Working Paper No. 5

Access and Utilisation of Health Care Services in urban low-income settlements in Surat, India

Akash Acharya

Centre for Social Studies
SURAT

January 2008

Access and Utilisation of Health Care Services in urban low-income settlements in Surat, India

Akash Acharya[*]

1. Introduction

The growth rate of urbanisation in the developing world is more than three times that of the developed world (UN 1996). Although, urbanisation has led to increased productivity and economic diversification, it has also led to pockets of poverty, deprivation and marginalisation. The urban poor constitutes nearly one-fourth of India's urban population and is growing at three times of the national population growth rate. Living conditions of the urban poor are deplorable as they miss out on basic civic amenities like safe drinking water, sanitation, decent housing etc. They are often seen living in overcrowded, dilapidated slums[1], squatters built on pavements, along railway tracks, besides pipelines under bridges etc (Karn Sunil 2003). Rural to urban migration is believed to be a major factor in increasing urban population growth and both rural push (survival struggle) and urban pull (attraction of city life) play their role in this. The process of urbanisation and genesis of slums has been explained by the Harris-Todaro model, labour market principles and Stokes' theory (Pernia 1994). It was believed that low-income settlements like slums are a transitory phenomenon and migrants use them as waiting period while working in the informal sector before they move on to organised or formal sector jobs. However, it is increasingly observed that this is not the case and low-income settlements are not only more or less a permanent phenomenon but also growing at a fast pace[i].

[*] Assistant Professor, Centre for Social Studies, Surat. The author thanks participants of a seminar at the Centre for Social Studies (CSS) Surat, human development conference at the Indira Gandhi Institute of Development Research (IGIDR) Mumbai, Urban Health Conference at the John Hopkins University (JHU) USA as well as two anonymous referees for comments.

[1] There is no official "definition" of slums and various authors, commissions and acts define them differently (Das 1994).

Most official statistics on data related to the health infrastructure, human resources in health sector (physicians, nurses as well as paramedical staff) as well as health status of the population presents a better picture of urban areas than their rural counterparts[2]. Although it is true that majority of health facilities are concentrated in urban areas, statistics mask enormous inter-urban as well as intra-urban inequalities. In fact, access and utilisation of health care services in low-income settlements may not be in anyway better than the deprived rural areas (Asthana 1995). Under-5, infant and neonatal mortality rates are considerably higher among the urban poor as compared to the national and state averages. The Integrated Child Development Scheme (ICDS), an important health and nutrition initiative of the Government of India, covers only one-sixth of the urban population compared to 80 per cent coverage in rural areas. Even in the case of the National Rural Health Mission (NRHM), urban health issues have been kept on the back burner. In most states, under nutrition among the urban poor is worse than in rural areas. More than half of the urban poor children suffer from malnutrition and even more are not completely vaccinated against preventable diseases (Agrawal 2005). The urban slum dwellers are mainly migrants and remain cut off from their rural social network. Their relationship with the neighbours and health care providers in cities can be fragile resulting into a weak "social capital" thus making them more vulnerable than their rural counterparts (Russell 2001).

While the bulk of the literature and studies in health policy research have a distinct rural focus, literature on the urban health sector remain relatively sparse and not much work has been done on health care delivery system in urban India (Gupta et. al 2000, Madhiwala et. al 2000, Sundar and Sharma 2002).

[2] For example, there are only 20 hospital beds per lakh of population in rural India as compared to 200 hospital beds in case of urban areas (CBHI 1996).

This grim scenario of urban health exists despite the fact that urban poor enjoy physical proximity to private, charitable as well as public municipal health centres. To understand this paradox and further probe the health issues of the urban poor, a survey of 544 households living in 22 low-income settlements was carried out in 2006. The survey was sponsored by the Self Employed Women's' Association (SEWA) as a baseline study to understand the health needs in these low-income settlements. This sample size was approximately 10 per cent of the total households and is comparable to other studies on urban health (Geetha and Swaminthan 1996, Gupta et. al 2000). Sampling was done using systematic random sampling and every 10th household was selected from the completed household list. A structured pre-coded interview schedule was used for data collection process. Two Focused Group Discussions (FGDs) were also held with adolescent boys and girls to comprehend their health problems. The youngest married woman was chosen[3] as a respondent from each household as there were questions on Reproductive and Child Health (RCH). For ethical reasons, the interview schedule included informed consent for the respondent. This half page note on informed consent explained the rationale behind the survey to the respondents and took their permission before asking them any questions. Respondents were free not to participate in the survey. Data entry was done in MS-Excel and dataset was transferred to SPSS (13.0) for data analysis.

The research investigated a range of aspects including socio economic status (access to water, toilets, electricity, assets, education etc.), mortality, morbidity requiring inpatient as well as outpatient care, health care-seeking behaviour and burden of health care expenditure, provider preference, disease awareness, infant and maternal mortality, ante natal care as well as immunisation levels of children living in slums. The paper has been organised into five broad sections and each section has a few sub-sections.

[3] This was done with a view that information about reproductive issues would be more easily available through younger married woman (as compared to older) in the household.

Issues surrounding the socio-economic status (SES) have been discussed in the next section. The third section explains morbidity, health-care seeking behaviour and burden of health care expenditure on the urban poor living in low-income settlements of Surat. A whole range of issues like antenatal care (ANC), awareness about risk symptoms during pregnancy, abortion, miscarriage, exclusive breastfeeding etc. have been discussed in the fourth section on reproductive and child health. The fifth section summarises the findings from the quantitative survey as well as FGDs and concludes the paper.

