

Morbidity among Women in Mumbai City

Impact of Work and Environment

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This paper reports a study of the morbidity of a small population in Mumbai city. The results point to a strong relationship between women's work lives and their health. It also points to the need to understand and integrate the labour of women in producing children and raising them, in keeping the household running in any exploration of women's health status.

INTRODUCTION

THE health of the general population as well as specific groups (infants, women, etc) has for long been an important concern for development studies. When economic development is put in the context of human development, the success of nations to secure good health for their citizens assumes great significance. Morbidity, or physical and mental illness, is increasingly being recognised as a 'measurable indicator of well being' [Shariff 1995]. The patterns of reporting of morbidity reveals important facets not merely to the health status of various groups, but also points to inequalities in status and autonomy among various groups of individuals. Morbidity and mortality data have long been used to estimate the level of gender injustice in society. Greater gender justice in the distribution of food, health care and other resources help in ensuring the survival and health of women and female children. Although less clearly understood, women's work, autonomy in making reproductive choices and their relative status in the family and community also have an influence on their health. Morbidity among women is thus an important guide to understand their position in the household and the community.

Health defined broadly as a feeling of physical, mental and spiritual 'well being' is often juxtaposed to its definition as absence of disease and infirmity. However, in reality, the relationship between 'well being' and absence of disease is very complex. People's perception of their health, illness and causative factors is based on many factors - social, economic, cultural and environmental. From a strictly scientific point of view, one may assume that those who live in poverty, degraded living environment, are involved in occupations which are hazardous to health, etc, should necessarily have a lower feeling of well being and thus complain more of ill health and illness. However, studies have shown that this is not necessarily so - the rich and well placed strata complained of illness more often than the poorer strata [Duggal and Amin 1989] or that people in the underdeveloped states in India reported

less morbidity than those in the developed states [NSS 1992].

There are no straightforward explanations for the process by which an individual's social position is reflected in his/her health status. Even our bodily experiences are coloured by our perception of our social role and the definition of that state in our culture. Thus, a state which can clinically be defined as 'illness' may not be experienced so by the woman for whom it may be natural, part of being a woman. Conversely, a clinician may refuse to accept a complaint made by her because it cannot be medically established. However, unless we are prepared to accept and observe both these categories of problems, that part of women's morbidity will not emerge. It is a case of not seeing what we were not prepared to observe in the first place.

Therefore, any investigation into the health of people necessarily encounters the problem of understanding how health and illnesses are perceived and understood by people. A strictly medical approach to identify diseases among people, and a strictly sociological approach of accepting non-prompted answers given by people on their health and illness would not provide necessary answers. For instance, a number of studies done in last one decade on women's reproductive health have found that while there is less reporting of reproductive illnesses by women in surveys, on clinical examination a very large number of them were found suffering from diseases [Baroda Citizens Council (BCD)].

HEALTH SURVEYS

As knowledge from more studies accumulates, our understanding of the interlinkages of socio-economic, political and environmental factors with health is deepened. The study of ill health in the community by conducting surveys of perceived morbidity has become an important part of health research in India. Notably, in the past decade, three attempts have been made to conduct countrywide studies by the NSS (1986-87) and NCAER (1990, 1993) to study morbidity, health care utilisation and expenditure through the use of household surveys. Apart from these, numerous small

scale studies have been conducted using the same methodology. The most significant among those include studies conducted in Jalgaon [FRCH 1986-87], Madhya Pradesh [FRCH 1990] and Kerala [KSSP 1987].

These health surveys all recorded 'perceived morbidity'. They depend on the person's perception of his/her health state. Perceived morbidity refers to the reporting of episodes of illness occurring in the span of a specified time period (recall period) by the respondent him/herself. There may be a criterion for identifying an illness episode such as restriction of physical activity confinement to bed, etc. A list of tracer conditions/probes (list of symptoms) may also be used to improve the reporting of minor ailments. Added to the heterogeneity of that we find in India, there was no standardisation in the methodology of these studies. Thus, a brief review of their findings indicate certain consistent trends as well as striking differences. The most remarkable difference has been in the quantum of morbidity that these studies have been able to record.

In 1990, The NCAER (1992) recorded a prevalence rate of 67.70 illness episodes (formally treated) per 1,000 persons in 15 days in urban areas. This was marginally lower than the rural rate of 79.06. In 1993 in a similar study [Sundar 1995] they recorded a prevalence rate of 103 episodes (including untreated illnesses) per month in the urban areas. In the study [Duggal and Amin 1989; conducted in Jalgaon by FRCH, which was one of the first studies of this kind, they recorded a total monthly prevalence rate of 149. The rates for males and females were 145 and 152 respectively. In the study of two districts in Madhya Pradesh conducted by the same organisation [George et al 1994] the monthly morbidity rates for males 323 and for females 296. The total morbidity prevalence rate was 311. In the study conducted by KSSP in rural Kerala [Kannan 1991], unusually high morbidity rates were recorded with male morbidity at 203 and female morbidity at 206 per thousand for a reference period of two weeks.

