AN APPRAISAL OF HEALTH CARE IN SLUMS OF BOMBAY

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Socio-economic status, mortality data, health attitudes, felt needs and utilisation of health services were studied in 1,313 slum households from a population of 7,109. Poor health status, deficient health attitudes and knowledge, and the poor utilisation of public sector health services, were some of the findings. Poverty, unfavourable environment, poor sanitation and a curative health system, are the factors contributing to the unhealthy conditions in slums. An integrated health system, with community participation, is the alternate solution to meet the basic health needs of the urban poor.

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From seven tiny islands inhabited by fishermen, Bombay has grown into a large metropolis of national and international importance. With a population of less than a million in 1901, today it has a population of more than 8 million. (8.2 million 1981 Census). It is predicted that its population will be 15 million by the turn of the century. With this tremendous increase in population, the resources of the city have been stretched to its limits. Living conditions are appalling, especially in the slums where more than half the population lives.

What then of the health care in this congested and crowded city? Bombay can boast of the latest medical technology, and is also saturated with medical facilities. Yet, a sensitive index like infant mortality is as high as 74. Tuberculosis, hepatitis, polio, measles, gastroenteritis, are still contributing to high morbidity and mortality. The poor health status does not stem from the lack of medical facilities which abound in the city, both in the private government sectors. Under-utilisation of services, unhygienic housing and environment, ignorance and harmful habits, poverty, and a predominance of curative health care, all contribute to the poor health picture in the city, especially in the slums. The present health system belongs to an urban, elite oriented, top down system of medicine which is as ineffective as it is expensive. A comprehensive health care system, which meets all the needs of the poor, is now being advocated. Primary health care, with its long lasting benefits to the community, has received world wide recognition. It envisages a health package of services with grassroots level health workers.

In 1979, the Holy Family Hospital started a Community Health project for slums in its vicinity. The broad based objective was to provide integrated health care to the poor. Grassroot level health workers were to be involved in delivering primary health care. The present study was undertaken to ascertain the various factors which affect the health care of the slum dwellers in the project area. There is a paucity of recent data regarding the health status in the slums of Bombay. No policy or system is going to work unless, the population for whom the systems is made, is studied carefully. Based on this study, a more effective health system for slums in the project was to be carried out. A pilot project was thus launched for health care to the urban poor in the slums.

The study included 1,313 slum households from a population of 7,109 people. A survey was conducted using a pretested modified interview schedule during the period 1979-1980. The information was obtained by social workers and trained health workers. Household visits were made for the collection, of the data. Information was collected regarding the socio-economic status, literacy levels, people's felt needs, health attitudes, the health services utilised, and mortality and morbidity. The target population lived in the slums of Bandra West, Bandra East and the adjoining suburbs. In Bandra West, slums exist in pockets of 50 to 150 families. In Bandra East, most of the slums stretch along the Western Express Highway and the railway tracks. A large section of the slum dwellers have been residents in the slums for long periods of 10 years and more. However, there is a certain amount of continuous turnover in the slum population. Most of the slums have been provided with basic amenities of community taps, lavatories, paved pathways and an open drainage system. Health services are easily available to all these slums from the municipal dispensaries, hospitals and private physicians.

Urban socio-economic relationships are both more varied and complicated than in the rural areas. The socio-economic profile of a population affects its life style and attitudes towards health and disease. Some of these factors include religion, income and education. A study of these factors can be seen in Tables 1, 2, 3. This slum population of 7,109 comprises various religions: 55 per cent being Hindus, 21 per cent Neo-Buddhist, 15 per cent Christian, 4 per cent Muslim and 5 per cent constituting other group (Table 1). The cosmopolitan nature of the slum population of Bombay is thus evident. Hindus, however, still constitute the majority. Religious beliefs and practices affect health attitudes, and this has special relevance in health education and modification of behaviour. The average family size was 5.4 which contributes to the overcrowding in slums.