2. Socio-Economic Status

Surat is one of the fastest growing cities of the world[4] but at the same time it has a higher proportion of slums compared to other important cities in Gujarat (see Table 1).

Table 1:Percentage of Slum Population of Various Cities in Gujarat

	Population	Slum Population	Proportion (%)
Gujarat	1,89,30,250 (urban)	18,66,797	10%
Ahmedabad	35,20,085	4,75,000	13.5%
Vadodara	13,06,227	1,86,020	14%
Surat	24,33,835	5,08,485	**21%**

Source: Census 2001

The proportion of slum population is more than double the state average for urban population[ii]. The slum population in Surat city lives in 305 pockets (312 as per the Surat Municipal Corporation website) in various areas of Surat city. It comprises of migrants from states like Maharashtra, Uttar Pradesh (UP), Orrisa, Andhra Pradesh (AP), Bihar, Rajasthan, Madhya Pradesh (MP) and from *Saurashtra* region of Gujarat. Although the migration tables in Census provide data about in-migrants (by place of birth) from different states as well as countries the figures have been classified district wise that doesn't give an idea about Surat city. Moreover, these figures haven't been released for the 2001 census. As per the census of all slum households (Das 1994) almost half of all migrants (46.8 per cent) are from Maharashtra followed by Uttar Pradesh (17.8 per cent).

Out of the surveyed 544 households from 22 low-income settlements in Surat, almost half (43.2 per cent) hail from UP followed by Maharashtra (27.4 per cent). 51 Households (9.4 per cent) have migrated from Orrisa and very few (only 4 percent) belonged to Surat itself. Data suggest that majority

[4] http://www.citymayors.com/statistics/urban_growth1.html

of the migrants (68 per cent) have been living here for more than 5 years continuously and has in a way became permanent settlers in their locality. Since perhaps a large proportion of the households have been settled, 68.5 per cent reported owning the house in which they are staying.

Majority of all households (95 per cent) are followers of the Hindu religion and very few households (15, 1 and 3) are following Islam, Christianity and Buddhism respectively. More than half (57.4 per cent) of the households are single room occupants and the average family size is five persons per family. The persons per room ranged from 1 to 11 with an average of about 4 persons staying in one room. Only about 20 per cent of the households are staying in a joint family. It is interesting to note that despite the fact that majority of the households have been "settled" in Surat their parents have not migrated and formed a joint family in these localities. Of course it is possible that the parents are still living in a joint family but with other siblings in villages.

2.1 SEX RATIO, EDUCATION AND INCOME

A total number of 2750 members live in 544 surveyed households. The sex ratio is 797 females per 1000 males. According to 2001 census, sex ratio of Surat city is 773. Low sex ratio in total population may be attributed to the fact that males outnumber females in migrant population. It is usually observed that the proportion of males is higher in migrant population which results in low sex ratio. However in the surveyed areas, the proportion of single male is not high and most have been settled with families. To investigate this further, child sex ratio has been calculated for the 0-6 age group. Alarmingly, this is even worse than the general sex ratio and is as low as 758. Although the sample size in 0-6 age group is quite small, the data indicate the likelihood of Sex Selective Abortion (SSA) in this low income areas and points towards a need for quick intervention to check this worsening child sex ratio.

After excluding the 0-6 age group from analysis, literacy rate has been found to be 74.9 per cent. Literacy rate in Surat city is 83 per cent as per the 2001 census. Female literacy rate has been worked out at 64.6 per cent and male literacy at 83.3 per cent. 18 women members (as compared to 50 male members) have attended college and 7 women (as compared to 39 men) are graduates. After excluding people not in the workforce (children, old age and sick) majority (59.6 per cent) of the male members in these slums are regular salaried workers followed by daily wage labourer (20.9 per cent). Unemployment rate for males is 7.6 per cent. Women who stay at home engage themselves in home based economic activities like imitation *jari, tikki, garment* etc. Some also work as maid servants in middle and upper class households.

The average monthly household income is Rs. 4377 for an average family size of about five. Although all the surveyed 544 households are low-income, three income categories were developed for capturing health differences within income groups. Households having monthly income of less than Rs. 3000 were classified as low-income, Rs. 3000-5000 as middle income and more than Rs. 5000 as high income within overarching low-income category. High correlation was found (0.36 significant at 0.01 level) between education and income.

2.2 ACCESS TO ELECTRICITY, TOILET AND DRINKING WATER

Majority (61.7 per cent) of the households have their own metered electricity connection and 34.3 per cent have reported shared connection which means more than one household are drawing electricity from single meter. Thus, total 96 per cent of the households have access to electricity supply. Apart from a measure of socio-economic status, source of drinking water supply is directly related to hygiene and health status of the community. More than half (58.5 per cent) of households have personal piped water connection for drinking purpose followed by shared tap (32.7 per cent). However, it should be noted that the interview schedule has collected information on the main

source of drinking water but it is possible that households are using more than one source for collecting drinking water. Very few (3.5 per cent) households do not have any access to toilet facility and have to defecate in open. This is in contradiction to findings from studies on other cities like Mumbai where a large section of the population defecates in the open (Karn et. al 2003). Even in case of Surat slums study (Das 1994) the figure reported for open defecation was 64 per cent. There can be variety of reasons for this seemingly dramatic improvement. One reason could be in this study the facility used by women in the household has been considered as she was the respondent. It is possible that more number of males are using "open space" for defecation. Moreover, this study might include the slums in the city that are relatively better off due to various slum upgradation programmes run by the Surat Municipal Corporation (SMC). Nonetheless, it is also possible that scenario has indeed improved considerably during the gap of more than 15 years of time between two studies.