Although the rates of morbidity themselves vary significantly, the gender difference in

the reporting of morbidity in each case is very marginal. The female morbidity rates are higher by 1 to 5 per cent than the total morbidity rates in the Jalgaon, KSSP and NCAEFU 1993) study. We find female morbidity to be lower than the total by 5 per cent in the Madhya Pradesh study. We do find that female morbidity is lower by 20 per cent in the NCAER study of 1990. However, as this study took into consideration only formally treated illnesses, this finding is not surprising. It is very likely that a large percentage of women's illnesses go untreated. Both the NCAER studies as well as the Madhya Pradesh study which reported morbidity by age and sex showed that morbidity among adult women tended to be higher than morbidity for female children. This indicated that women faced a higher risk of illness after they reached the reproductive age. However, no study had attempted to systematically document the nature of the additional illnesses suffered by women after they reached puberty through a household level survey. Evidently, an important aspect of women's health is the strain put on women's bodies by actual reproduction and the resultant short term and life long health problems. However, studies on sexual or maternal health are not sufficient to understand how women's health condition changes after they enter into marriage and motherhood. These do not imply merely the responsibility of meeting the partner's sexual needs and the biological reproduction of children. Regardless of the other economic roles that they may perform, women in all societies undertake the responsibility of 'reproductive labour'. We must define it as a 'work relationship' [Harvey 1990: 5] into which women enter as wives and mothers. Women must undertake all the tasks that are necessary for the sustenance of their households. How burdensome this role becomes depends on many factors, including the resources available to the household, the expected number of children they must bear and raise, the number of dependents and the sex wise and agewise division of work within the household. In general, as reproductive labour is seldom transferred to male members of the household, adult women in the household are often the sole members of the family to undertake this 'reproductive labour' [Chant 1992]. We attempted to use the household survey to explore the totality of women's health problems in relation to their lives and all aspects of their work.

METHODOLOGICAL ISSUES

Much of the knowledge that we have about women's health problems and their health care needs has been derived from studies with specific groups of women [Gittelsohn 1994]. There have also been some efforts to document the prevalence of gender-specific

health problems such as obstetric and gynaecological morbidity [BCC et al] through clinical examination based studies. The link between poor nutrition, anaemia and related morbidity too, has been explored in small studies with restricted participants. We have attempted to modify the household health survey to place a special emphasis on women's health problems.

Some significant modifications were made in the methodology: (1) The exclusive use of women respondents and women interviewers; (2) Use of a probe list (a list of 14 questions probing specific symptoms) to elicit more information on women's health; (3) Intensive training of investigators to make them sensitive to women's health problems and the difficulties that women have in articulating these; and (4) Establishing good rapport with the women in the community by holding community meetings and repeated contact with them before commencing the survey.

Prior to the actual study in Nasik district, we decided to conduct a pilot study in Mumbai, using this modified methodology. In this pilot study, we interviewed 430 households in the study. The survey was supplemented by in-depth interviews with eight women. We selected Jari Man area in L ward, Kurla, a centrally located industrial suburb, for the study. It is a very old, highly congested area with a high concentration of industrial units and residential units. Only households which had women above 12 years of age were included in the sample.

THE SETTING

According to the census, Mumbai had a population of 99.26 lakhs in the year 1991. Interestingly, the female population had grown by 27.15 per cent in the previous ten years, while the male population grew by only 17.34 percent in the same period. The reasons for this change in the gender composition of the population is very significant. Mumbai was historically regarded as a city of migrants. In 1951, there were 1,659 males for every 1000 females (sex ratio: 603) in the city. Since then, two processes have been underway. The sex ratio has become much more balanced (1,222 males for 1000 females in 1991 or a sex ratio of 818) and births contribute a large share to growth of population. This is because there has been a simultaneous increase in the proportion of females between 15-54 years in the total female population, i e, women in the reproductive age. All these statistics indicate that Mumbai's population is becoming more settled, with families replacing the all male households of earlier years.

Kurla's sex ratio was 767 in 1991. The sex ratio of the census block no 78, Bazargate-Church Hall, within whose limits all the

selected households are located, had an even lower sex ratio at 742. The sex ratio for the population above six years of age in the block was lowest at 712. Kurla ward witnessed a sharp increase in the population and density in the 1981-91 decade. The density of population increased from 17,161 persons per sq km to 45,775 persons.

