB Clinic: Injections lunch time and Drugs distribution Referrals: upgraded dispensaries hospital specialist OPDs.	Clinic based care. 85per cent function at a stretch from 9 am to 4 PM. Registration stops 1/2 hour prior to closing. Malaria worker & TB organiser belonging to the vertical programme attached to dispensaries.
Upgraded Dispensary	MO i/c Pharmacist Lab. Technician Dresser Labourer	Curative and Preventive services as given above. Routine investigations: Blood - Hb, CBC, ESR Urine - routine Stool - routine	Same as above. Conduct routine investigations. Dental clinics attached to three city dispensaries.
Health Post (50,000-65,000 pop. in slums/ chawls)	Full-time MO Pharmacist PHN ANMs (4) MPWs (4) Clerk Attendent CHVs (25)	Outreach of FP services, with emphasis on MCH, birth spacing & temporary contraceptive methods. Increasing the immunisation status of children. Registration of unregistered births & deaths. Record maintenance. Referral services.	ANM/MPW - 6,000 to 8,000 population each Survey catchment householdsfor enlisting target groups: protected/unprotected eligible couples; immunisation status of children (<5 yr.); pregnant women. Follow-up home visits with/ by CHVs (2,000-3,000 pop each) for promoting immunisation, FP, health / nutrition education, ANC registration, vitamin supplementation. Mobilisation for above. Inform FTMO about any case of TB Leprosy,

Source: MCGB, Public Health Department.

the suburbs, however, this size of population would have to travel 2 -3 km to reach a dispensary. Such a population norm for dispensaries is completely unrealistic. Even accounting for the section of the labour class that is covered by ESIS and other public sector services, a single facility can hardly handle 7,000 to 9,000 households. It is not surprising, therefore, that there is an overloading of public hospital OPDs or that people have come to depend extensively on private practitioners.

Except for the two Unani and three Ayurvedic dispensaries, all others are staffed by MBBS doctors. Sixty four of the 159 dispensaries have been upgraded to provide laboratory facilities. These handle very basic routine investigations. Some of these also have dental clinics attached to them (Chart 5.1).

Patients are referred to the nearest BMC hospital for specialist opinion and investigations. In the case of some long-term ailments like diabetes,

Table 5.4 (a): Utilisation of Municipal Dispensaries in Bombay

	1984	1989	1990	1992	1994
No. of dispensaries	155	n.a.	162	159	159
Total Attendance (millions)	4.38	3.97	4.51	4.54	5.28
Daily average per dispensary	94	-	89	92	106
Total New Attendance (millions)	1.31	1.37	1.51	1.86	n.a.
Daily average new attendance	28	-	30	37	-

Source: MCGB, Annual Report of the Executive Health Officer 1984, 1989
MCGB, Civic Health Bulletin 1990, 1992-93.
MCGB, Outline of Civic Finances 1994-95

Table 5.4 (b): Utilisation of Dispensaries in the F/S Ward

Dispensaries	**Type of facility**	**New Attendance** (average per day)		**Total Attendance** (average per day)	
		1992	1994	1992	1994
Parel Dispensary, *F/S Ward office, Parel*	Upgraded Health Post	148	137	444	480
Sewree Cross Road Disp. *Sewree*	Ordinary	42	45	140	151
A.D. Marg Dispensary *Parel*	Ordinary	49	51	114	145
Ambewadi Dispensary *Kalachowki*	Ordinary	41	50	135	143
Abhyudaya Nager Disp. *Kalachowki*	Upgraded Health Post Dental Clinic	39	48	85	73
F/S Ward Average (excl. Parel Disp.)	Ordinary - 6 Upgraded - 3 Equipped with HP - 4 Single HP- 3	**33**	**39**	**93**	**107**
Kidwai Nager Dispensary *Wadala*	Ordinary Health Post	41	39	91	87
Gautam Nagar Dispensary *Dadar*	Ordinary	33	31	100	89
Naigaum Dispensary, *Naigaum Maternity Home*	Upgraded Health Post	12	22	35	66
Triveni Sadan Dispensary *Curry Road*	Ordinary	18	21	75	99

Note: Computed from total attendance figures. HP - health post.
Source: Public Health Department, F/S Ward, Parel.

arrangements can be made at the dispensaries to distribute drugs for diabetes to patients whose treatment regimen has been set by the hospital. However, there is no data on the utilisation of dispensaries for follow-up and management of long-term and chronic illnesses. In the absence of a referral system, hospitals do not refer patients back to the dispensary nor communicate their opinion to the dispensary doctors.

Municipal dispensaries account for a tiny 3 per cent of the total spending on health by the BMC and even this has been showing a declining trend. From 3.6 per cent in 1989-90, the share of expenditure on dispensaries has declined to an estimated 2.9 per cent in 1994-95 (Appendix B, Table 5).

Since 1988, 176 health posts have been set up under the World Bank funded India Population Project-V (IPP-V). These are located in a variety of premises including dispensaries that have sufficient space, independent premises, old urban family welfare centres and a handful of private voluntary organisations. Health posts were mooted by the Committee on Revamping Urban Health Services for the Urban Poor (Krishnan Committee, 1984). The outcome of this exercise has been the revamping of the urban family welfare and MCH services along the lines of the rural primary health care delivery system. Using paramedics and local women community health workers, the health posts give greater outreach of selective preventive services. These are almost wholly focused upon family planning and child immunisation as the main objective is to reduce the population growth rate (MCGB, IPP-V, 1990). The BMC put 5 per cent of its public health expenditure into the health post programme in 1993-94. This is further supplemented by grants from the state government.

In a slum or slum-like area (chawls) one health post serves 50,000 to 65,000 population whereas in a mixed locality, it exists for one lakh population. The main function of the health post staff is to survey the catchment population, enlist eligible couples, pregnant and lactating women and children below five years of age. Increasing contraceptive use mainly targeted at low income women, increasing the immunisation status of children and advising women to register for ANC are the most common activities undertaken.

Utilisation of dispensaries: The location of dispensaries in the labour class neighbourhoods makes them easily accessible for the poor. For Bombay as a whole, however, the attendance levels show low and stagnating utilisation (Table 5.4 a).

On the other hand, the attendance at different dispensaries varies greatly. In the municipal ward within which the hospital is situated the average daily attendance for eight dispensaries ranged from 66 to 151 people in 1994. Clearly some dispensaries are moderately utilised while others are overloaded although the reasons for such variations are not documented. The Parel dispensary located in the ward office building undertakes a wider number of activities and is, therefore, better known and highly utilised (Table5.4 b).

Strengthening the first level of care: There is a clear need to review the functioning of municipal dispensaries from the point of strengthening the first level of care. Observation of an upgraded dispensary-cum-health post and two ordinary dispensaries (referred to as A, B, & C respectively) helped to identify some issues.

1. Condition of dispensaries: The dispensary premises ranged from a large old building, to a spacious structure of five rooms covered by an asbestos roof, to a two-room shop space with partitions. All were modest in appearance and the two ordinary dispensaries located among a row of crowded shops and vendors were hardly noticeable. Their small, faded sign boards shrank into the background in sharp contrast to the prominently displayed, large, brightly painted signboards and gleaming exteriors of small private clinics surrounding them.

The interiors were large, modestly furnished and slightly fading. Yet, these dispensaries B and C were spotlessly clean and their equipment, intruments and furniture were well-maintained. On the other hand, the large premises of the dispensary A appeared to be in a state of neglect. Peeling paint, discoloured interiors, cobwebs and dust gave the impression of premises that had not been maintained for several years. The apparatus in the laboratory - slides, pipettes, test tubes, rubber tubing -, were old and worn-out. Similar was the condition of the instruments on the doctor's table, while the mattress on the examination bed and rexene covers were stained and shabby. For the past five years this dispensary was earmarked for shifting to a large new building across the yard, but the sanction was still awaited.

It is not surprising that even a small number of poorly maintained facilities can result in a public impression of dispensaries being rudimentary and giving poor quality care. The urban poor and lower income groups, therefore, consider them as facilities of last resort, targeted at the destitute and totally impoverished sections. Even the better maintained dispensaries face major bottlenecks in managing the maintenance and repairs of their premises and larger equipment. In dispensary C, a refrigerator of 1959 vintage had been certified by the maintenance

department of the ward as 'unserviceable', 'to be scrapped and replaced'. No action had been taken for the past 4-5 years and the dispensary was depending upon the neighbouring health post for its supply of vaccines. Similarly the steriliser had been scrapped but not replaced for the past three months.

Drug supplies were reportedly being streamlined. The Medical Officer Health (MOH) of the ward would co-ordinate with dispensaries to loan drugs to the facility facing shortages. However, bottlenecks persisted. There was a delay of two months between placing an indent request and the delivery of drugs. And indenting for drugs was circumscribed by a falling drug budget. The most commonly needed drugs like paracetamol could be in short supply at a time when the cases of fevers were increasing. Such bottlenecks and shortages lower the credibility of the public facilities. In people's perception, free drugs differentiate the public dispensary from the private practitioner. Having to buy drugs is as good as seeking practitioner services as the fee is, ostensibly, for the drugs dispensed by the latter.

2. Level of care sought at the dispensaries: In order that dispensaries handle a larger range of illnesses in the community and take the load off the hospital OPDs, it is important to understand the level of care being sought at these dispensaries. The morbidity record for new patients submitted by each dispensary to the ward public health department is one indication but the information is not completely reliable (Appendix B, Table 3).

Our observations showed that attendance was very heavy on certain days. On a Monday at dispensary A, the doctor had seen 45 new and 61 old patients within two hours of starting work. Most of them were women, children and the elderly - the less mobile sections of the neighbourhood. Similarly, at dispensary B the doctor had seen 30 patients in just one hour. Since all three dispensaries were being handled by women doctors the overall utilisation had increased, particularly from women in the neighbourhood.

Many of the illness conditions were very minor such as common colds and small wounds especially in small children. Many of the old cases needed the doctor only for the routine sanctioning of either drugs or a change of dressing. A smaller number of cases needed greater attention and examination, such as the cases of high fevers with headache and chills or people who seemed to have been inadequately treated for malaria by private practitioners.

At dispensary, A the medical officer cited TB, respiratory problems due to the proximity of textile mills, common colds, malaria and malnutrition as the problems most frequently seen by her. Diarrhoeal diseases were mainly seasonal and not a large problem. At the well utilised dispensary B, the commonly presenting conditions mentioned by the doctor were malaria, scabies and minor injuries, especially in children. In the latter, malaria cases were on the increase in comparison to the previous year. In the first three weeks of that month 185 fever cases were tested of which 23 were positive. In dispensary C, 222 people were tested and 51 were found to be positive. The sole task of the malaria worker posted in these dispensaries was to make a slide of the malaria parasite smears from every case of fever, which were then examined at the central laboratory at the ward office. It could take 3-5 days for reports to come back and those who tested positive would be followed up by the field malaria workers in their homes. However the majority of these cases were first going to the private practitioners, turning to the dispensaries when the condition recurred. Needless to say, private practitioners were treating malaria symptomatically.