Almost 8 per cent of households are using public toilet and 27.2 per cent are using shared toilet. A significant proportion (61.6 per cent) of households have personal toilet within the premises. It is possible in some cases that different members of the households are using different toilet facilities. In such cases, we have considered the facility used by women in the household. Households with electricity connections are also likely to have their own water connection and private toilet and vice versa. Access to facilities like water, power and toilet has a tendency to lump together mainly because of income. These variables are considered to be social determinants of health and data suggest that the condition of the low-income households on these selected variables is quite good.

2.3 OWNERSHIP OF CONSUMER DURABLES

Although the interview schedule did collect data on income, it was recognized that income data are not reliable and therefore a proxy indicator like ownerships of consumer durables was also used to ascertain the socio-

economic status[5] of the household. Table 2 gives details about proportion of households owning particular consumer durables.

Table 2: Consumer durable Ownership Pattern

Asset	Number of HHs	Proportion
TV	282	51.9%
Scooter	76	14%
Fan	515	94.7%
Savings a/c in Bank	161	29.7%
Fridge	40	7.4%
Phone (Landline)	39	7.2%
Mobile	104	19.1%
Gas Stove	225	41.4%

Although the table is self explanatory, certain issues are worth analysing. It seems that there is a clear preference for owning television set over other assets like fridge and phone which are of similar cost. Moreover, a television set also gets priority over a savings bank account as 22.2 per cent of the households do not have a bank account but have purchased a television set. However, it is possible that they face other external barriers in opening bank accounts.[6] It is also interesting to note that more proportion of households are having a mobile phone than landline. It shows that the penetration of mobile phone is deeper than landline in low income areas. Thus, mobile phones can't be seen as a luxury item of communication any more. More than half (56.6 per cent) of the households do not have a ration card. Only 48 households (8.9 per cent) have Below Poverty Line (BPL) poverty card. 184 households (34.3 per cent) possess a ration card which is above poverty line. It is also interesting to note that out of 48 BPL card holder households, 33 own a television set!

[5] The measurement of assets and consumer durables (rather than income or consumption) to capture wealth status is gaining ground in international literature (see, for example Morris et al, 1999). It is argued that asset and consumer durable variability is more sensitive to development indicators such as education and health and it involves fewer methodological difficulties. (Filmer and Pritchett, 1998; Montgomery et al 1997; Wagstaff 2002).

[6] An ongoing CSS study (Sahu and Das 2008) on remittance behaviour shows that formal banking system is almost inaccessible to the urban poor because of documentation process. Urban poor often do not have residential proof, voter list as well as reference for opening a bank account.

3 Health care-seeking behaviour and burden of health care expenditure

Under this module of the interview schedule, information was gathered on issues like morbidity and health care-seeking behaviour that required both outpatient as well as inpatient care. An attempt was also made to gauge the burden of health care expenditure and understand the coping mechanisms. Out of surveyed 544 households, 14 households (2.6 per cent) reported a death during last year (2005-2006), 89 households (16.4 per cent) reported a hospitalisation episode in last year and 115 households (21.1 per cent) reported illness suffered by anyone in the household in last month that required an outpatient visit. Out of 15 people who died last year, five were children under five years of age. This was also the case in previous study of Surat slums (Das 1994) where 37 per cent of all reported mortality was under five mortality.

Normally, one can argue that good hygiene practices results in better health status. However, this dataset did not show reduced outpatient or inpatient rates for households having a piped water connection and a toilet within the premise. One explanation for this surprising result could be proximity of houses. The density of population is very high in these low-income settlements which may negate the effects of hygienic water and toilet practices. However, this can only be speculated and this dataset has no empirical evidence to support this. On the other hand, a significant association was found (0.87 significant at 0.05 level) between persons per room and illness episodes. Thus more occupancy per room leads to a higher probability of encountering illness episodes.

3.1 Hygiene and Disease Awareness

Awareness about basic hygiene practices, knowledge about disease symptoms, treatment as well as prevention is important for maintaining good health status of the population. Almost 40 per cent of the households do not purify drinking water by any means like straining through clean cloth,

boiling or using chlorine tablets. About 43 per cent of the respondents are unaware of the reasons behind the spread of malaria. What is more disturbing is that only about 8.5 per cent of respondents know that persistent weight loss can be a sign of Tuberculosis (TB). About 30 households reported that some one in their family had suffered from TB at some point of time and most of them had visited private provider who by and large do not follow World Health Organisation (WHO) recommended Directly Observed Treatment, Short Course (DOTS).