Given the large size of Mumbai's population and its heterogeneity, any sample that we may draw will be distinctive in some aspects. The 430 households were selected from five different clusters, all located within an area of one square mile. These clusters were delineated using geographical boundaries such as walls, gutters and roads. The selection of the clusters was on the basis of their 'class character', which we ascertained using certain indicators such as the occupation of its residents, the condition and size of their houses, the immediate environment outside the houses and the visible presence of goods such as televisions, refrigerators and vehicles. Each of these five clusters had a very distinctive character. Of these two clusters were slums located on land belonging to the airport authority. Two other clusters were 'chawls' - one or two room tenements built in rows alongside a narrow lane. These particular settlements were what is locally known as 'sitting' chawls with only one storey. The fifth cluster was a group of apartment blocks housed in multistoried buildings.

Although all the participant households in the study suffer from the impact of the environmental problems so characteristic of an industrial area such as Kurla, the immediate environment of their houses varied considerably. Typically, in Mumbai, one finds that the physical condition of areas in close proximity to each other can vary dramatically. The 'cheek by jowl' presence of high, middle and low income settlements is well known. Nowhere are the attempts to prevent the deterioration of the few feet of common space between houses and the effort to isolate the settlement from the influence of highly polluted surroundings as evident

TABLE I

	Households		
	Slum	Non-Slum	Total
Number	252	178	430
Structure			
pucca	133 (53)	172 (97)	305 (71)
Non-pucca	119(47)	06(03)	125 (29)
Water supply			
Own water connection	5 (02)	105 (59)	110 (26)
Public water supply	247 (98)	73 (41)	320 (74)
Toilet facility			
Own toilet	2 (1)	53 (30)	55 (13)
Public/common/open space	250 (99)	125 (70)	375 (87)

Note: Figures in brackets are column percentages.

as in this area. The measures, though simple, make a dramatic difference to both the appearance and the quality of life of the people. Settlements which in common terms are called 'slums' are areas which have precisely failed to implement these measures. We decided to use this category to analyse our data so that we could better understand the impact of the environment on the health of all individuals, and of women in particular.

The classification of households into slum and non-slum has been done on the basis of our observation of the physical conditions of the settlements that we selected for the survey. Defining what constitutes a slum can be a matter involving considerable confusion. 'Slum' is not as objective a category as we would have liked. However, for the purpose of this analysis, we defined an entire cluster as a slum on the basis of the degradation of the immediate environment that we observed. (Non-slum settlements being those which were characterised by covering of the drains adjoining the houses, paving of the common lanes between the rows of houses and the separation of the garbage dumping and defecation areas from the houses.)

Using this classification, we have 178 non-slum households comprising of 905 individuals. The 252 slum households had 1,244 individuals (Table 1). The structure of only six of the non-slum households was not entirely constructed out of cement concrete. While 119 slum households were not housed in permanent structure. There was a similar disparity in the amenities available. Fifty-nine percent of the non-slum households had their own water connections, while only five households in the slum had the same facility. Eighty-two per cent of the slum households used municipal toilets and only two had their own toilet. On the other hand, 30 per cent of the non-slum households had their own toilets and only 29 per cent used municipal toilets. Although 41 per cent of these households used toilets reserved for residents of the chawl, these were decidedly better maintained than similar toilets used by 16 per cent of the slum households.

The status of women in these two groups of households also showed some significant differences. The sex ratio in the slum and non-slum population in our study differed significantly being 896 and 980 (588 and 448 women of all ages) respectively. While 12.8 per cent of the women above six years in non-slum households were illiterate, 33.1 percent of the women in the slum households could not read and write. Of the adult women in the non-slum households, 23 per cent were employed compared to 15 per cent of the women in the slum households. Thus, women in slums were both less educated and less likely to have employment.

However, if we consider the situation in the context of 'reproductive labour', we find

the women in the slum households bear a heavier work burden. We find that only 48 households (19 per cent) had more than one adult woman in the house, while among the non-slum households 63 households (35 per cent) had more than one adult woman. Thus, women living in the slum seldom had support of other adult women in the household in meeting the sustenance needs of the family. The work burden for slum women who, in

addition to housework, undertook paid work was tremendous.