It was difficult to ascertain the load of investigations undertaken at the upgraded dispensaries, but it would appear that the laboratory visited by us was under-utilised. It did not undertake the most commonly needed malaria parasite smear test and AFB sputum examination despite the large prevalence of these diseases reported by the doctor. The number of TB patients registered with these dispensaries was also small. Twenty-six patients were registered with dispensary A. These, along with another 120 at a nearby ordinary dispensary were handled by a single TB organiser belonging to the vertical programme (City TB Control Programme).

Apparently, neither the dispensaries or their laboratory facilities, nor the elaborate infrastructure belonging to the different communicable diseases control programmes are currently effective in reducing the load on the hospital OPDs. In turn the public hospitals have little contact with the primary care units. The dispensary doctors received no feedback from hospitals and therefore no professional inputs, regarding the patients referred for investigations and specialist opinion. It was only when people came for a new episode of illness, did the doctor get to know about the diagnosis and treatment given at the hospital.

The study of the hospital OPD users shows a very wide range of ailments for which people seek care. These include minor infections and major communicable diseases to a host of non-communicable disorders and chronic conditions. Conventionally, the public health departments have given priority to the notifiable communicable diseases, family welfare and child survival programmes. Is this

approach sufficient to address the complex health situation in urban areas?

3. Clinic-based role without community outreach: There is no catchment area for any dispensary although health posts have defined areas to look after. Dispensary services are clinic based, catering to anyone who seeks them. In the absence of a system of registration of the target population with a dispensary, people tend to move between dispensaries which are closely located to each other.

Dispensary doctors do not make home visits and have no role to play in the environmental conditions of the locality within which the dispensary is located. Dispensaries are only curative centres. These notify the ward office about any increase in cases of the main infectious diseases after which the ward's epidemiological officer takes over. The minimum role of ensuring environmental sanitation, cleaning of overflowing drains or removal of garbage around the dispensary is restricted to informing the ward Medical Officer Health. The latter can only notify the concerned conservancy, maintainace or drainage departments but has no authority to get the work implemented.

Neither the dispensary nor the health posts are involved in monitoring the condition of basic services in their area. Within the health services itself, the role of dispensaries is limited by the existence of separate vertical programmes. Suspected TB cases are referred to the Area TB Clinics (Acts) for investigation and initial treatment.[9] The detection and treatment of malaria patients is shared with that programme's infrastructure and workers. Another verticle programme has been added to the existing ones in the form of the outreach services of the health posts. How does the existence of separate vertical programmes managed by different administrative authorities in the public health department impact upon the role of the dispensary? What is the nature of co-ordination between the dispensary and the health posts? In fact, greater funding and priority to the health post programme appears to have further undermined the role of dispensaries in the public health system.

The existing organisation of the public health services at the first level (primary) of care needs to be reviewed.[10] Unless an integrated and comprehensive approach to health care of the people is evolved based on the dispensary, people will continue to seek the better curative facilities of the public hospitals.

4. Dominant position of private providers: The beneficiaries of a weak public primary care system are the private practitioners and polyclinics. According to the data published by the BMC, itself an underestimate, there are 260 indigenous and allopathic practitioner clinics in the F/S Ward (MCGB, Public Health Department, undated: 138-142; 147-150). In comparison to the 50,000 population norm for the public dispensary, there is one private practitioner for less than 2,000 people in this ward. The public system can hardly match this coverage or consider itself as the main provider of first level care. Moreover, private practitioners, unlike dispensaries, are available late in the evenings which is convenient for working people.

The unplanned expansion of the private practitioner services was apparent from the visit to the dispensaries. According to the dispensary staff, 25 private practitioner clinics could be found on the small stretch of road, hardly 15 minutes walking distance, on which dispensary B is located. The informal catchment population of 57,000 for dispensary A consists of slums (47 per cent) and low income housing colonies and chawls (53 per cent). According to the map in the health post, there are 40 private practitioner clinics within this locality. Some of these have diagnostic and nursing home facilities.

On the other hand, several studies have shown that the quality of care provided by practitioners varies widely. This is especially the case with their prescribing patterns, inappropriate use of antibiotics and injections and poor knowledge of recommended drug regimens for treating TB and leprosy (Uplekar, 1995; Nandraj, 1994). The problem of quality is further complicated by the presence of many unqualified persons practising largely in poor neighbourhoods.

This once again highlights the greater responsibility and leadership role of the public sector in ensuring access to good basic care. The fragmentation of health services among multiple providers does not allow the public sector to exercise effective leadership at the first level of care.

Discussion: The felt need of the OPD users' was curative care. They were prompt in seeking treatment from the widely available providers in their neighbourhood. Almost three-fourths had sought treatment, largely basic care, prior to approaching the public hospital OPD. The provider most commonly contacted at the onset of the illness was the private (general) practitioner.

People had learned to distinguish between their minor ailments and the more serious illnesses that would need longer treatment. For the former they depended on the local practitioners, with many people reporting long-lasting relationships with them. Hardly 5 per cent of these users had come to the OPDs after using the municipal dispensaries. There were, however, limits to continuing private treatment. Lack of quick

relief that people associated with minor conditions, and prospects of costly treatment led them to seek higher care: check-up from highly qualified doctors and investigations. The open-access public hospital was their safeguard against uncertainty about their health and the costs of prolonged care.

There is a need to review the organisation and performance of the public primary care services. This review should address both the varied health problems of urban low-income groups and the appropriate use of the different tiers of the health care services,

---

Notes:

1. *The combined spending of the Bombay Municipal Corporation (BMC) and the State Government (Maharashtra) on health care services and activities was over Rs. 300 crores in 1994. Duggal and Nandraj estimated the share of the State Government to be Rs. 50 crores, i.e. about 16.6 per cent with the major share of spending being undertaken by the local authority (1994:37-38). The Central Government expenditure is in addition to this Rs 300 crores. In 1994, the BMC spent an estimated Rs. 253.21 crores on public health. Spending on health in the seven year period since 1988 has formed 22 per cent to 23 per cent of the main budget (Budget A) and about 10 percent of the total revenue expenditure on all services. The bulk of the health budget (86 per cent-87 per cent) is spent on curative care (including some preventive services) and medical education. See Appendix B,Table 5 for the details of expenditure on public health borne by the BMC.*

2. *See C.A.K. Yesudian, 1991 for a discussion of the compartmentalised approach to primary health care in Bombay's public health system.*

3. *According to the Public Health Department (MCGB), the number of nursing homes had increased to 1,208 by 1996. Of these 622 nursing homes had a strenght of 1-10 beds only (Personal Communication).*

4. *See N. Crook et al., 1989: 317-318 for the findings of a cross-sectional house-hold survey that showed substantial recourse to modern curative medicine among the entire range of poor and marginalised population in Bombay.*

5. *Since the study did not follow up the patient after the OPD visit, it is difficult to say whether they engaged in any experimentation after the hospital for the same episode.*

6. *According to this study the pattern of utilisation of the health care services in this area was private practitioner clinics (63 per cent), public hospitals (19 per cent), ESIS hospital and facilities (11 per cent), municipal dispensaries (3-4 per cent) and private hospitals (1 per cent).*

7. *The survey on morbidity and utilisation of medical services conducted by the National Sample Survey Organisation (NSSO, 42nd round) found that only about one-fourth (26 per cent rural and 27 per cent urban) of the total routine out-patient care in the country was handled by the public sector. And over three-fourths of this care was accounted for by the OPDs of the public hospitals (23 per cent in urban India and 19 per cent in urban Maharashtra). Urban public dispensaries in Maharashtra handled 3 per cent of illness episodes and rural primary health centres took care of 10 per cent of out-patient care. The single largest provider of out-patient care was the private practitioner, who was utilised for 50 per cent of routine care (GOI, NSSO, 1990 : 69-70).*

8. *The survey asked information on cost of prior treatment from every person interviewed. However, accurate recall becomes difficult for long duration of treatment. Therefore a reference period has been used in analysing the cost data. Only the costs reported by users with symptoms of upto one month duration at the time of interview have been included. Even within this limited reference period, there were women and students who had spent on the current episode but could not give details as they had not handled the payments themselves. Therefore only valid respondents are included. The costs refer only to direct expenditures such as fees, medicines and injections, and admissions.*

9. *See S. Rangan, 1995 for a discussion of problems posed by the existence of multiple public health facilities for TB patients.*

10. *See C.A.K. Yesudian, 1995 (op. cit.).*

HOSPITAL BASED OUT-PATIENT SERVICES

In the large hall outside the out-patient clinics, the patients would start queuing up from early in the morning in order to get a quick turn with the doctor. Only the Gynaecology OPD had its own waiting room. In the case of the Medicine, Surgery and Gynaecology OPDs, the registration desk opened at 8.00 am. Stamped case papers were issued and the patients would begin their long wait on the wooden benches in the waiting area. The housemen, registrars and lecturers came in by 8.30 am, followed by other senior doctors. Periodically bunches of case papers would be collected by the ward attendant and distributed randomly on the desks of the doctors. By 10.00 a.m., with only half an hour for the registration desk to close, the OPD attendance was at its peak strength.

The Paediatric Medicine OPD functioned in the afternoons. Ailing children accompanied mostly by their mothers and often with siblings in tow, would start arriving by 1.00 p.m. All OPDs officially worked for three to three and half hours — between 8.30 - 12.00 in the morning and 1.30 - 4.30 in the afternoons. The Medicine and Surgery OPDs, however, continued at least an hour longer due to the heavy rush of patients. During the year that the study was conducted (1994), the average daily attendance in General Medicine was 350 out-patients, General Surgery had 200, Paediatric Medicine ranged between 70-90 children while Gynaecology/Obstetrics OPDs were visited by approximately 80-100 women each day.

Referrals

Less than one-fourth of all users (21 per cent) cited referral as a reason for coming to the hospital (Appendix A Table 15). The proportion hardly varied across the OPDs. The number of referred persons went up to 28 per cent among those who had sought treatment prior to coming to the hospital (Table 5.1). It was observed that the quality of referrals varied widely. Some referral notes carried details of investigations performed, possible diagnosis and the course of treatment prescribed. Others were small letterheads that did not even give the qualification of the referring practitioners and only asked the attending doctor in the OPD "to do the needful". Often the patients, finding no improvement in their condition, had themselves asked for a note for the hospital.