Ignorance about HIV/AIDS has also been found to be quite high as about 61 per cent of women respondents haven't even heard about the disease. This is despite the fact that majority of the households have TV sets from where disease awareness messages are telecasted on a regular basis. Even out of those women who have heard about the disease, 32.4 per cent mistakenly believe that HIV/AIDS can spread by staying in the same family where some one is suffering from the disease. About 13 per cent didn't know that the disease can be transmitted through sexual intercourse, sharing of infected needle or from infected mother to child during pregnancy. Almost 40 per cent of women are unaware that the use of condom can prevent disease infection. Only 87 women respondents (16 per cent) know about the various HIV/AIDS transmission modes as well as ways to prevent it.

About 20 per cent of the women have reported that at least one member in the household consumes alcohol. However, it should be noted that this figure might be underreported for various socio-cultural reasons. In case of *Gutka* (Chewing tobacco) consumption, the figure is high at 51.4 per cent. There also seems to be a high correlation between alcohol and *Gutka* consumption as 79 per cent of households who have reported alcohol consumption, have also reported *Gutka* consumption. No association has been found between income groups and alcohol consumption. 67 per cent of the women have reported using iodized salt although no data is available on their awareness about benefits of using iodised salt. 37 women (6.9 per cent) are unaware whether the salt that they have been using was iodized or not.

3.2 HOSPITALISATION, PROVIDER PREFERENCE AND BURDEN OF HEALTH CARE EXPENDITURE

As can be seen from the table 3, there were a total of 98 hospitalisation cases reported. These cases were almost equally distributed between males and females and no significant difference was found in terms of age. On an average, length of stay in hospital for females was 8 days as compared to 13 days for men. Men were more likely to go for private medical care. Reasons for hospitalisation included diarrhoea/vomiting, malaria, jaundice, typhoid, respiratory problems, accident, cardiovascular problems, surgical procedures, delivery, pregnancy complication as well few others. Pregnancy complications and malaria were cited more often as reasons for hospitalisation.

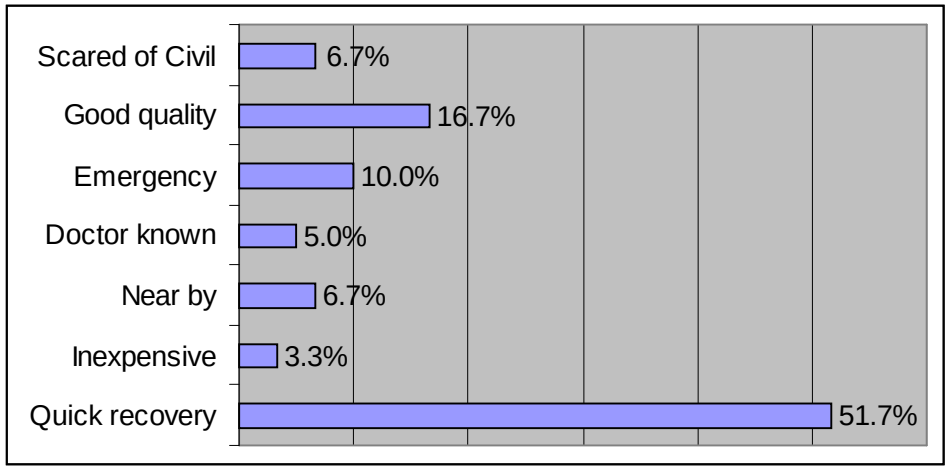
Table 3: Details of Hospitalisation

Cases	98
Gender	Male: 46, Female: 52
Age range	People from all ages starting from 1 to 80 years
Length of Stay in hospital	1 to 180 days (Mean: 11 days)
Major reasons for hospitalisation	Malaria (9%), Pregnancy complications (12.2%)
Provider Preference (Hospitals)	Private (61%), Public (32%), Trust[7] (7%)
Major reason for Private Provider	Quick recovery (52%) and "good quality"
Major reason for Public Provider	Inexpensive (58%)
Average Hospitalisation cost	Rs. 11,813 per episode
Average Transport cost	Rs. 333
Average Wage lost	Rs. 1491
Indebtedness and selling of assets to meet the health expenditure	In 73% of hospitalisation episodes

[7] Private but not-for-profit kind of hospital where the emphasis is on serving the low-income people

Out of all hospitalisations episodes, 61.2 per cent were handled in private hospitals and 31.6 per cent in Public hospital. Rest (7.1 per cent) were admitted into trust hospital. Figure 1 shows that out of those who have opted for private hospital, “quick recovery” was cited as major (51.7 per cent) reason for choosing private hospital. In case of public/civil hospital, “inexpensive” was cited as the most important reason (58.1 per cent) guiding the choice. However, it should also be noted that some people avoid civil hospital because they are scared of using it. “Perceived better quality” and “quick recovery” are the most important reasons for choosing private provider in case of hospitalisation.

Figure 1: Reasons for choosing private provider for hospitalisation



Hospitalisation cost ranged between Rs.100 to whopping Rs.2,50,000. Average total cost (direct as well as indirect costs like transport, wage loss, waiting time etc.) per hospitalisation episode has been worked out to be Rs. 13,636. This figure goes up to Rs. 53,508 for hospitalisation due to cardiac problems/heart attacks. The difference across income groups was found to be statistically insignificant. This cost was found three times higher at Rs. 18,741 in case of private hospitals as compared with Rs. 6191 in case of public hospitals. This cost difference is comparable with national sample survey (NSS) data which showed that private hospitalisation was 3.5 times more expensive than public hospitalisation (Gumber and Breman 1995).