Regarding income, as shown in Table 2, 57 per cent had an income between Rs. 200/- and Rs. 500/- per month, 16 per cent had an income of more than Rs. 500/- per month and 27 per cent had an income of less than Rs. 200/- per month. The slum census of Greater Bombay in 1975 also showed that 79 per cent of slum families have incomes below Rs. 600/- per month and are in the low income group. Poverty, resulting in under-nutrition, poor housing and environment, has definite implications for health. Others (Naidu, 1978:298-312; Muttagi, 1980: 147-156; Ashok Kumar 1983: 1-7) have shown the poor socio-economic status of slum dwellers. Thirty-nine per cent of the mothers were working mostly as domestic servants, either part-time or full-time. On the one hand, employment of women improves the socio-economic status as well as the health of the families. However, the substitute care that is provided to the children will also reflect on child health. In order to be effective, health education will have to take into account those providing mother substitute health care.

Literacy was studied in Bandra West in a population of 2,855 where an education programme was to be started. Of the 2,320 persons above the age of 5 years, 1,598 were adults and 722 were children (Table 3). Overall literacy level was 70 per cent. Sixty-seven per cent of adults and 73 per cent of children between 5 to 10 years and 78 per cent of children between 10 to 15 years were literate. Fifty-eight per cent of the women were literate. Literacy for urban areas in India (Ministry of Home Affairs, 1979:7) is reported as 68 per cent. These slums in Bandra show a very high level of literacy. One of the factors may be that they are well located and in the proximity of several schools. Though the level of literacy was high, there was a large number of

dropouts with hardly 10 per cent finishing school. These dropouts from school, though literate, may still lack education, especially education relevant to health.

In relation to felt needs, the people listed problems like lack of water and sanitation (25 per cent) unhealthy environment (29 per cent) and inadequate housing (23 per cent). Only 7 per cent mentioned poor medical facilities. Despite being provided with basic amenities according to Government regulations, the slum dwellers in this study, felt the need for better water supply and sanitation. The felt needs of the people are always important while planning for their welfare. They too see the obvious advantage of good living conditions which would also lead to better health. Planning for health must take into account the provision of basic services of water supply, sanitation, and garbage disposal which are all related to the maintenance of good health. Another factor, to be taken into account in considering the felt needs, is that some of the slum dwellers were unaware of their problems and this has to be taken into account, too, in health education.

Medical treatment was primarily taken from private doctors (56 per cent) municipal dispensaries 37 per cent and charitable clinics 2 per cent. Despite the availability of low cost health services from the dispensaries of the Bombay Municipal Corporation as well as a hospital in the vicinity, the people preferred private medical care. Compared to the rest of the State, the city spends an enormous amount on health. It is reported (Bhang, Patel, 1983:10) that the three main cities of Bombay, Nagpur and Pune consume 80 per cent of the annual health expenditure of the state. Most of this goes into medical education and curative care services which are under-utilised by the urban poor. Urban communities living in slums have been found (Yesudian, 1981: 381-392) to have a poor utilisation of services. Apathy of staff, long waiting periods, shortage of drugs and the lack of knowledge, are some of the reasons for the under-utilisation of public sector services.

Mortality data were collected for the previous 3 years (Table 4, 5). Death rate was found to be 9.3/1000 population per year. This rate is lower than that reported for the city (Annual vital statistics of Maharashtra, 1979) which was 10.3. This may be due to medical facilities, both in the private and public sector, available in the vicinity of the slums under study. However, looking at the age distribution, death under five years constituted 60 per cent of the total deaths. Neonatal deaths were 13 per cent of all deaths and still-births were 9 per cent of the deaths. Infant mortality was as high as 130 per thousand live births. Preventable causes of death included diarrhoea (16 per cent), jaundice (5 per cent), accidents (5 per cent), tuberculosis and chronic cough (16 per cent). Preventable causes of death were more than 60 per cent of deaths. Despite all the medical facilities available, the health status in these slums is very poor. In fact, in the private sector, Bombay has a ratio of one doctor for 700 population which is comparable to the Western countries.