Referrals are not honoured in the current hospital set-up. The patients observe the same queue and have to undergo the full check-up and investigations. At the most, the fact of prior treatment may find mention in the clinical notes recorded by the OPD doctor.

The reputation of the hospital, especially the assurance of friends and relatives who had used it or had a contact among the staff (36 per cent), and satisfactory treatment in the past (24 per cent) were the main reasons given for the current use.

Accessing the OPD services

Travel costs: One-third (34 per cent) of the new patients had spent nothing on travelling to the hospital (Table 6.1). The majority had walked 10 to 20 or 25 minutes from the neighbourhoods in the F/S and adjoining F/N and G wards. This included undernourished mothers with infants in their arms who came to the Paediatric Medicine OPD. Some suburban users were train pass holders for whom the hospital was close to their place of work. Others were visiting relatives in the vicinity and could walk over to the hospital OPD.

The availability of a mass transport system easily enabled the patients and accompanying persons

Table 6.1: Cost of Travel for New OPD Users (single round trip)

Costs of travel (Rs)	City Zone n = 608 (%)	Suburbs n = 176 (%)	Outside Gr. Bombay n = 221 (%)	Total n = 1006 (%)
Nil	46	19	11	34
< 10	41	36	12	34
11 - 50	12	36	42	23
> - 51	-	9	36	10

Note: Valid respondents only.

to access the hospital from all over the city. Higher costs were incurred by those who came from outside Greater Bombay as well as those who used a taxi or a mixed public-private transportation.

Direct costs of care: The hospitals belonging to the BMC are meant to provide free services. Case papers are supplied free and there are no charges for routine investigations. All drugs should also be supplied by the hospital. People, however, had to purchase drugs and materials whenever these were in short supply. Among the old patients 60 per cent reported buying drugs (Appendix A, Table 17). In case of some old patients the case papers showed that on some visits all drugs were not supplied while others were able to recall such expenditure. The average expenditure was Rs 20 per visit. In the General Medicine OPD, people reported expenditures of Rs 300 and above on the purchase of anti-TB drugs, thyroid problems and Herpes. The treatment of primary sterility and PID were mainly responsible for the higher proportion of women spending on treatment in the Gynaecology OPD.

Investigations were performed free (70 per cent), except where dyes, needles and other material inputs had to be purchased. About 4 per cent of the old users were advised sophisticated investigations such as CT Scan and ultrasonography (USG) which attract charges, although at lower rates than that charged in private clinics and hospitals (Appendix A, Table 18).

Waiting time: In the absence of a referral system the public hospital has no control over its workload. It provides care to anyone who approaches the specialist clinics. Easily the most irksome aspect of using the OPDs for the patients was the long waiting time. On an average people saw the doctor after queuing up for one and half hours to two hours (Appendix A, Table19). After the check-up they would have to rush to get their investigations done before the pathology or radiology departments closed as well as collect drugs from the pharmacy. It meant foregoing a half day's work and for some, a loss of the day's wages (Appendix A,Table 20). If they were late for investigations, they would have to return the next day.

> *The pressure of numbers and the long waiting time would often lead to chaotic conditions. This was most often caused by the inability of the non-medical staff to systematically and sympathetically maintain the queue system in the waiting area..*
>
> *Today the OPD was quiet and well managed. There was no chaos and crowding as patients were let into the OPD in batches of five. A new batch went in only when the last patient from the previous batch was on the examination table. The sister-in-charge who took the initiative and supervised the staff should be given credit for this welcome change.*
>
> *Just three days back the situation was different. The patient load was high and the OPD had started a little late. When the door opened people rushed inside and formed queues in front of the doctors' desks. On hearing that one of the doctors was absent, the queue in front of the empty table broke up and people tried to get into the other queue. The room was crowded, chaos abundant and a petty argument threatened to develop into a big fight. As usual the staff were nowhere to be seen. Finally when a patient complained to a senior doctor, the staff was summoned and all people sent back to the hall outside. Due to this confusion people who had quietly observed the queue and waited outside lost their turn. As one patient said, "We usually go to a private practitioner. My small children feel extremely harrassed here and my wife cannot cope with waiting for hours on end with them."*
>
> *Another patient however took a different view. He had come from Bihar and despite the delay and chaos, found the hospital far superior to the public hospitals in his home state. The problem here in Bombay was the very long waiting time but he overlooked it as "proper attention is given and there is a thorough examination. In Bihar, the doctors do not even care to examine the patient and the prescription is ready even before the patient has finished describing his complaints." As for the noise and crowding, according to him, if a facility meant for five people was used by fifty than this was bound to happen,*
> *(Observations of the investigator)*

The OPD moved even more slowly on days when doctors had to instruct students. This increased the crowding enormously, and was harassing for the seriously ill who waited in the same general queue along with those with more minor ailments.

Problems in continuity of care: People followed

up with the same unit that had initially examined them on the first visit. This allowed for some continuity, but it meant a full week's gap before the patient could approach the OPD. This procedure was strictly followed and patients who came in-between were asked to return. Often this would mean an inappropriate use of the casualty services if the patient needed to see a doctor again.

Ease of use: In a huge and impersonal facility patients were often at a loss as to whom to ask for guidance or directions. Considerable time was spent in searching out departments to which they were referred by the OPD.

Perceived quality of medical care: People seldom voiced an adverse opinion about the medical care. On the other hand reputation of the hospital was a prominent reason for attending the OPD. The fact that all investigations were available under one roof and doctors were highly trained, were the main reasons for seeking the public hospital OPD despite the overcrowding and long waiting time.

Discussion: Long waiting time, overcrowding and patient stress and shortages of both common and expensive drugs are the common associations people have about public hospitals. These inconveniences are only partially compensated by the perceived quality of medical care and the availability of all investigations under one roof. Undoubtedly, hospitals need to function as referral facilities supporting comprehensive first level (primary) services closer to people's residences itself.

CONCLUSION

The load of users on the out-patient services of the apex teaching hospital located in the city zone of Bombay district continues to grow. Some of the most heavily used hospital out-patient departments belong to the basic specialities of Medicine, Paediatric Medicine, Surgery and Gynaecology-Obstetrics. These are also the commonly used first level referral services. Does the crowding of the OPDs reflect a casual attitude on part of the users? Given the free and openly accessible facilities, are people 'unnecessarily' using higher level facilities for lower levels of health care?

As the study showed, 40 per cent of the users were earners with the large majority being the younger workers, mainly male and more than half of them belonging to the urban informal sector. The rest of the users - women, children and the unemployed - were economically dependent on their mainly labour class households. Over half the users were drawn from the labour class residential areas in the close vicinity of the hospital itself encompassing Parel (F/S ward), Wadala (F/N), Worli (G/S) and Dadar-Naigaum (G/N ward). Since the largest section belonged to the unorganised workforce, these users lacked social security or coverage of protective legislation and the public hospital's quality services was one of the few safety nets available to them against the health hazards created by their living and work environment.

A broad assessment made of the management of patients by the OPD doctors themselves revealed that about a third of the patients could be handled by a peripheral health unit or a general practitioner. The level of care needed by patients varied considerably among the OPDs. Conditions requiring general (primary) care were more frequently seen in the Medicine and Paediatric Medicine OPDs, indicating the clear need to strengthen the first contact and general medical services. Yet more than half the people seen in these OPDs underwent investigations and further referrals. The study indicates that there is a limited scope for decreasing the load on public hospitals so long as specialist services are centralised in them and there is no system of referrals between hospitals and the first level services.

The majority of the users — over two-thirds — had sought prior care. People appeared to distinguish between minor and more serious ailments. For the former, they used private practitioners in close proximity to their residences. Many users cited having developed long term familiarity with these practitioners. They considered it cumbersome to use hospital services on a regular basis. Hardly 5 per cent of the users had sought the services of the municipal dispensaries, the first level facilities providing general care in the public health sector in Bombay. However, lack of quick recovery, the uncertainty that the problem was serious and mounting costs of prolonged private treatment made them change over to the hospital out-patient services. Over half those who had used the private practitioners cited lack of relief and recurring symptoms as the main reason for changing the provider. On an average the patient came after four weeks of being ill. Hardly 28 per cent of those who had sought prior care carried a referral letter. It is therefore not surprising that a little over half the users were provided secondary level care at the OPDs.

Emerging issues: The findings throw up a number of issues about the effective functioning of the health care services and their ability to meet the needs of poor and lower income groups. Firstly, the morbidity seen in these specialist OPDs could be indicative of inadequate handling of the illnesses at the first level of care. Yet no mechanism exists in the current organisation of health services to monitor the care provided by the private providers. In the absence of a referral system, treatment patterns cannot be scrutinised. Nor are hospitals tied into a system of providing professional support, continuing education or training to the lower level providers.

Secondly, till date no effort has been made to systematically study the causes of poor utilisation of the public primary health services, particularly the municipal dispensaries. Unlike other urban centres, Bombay has a three level organisation of public health services. However, the priority in terms of funding lies with the hospital sector, particularly the teaching hospitals, and in terms of public health action, with the selective services—family planning and immunisation—of the health posts. On the other hand the felt need of the people is for curative care. A reorganisation of urban health services towards providing comprehensive first level services that combine good medical, preventive-promotive care and first level services has not been considered by the public health system.

Thirdly, no referral system exists — not even a limited one covering the public sector — to integrate and co-ordinate the multiple providers and the different levels of the health care services.

Towards a referral system: The role of a hospital, according to the WHO, is to provide referral services, technical support and training inputs for lower

level facilities. A referral system, however, has to be based on integrated and good quality first level services. Otherwise, it would only serve to cut off the access of the poor and lower income patients to quality services of the hospital without giving them an adequate alternative. Developing a referral system could be done in stages:

(1) Strengthening the first level services in the public system including the dispensaries, maternity homes, health posts and health centres would have to precede the referral system. All facilities would have a catchment area and staggered timings that would be convenient for working people. These centres could provide outreach services for special and vulnerable groups.

To increase the quality of services in these units, specialist clinics and a wider range of investigations could be decentralised to them. These clinics could be handled by hospital based specialists, especially the peripheral units falling within the hospital's catchment area. For instance, the informal catchment area of the OPDs under study would have at least 12 dispensaries in three municipal wards that could be supported by the hospital. The dispensary setting could provide necessary experience to medical students about the conditions and health needs in the community, as well as professional inputs from hospital doctors for the dispensary and health post doctors.

(2) Improving the first level services would also need to integrate the large numbers of private practitioners and consultants. These vary widely in their qualifications and quality of care offered. To integrate them within the referral system would require a system of monitoring as well as mandatory record keeping for them. In the long run, the expansion of public or private services would need to be tightly planned and based on an assessment of the area's need so as to avoid duplication and unnecessary competition.