More than 70 per cent of all hospitalization episodes were financed through either borrowing money or selling household assets. It is important to note here that even about 70 per cent of public hospitalisation was also financed through this route. Thus, it is a myth that poor don't have to spend anything when they go to so called free government facilities. This finding substantiate earlier studies which point out that government hospitals are not synonymous with "free care" as it is commonly understood (Dreze and Sen 1995, Gupta et. al 2000).

It is important to address this issue of burden of health care expenditure or medical poverty trap as macro data suggest that a quarter of all hospitalised Indians are pushed below the poverty line on account of the hospitalisation expenditure. Organisations like SEWA have tried to provide financial protection through innovative models like community-based health insurance (Acharya and Ranson 2005). In case of the surveyed households, 68.2 per cent did not have any kind of insurance coverage. (Life/health/asset).

Preference for private provider was found to be stronger in case of outpatient visits (67 per cent). In case of common illnesses like diarrhoea, vomiting and fever, this figure rose to 73 per cent. The Urban Health Centre (UHC) run by the Surat Municipal Corporation (SMC) remains highly underutilised (7.6%) in these low-income areas. Not a single visit has been made to SMC-UHC for common ailments like diarrhea, vomiting and fever. Underutilisation of SMC-UHC is a problem in all slums and this can either be attributed to unawareness about the facility or there is deficiency in the quality of care. Further inquiry is needed to understand the reasons behind under utilisation and interventions to improve utilisation are required. Quick recovery was again cited as the most important reason for choosing private provider. In case of private clinic, geographic location (nearness) as well as familiarity with the doctor was the other important reasons. Although no information

was gathered about borrowing or debt in case of outpatient visits, it is likely that even for outpatient visits such coping mechanisms are in place. It was also interesting to note that unlike in rural areas, the urban poor didn't visit traditional healer for outpatient visits, a fact also brought out by other studies (Gupta el. al 2000). However, this could only be a function of location and not attitude change as they still might be consulting traditional healers when they visit their native place in rural areas.

4. Reproductive and Child Health (RCH)

A range of reproductive health aspects like infant and maternal mortality, abortion, ante natal check-up during pregnancy, male participation in RCH, type of delivery, knowledge and usage of various contraception methods etc. were explored through this module of the interview schedule. Five households reported death due to pregnancy complication (maternal mortality) sometime in the past. Out of 544 surveyed households, 15.5 per cent reported miscarriage in the past. This proportion is about 11.3 per cent in case of abortion and 4.2 per cent in case of still birth and 16 per cent in case of infant death in the past. The idea was to capture the phenomena and not the rate and therefore these figures are not statistical rates *per se*. These figures help to form a pattern which is helpful for developing interventions.

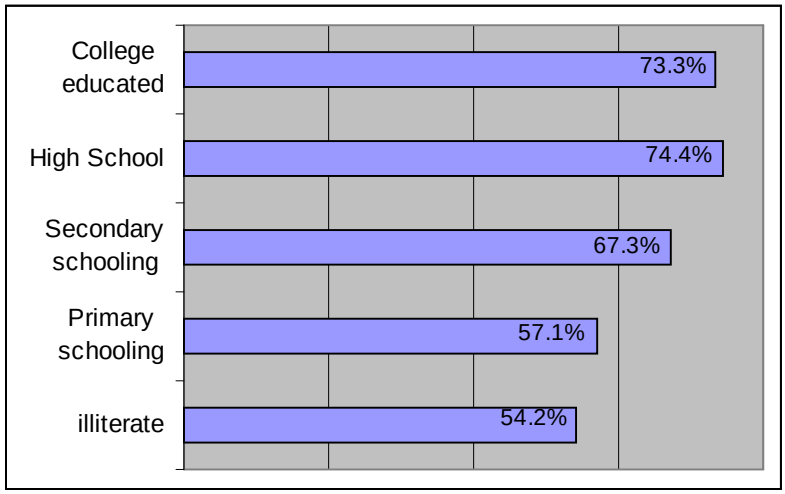
The number of pregnancies among respondent women ranged from 0 to 11 with average number of pregnancy being 3.7 and average number of children 2.7. This translates into one pregnancy loss per household due to reasons like miscarriage, abortion, still birth or infant death. Age at first pregnancy ranged between 12 (this may happen due to confusion about exact age but we have gone by what respondents reported and have considered this as teenage pregnancy) to 30 and the average age was 19. Thus**,** women in these localities deliver the first baby at the age of 19 and on an average have about 3 children. A negative correlation was found between age at first pregnancy and number of children. Thus, women who have their first pregnancy at a younger age, tend to have more number of children.

4.1 ANTE NATAL CHECK-UP (ANC)

During pregnancy (504 out of 544 women have experienced pregnancy), about 37 per cent of women didn't go for any ante natal check-up (ANC) for their last delivery. When asked the reason for not going for the ANC, overwhelming majority (71 per cent) of respondents replied that it was "not

required". About 10 per cent reported that to go for ANC, was "not in their culture". Other reasons included, "no permission from family" and "very far". The problems of distance, time and money are the main reasons cited by people in the low income group and the issue of lack of awareness was found mainly among the illiterate women group. 61.2 per cent of those who had gone for ANC, had chosen private provider whereas 32 per cent had gone to public hospital. Larger proportion of women from middle and higher income groups had opted for private providers while those from the lower income groups had a preference for public facility. Women with a better education level also preferred private providers for ANC. In about 75 per cent of cases, husband had accompanied the wife for ANC. It is encouraging to note the high proportion of male participation in RCH across income groups. No statistically significant difference was found by income group and women going for ANC check-ups. However, there is a clear link between level of education and ANC. The rate of ANC is higher among more educated women and vice versa (Figure 2) and the difference is statistically significant ($p<0.05$).