MORBIDITY

In the interview, the woman respondent was asked about all the episodes of illness experienced by all the family members in the month of June 1996. Following this, specific symptoms were probed for all women above the age 11 years. The interviewers

TABLE 2

Characteristics	Morbidity Prevalence Rates (Per Month Per 1000 Individuals)				All Individuals
	Sex		Living Environment		
	Females	Males	Slum	Non-Slum	
Number (Total= 2,149)	571	169	429	272	363
Age (in years)					
0-4	384	361	429	238	373
5-11	222	171	230	147	197
12-17	315	143	289	156	226
18-25	686	130	510	232	408
26-35	866	101	550	348	469
36-45	874	188	509	479	494
> 45	783	160	548	336	414
No response	667	000	333*	000*	154
Education					
Illiterate	832	191	658	453	610
Primary	418	172	363	179	297
Secondary/high-school	591	131	396	286	347
Matriculate	769	102	306	333	323
College and others	357	144	250	207	218
Not applicable	404	346	423	250	376
No response	500	200	200*	500*	250
Household size (mean 5)					
1-4 persons (3.3)	743	207	588	319	467
5-7 persons (5.7)	539	156	384	267	337
8-10 persons (8.6)	361	136	276	223	254
> 10 persons (11.8)	556*	188	667	143*	356
Marital status					
Not-married/cohabiting	290	195	289	168	238
Married/cohabiting	850	127	561	372	481
Widow/separated/divorced	818	625*	944	593	794
Not applicable/no response	500*	500*	667	000	500
Living children (mean-1.4)					
Nil (0.0)	652	-	236	134	194
1-2 (1.5)	820	-	992	550	791
3-4 (3.4)	939	-	1100	709	919
> 4 (6.1)	882	-	741	846*	775
Not applicable	285	-	286	166	236
No response	714*	-	2000*	143*	556
Earning status					
Housework	810	-	971	583	810
Non-earner	230	171	241	151	198
Earners	774	127	249	219	236
Not applicable/no response	404	291	387	226	341
Type of occupation					
Student	223	171	228	162	196
Unemployed	417	169	326	108	236
Housework	811	-	974	579	811
Unskilled and hawker	750	96	338	263	312
Skilled and service	877	144	228	247	235
Professional and business	500	67	235*	132	151
Not applicable	402	335	410	253	368
No response	500	143	214	111	174
Location of work					
Own home	790*	238*	909	557	768
Place-to-place	1087	85	365	368*	366
Small establishment	705	140	194	210	200
Large establishment/government	476*	115	146	183	172
Not applicable	279	211	294	170	242
No response	2000*	53*	250*	000*	150

Note: Morbidity prevalence rate = (number of episodes/number of individuals) x 1000

*For these figures sample size (N) is less than 30.

recorded the verbatim response of the women interviewed. The resultant data on morbidity was then analysed and a maximum of three symptoms were coded for each episode from a list of 89 symptoms. The classification of the episodes into eight types of illness was then done taking into consideration all three symptoms. In case of doubt, the individual's gender and age as well as the stated reason for illness were taken into account. Although the types of illness are based broadly on the physiological systems (respiratory, gastro-intestinal tract (GIT), reproductive system), we felt compelled to include categories such as 'aches, pain and injuries' and 'Weakness' in the list. The final classification itself gives evidence to the distinctive character of women's health problems. The reporting of symptoms confirmed that women consider these health problems as important and as categories in themselves. Adhering to a strictly clinical classification of morbidity would have meant losing sight of this perception.

In the above context, we have undertaken to analyse the data on morbidity gathered in this study. The data reveal interesting trends.

GENDER

In this study, we recorded 780 episodes of illness among 2,149 individuals in the month of June. Thus, the monthly prevalence rate of illness is 363 per thousand (Table 2). However, we find very dramatic gender differences in this study. We find that when asked to report illness without any probing, women have reported nearly twice as many episodes of illness for themselves as for the male population. (Males recorded a monthly prevalence rate of 169 per thousand as compared to 297 for females.) Forty-seven per cent of the episodes recorded for women (including girls below 12 years) were reported after probing (Table 6). When we add the episodes reported after probing, the female morbidity rate becomes three and a half times as high (571 per thousand for females). No previous household study (where, usually, the gender of the respondent and the interviewer is not specified) has reported such a large difference in morbidity.

We find that in each and every age group, including children below five years, female morbidity is higher than male morbidity. In addition to this, we find that the gap between male and female morbidity increases with every age group. While female morbidity is 6 per cent higher in children below five years, it is 264 percent higher among females above 45 years in age (excluding episodes recorded after probing).

Likewise, we also find a wide variation in the distribution of illness among the different age groups in males and females. Among the males, predictably, we find morbidity to be highest among the under five

population (361 per thousand). It steadily declines among the older males before rising among men between 36 and 45 years (188 per thousand). Among the eldest age group, it declines marginally to 160 per thousand. As women are the main respondents in this study, it is very likely that child morbidity has been better recorded, while the illness of adult males has been under-reported. If we make allowance for these reporting errors,

we are likely to see the characteristic 'U' shape curve in male morbidity. This means that morbidity at both ends of the life span is high.