(3) Functioning of hospitals only as referral facilities would require patients to carry tandardised referral slips giving all information of the previous treatment. The referral system would need to function in both directions with hospital specialists referring back the patient to the original doctor for follow-up. Only then would there be continuity of care and the possibility of sustained relationships with specific providers.

(4) The setting up of a referral system would also need administrative re-organisation.This would be needed to co-ordinate the functions of the hospital administration and the Public Health Department in the municipal corporation.

General OPD in the hospital- a short term solution: Faced with the pressure of out-patients needing all levels of care, the hospital had considered an internal referral system. This would consist of a General OPD handled by residents from the basic specialities which would screen all new patients, make appropriate referrals to the specialist clinics and treat all those needing general care and some basic investigations. A small experiment in the form of a General OPD screening all new patients attending the General Medicine OPD is going on.

Apart from rationalising the patient load on the specialists, the usefulness of a General OPD would be enhanced if it led to a specialisation in family practice. Rather than residents, properly trained family practitioners could handle this OPD. This would also aid in reorienting medical education towards general practice.

APPENDIX -A

Table 1: Employment Status of OPD Users

Employment Status	G.Med OPD n=746 %	G.Surg OPD n=515 %	Gynaec OPD n=i89 %	Obst OPD n=99 %	P.Med OPD n=206 %	Total n=1761 %
Earners						
Wage earners/Self employed	47	58	25	14	..	41
Income from rent, pension, savings &						
Part-time work	3	1	..	..	..	2
Not earning\Lost job due to illness	3	2	..	1	..	2
Unemployed	9	12	1	..	..	8
Non-Earners						
Home worker	27	22	69	83	..	30
Student /Children*	9	4	4	1	100	17
Retired	2	1	1	..	..	1

Note : Only respondents included
Refers to the users of Paediatric Medicine OPD.

Table 2 : Occupational Profile of OPD Users

Occupation	G.Med. OPD n=351 %	G.Surg. OPD n=300 %	Gynaec. OPD n=47 %	Obst. OPD n=14 %	Total n=712 %
White collar	**10**	**7**	**17**	**29**	**9**
Professional	9	1	2	--	1
Clerical	1	6	15	29	8
Organised Sector	**19**	**23**	**4**	**7**	**19**
Skilled worker - manufacturing	2	2	--	--	2
Semi-skilled worker - manufacturing	5	4	--	--	4
Skilled worker - Public utilities	1	2	4	7	2
Semi-skilled worker Public utilities	9	12	--	--	10
Semi-skilled worker - Other services	1	2	--	--	2
Unorganised Sector	**42**	40	40	57	41
Skilled worker - manufacturing	5	3	--	--	4
Semi-skilled worker - manufacturing	12	8	9	21	11
Contract worker with organised sector	1	1	2	--	1
Skilled worker - service sector	8	9	2	--	8
Semi-skilled worker - service sector	12	13	4	7	12
Domestic servant	2	2	21	21	4
Heavy manual worker	2	3	--	7	2
Home based worker	<1	--	2	--	<1
Self Employed	**18**	**18**	**15**	--	**17**
Artisan /Skilled worker	6	4	2	--	5
Shop owner /Small business /Retailer	3	4	4	--	4
Worker rendering other services	3	4	2	--	4
Petty trader /Vendor	6	6	6	--	6
Primary Sector	**11**	**12**	**23**	**7**	**13**
Big farmer (>15 acres)	1	1	--	7	1
Middle farmer (5.1 to 15 acres)	1	<1	2	--	1
Small farmer (2.6 to 5 acres)	1	3	--	--	2
Marginal farmer (<2.6 acres)	4	3	11	--	4
Marginal farmer cum agri. labourer	1	1	6	--	1
Agricultural labourer	1	<1	2	--	1
Other cultivator (land holding not known)	3	4	2	--	3

Note : Only respondents included

Table 3: Occupational Profile of Households of Non-earning OPD Users

Occupation	Household workers n=522 %	Students/ children* n=298 %	Unemployed n=123 %	Total n=943 %
White collar	**15**	**16**	**16**	**4**
Professional	2	2	6	2
Clerical	12	14	19	2
Organized Sector	39	38	43	39
Skilled worker - manufacturing	2	2	6	2
Semi-skilled worker - manufacturing	13	10	16	13
Skilled worker -Public utilities	3	6	2	4
Semis-skilled worker - Public utilities	20	19	20	20
Semi-skilled worker - Other services	1	--	--	<1
Unorganized Sector	53	54	59	55
Skilled worker - manufacturing	3	2	4	3
Semi-skilled worker - manufacturing	16	11	19	15
Contract worker with organized sector	1	1	--	<1
Skilled worker - service sector	13	7	7	11
Semi-skilled worker - service sector	17	23	21	19
Domestic servant	1	5	3	4
Heavy manual worker	2	5	5	4
Home based worker	--	--	--	--
Self Employed	**28**	**22**	**24**	**25**
Artisan /Skilled worker	7	5	4	6
Shop owner /Small business /Retailer	8	9	11	9
Worker rendering other services	4	3	2	3
Petty trader /Vendor	9	5	7	8
Primary Sector	7	11	17	10
Big farmer (>15 acrea)	--	--	--	--
Middle farmer (1.5 to 15 acres)	--	1	--	<1
Small farmer (2.6 to 5 acres)	1	2	3	2
Marginal farmer (<2.6 acres)	<1	2	9	2
Marginal farmer-cum-agri. labourer	--	1	--	<1
Agricultural labourer	--	1	--	<1
Other cultivator (land holding now known)	6	4	6	5

Note: Only respondents included
All earners included (multiple responses)
*Refers to users of paediatric medicine OPD

Table 4: Place of Stay of OPD Users

Locality	Medicine OPD n=747 %	G.Surg OPD n=519 %	Gynaec OPD n=190 %	Obst OPD n=99 %	P.Med OPD n=205 %	Total n=1760 %
Bombay	**77**	**70**	**74**	**91**	**80**	**76**
City	61	56	45	71	60	58
Suburbs	16	14	28	19	20	17
Thane	**7**	**12**	**11**	**2**	**7**	**9**
Rural	1	3	2	—	1	2
Urban	6	9	9	2	6	7
Maharashtra	**11**	**12**	**11**	**6**	**9**	**11**
Rural	9	10	8	5	8	9
Urban	1	2	2	1	1	1
Other states	**4**	**6**	**5**	**1**	**4**	**4**
Rural	3	3	4	—	1	3
Urban	1	1	1	1	1	1

Table 5: Localities in Bombay Showing Higher Utilisation of OPDs

Locality	G. Med OPD n=578 (%)	G. Surg OPD n=365 (%)	Gynaec OPD n=140 (%)	Obst OPD n=90 (%)	P.Med OPD n=163 (%)	Total n=1336 (%)
City	80	80	61	79	75	77
Parel/Lalbaug	17	14	14	15	9	15
Sewri/Kalachowki	10	10	7	23	17	12
Dadar/Naigaum/Bhoiwada	8	8	14	—	10	8
Worli/Prabhadevi	5	13	11	5	5	7
Wadala	6	4	—	8	5	5
Western Suburbs	13	11	19	7	9	12
Kandivali/Malad	2	3	7	2	4	3
Bandra	3	1	4	—	—	2
Goregaon	2	1	3	2	3	2
Eastern Suburbs	8	9	20	15	16	11
Bhandup/Vkhroli	2	3	5	2	4	2
Chembur	1	1	4	7	3	2
Kurla/Ghatkopar	2	2	5	2	5	2

Note: Localities contributing less than 2% of OPD users are omited from the above table.

Table 6 : Confirmed Diagnoses - All OPDs excluding Obstetrics

Total Respondents = 1,507
Confirmed Diagnoses = 492 (33%)

Nature of Diagnosis	n=492 %
Infectious and Parasitic Diseases	**27**
Tuberculosis	20
Amoebiasis	2
Worm Infestation	2
Malaria	1
Filaria	1
STDs	1
Others	1
Disorders of Gastro-intestinal Tract	**18**
Anorectal Diseases*	6
Acid Peptic Disease	5
Hernias	2
Appendicitis	1
Gastroenteritis	1
Others	
Diseases of the Circulatory System	**12**
Hypertension	6
Ischaemic Heart Disease	2
Rheumatic Heart Disease	1
Congenital Heart Disease	1
Other Cardiovascular Diseases?	1
Varicose Veins	1
TAO/Peri Artia Disease	<1
Others	
Disorders of the Female Genital Organs	**11**
Infertility	4
Infectious conditions	1
Ovarian Cyst	1
Prolapse	1
Tubal Ligation	1
Menstrual Disorders	1
Primary Amenorrhoea	1
Fibroadenosis-Breast	<1
Others	2
Diseases of Skin, Subcutaneous tissue and Nails	**10**
Minor Surgical Conditions	8
Infectious and Fungal conditions	2
Disorders of the Respiratory System	**10**
Lower Respiratory Tract-	6
-Infectious	4
-Non infectious	3
Upper Respiratory Tract -Infectious?	3
Disorders of the Central Nervous System	**6**
Seizures\ Epilepsy	4
Cerebrovascular Accident	1
Others	1

Nature of Diagnosis	n=492 %
Metabolic and Endocrine Disorders	**3**
Diabetes	2
Thyroid disorders	1
Disorders of the Male Genital Organs	**3**
Hydrocele	2
Phimosis	1
Epididymo-orchitis	<1
Ante Natal Care	**3**
Pregnancy	3
Non Specific Diagnosis	**2**
General Weakness	1
Muscular Disorder/Myalgia	1
Cervical /Other Lymphadenitis	1
Pyrexia of Unknown Origin	<1
Disorders of Urinary Tract	**2**
Nephrotic Syndrome	1
Others-	1
-Infectious	<1
-Non infectious	1
Nutritional Disorders	**2**
Nutritional Anaemia	1
Others	1
Disorders of the Skeletal System other than Fractures and Dislocation	**1**
Arthritis	1
Others	1
Injuries/Fractures/Burns	**1**
Injuries	<1
Fractures	<1
Others	<1
Mental Illnesses	**1**
Anxiety	1
Neurosis	<1
Congenital Disorders	**1**
Cleft Palate/Lip	<1
Others	<1
Malignancies	**1**
Ca Abdomen/Oesophagus	<1
Others	<1
Neonatal Disorders	**<1**
Prematurity	<1
Neonatal Sepsis	<1
Diseases of Ear	**<1**
Middle Ear Infection	<1
Disorders of Blood and Blood forming Organs	**<1**
Haematological Disorder	<1
Disorders of the Connective Tissue	**<1**
Systemic Lupus Erythmatous	<1
Chromosomal Disorders	**<1**

Note : Multiple response.
Diagnoses presented in ranked order.