Figure 2: ANC rates by education



Almost all aspects of ANC were taken care of during the visits by both private as well as pubic providers. There was not much difference in terms of private and public provider except for the fact that the proportion of sonography was higher in case of private providers. Out of those women who were administered iron and folic acid during pregnancy (IFA tablets), 39 per cent admitted that they had not completed the entire course and this figure was more or less same for all levels of education.

4.2 TYPE, PLACE AND COST OF DELIVERY

Table 4 explains various places of last delivery and it can be seen that the highest number of birth have taken place through *Dai*- Traditional Birth Attendant (TBA or midwife), followed by private and public hospitals. When births taking place at home are added (unskilled attendant and doctor assisted) it can be seen that more than half of all births (53.4 per cent) are taking place at home in these urban low-income settlements. This figure was 68.2 per cent in case of Surat slum study more than a decade back (Das 1994). The same study reported only 6.2 per cent of birth at private nursing home, a figure which has now gone up considerably and has reached to 26.3 per cent in present study. It is a common cultural practice for expectant mothers to visit natal home for first delivery. Assuming that natal homes are in villages where home delivery is very common and therefore excluding such cases, the home delivery figure in Surat city still stands at 46 per cent which is quite high.

Looking to this scenario, it becomes important to promote safe delivery practices and train *Dais* in skill upgradation. It is also worth noting that there is no association between income group and place of delivery. Even in high income group more than half of all deliveries are taking place at home while in low income group 28 per cent of deliveries are taking place in private nursing homes. What is true for income groups is also true for level of education. Thus, home delivery is an important characteristic in these settlements irrespective of income groups as well as education levels.

Table 4: Place of Delivery

Place of Delivery	Proportion of HHs
Home, no skilled attended	17.0%
Home, through *Dai*	29.5%
Home, through Doctor	6.9%
Public Hospital	19%
Private Nursing Home	26.3%
Delivered on way to hospital	0.4%
Others	1%
Total	100%

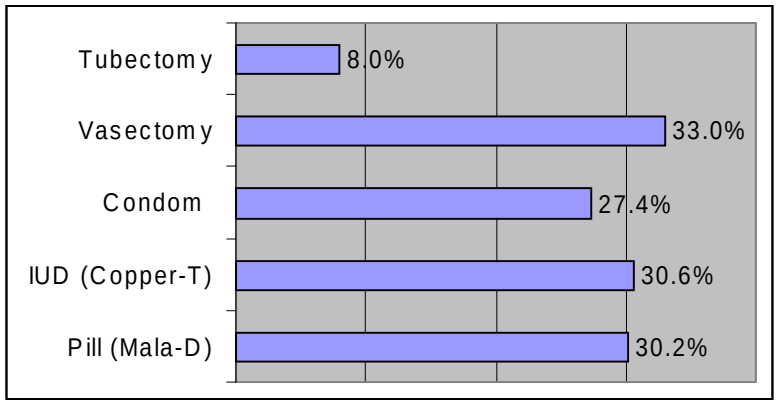
About 34 per cent of women themselves had decided about the place of delivery but almost in equal number of cases (32.2 per cent) the decision was taken by husband or elders in the household and not by the woman herself. In about 18.7 per cent of cases the decision was taken jointly by husband and wife. About 93.5 per cent of recent deliveries were reported to be normal and rest (6.5 per cent) were operational/caesarean section. However, the rates of caesarean section deliveries are more than double in case of private nursing homes.

Expenses incurred in delivery ranged from 0 to Rs. 50,000 and average was Rs. 2742. In case of caesarean section, the average expenditure is Rs. 12,310 which is about seven times as much as the expenditure on normal delivery which is Rs.1880. It should be noted that the rates of caesarean section deliveries are no less in low income groups which must be posing a large financial burden on them. About 35 per cent of respondent reported transport/cash problems for the delivery. About 61.7 per cent of women didn't go for post-natal check-up (PNC) after the delivery. Thus, the proportion of women going for ANC (62.8 per cent) is far higher than the proportion of women going for PNC (38.3 per cent). It should also be noted that low PNC rates are common in all areas and do not vary across education and income groups. The interview schedule also had questions to assess awareness about risk symptoms of pregnancy. Overall about 71 per cent of women could identify all three risk symptoms of pregnancy (swelling, bleeding and fit/seizure). About 17.3 per cent of women reported to have suffered from reproductive tract infection (white discharge etc.) or sexually transmitted disease sometime in their life span and the figure is more or less same for all areas, income groups and level of education.

4.3 AWARENESS AND UTILISATION OF CONTRACEPTIVES

Figure 3 displays respondent women's (youngest married woman in the household) awareness (or rather ignorance) about various contraception methods available. It can be seen from the figure that a significant proportion of women haven't heard of basic contraception methods[8].