For the female population, we see an entirely different pattern emerging. We see a steady rise in the morbidity rates with age. We find that the morbidity rates among female children are relatively much lower than those among adult women. It can also be observed

TABLE 3

Sample Characteristics	Morbidity Prevalence Rates (Per Month Per 1000 Individuals)				
	All	Females		Males	
	Individuals	Slum	Non-Slum	Slum	Non-Slum
Number (Total = 3149)	363	684	424	201	123
Age (in years)					
0-4	373	400	349	458	108
5-11	197	248	182	211	114
12-17	226	468	161	137	150
18-25	408	912	342	149	101
26-35	469	1052	595	95	110
36-45	494	956	810	200	175
> 45	414	1042*	644	237	123
No response	154	2000*	000*	000*	000*
Education					
Illiterate	610	905	608	209	125*
Primary	297	526	239	204	111
Secondary/high-school	347	704	460	141	118
Matriculate	323	1313*	629	73	125
College and others	218	1400*	277	128	153
Not applicable	376	408	395	438	88
No response	250	000*	1000*	222*	000*
Household size (mean 5)					
1-4 persons (3.3)	467	921	519	267	134
5-7 persons (5.7)	337	624	420	178	122
8-10 persons (8.6)	254	402	309	149	113
> 10 persons (11.8)	356*	1222*	222*	333*	59*
Marital status					
Not-married/cohabiting	238	337	227	251	116
Married/cohabiting	481	1026	621	129	123
Widow/separated/divorced	794	1000*	593	600*	667*
Not applicable/no response	500	1000*	000*	500*	-
Living children (mean-1.4)					
Nil (0.0)	194	881	250*	-	-
1-2 (1.5)	791	1000	589	-	-
3-4 (3.4)	919	1134	714	-	-
> 4 (6.1)	775	886	875*	-	-
Not applicable	236	333	223	-	-
No response	556	4000*	167*	-	-
Earning status					
Housework	810	971	583	-	-
Non-earner	198	291	167	200	136
Earnear	236	980	613	139	111
Not applicable/no response	341	418	368	362	127
Type of occupation					
Student	196	266	179	194	144
Unemployed	236	529*	143*	229	100
Housework	811	974	579	-	-
Unskilled and hawker	312	818*	643*	122	41
Skilled and service	235	1120*	688	142	148
Professional and Business	151	1000*	438*	133	50*
Not applicable	368	406*	389*	416	128
No response	174	1000*	000*	154	125*
Location of work					
Own home	768	950	558	177*	500*
Place-to-place	366	1188*	857*	85	83*
Small establishment	200	765*	667	152	121
Large establishment/government	172	500*	474*	128	108
Not applicable	242	323	219	270	128
No response	150*	2000*	0*	90*	0*

Note: Morbidity prevalence rate = (number of episodes/number of individuals) x 1000

* For these figures the sample size (N) is less than 30.

that the rates continue to rise till the women reach the age of 45 years, after which they decline to a small extent. Excluding data gathered through the use of the probe list does not radically alter this pattern because we find that women in and beyond the reproductive age, who report the largest number of illnesses with probing had already reported very high morbidity initially. The high morbidity among women in the reproductive age, which was earlier only hinted at, is revealed very clearly in this study.

To complement the evidence from the age-wise analysis of morbidity, we also see the contribution of reproductive labour in the rates of morbidity reported by ever married and never married women. Cohabiting women reported a morbidity rate of 850 and other ever married women a rate of 818, This is in sharp contrast to the rate of 290 for never married women. Although we did not record the obstetric history of the women respondents, we recorded the number of living children for all ever married women. We also find a positive link between the number of living children and female morbidity. The morbidity rate for married women with no children is 625, while for those with 3-4 living children it is 939.

The effect of economic labour is also very apparent in the data on female morbidity. As the numbers of employed women were very small, it is not feasible to analyse morbidity in the context of the type of work done. However, even when we consider merely the work status of women, we find a strong correlation between labour and morbidity. In the total female population, non-earners (students, and non-employed girls below 12 years) have the lowest morbidity rates (230). Housewives recorded a morbidity of 810, while those women who also earned an income had a morbidity rate of 774. However, when we consider women from the same living environment (slum, non-slum), (Table 3) we find that women who are employed have higher rates of morbidity than housewives in the same environment. Nuclear families with only one adult woman in every household is the most common family organisation to be observed in the city. As there is no distribution of housework between men and women, that one woman must bear the entire responsibility for running the house. When such a woman seeks employment either by working at home or outside, the strain of paid work is merely added on to her existing workload. We find that among women living in slum as well as non-slum households, employed women have higher morbidity rates than housewives in the same group. Thus, the additional burden of earning an income tends to increase the risk of morbidity for all women.