Table 7: Management of Patients in OPDs

Management of Patients	G.Med OPD n=700 %	P.Med OPD n=190 %	Gen.Surg OPD n=459 %	Gynae. OPD n=158 %	Total n=1507 %
Referred.	24	12	29	27	25
- to Super specialist OPDs	2	4	4	5	3
- to specialist OPDs	23	8	25	22	22
Investigated.	49	51	55	66	53
1st level.	11	14	10	3	10
2nd level	35	30	41	40	37
3rd level	3	8	5	23	6
Hospitalised	2	5	6	15	5
Given treatment only*	27	32	15	5	22

Note : Multiple responses. Percentages are calculated on number of valid cases ie the patients for whom medical notes were available. Response rate varied from 83% in Gynaecology to 94% in General Medicine.
* Given a course of medicine only.

Table 8: Management of New Patients in OPDs

Management Of Patients	G. Med OPD n=471 %	P. Med OPD n=110 %	G. Surg OPD n=299 %	Gynaec OPD n=120 %	Total n= 975 %
Referred	29	14	31	27	28
Investigated	39	45	46	55	43
Hospitalised	2	6	6	16	5
Given treatment only	34	42	19	8	28

Note: Multiple responses. Percentages are calculated on total number of valid cases. Response rate 89%.

Table 9: Investigations Ordered for OPD Users

Investigations		
1st level	**2nd level**	**3rd level**
Blood group	Alkaline phosphate	2-D Echo
Blood sugar	Anti Streptolysine O titre (ASLO)	Barr bodies
Complete Blood Count (CBC)	Blood Urea Nitrogen (BUN)/	Chromosomal study
Erythrocyte Sedimentation Rate (ESR)	Creatinine/ Urea	Colonoscopy
Haemoglobin estmation (Hb)	Lipid profile	CT scan/ other scan
Peripheral Smear for Malarial Parasite	Liver function tests(Bilirubin, SGOT, SGPT)	Cystogram
Urine Bile salts/Bile pigments	Platelet count	Cystoscopy
Urine routine microscopy	Renal Function Tests (RFT)	Doppler
Sputum Acid Fast Bacteria	Routine Blood Chemistry	Electroencephalogram(EEG)
Stool routine examination	Serum electrolytes	Endoscopy
Mantoux test	Veneral Diseases Research Laboratory test (VDRL)	Fistulogram
	Widal	Folicle Stimulating Harmone (FSH)
	Urine culture & Antibiotic Sensitivity Test (ABST)	HIV test
	Urine pregnancy test	HSA
	Barium meal/enema	Immunoglobulin assay(IG)
	Chest X-ray	Laproscopy
	Direct Retrograde Urethrography(DRU)	Magnetic Resonance Imaging (MRI)
	Hystero-salpingography (HSG)	Micurating.Cystomethrogram
	Intravenous pilography (IVP)	Prolactin
	Intravenous urethrography (IVU)	Serum Leutinising Harmone (LSH)
	Mass Miniature Radiography (MMR)	Serum Testosterone
	Plain X-ray abdomen/Kidney Ureter Bladder (KUB)	Test for Toxoplasmosis ,Other sexually transmitted diseases,Rubella,Cytomegalo-virus and Herpes simplex (TORCH)
	Ultrasonography (USG)	
	X-ray other part	
	Fine Needle Aspiration Cytology (FNAC)	Thyroid function test (T3/T4/TSH)
	Other histopathology	
	Peritoneal fluid tap & culture	
	Pleural tap	
	Vaginal smear & Cystology	Venogram
	Dialatation & curratage (D & C)	
	Gastroscopy	
	Electrocardiogram (ECG)	

Note: This was compiled from the medical notes of the patients included in the study.
Only a limited number of the first level investigations listed in this chart are provided at upgraded dispensaries; the first level curative facilities provided by the Bruhanmumbai Municipal Corporation.

Table 10: General Medicine OPD - Confirmed diagnoses

Total Respondents = 700
Confirmed Diagnoses = 196 (28%)

Nature of diagnosis	n=196 %
Infectious and Parasitic Diseases	**39**
Tuberculosis	31
Malaria	3
Others [1]	5
Cardiovascular Disorders	**21**
Hypertension	12
Ischaemic Heart Disease	5
Rheumatic Heart Disease	3
Others	2
Respiratory Tract Disorders	**16**
Lower Respiratory Tract disorder	11
Upper Respiratory Tract disorder	5
Endocrine Disorders	**5**
Diabetes	4
Others	2
Central Nervous System Disorders	**7**
Seizures \ Epilepsy	4
Cerebrovascular accident	2
Others	1
G I Tract \ Liver disorders	**6**
Gastritis	3
Others	3
Urinary Tract Infections	**3**
Nephrotic syndrome	2
Others	1
Disorders of Bones and Joints	**3**
Arthritis	2
Others	2
Others [2]	**12**

Note: Multiple responses. Percentages are calculated on number of valid cases.

1. Filaria, leprosy, Aquired immuno-deficiency syndrome(AIDS), worms, amoebiasis, candidiasis
2. Systemic lupus erythmatous (SLE), injuries, anaemia, varicose veins, mental illness

Table 11: Paediatric Medicine OPD - Confirmed Diagnoses

Total Respondents - 190
Confirmed Diagnoses =70 (37%)

Nature of diagnosis	n=70 %
Infectitious and parasitic diseases	**44**
Tuberculosis	26
Others [1]	19
Respiratory tract disorders	**19**
Lower Respiratory Tract disorder	10
Upper Respiratory Tract disorder	9
Central Nervous System disorders	**21**
Seizures \ Epilepsy	19
Others	3
Congenital \Hereditary \Chromosomal disorder	**7**
Cardiovascular disorder	**4**
Others [2]	20

Note: Multiple responses. Percentages are calculated on total number of valid cases.
1 Lumps, worms, amoebiasis, scabies, candidiasis, gastroenteritis
2 Abscess, boils, ulcers, vitamin deficiency, protein energy malnutrition (PEM), prematurity, constipation, sepsis

Table 12: Gynaecology OPD- Confirmed diagnoses

Total Respondents = 158
Confirmed Diagnoses = 62 (39%)

Nature of diagnosis	n=62 %
Infertility	**32**
Primary	27
Secondary	5
Pregnancy	**21**
Menstrual disorders	**10**
Prolapse	7
For tuboplasty	7
Lower genital tract infections	5
Ovarian cysts	5
Ectopic Pregnancy	3
Pelvic inflamatory disease (PID)	3
Others [1]	20

Note: 1 Tuberculosis, toxoplasmosis, piles, abscesses,diabetes, hypertension, rectovaginal fistula, chromosomal disorders, abortions,still births.

Table 13: General Surgery OPD - Confirmed diagnoses

Total Respondents = 459
Confirmed Diagnoses = 164 (36%)

Nature of diagnosis	n=164 %
Infectious and Parasitic Diseases	**20**
Tuberculosis	11
Others[1]	9
Minor surgical conditions	**20**
Abscess \ Pyoderma \ Ulcer	7
Sebaceous cysts	4
Corns	3
Others	7
Ano-Rectal Diseases	**17**
Piles	11
Fissures in anus	3
Peri-anal fistula	3
Others	1
G I Tract \ Liver diseases	**17**
Acid Peptic Diseases	3
Peptic Duodenal Ulcer	3
Appendicitis	2
Gastritis	1
Gall stone \ Cholelithiasis	1
Others	6
Surgical conditions of male genitalia	**9**
Hydrocele	6
Others	3
Hernias	**6**
Inguinal hernia	5
Others	1
Peripheral vascular diseases	**4**
Varicose veins	2
Peripheral vascular diseases	1
Others	1
Goitre	3
Injuries	2
Malignancies	2
Others[2]	12

Note: Multiple responses.

1. Worms, amoebiasis, filariasis, sexually transmited diseases (STDs).

2. Lower respiratory tract infectionLRTI),constipation, gangrene, hypertension,arythmias, congestive cardiac failure,anxietyovarian cysts, dysmenorrhoea, middle ear infection, muscular disorders,cervical \ other lymphnode,fibroadenosis

Table 14 : Patterns of Health Care Seeking Behaviour (New cases)

Health care Pattern of Seeking	Statistics	G.Med OPD		G.Surg OPD		P.Med OPD		Gynaec OPD		Obst. OPD	
		BB	Oth	BB	Oth	BB	Oth	BB	Oth	BB	Oth
Onset to 1st. provider used (days)	n	326	59	213	45	93	11	72	16	19	4
	Median	2	3	5	6	1	4	8	45	120	
	Range	0-730	0-730	0-730	0-730	0-730	0-120	0-730	0-545	0-240	0-180
Total no. of facilities used prior to KEM	n	418	84	281	65	105	17	101	19	22	4
	Median	1	1	1	1	1	1	1	1	0	
	Range	0-7	0-7	0-8	0-7	0-5	0-2	0-5	0-2	0-1	0-1
Duration of symptoms at 1st. Opd visit (days)	n	412	82	273	62	100	77	92	19	21	4
	Median	30	182	60	120	9	30	60	180	IInd.	
	Range	1-7300	1-5475	1-7300	2-6205	0-2555	0-43801	-2737	0-3620	1-3	1-3

Note: Only valid cases included
BB - Bombay & Thane users Oth - Other users
Duration of symptoms recorded in days for all OPDs except Obstrectics.
For Obstrectics OPD duration is in trimester.

Table 15: Reasons for Choosing KEM Hospital

Reasons	Med OPD n = 737 %	G.Surg OPD n=515 %	P.Med OPD n = 204 %	Gynaec OPD n = 187 %	Obst OPD n = 99 %	Total n=1742 %
Referred	21	24	21	23	3	21
Internal Referral	1	2	1	1	1	1
Suggested by Doctor incl. for investigation	7	10	7	5	1	8
Satisfactory treatment in past/ Long term users	22	24	40	13	24	24
Inexpensive	13	17	9	10	7	13
Near place of residence	11	12	9	2	15	11
Suggested by friends/relatives or based on reputation	34	39	23	42	45	36
As KEM staff/relative or Govt/BMC worker	9	8	8	15	16	10
Others (incl. attending ill relatives and emergency)	13	12	19	11	14	13

Note: Multiple responses. Percentage calculated on number of valid cases.