Figure 3: Ignorance about contraceptive methods



Contraceptive awareness is related with level of education except in case of tubectomy where the level of awareness is high irrespective of education levels, income group and area of residence. It is interesting to note that highest awareness (92 per cent) is about tubectomy or female sterilization and lowest about male sterilization or vasectomy. Tubectomy is the most preferred method of contraception across education and income groups with 39.1 per cent of utilisation rate. Majority of the tubectomy surgeries have been performed at public provider. However, it should be noted that such wide acceptance for tubectomy suggest gender bias as utilisation of male specific methods like condom (9.9 per cent) and vasectomy (1.1 per cent) is found to be quite low. Moreover tubectomy is almost irreversible method of contraception when reversible methods are available of which many women are not aware. Another important point is of autonomy in deciding about

[8] Care was taken in naming the method of contraception by names that are generally well-known to the community. For example oral contraceptive pills are better known as "Mala-D" and condoms as "Nirodh".

tubectomy as well as other RCH decisions. In about 29 per cent of cases, the decision to go for tubectomy was taken by husband, mother-in-law and elders. This rate is found to be more or less same across education and income groups. However, in more than half of the cases the decision was taken by the woman herself or jointly by a woman and her husband which indicates a reasonable degree of autonomy.

4.4 CHILD CARING PRACTICES

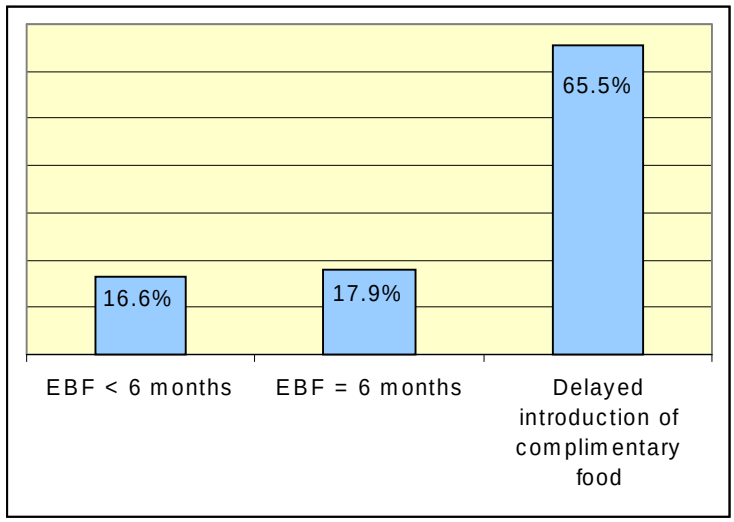
This section of the interview schedule gathered information about access to health services for the last or the youngest living child. Almost half of the respondent women said that either the youngest child was not weighed at the time of birth (46.1 per cent) or they didn't recall (2.2 percent). This figure was about 60 per cent in case of illiterate women. It should also be noted that in about 82 per cent of home deliveries, birth weight of the child was not noted. Since low birth weight (LBW) is a significant RCH problem, awareness about weighing the child at the time of birth is required in these areas.

4.4.1 *COLOSTRUM AND EXCLUSIVE BREAST FEEDING (EBF)*

Exclusive breastfeeding (EBF) and giving of colostrum (first milk soon after birth) have been found to be significantly associated with lowering of neonatal mortality and WHO strongly recommends this. 41.6 per cent of women respondents reported that they didn't provide colostrum to their newborn. Interestingly, this figure didn't differ much even when the child was born in hospital. This indicates that the hospital staff may not be taking special care in promoting colostrum feeding.

As can be seen from figure 4, only about 18 per cent of women practiced EBF for six months. 16.6 per cent started introducing supplementary food before six months and 65.5 per cent delayed introducing complimentary food even after six months. Delayed introduction of complimentary food beyond six months (and this is found to be irrespective of level of education or income) can result in to nutrition deficiency in the child.

Figure 4: Exclusive Breast Feeding (EBF)



4.4.2 *IMMUNISATION AND ORS*

Overall immunisation level is found to be high and 87.1 per cent of women reported that their last child was vaccinated against TB by the BCG vaccine. This figure was 82.5 per cent for DPT, highest 90.1 per cent in case of OPV (Polio) and 76.5 per cent for Measles. A small proportion (16.9 per cent) also reported to have administered recently introduced Hepatitis-B vaccine. However, most of Hepatitis-B vaccines were largely administered by private providers. As Hepatitis-B vaccine is yet an optional immunization, it has been excluded while calculating full immunization. Moreover, booster doses have also been excluded. Thus, 76 per cent of all women reported that their last child was fully immunized, 7.5 per cent reported no immunization at all and 16.5 per cent of women reported that their last child was partially immunized.

Overall, most women (about 65 per cent) had chosen public providers for vaccination. This figure is found to be more or less the same across education and income groups and people in higher income groups also showed preference for public provider in case of immunisation. Table 5 displays provider preference for immunisation. It can be seen from table that

although the poor prefer private provider for outpatient visits, there is a clear preference for public provider in case of services like immunisation.

Table 5: Preference for Vaccination Providers

Provider	Percentage (%)
Aanganwadi	1.9
Private clinic	13.4
Mobile van	3.8
Public provider (Government clinic, hospital etc.)	64.9
Trust clinic/hospital	0.2
Health Camp	0.6
Private and Public	6.0
Others various mixes	9.2
Total	100

Oral Rehydration Solution (ORS) is considered to be a simple, cheap and effective treatment for diarrhoea related dehydration which still kills millions of children in the developing countries. ORS can lower neonatal as well as infant mortality and has been recommended by WHO. Despite the fact that investigators used local languages and also showed ORS packets, more than half (52.9 per cent) of married women failed to identify the packets. As expected, awareness about ORS is positively associated with the level of mother's education. However, no association has been found with income group and level of ORS awareness.