The difference in the morbidity rates of women having the same work status living

in a different environment is much more significant than the difference in the morbidity rates of housewives and earners in the same environment. Even as housewives, who technically speaking, perform the same role in all households, women living in slums are put to a much greater risk of illness than employed women who live in a better home environment. When these same women take up employment, our data suggests that their health deteriorates even further.

The high morbidity rates among women are complemented by the high prevalence of specific types of illnesses (Table 4). Reproductive illnesses form the largest group of problems accounting for 28.2 per cent of all episodes among females. We find that 127 of the 167 reproductive episodes reported by women were related to menstruation and child bearing (menstrual problems, uterine prolapse, low back ache and lower abdomen pain). Reproductive health problems of the

TABLE 4

Type of Illness	Female	Col Per Cent	Male	Col Per Cent	Total	Col Per Cent
Reproductive problems	167	28.21			167	21.41
Aches, pains	74	12.50	24	12.77	98	12.56
Weakness	65	10.98	4	2.13	69	8.85
Fever	67	11.32	40	21.28	107	13.72
Respiratory problems	115	19.43	23	12.23	200	25.64
GIT problems	44	7.43	85	12.23	67	8.59
Problems of sense organs	31	5.24	5	2.66	36	4.62
Others	29	4.90	7	3.72	36	4.62
Total	592	100.00	188	100.00	780	100.00

Note: Others include mental stress, anxiety, piles, bladder stone, kidney problems, involuntary urination, diabetes, hair loss, heart problems, blood pressure, paralysis, tumour and unspecified symptoms.

TABLE 5

Type of Illness Reported	Male (N = 1113)		Female (N = 1036)		
	Persons Ill	Without probe		Total	
		Persons Ill	Chi Sq	Sig	Persons Ill
Reproductive problems	0	34	.00000	144	.00000
Aches, pain and injuries	23	27	.406	72	.00000
Weakness	2	13	.00278	62	.00000
Fever	39	60	.01148	66	.00207
Respiratory problems	84	105	.03429	114	.00563
GIT problems	23	35	.06076	44	.00366
Skin, eye, ear problems	5	16	.00991	29	.00007
Others	7	15	.0594	29	.00009
Total persons reporting illness	174	263		397	

Notes: Figures for women are with and without probing.

* Total number of persons = 2,149

TABLE 6

Type of Illness	Number of Episodes Reported by Women				Per Cent Reported with Probing
	Without Probing	With Probing	Not Applicable	Total	
Reproductive problems	36	130	1	167	77.84
Aches, pain and injuries	21	47	6	74	63.51
Weakness	12	52	1	65	80.00
Fever	47	7	13	67	10.45
Respiratory problems	58	9	48	115	7.83
GIT problems	22	9	13	44	20.45
Skin, eye, ear problems	16	13	2	31	41.94
Others	14	14	1	29	48.28
Total persons reporting illness	226	281	85	592	47.47

Summaries of Variable	Age of person	Age of person	Mean	Std Dev	Cases
by Levels of NLIVCHR1	Age of person	No-of-liv-child			
	Value	Label			
For Entire Population			21.6757	15.9277	1036
NLIVCHR1	1	Nil	22.2879	8.9902	66
NLIVCHR1	2	1-2	30.3592	11.7248	206
NLIVCHR1	3	3-4	35.4917	9.2042	181
NLIVCHR1	4	> 4	43.9412	14.0860	68
NLIVCHR1	8	NA	09.6417	7.8866	508
NLIVCHR1	9	NR	60.1429	14.8035	7
Total Cases					1036

above nature are often linked to nutritional deficiency problems which are also manifested as weakness. Pain of the extremities which is indicative of poor nutrition accounted for 36 of the 74 episodes related to aches, pain and injuries reported by women. Also taken together reproductive problems, aches, pains and injuries and weakness all of which are interrelated, form 51.69 per cent of all illnesses reported among women. Thus, we see that these three types of illnesses form a complex of gender related health problems.

When we consider the gender difference in the type of illness reported without probing, we find significant differences in the level of morbidity in every category among men and women (Table 5). Women have reported remarkably higher levels of almost all types of illnesses. In only one category aches, pains and injuries, we find that the gender differences is not significant. When combined with the information received after probing the correlation between gender and morbidity increases even further.

As anticipated, the high reporting of reproductive and related morbidity was achieved largely through the use of the probe list (Table 6). For example, only 37 of the 167 episodes of reproductive health problems were reported without probing. For the three 'gender related' categories that we have identified, 75 per cent of the episodes were reported with probing. In contrast, not surprisingly, for the categories of respiratory illness, GIT problems and fevers, probing did not result in a significant increase in reporting. But we find that women reported significantly more episodes in these categories as well. Thus, the finding that women reported these types of illnesses much more frequently than men is very significant. This suggests that being female increases not merely the risk of reproductive and related morbidity, but also the likelihood of suffering from general health problems.