Table 16: Knowledge, Use & Accessibility of the Municipal Dispensaries

Awareness of OPD Users	G.Med OPD n=604 %	G.Surg OPD n=403 %	P.Med OPD n=172 %	Gynaec OPD n=139 %	Total Users n=1318 %
Munc. Disp. near residense	57	50	70	44	55
Munc. Disp. used atleast once by self/family	56	24	43	19	41
Munc. Disp within walking distance	56	23	39	17	40

Note: Only valid respondents. Respondents include only Bombay-Thane residents

Table 17: Spending on Drugs (old patients)

Costs of Drugs (Rs)	Medicine OPD n = 189 (%)	Paed. Med OPD n = 69 (%)	Gen. Surg OPD n = 123 (%)	Gynaec OPD n = 39 (%)	Obst. OPD n=52 (%)	Total n= 472 (%)
Nil	40	51	37	33	39	40
< 50	29	20	24	18	23	25
51 - 100	7	12	19	15	17	13
101 - 500	20	15	16	28	19	18
>500	4	3	4	5	2	4

Note: Valid respondents were only 73% of total old cases.

Table 18: Cost of Investigations at Hospital (Old cases)

Expenditure on Investigations (Rs.)	Medicine n=156 %	Paed.Med OPD n=56 %	Surgery OPD n=115 %	Gynaec. OPD n=51 %	Obst. OPD n=46 %	Total OPD n=424 %
Nil	79	77	65	59	59	70
Upto 50	11	4	19	28	37	17
51 - 100	3	11	6	2	4	5
>100	8	9	10	12	—	8

Note: Only respondents included

Table 19: Waiting Time in OPDs

Time spent waiting at the OPD (hours)	Medicine OPD n=638 %	P. Med. OPD n=173 %	Surg. OPD n=404 %	Gynaec. OPD n=143 %	Obst. OPD n=83 %	Total n=1441 %
< ½	5	10	1	5	8	5
½ - 1	13	24	3	15	10	12
1 - 2	38	38	30	39	43	36
2 - 3	31	17	32	32	31	30
>3	13	11	33	11	7	18

Note: Only respondents included.

Table 20: Wages Lost Due to OPD Visits (New cases)

Wages lost (Patient and /or relative) (Rs.)	Medicine OPD n=196 %	P. Med. OPD n=28 %	Surgery OPD n=190 %	Gynaec. OPD n=26 %	Obst. OPD n=1 %	Total n=441 %
Nil	55	61	69	35	—	60
Upto 50	28	18	23	50	—	26
51 - 100	9	14	6	12	1	9
> 100	8	7	2	4	—	5

Note: Only respondents included.
Response rate 87%.

APPENDIX - B

Table 1: Public Teaching and General Hospitals in Bombay 1995

Hospital	Bedstrength		No. of Depart-ments	Daily Utilisation	
	Total	Maternity		OPD attendance	Inpatient admissions
I. Teaching Hospitals					
1. King Edward VII Memorial Hospital	1,800	232	28	5,132a	209a
2. Bai Yamunabai L Nair Hospital	1,071	93	25	743b	120b
3. Sion Hospital	1,404	193	14	1,492	234
4. Sir J J Hospital	1,377	133			
IIA. City General Hospitals - JJ Group					
1. Gokuldas Tejpal Hospital	521				
2. St. George Hospital	487				
IIB. Peripheral Hospitals - Major					
1. K B Bhabha Hospital, Bandra	436	72	17	2,396	94
2. Dr. R N Cooper Hospital, Juhu	520	90	17	1,326	79
3. Bhagwati Hospital, Borivali	365	60	14	541	58
4. Rajawadi Hospital, Ghatkopar	640	164	15	1,853	88
IIC. Peripheral Hospitals - Minor					
5. V N Desai Hospital, Santacruz	251	70	11	933	46
6. M W Desai Hospital, Malad	162	40	11	421	33
7. S K Patil Hospital, Malad	100	—	9	289	6
8. Centenary Hospital ,Kandivali	120	30	12	1,093	25
9. K B Bhabha Hospital, Kurla	356	60	12	1,125	31
10. MAA Hopsital, Chembur	74	10	9	891	10
11. Centenary Hospital, Govandi	192	30	12	836	35
12. Sant Muktabai ospital, Barvenagar	104	40	7	435	13
13. Municipal General Hospital, Mulund	100	30	11	551	12
14. M T Agarwal Hospital, Mulund	213	18	14	923	19

Note: a 1994 b 1996
Excluded- special hospitals and hospitals serving specific occupational groups in public sector.

Source : Medical Records Department, King Edward VII Memorial Hospital, Mumbai.
MCGB, Public Health Department, Performance Budget Estimate 1994-95, Part II.
Unpublished data. Office of the Director, Peripheral Hospitals, MCGB.

Table 2: Average Daily Attendance in OPDs - 1994

Basic specialities					Super specialities				
OPD	No. of Clinics per week	New	old	Total	OPD	No. of clinics per week	New	Old	Total
G.Medicine	6	219	115	334	Cardiology	2	110	253	363
Orthopaedic	6	121	140	261	Plastic Surgery	1	186	128	314
Opthalmology	6	83	161	244	Thoracic Surgery	4	17	74	91
G.Surgery	6	122	70	192	Neurosurgery	6	13	26	39
Skin	6	75	59	134	Nephrology	2	10	21	31
Gynaecology	6	49	34	83					
Obstetrics	6	21	54	75					
Paediatric Medicine	6	44	23	67*					

*Note: *1993 figures. Average attendance estimated from total recorded attendance in respective OPDs.*

Source: Medical Records Department, KEM Hospital, Mumbai.

Table 3 : Morbidity Profile of New Cases Seen in Municipal Dispensaries

Pattern of Morbidity	Greater 1984	Bombay 1989	F/s 1992	Ward 1994*
	1,319,724[1]	1.372,997[1]	119,254[1]	131,779[1]
	%	%	%	%
Infective and parasitic diseases	**33**	**26**	**22**	**110**
Diarrhoeal diseases	29	17	15	29**
Tuberculosis	1	4	1	1
Worm innfestation	2	3	2	3
Vaccine preventable diseases	<1	<1	1	2
Herpes	<1	<1	1	1
Mumps	<1	<1	<1	<1
Malaria	<1	<1	2	1
STDs	1	<1	<1	<1
Viral Hepatitis	—	—	—	—
Disorders of the resiratory tract	**16**	**14**	**22**	**26**
Upper Respiratory Tract	9	9	18	18
Common cold	6	5	13	11
Tonsilitis	1	2	2	1
Influenza	1	1	1	1
Pharyngitis	1	1	2	1
Lower Respiratory Tract	7	5	4	8
Bronchitis	7	4	3	6
Bronchopneumonia	1	<1	<1	2
Pneumonia	<1	<1	<1	<1
Unspecified fevers	**9**	**11**	**16**	**12**
Nutritional disorders	**5**	**7**	**10**	**12**
Injuries and accidents	**2**	**6**	**12**	**12**
Disorders of ENT	**2**	**5**	**11**	**19**
Diseases of skin	**3**	**5**	**19**	**23**
Scabies	1	4	12	12
RingWorm	2	1	4	6
Minor surgical conditions and njuries	**7**	**4**	**0<**	**1**
Disorders of Gastro Intestinal Tract	**3**	**2**	**2**	**2**
Dyspepsia	2	1	1	1
Ulcers	1	1	0	0
Piles	<1	<1	<1	<1
Fistula in anus	<1	<1	<1	<1
Disordes of the circulatory system	1	1	1	2
Disorders of the nervous system	1	1	1	<1
Urinary tract infections	<1	<1	<1	<1
Opthalmic conditions	2	<1	3	6
ANC \ PNC	<1	<1	4	1
Other conditions	4	2	1	1
Other causes	12	14	2	4

Note: 1 Total new cases.

Published data for all dispensaries in Greater Bombay (Bruhanmumbai) is available only upto 1989. More recent data is available with the public health department of each ward; hence the difference in the years.

The above morbidity data from dispensaries has been re-classified according to the distribution of diseases based on physiological systems (as in the WHO ICD). The format currently used by the Public Health Department for recording the morbidity data is at least 20 years old.

Secondly, by restricting such rcords to only new cases, the dispensary morbidity data is largely symptoms based. As such 'diarrhoea and dysentry', 'fevers', 'common cold', 'injuries and accidents' are the four highest ranking conditions for which dispensary treatment is sought (accounting for 38% of all conditions in 1989).

* Data for 8 out of 9 dispensaries.

** A single dispensary has reported 20,000 new cases of dysentry which has doubled the share of diarrhoeal diseases in new cases reporting to dispensaries in F/s ward in 1994. The range for the other 7 dispensaries was 4,000 to 6, 000 cases. The above data is not tenable as it means that 6-7 new patients would be seeking treatment only for dysentry, which is not borne out by the daily utilisation data.

Source: MCGB, Public Health Dept. Annual Report of the Executive Health Officer, 1984 &1989, Table 56.
F/s ward, Public Health Department.

Table 4: Health Services Infrastructure in Greater Bombay 1995

Sector	City Zone		Western Suburbs				Eastern Suburbs				Greater Bombay	
			Suburbs		Extended		Suburbs		Extended			
	No	Beds	No	Beds	No	Beds	No	Beds	No	Beds	No	Beds
PUBLIC												
Municipal Corpration of Greater Bombay (MCGB)												
Teaching Hospitals	4	4,305	-	-	-	-	-	-	-	-	4	4,305
Infectious Diseases and other Special Hospital	5	2,160	-	-	-	-	-	-	-	-	5	2,160
General Hospitals	-	-	3	1,207	4	747	5	1,366	2	413	14	3,733
Maternity Homes	8	317	6	248	4	136	4	92	3	162	25	993
Special Clinics											7+	
Dispensaries											159	
Ordinary	38		15		17		15		8		93	
Upgraded	34		15		5		9		3		66	
Dental clinics	4										4	
Health Posts	51		35		36		38		16		176	
Government of Maharashtra												
Teaching Hospitals	1	1,352	-	-	-	-	-		-	-	1	1,341
Special./General Hospitals	6	1,715	1	-	30	-	-	-	-	-	7	1,833
ESIS Hospitals	2	1,150	1	400	1	400	-	1	-	500	5	2,450
ESIS Dispensaries											14 **	
Central Govt./ Public Sector Undertakings												
Hospitals	5	2,033	-	-	-	-	4	299	-	-	9	2,011
CGHS Dispensaries											36*	
Total Public	-	13,032	-	1,885	-	1,283	-	1,757	-	1,075	-	19,147
PRIVATE (1994)												
Hospitals/ Nursing Homes	307	7,725	234	3,676	273	3,114	170	2,683	81	1,109	1,065	18,307
Grand Total		20,832	-	5,561	-	4,397	-	4,440	-	2.184	-	37,454
Bed : Population Ratio		1:152	-	1:367	-	1:434	-	1:418	-	1:434		1:265

Note: Approximate figures for bed capacity as data varies according to sources.
City zone - includes the area from Colaba in the south upto Mahim in the West and Son in the east (Municipal wards A to G).
Western Suburbs - are the neighbourhoos noth of Mahim. The suburbs stretch from Bandra to Andheri (wards H and K) and the extended suburbs as from Jogeshwari to Borivali (Wards P&R).
Eastern Suburbs - lie north of Sion. The suburbs include the localities from Kurla to Vikhroli (Wards L,M) and Chembur (Ward M), and the extended eastern suburbs refer to Bhandup and Mulund (Wards S and T).