Assessing the immunisation status, the coverage was good for smallpox and BCG with 80 per cent of 782 under five having been covered with these immunisations (Table 6). However, triple and polio vaccine use was deficient i.e. only 35 per cent of the children had primary immunisation and 13 per cent had secondary immunisation. Immunisation status of children was inadequate, in spite of these being well located slums in the proximity of municipal general hospitals and dispensaries with immunisation facilities free of cost. Poor health status, inadequate immunisation coverage and a high incidence of infectious diseases have also

been the findings of others (Desai and Pillai, 1972; Chansoria, Taluja *et al.* 1975: 879-888).

Attitudes to family planning and infant feeding were also studied. Thirty-seven per cent of the families were practising some method of family planning. Most of these were families with 3 or more children. Sterilisation of mothers was the most common method of family planning (90 per cent). A random sample of 100 children was studied for practises regarding breast feeding and introduction of solids in the diets of infants.

In the first 6 months of life, breast feeding was almost universally practised, that is, 92 per cent breast fed. By one year, 64 per cent of children were still being breast fed. However, 30 per cent of children were bottle fed at some time or the other, mostly as supplementary feeds, while others used cup and spoon. So, though breast feeding is still being practised, there is evidence of penetration of non-human milk and bottle feeding in the diet of infants. This may be related to mass audio visual media propaganda of these baby foods and milk bottles in urban areas, or due to inadequate supply of the milk of the mother. Sixty-nine per cent of the children had solid food added to their diet only after one year, and barely 8 per cent started on solids by six months. Similar findings were also obtained in another study (Bapat, 1982: 19-20) regarding breast feeding and supplementary foods in a study in the slums of Pune.

Women were found to be lacking in knowledge regarding the causes and spread of diseases, nutritional practices and the hazards of environment to health. Eighty per cent of the women were ignorant as to the cause of diarrhoea and scabies. Myths and beliefs were also prevalent. Worms were most commonly thought to be caused by eating sweets. Colds were said to be due to eating banana, citrus fruits or cold foods like ice cream and curds. Many foods like eggs, papaya, and jaggery were believed to be heat producing and were avoided during pregnancy and the summer. Expensive foods were claimed to be nutritious foods. Red coloured foods like beetroots were said to increase blood formation. Health awareness was thus found to be significantly lacking in the mothers.

Literacy in women has been associated with better health. The State of Kerala boasts of high literacy in women, 54 per cent, and also of low infant mortality, 55 per thousand live births. In this study, child health is poor in spite of the higher number of literate women. This may be due to lack of health-relevant education in the school curriculum as well as from the mass media and health care personnel.

Poverty alone is not the root cause of poor health in slums. Deficient health-relevant education, poor living conditions in slums together with a curative oriented health system, all contribute to the poor health status. Substantial improvement in health care is a long term task and would involve improving the economic status and environmental sanitation together with a wider dissemination of health awareness and knowledge. Health education, especially with respect to hygiene, prevention of illness, nutrition, child care and family planning, can very successfully pave the way for better care. This has been universally accepted (Kenneth, 1975—WHO; Ghosh, 1983: 235-242). The present curative and hospital based system has been found to be incompatible with the concept of "Health for AU" in both the rural and urban areas (Indian Council of Social Sciences Research and the Indian Council of Medical

Research, 1980). Community based health centres have to be established, and community involvement, together with grassroots level health workers must be ensured. In an urban slum situation, the effectiveness of such a system has been documented (Tragler, 1984). In planning for health care in urban areas, an integrated health system, that is geared to meet the basic health needs of the urban poor, is essential.

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Table 1

SAMPLE SIZE, FAMILY SIZE, RELIGION

Location	Families	Population	Average Family Size	Hindu	Buddhist	Muslim	Christian	Others
Bandra East	420	2300	5.47	189 (45)	147 (35)	29 (7)	29 (7)	26 (6)
Bandra West	518	2855	5.51	203 (39)	130 (25)	24 (5)	145 (28)	16 (3)
Extended suburbs	375	1954	5.20	330 (88)	– –	4 (1)	19 (5)	22 (6)
TOTAL	1313	7109	5.4	722 (55)	277 (21)	57 (4)	193 (15)	64 (5)

Figures given in parentheses are percentages.