ENVIRONMENT

When we study the impact of the environment on health, we see the most consistent pattern in morbidity (Table 3). Living in a slum adversely affects the health of all individuals regardless of gender, age and work status. The morbidity rates of slum dwellers of all age groups are more than double those of their counterparts in non-slum households. The only exception being males in the age group of 12-17 and 26-35 years. We also find the same difference in the morbidity rates of both males and females, non-workers and employed persons. The overall morbidity rates for slum dwellers were recorded as 429, as compared to 272 for non-slum dwellers. Remarkably the effect of this variable (living environment) is to increase the quantum of morbidity for each

group. The correlation of morbidity with age, gender, marital status and work status is maintained within the same living environment. Thus, while the morbidity rates for housewives in the slum is as high as 971 (compared to 583 among non-slum housewives), it is even higher for earning women at 980. Likewise, non-slum earning women have a higher morbidity of 613, compared to housewives in the same living environment.

The analysis of morbidity in relation to the living environment shows the high degree of variation existing within groups defined according to work status, gender and marital status regardless of their living environment.

Although the non-slum population comprises 42 per cent of the sample, their illness accounts for only 31.79 per cent of the total morbidity (Table 7). Surprisingly, there is no significant variation in the morbidity pattern across the various categories of illness. In most cases the variation is marginal. It would seem logical to assume that diseases which have an association with pollution and lack of hygiene would be more dominant in slum environment in comparison to other illnesses. On the contrary, we find that respiratory illnesses, GIT tract infections and fevers form almost exactly the same proportion of total morbidity in both the slum and non-slum populations.

We find that slum dwellers suffer more frequently from all types of illnesses. Overall, morbidity among the slum population is 10 per cent higher than among the total population. However, this increase is uniformly distributed across all the types of illnesses. In all categories of illness, apart from 'others', the share of the morbidity of slum dwellers is higher by 10 to 16 per cent than their share in the total population. In the categories of 'aches, pain and injuries' the disparity is less significant (4 per cent). The category of 'other' problems which includes a wide range of non-infectious, chronic health problems has been reported as often by slum and non-slum dwellers.

Overall, it is a relatively minor group of health problems. This finding suggests that living in a degraded environment contributes to a general increase in ill health, rather than merely a rise in the incidence of specific diseases.

An analysis of the morbidity of women living in the slum shows that the morbidity rates among married women is 1,026. This implies that more than an episode was reported on average by every woman in this category. Among the ever married women, those with 1-4 children reported equally high rates. Housewives and earning women both reported similarly high morbidity. Similarly high rates can be observed, when we look at the age wise morbidity, among women in the age group of 18-45 years.

When taken together, we find that married cohabiting women with children in the reproductive age who live in a slum environment are the most vulnerable to ill health. One of the obvious explanations for this high morbidity in slums is the degradation of the physical environment. Although the overall condition of the air, water and land in this area is very poor, the effects of those are exacerbated by the congestion and hygiene in the slums. Slum dwellers are brought more often into contact with toxins in the air, water and soil due to the open sewers, unpaved lanes, impermanent house structures and the use of common toilets and water taps.

Apart from the general hardships of living in an area with a degraded environment and the lack of space, light and fresh air, women in slum areas also suffer from many other disadvantages. As noted earlier, reproductive labour for women constitutes a crucial aspect of their work lives. The slum household as a workplace is understaffed, overutilised and deprived of the most basic facilities. We found that among non-slum households, water from even common taps could be drawn directly through plastic pipes. In the slums, due to the longer distance and greater number of users of taps, water had to be carried home in large vessels. The open drains in the slums

TABLE 7

Type of illness	Slum			Non-Slum			Total Episodes
	Episodes	A	B	Episodes	A	B	
Reproductive problems	124	108	97	43	82	70	167
Aches, pains	61	91	57	37	120	41	98
Weakness	48	102	40	21	97	29	69
Fevers	73	100	62	34	101	45	107
Respiratory problems	137	100	116	63	100	84	200
GIT problems	46	100	39	21	99	28	67
Problems of sense organs	27	110	21	9	79	15	36
Others	18	73	21	18	159	15	36
Total	534		452	246		328	780

Notes: Columns A indicate the variation in the pattern of morbidity for each living environment (mean =100), for example, 100 indicates that 'fevers' constitute the same proportion of morbidity in the slum population as in the total population.

Columns B indicate expected frequencies for each type of morbidity.