*Zone-wise distribution not available (two new maternity homes established in 1996).
+Includes TB, STD & Leprosy clinics.
**Additionally 1,550 Insurance Medical Practitioners (IMPs) are `available' for 95,877 families.

Source: MCGB/Govt. of Maharashtra, Respective Medical Colleges.
MCGB, Public Health Dept. Performance Budget 1994-95
MCGB, Director Peripheral Hospitals.
MCGB, Public Health Dept., Civic Health Bulletin 1992-93.
MCGB, Public Health Dept.., List of Dispensaries, Health Posts, Private Hospitals.
Govt. of Maharashtra, Public Health Dept., Performance Budget 1993-94, pp.34,36.
GOI, CBHI, Health Information of India 1994, Table 13.01.

Table 5: Bombay Municipal Corporation- Revenue Expenditure on Public Health 1988-89 to 1994-95

(Rs. in thousands)

Heads of Expenditure	Actuals						Revised Estimates
	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
I Public Health	130,740 (13.08)	151,293 (13.57)	172,666 (12.88)	199,938 (12.86)	244,106 (12.21)	269,898 (12.13)	320,110 (12.64)
II Medical Relief & Education	862,185 (86.26)	956,689 (85.85)	1,160,520 (86.58)	1,345,904 (86.60)	1,744,931 (87.30)	1,939,574 (87.22)	2,198,230 (86.81)
a) Hospitals	579,625 (57.99)	643,505 (57.75)	778,208 (58.06)	906,130 (58.31)	1,193,398 (59.71)	1,285,863 (57.82)	1,450,600 (57.28)
b) Medical Education	77,673 (7.77)	89,645 (8.96)	122,394 (9.13)	126,260 (8.12)	149,346 (7.47)	160,738 (7.22)	176,350 (6.96)
c) Maternity Homes & Child Wel. (incl. FW)	48,399 (4.84)	57,981 (5.80)	84,628 (6.31)	119,426 (7.69)	163,534 (8.18)	208,785 (9.38)	245,630 (9.70)
d) Dispensaries	33,170 (3.31)	36,327 (3.63)	41409 (3.09)	48,867 (3.15)	63,136 (3.16)	67,236 (3.02)	75,720 (2.99)
e) Others*	1,23,319 (12.33)	1,29,231 (11.59)	1,33,881 (9.99)	1,45,221 (9.35)	1,75,517 (8.78)	2,26,953 (10.21)	2,26,953 (9.87)
III Environment Air Pollution Control	6,549 (0.64)	6,369 (0.57)	7,103 (0.53)	8,162 (0.53)	9,596 (0.48)	14,227 (0.63)	13,729 (0.54)
Total (I+II+III)	999,474	1,114,351	1,340,289	1,554,004	1,998,633	2,223,699	2,532,069

Note: Include the expenditure on leprosy clinic, grant-in-aid and statutory contributions to government public institutions and public institutions and debt charges.

Source: 1) Municipal Corporation of Greater Bombay, Out Line of Civic Finance 1994-95, Mumbai, December 1994.
2) Municipal Corporation of Greater Bombay, Budget Estimates A 1995-96 , Mumbai, January 1995, pp. 90-93.

APPENDIX - C

HOSPITAL BASED URBAN HEALTH SERVICES IN BOMBAY.
USERS STUDY
STUDY OF THE OUTPATIENTS AT THE K.E.M. HOSPITAL.

Round Number ☐ Schedule Number ☐☐☐☐

OPD _____

Respondent: Self ☐ Other(Specify) _____

1. Socio-Economic Information about Patient and his/her household

Information about the Patient			HH Size	Information about the Other Earners of the Household			
Name		Education		Relation with patient	Education	Occupation	Income
Address		Occupation	E NE				
Age	Sex M / F	Income	T				

2A. Information about the Current Episode of Illness

Old Case		Duration
New Case		
Visit Number	Reason : For check-up for visit • To collect reports of investigations • To show the reports to the doctor • Follow up •	Whether K.E.M. is the 1st facility approached Yes No

2B. Prior Help-seeking

Facility used Cost of treatment	Order Time Gap	Duration	Nature of Treatment	Reason for change of treatment
No Treatment				
Self Medication				
Religious Practices				
Pharmacist				
Private General				
Practitioner				
Private Specialist				
Private Hospital/				
Nursing Home				
Municipal				
Dispensary				
Mun. Sec. Hosp./				
Govt. General Hosp				
SEIS /CGHS				
Any Other				
KEM				

3. Reasons for choosing K.E.M. Hospital

Referred by Gen. Practitioners ☐	Referred by Mun. Disp. ☐	Referred by DGHS/SEIS ☐	Referred by Mun. Sec. Hosp. ☐	No Relief from earlier treatment ☐	Got fed up with earlier treatment ☐
Earlier doctor unsatisfactory ☐	New staff member at KEMH ☐	Satisfactory Rx in the past ☐	Inexpensive ☐	Near place of of residence ☐	Suggested by friends/relatives ☐
Suspected by ☐	No other reason ☐	No other reason (specify) ☐			

.4. Costs incurred at KEM till now

Item	Cost (Rs.)
Drug	
Material	
Investigation	
Travel (To& Fro, for patient and accopanying person/s)	
Admission charges	
Tips	
Surgery	
Wages lost (Pt. & accompanying person/s)	
Any other	
Total	

5. Knowledge about and accessibility to Municipal Dispensaries

Municipal Dispensary near residense ? Yes _____ No _____
Location /Address of the Dispensary
Time taken to reach it
Has it been used (for self or others)? Yes _____ No _____
Other Information _____

6. Waiting time at KEMH

To see the doctor
For investigation/s
For drugs
Other

Name of the investigator _____ Date of iterview _____

7A. Clinical Notes (General Medicine, General Surgery, Paediatric Medicine OPDs

7B. Gynaecology OPD Clinical notes:

1. History CC Age S.M.W. O.P.D. 2. Past History 3. Menstrual History F.M.P. Pa.M.C. Pr.M.C. L.M.P. 4. Marital History Sterility Dysparcunia Sexual frgidity Use of contraceptives 5. Obsteric History F.T.N.D. Total number of confinements Abortions Abnormal F.T.D. Puerperal infection Premature labours Date and nature L.D. 6. Previous Operation	7. Vaginal Discharge 8. Bowels Micturation 9. Clinical Findings P.A. P.V. - Ga. Ut. Fa. P.S. P.R. 10. Other Systems 11. Investigations Vaginal Smear Blood K.T Cervical Smear Blood Sound Endometerial Biopsy Urine Rubin's Test Seminal Fluid A.Z. Test Hysteriosalpingograph B.S.R. Cystoscopy findings 12. Follow up

7C. Obstetric OPD Clinical Notes

Information regarding previous pregnancies

		1	2	3	4	5	6
FTND	(Yes /No)						
Place of delivery Home	Attended by- Relative/ Neighbour Trained Dai Doctor						
Maternity home/ Hospital	Private Public						
Immunisation (2 TT)							

Chart as per Obstetrics OPD case paper

Date	Weight	B.P.	Urine	Fundal Ht	Abd. Girth	Presentation position and condition of P.P.	Ant-shoulder	F.H.S.	Pallor	Oedema	Hb%	Systems and complaints	Advice and summary of treatment

BIBLIOGRAPHY

Banerji D. (1984), 'Social Sciences Issues in Hospital Administration', *The Indian Journal of Social Work,* Special Issue, XLV (1), April: 7-12.

Baru, Rama V. (1994), 'Structure and Utilisation of Health Services: An inter-state analysis', *Social Scientist* 256 - 259: 98-111.

Bhat, R. (1993), 'The Private Health Care Sector in India' in Berman, P. & M.E. Khan (eds), *Paying for India's Health Care,* SAGE Publications, New Delhi.

Bhatnagar, Shakuntala (1989), Health Services Development in Urban Areas, *Health and Population* ,12 (1-4): 71 -93.

Centre for Research and Development (1994), *Socio-Economic Review of Greater Bombay* (1993-94), CRD, Bombay.

Crook, N., Radhika Ramasubban and B. Singh (1989), 'A multi-dimensional approach to the Social analysis of the health transition in Bombay, in Clelland, J. & A.G. Hill (Ed), *The Health Transition: Method and Measures,* Australian National University, Canberra.

Desphande Sudha and L Desphande (1991), *Problems of Urbanisation and Growth of Large Cities in Developing Countries. A Case study of Bombay,* . International Labour Organisation, Geneva.

Duggal, R. and Sucheta Amin (1989), *Cost of Health Care - A household survey in an Indian district,* Foundation for Research in Community Health, Bombay.

Duggal, R. and S. Nandraj (1991), 'Regulating the Private Health Sector', *Medico Friend Circle Bulletin,* July-August: 5-7.

Duggal, R. and S. Nandraj (1994), 'Health Finances of the Bombay Municipal Corporation', Paper presented at a Seminar on `*Improving Public Hospitals in Bombay'*. Bombay, June 26,

EPW Research foundation (1994), 'Special Statistics-7: Social Indicators of Development for India-I', *Economic and Political Weekly,* May 14: 1227-1240.

EPW Research foundation (1994), 'Special Statistics-8: Social Indicators of Development for India-II : Inter state disparities. *Economic and Political Weekly*, May 21: 1300-1309.

Geetha, S. and Madhura Swaminathan (1996) 'Nutritional Status of Slum Children of Mumbai: A Socio-Economic Survey', *Economic & Political Weekly*, April 6: 896 - 900.

George, A. (1991), 'Earnings in Private General Practice: An exploratory study in Bombay', *Medico Friend Circle Bulletin*, July-August: 12-14.

George A. et al. (1994), *A study of Household Health Expenditure in Madhya Pradesh,* Foundation for Research in Community Health, Bombay.

Gokhale, Sharwaree (1996) 'Public Health Care - A Cat's Cradle'. Paper presented at the Seminar on

Government of India, MOHFW (1982) *Report of the Working Group on Reorganisation of Family Welfare and Primary Health Care Services in Urban Areas* (Krishnan Committee Report), New Delhi.

Government of India, National Sample Survey Organisation (1992), Morbidity and Utilisation of Medical Services : NSS forty second round (July 1986-June 1987), *Sarvekshana,* . 51st issue 15(4), April-June.