Table 2

INCOME, WORKING MOTHERS

Location	Families	Rs. 200/-	Rs. 200-500/-	Rs. 500/-	Working Mothers
Bandra East	420	148 (35)	161 (38)	111 (27)	160 (38)
Bandra West	518	155 (29)	305 (59)	58 (12)	343 (66)
Extended Suburbs	375	56 (15)	281 (75)	38 (10)	10 (3)
TOTAL	1313	359 (27)	747 (57)	207 (16)	513 (39)

Figures given in parentheses are percentages.

Table 3

LITERACY AGE AND SEX

	ILLITERATE					LITERATE		
AGE	MALE	FEMALE	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
5-10 years (342)	191 (55.84)	151 (44.16)	45 (23.56)	48 (31.79)	93 (27.19)	146 (76.43)	103 (68.21)	249 (72.80)
10-16 years (380)	181 (47.63)	199 (52.36)	33 (18.23)	52 (26.33)	85 (22.36)	148 (81.76)	147 (73.86)	295 (77.63)
Adults (1,598)	752 (47.05)	846 (52.94)	172 (22.87)	355 (41.96)	527 (32.97)	580 (77.12)	491 (58.03)	1071 (67.02)
TOTAL (2,320)	1124 (48.44)	1196 (51.55)	250 (22.24)	455 (38.04)	705 (30.38)	874 (77.75)	741 (61.95)	1615 (69.61)

Total Literacy 70% = 62% Females
= 78% Males

Figures given in parentheses are percentages

Table 4

MORTALITY RELATED TO AGE
(Three Year Period)

LOCATION AGE	Bandra East	Bandra West	Extended Suburbs	Total
Still-birth	7 (10)	10 (13)	1 (2)	18 (9)
Neonatal	7 (10)	11 (14)	9 (17)	27 (13)
1 mth—1 year	12 (18)	9 (12)	14 (27)	35 (18)
1 year—5 years	10 (15)	15 (19)	16 (31)	41 (21)
5 years—15 years	12 (18)	4 (5)	2 (4)	18 (9)
Adult	20 (29)	29 (37)	10 (19)	59 (30)
Total	68 (100)	78 (100)	52 (100)	198 (100)
Under five	36 (53)	45 (58)	40 (77)	123 (62)
Death-rate	10	9	9	9.3
Population N.	2300	2855	1954	7109

Figures given in parentheses are percentages

Table 5

MORTALITY RELATED TO ETIOLOGY
(Three Year Period)

LOCATION / Etiology	Bandra East	Bandra West	Extended Suburb	Total
Still-births	7 (10)	10 (13)	1 (2)	18 (9)
Diarrhoea	5 (8)	9 (12)	18 (35)	32 (16)
Chronic Cough	7 (10)	12 (15)	3 (6)	22 (11)
Fever	6 (9)	12 (15)	11 (20)	29 (15)
T.B.	1 (1)	13 (17)	4 (8)	18 (9)
Jaundice	3 (4)	4 (5)	3 (6)	10 (5)
Accident	6 (9)		4 (8)	10 (5)
Polio		1 (1)	1 (2)	2 (1)
Measles		1 (1)		2 (5)
Heart		4 (5)		1 (2)
Other	33 (49)	12 (16)	7 (13)	52 (26)
Total	68 (100)	78 (100)	52 (100)	198 (100)
Population N.	2300	2855	1954	7109

Figures given in parentheses are percentages.

Table 6

IMMUNISATION

SLUM	Under five	Smallpox Vaccine	BCG Vaccine	Primary Triple Polio Vaccine	Secondary Triple & Polio Vaccine
Bandra West	130	104 (80)	104 (80)	33 (25)	13 (10)
Bandra East	350	273 (78)	287 (82)	147 (42)	53 (15)
Bandra West (Rehoused)	127	108 (85)	89 (70)	25 (20)	13 (10)
Extended Suburbs	145	116 (80)	116 (80)	58 (40)	22 (15)
TOTAL	752	601 (80)	596 (80)	263 (35)	101 (13)

Figures given in parentheses are percentages.