Others include mental stress, anxiety, piles, bladder stone, kidney problems, involuntary urination, diabetes, hair loss, heart problems, blood pressure, paralysis, tumour and unspecified symptoms.

were invariably clogged with solid waste thrown into them and had to be frequently cleaned by the women themselves. Due to the long queues at the municipal toilets, small children were made to defecate outside the house and the women were naturally responsible for cleaning the place after that. In the absence of specified area for garbage disposal, women had to be vigilant against the dumping of waste near their houses by others. As the lanes were not paved, the house was surrounded entirely by dirt and sludge. The women fought a constant battle to keep these out of their houses. The environment of the slum makes it necessary for women to undertake a heavy burden of work merely to make the house livable.

Employed women in slums were either home based workers or worked in the small industrial units close by. Thus, they were exposed to an additional degraded environment through their paid work. They also faced a heavier work burden because employment does not free women from the responsibility of housework. Thus, we find that they suffer from the highest level of morbidity.

This finding has a very important implication for the understanding of urban health problems. The high morbidity among slum dwellers, especially women, impresses on us the need to study 'slum' not merely as a physical environment, but also to examine the social, economic and even psychological pressures that these communities and their women face. Our field experience made it evident that destitution was not a widespread problem, even among the slum households. We found that, by and large, the households did not face any threats to survival. The income of all the households seemed adequate to fulfill the basic needs of food, clothing and shelter. What the slum households did experience was relative poverty as they form the margin of a highly developed and relatively prosperous urban economy. In the Indian context, the effect that relative poverty has on both the perception of illness and actual morbidity has never been explored.

CONCLUSION

Although, being a metropolitan city, the situation in Mumbai is very atypical, this study highlighted certain very interesting aspects in the methodology in health surveys and in the larger study of women's health.

This study indicated the gender-blindness of household level health surveys. When no importance is attached to the gender of the respondent and interviewer, the levels of morbidity reported for both males and females are almost similar. Due to the modifications that we made in the methodology, we were able to record a significantly higher burden of morbidity among women, all the modifications that were made must be viewed in totality. It is not possible for us to estimate

the effect of any single factor on the reporting of women's morbidity. The objective of the study was to create an environment which encouraged women to feel unhindered to speak about their health problems even while a deliberate attempt was being made to elicit information about unreported illness through the probe list. This impressed on us the need to be sensitive to women's perceptions about their health problems. Purely medical or even sociological categories of illness would prove inadequate to record the complexity of illness perceived by women. Although this fact has been stressed in almost all qualitative micro-studies on women's health, an attempt was made to integrate these insights into a quantitative study.

Knowledge about the factors which influence the perception of morbidity is deepened as the experiences of more and more studies accumulate. The relationship between the conscious demand for health care and the reporting of morbidity has been well established. Health care acquires a greater significance for households after the most basic need for food and shelter have been met as we encountered here. With changes in the level of development, the concept of illness too undergoes transformation. Economic development generates demand for goods and services which hitherto had never been felt or articulated. It has also been noted that the demand for health services increases with increasing economic development. In India, particularly in Mumbai, this demand is met primarily through the market which itself creates an acute awareness of health problems. There are no great variations in 'health awareness' among the different classes and among men and women due to the widespread exposure to media, the pervasive presence of health services and higher levels of education.

Thus, this analysis on perceived morbidity must be put in a relevant context. This prompts us to re-examine the relationship between morbidity and the pressures of urban living. As stated earlier, morbidity is not merely an objective health indicator. Although, it would be wrong to automatically assume that actual morbidity is higher in Mumbai than in other parts of the country, the consciousness of ill health is certainly very acute. We find a population which is reporting an increasingly lower sense of 'well being'. We also find that the pressures of living in a marginalised community such as a slum are reflected sharply in the reporting of morbidity. This also prompts us to explore further into the health consequences of poverty for those who live on the social margins of the city.

In the context of our analysis of reproductive labour, this study points to a strong relationship between women's work lives and their health. No study of work and health among women can afford not to

explore the household as a workplace. For 90 per cent of the women (in this case), the household is the site where they engage in the task of fulfilling the household's economic as well as other needs. That all married women (and those with children more so) reported significantly higher morbidity than other women is an indicator of the additional burden of morbidity that reproductive labour imposes. That this task becomes more demanding on their health within a degraded environment is very evident. This study points towards a need for more systematic study into women's health problems in relation to their work. Just as we observe the changes affecting other areas of work, in terms of technological changes, changes in labour organisation, etc, it would be incorrect to understand 'housework' as an unchanging routine of tasks. We must understand how the nature of reproductive labour is transformed by changes in the larger world which surrounds the household where it is undertaken. This would give valuable insights into the study of the health problems of women, who labour both in and outside the home.

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