Government of India, Planning Commission (1985), *Seventh Five Year Plan 1985-90,* Vol II. New Delhi.

Government of India, Planning Commission (1992), *Eighth Five Year Plan 1992-1997,* Vol.

Gupta, J.P. (1993) 'Referral Services in Urban Health Care Delivery System'. In Umashankar, P.K. & G.K. Misra (eds), *Urban Health System,* Reliance Publishing House, New Delhi.

Gupta, S.P. (1995), 'Economic Reform and its Impact on the Poor', *Economic and Political Weekly,* June 3: 1295-1313.

Jesani, A. (1991) 'Size of Private Sector in Health Care Delivery System in India', *Medico Friend Circle Bulletin* ,173-174 (July/August): 7 -11.

Jesani, A. & Saraswathy Ananthram (1993) *Private Sector and Privatisation in the Health Care Services,* FRCH, Bombay.

Kannan, K. P. et al. (1991), *Health and Development in Rural Kerala,* Kerala Sastra Sahitya Parishad, Thiruvananthapuram.

Lwanga, S.K and S. Lemeshow (1991), *Sample Size Determination in Health Studies - A Practical Manual,* WHO, Geneva.

Medico Friend Circle (1994), *Improving Public Hospitals in Bombay,* MFC, Bombay.

Municipal Corporation of Greater Bombay (1990), *Microplanning for Health Posts,* Report of the Workshop conducted at F/S Municipal ward office, Parel, July 23-24, Bombay.

Municipal Corporation of Greater Bombay (1994), *Outline of Civic Finance 1994-95* . MCGB, Bombay.

Municipal Corporation of Greater Bombay (1995), *Budget Estimates 'A' for 1995-96*. MCGB, Bombay.

Municipal Corporation of Greater Bombay, Public Health Department (1980), *Annual Report of the Executive Health Officer for the year 1978* , MCGB, Mumbai.

Municipal Corporation of Greater Bombay, Public Health Department (1987), *Annual Report of the Executive Health Officer for the year 1984* , MCGB, Mumbai.

Municipal Corporation of Greater Bombay, Public Health Department (1990), *Civic Health Bulletin of MCGB for 1990* , MCGB, Mumbai.

Municipal Corporation of Greater Bombay, Public Health Department (1991), *Civic Health Bulletin of MCGB for 1991* , MCGB, Mumbai.

Municipal Corporation of Greater Bombay, Public Health Department (1992), *Civic Health Bulletin of MCGB for 1992-93* , MCGB, Mumbai.

National Council of Applied Economic Research (1992), *Household Survey of Medical Care,* NCAER, New Delhi.

National Institute of Urban Affaires (1988), Dimensions of Urban Poverty. A situational analysis. NIUA, New Delhi.

Nandraj, S. (1994), 'Beyond the Law and the Lord: Quality of Private Health Care', *Economic and Political Weekly,* July 2: 1680-1685.

Quadeer, Imrana et al (1994), 'Contextualising plague:a reconstruction and an analysis', Economic and Political Weekly, November 19.

Phadke, A. (1994), *The Private Health Sector in India,* The Foundation for Research in Community Health, Bombay.

Public Interest Research Group (1994), *Alternative Economic Survey 1993-94,* PIRG, New Delhi.
Public Interest Research Group (1995) *The State of India's Economy 1994-95.* PIRG, New Delhi.

Ramasubban, Radhika & N. Crook (1992), 'Political Economy of Health in the City of Bombay'. In Patel, Sujata and Alice Thorner (eds), *Bombay: Metaphor for Modern India,* Oxford University Press, Bombay.

Rangan, Sheela (1995), 'User Perspective in Urban Tuberculosis control' in Chakroborty, A.K. et al (Ed). *Urban Tuberculosis Control : Problems and Prospects'.* Foundation for Research in Community Health, Bombay.

Rodgers, G. (Ed) (1989), *Urban Poverty and the Labour Market,* International Labour Organisation, Geneva.

Sengupta, C. (1991), *Urban Poor and Environmental Management in India. A Case of Bombay,* Tata Institute of Social Sciences, Bombay.

Swaminathan Madhura (1995), 'Aspects of Urban Poverty in Bombay', *Environment and Urbanisation, (7) 1: 133-134.*

Uplekar, M.W. (1995), *Tuberculosis Patients and Practitioners in Private Clinics,* Foundation for Research in Community Health, Bombay.

Yesudian, C.A.K (1988), *Utilisation of Health Services by the Urban Poor, A study of the Naigaum Maternity Home Health Post Area.* Tata Institute of Social Sciences, Bombay.

Yesudian, C.A.K. & S. Parasuraman (1990), *Baseline Survey for India Population Project -V, Tata Institute of Social Sciences,* Bombay.

Yesudian, C.A.K. (1990), 'A Study on Health Services Utilisation and Expenditure'. Paper presented at the Seminar on *Organising and Financing Health Care Services for the Middle Income Group in Bombay,* January 15-16 1990, Hinduja National Hospital, Bombay.

Yesudian, C.A.K. (1991), *Urban Health Services Issues and Challenges - A Case Study of Bombay,* Tata Institute of Social Sciences, Bombay.

Yesudian, C.A.K. (1995), *Nature of Private Sector Health Services in Bombay.* Tata Institute of Social Sciences, Bombay.

Yesudian, C.A.K & S. Parsuraman (1990), *Baseline Survey for India Population Project-V,* Tata Institute of Social Sciences, Bombay.

Health Resources, Investment and Expenditure. A Study of Health Providers in a District in India
Shirish N. Kavadi (Ed.), 1999, Rs.130.00, US$13.00, £9.00

Tackling TB: The Search for Solutions
Mukund Uplekar, Sheela Rangan, 1999 (1st Reprint), Rs.100.00, US$6.75, £5.00

Swayam Siddha - Series of 4 Manuals for ANMs (Marathi)
Seema Deodhar, G.S. Pandit, Devendra Dalal, 1998, Rs.550.00, US$39.00, £28.00

Tuberculosis Patients & Practitioners in Private Clinics
M.W. Uplekar, S.K. Juvekar, S.N. Morankar, 1998, (1st Reprint) Rs.20.00, US$2.00, £1.00

Health Care in India : A Profile
Devraj Chauhan, N.H. Antia, Sangita Kamdar, 1997, Rs.300.00, US$20.00, £15.00

Household Health Expenditure in Two States: A Comparative Study of Districts in Maharashatra and Madhya Pradesh (2nd Rev Ed.)
Alex George (Ed.),1997, Rs.250.00, US$17.00, £14.00

NGOs in Rural Health Care
Amar Jesani, Manisha Gupte, Ravi Duggal (2nd Rev. Ed.), 1996, (2nd Rev.ED.) Rs.110.00, US$7.50, £11.00

Panchayati Raj: Information Resource Book
FRCH Collective, 1996, Rs.200.00, US$13.50, £10.00

Doctors Manual Part I: Clinical ; Part II Managerial
Dr. Mukund Uplekar, Dr. Lalitha D'Souza, Dr. N S Deodhar, Dr. M.P.Dandare, 1996, Rs.500.00, US$33.50, £25.00

Health Research Studies in India: A Review and Annotated Bibliography (2nd Ed.)
FRCH Collective, 1996, Rs.225.00, US$15.00, £11.25

Study of Supply and Use of Pharmaceuticals in Satara District
Anant Phadke, Audrey Fernandes, Sharda Lakkharaju, Amar Jesani, 1995, Rs.125.00, US$8.50, £6.25

Urban Tuberculosis Control: Problems and Prospects
A.K.Chakraborty, Sheela Rangan, Mukund Uplekar, 1995 (Eds.), Rs.75.00, US$5.00, £3.75

Women in Health Care - Auxiliary Nurse Midwives
Aditi Iyer, Amar Jesani with Audrey Fernandes, Seema Hirani, Sandeep Khanwilkar, 1995, Rs.130.00, US$8.60, £13.00

Strengthening Health Education Services: An Action Research Study
Ramesh Awasthi, Manisha Gupte, Rupashri Sinha, S.N. Morankar, Sushma Sonak, Sarita Pungaliya, 1994, Rs.100.00, US$6.25, £5

Ralegan Siddhi: A Model for Village Development
Ramesh Awasthi, D.K. Panmand, 1994, Rs.75.00, US$5, £3.75 (Soft Cover)
Rs.100.00, US$6.25, £5 (Hard Cover)

The Private Medical Sector in India
Anant Phadke, 1994, Rs.50.00, US$4.00, £3.00

Peoples Health in Peoples Hands: A Model for Panchayati Raj
N. H. Antia, Kavita Bhatia, 1993, Rs.100.00, US$6.75, £5 (Soft Cover)
Rs.200.00, US$13.50, £10 (Hard Cover)

Javoo Arogyacha Gava (Marathi)
Dr.Mohan Deshpande, Vaishali Vaidya, Vasudha Ambiye, 1993, Rs.100.00, US$7.00, £5

Some Issues in Community Participation in Health Care Services
Amar Jesani, Shilpi Ganguly, 1993, Rs.25.00, US$1.75, £1.25

Employee Medical Benefits in the Corporate Sector
Ravi Duggal, 1993, Rs.40.00, US$2.75, £2.00

State Sector Health Expenditure: A Database - all India
Ravi Duggal, Sunil Nandraj, Sahana Shetty, 1992, Rs.250.00, US$13.75, £12.50

Cost of Health Care
Ravi Duggal, Suchetha Amin, 1988, Rs.55.00, US$3.75, £2.75

Social Aspects of Leprosy
Ravi Duggal, Amar Jesani, Manisha Gupte, 1988, Rs.25.00, US$1.75, £1.25

ABOUT THIS BOOK

Until the mid-80s health care services for the urban areas were not seen as a major issue. The urban population was considered highly priviledged in its access to a vast supply of medical and hospital services. However, concern has been expressed whether these services meet the needs of the urban poor and lower income groups experiencing declining conditions of public health and growing inequalities in living standards. The health care services are the inevitable recourse of the poor and lower income groups as they cope with a complex pattern of ill healh and premature death.

The public health care system reaches the underpriviledged sections largely through its hospital services. The current study focuses on the day-to-day health problems seen in some of the most heavily utilised out-patient departments (OPDs) of the metropolitan tertiary public hosital. It documents the socio-economic background of the people that crowd these OPDs, their help-seeking behavior and utilisation of the primary health care services. It explores the nature of health needs and problems for which people seek hospital OPD care and assesses the level of care that these problems require.

The study argues the hospital services need to be integrated within properly functioning referral system: Hospitals would be the referral and technical back-up to comprehensive primary health services providing the whole range of basic curative, preventive and promotive care.

ISBN 81-87078-20-0