5. Summary of findings and Conclusion

As per the 2001 census data, there are 305 slum pockets in Surat and total slum population is more than 5 lakhs. The proportion of slum population to city population is 21 per cent which remain higher than the other cities of Gujarat. Another important feature of Surat's slum population is that people living here have migrated from various states like Maharashtra, UP, Orrisa, MP, Bihar, Rajasthan as well from Saurashtra region of Gujarat. Women are mainly involved in home based activities like imitation *jari, tikki, garment* etc. Some also work as maid servants in middle and upper class households.

Most of the surveyed households have access to basic amenities like drinking water, toilet, electricity etc. More than half of the households in the surveyed 22 low-income settlements even own a TV set. However, the child sex ratio (0-6 age group) is alarmingly low at 758 female children for 1000 male children. Apart from the possibility of neglecting the girl child, this data gives a nagging feeling of Sex Selective Abortion (SSA) being practiced even in this low income areas and therefore there is a need for quick intervention to check this worsening child sex ratio. Although, female literacy rate is 64.6 per cent, only 18 women members (out of 1220 female members in 544 surveyed household) have had an opportunity to attend a college and only 7 could graduate. Thus, there is a need to promote and facilitate higher education among women in these localities. The average monthly household income has been worked out at Rs. 4377 for a family size of five. However, some socio-economic indicators including income suggest that households that may qualify for BPL card, haven't got this useful facility and a suitable intervention is required here.

Hospitalisation data clearly point towards the huge burden of health care expenditure leading to medical poverty trap as hospitalisation cost ranged between Rs. 100 to whooping Rs. 2,50,000. Average total cost per hospitalisation episode has been worked out to be Rs. 13,636. More than 70 per cent of all the hospitalization episodes were financed through either borrowing money or selling household assets. Although the average cost of

hospitalisation in case of public provider is about one third of private provider, it is important to note here that even about 70 per cent of public hospitalization were also financed through borrowing money or selling assets. Thus, the question of burden of health care-expenditure and related issues of debt and selling household assets remain present even in case of public hospitalisation. Moreover, there is a clear preference for private provider even among the poor for perceived better quality. It is unfortunate that Urban Health Centre of the Surat Municipal Corporation (SMC-UHC) remains highly underutilised in these areas. Therefore, tools of demand side financing like micro health insurance and health vouchers become more important in managing burden of health care expenditure than simply pushing people for state run public provider. National level schemes like Universal Health Insurance Scheme (UHIS) and the recent National Commission for Enterprises in Unorganised Sector (NCEUS) should also pay attention to these urban low-income settlements. Options like expanding the scope of the Employee State Insurance Scheme (ESIS) to unorganised sector, creating NGO-Private Partnership (NPP) for extending health insurance to the poor etc. should also be explored.

Disease specific symptoms and treatment awareness has been found to be low in case of TB. Only about 8.5 per cent of women know that persistent weight loss can be a sign of Tuberculosis (TB). Ignorance about HIV/AIDS has also been found to be quite high as about 61 per cent of women haven't even heard about the disease and out of those who have heard, 32 per cent mistakenly believe that infection can be spread by staying in the same household. This suggests that there is need for a specific HIV/AIDS awareness training programme.

Women in these localities deliver the first baby at the age of 19 and on an average have about 3 children. On an average, one pregnancy per household results in miscarriage, abortion, still birth or infant death. While pregnant, out of those women who were administered IFA tablets during Ante Natal Care (ANC), 39 per cent admitted that they had not completed the entire course. More than half (53.4 per cent) of all births are taking place at home. Moreover, home delivery is an important characteristic in these areas

irrespective of income groups as well as education levels. Looking to this scenario, it becomes important to promote safe delivery practices and train *dais* in skill upgradation. The rates of cesarean section (CS) deliveries are more than double in case of private nursing home as compared to public providers. Delivery cost ranged from 0 to Rs. 50,000 and average was Rs. 2742. In case of cesarean section, the average cost (Rs. 12,310) is about seven times the cost of the normal delivery (Rs. 1880).

Tubectomy is the most preferred methods of contraception which points to the gender bias. About 30 per cent of the women haven't even heard about male specific methods. An intervention can be developed to promote gender neutral and reversible contraception methods with male involvement. In about 82 per cent of home deliveries, birth weight of the child was not noted. Since low birth weight (LBW) is an important RCH problem, awareness about weighing the child at the time of birth is required. In 42% of deliveries, mothers had not fed colostrum to their newly born. Surprisingly, this figure was not very different in case of hospital delivery leaving question mark about the role of hospital staff in promoting colostum feeding.

More than half of the mothers are delaying introduction of complimentary food beyond six months (and this is irrespective of level of education or income) which can result in nutrition deficiency in the child. About 7.5 per cent reported that their youngest child hasn't been immunizaed and 16.5 per cent of women reported partial immunization. Although local language were used to explain, more than half (52.9 per cent) of respondent women haven't heard about ORS. As expected, awareness about ORS rises with level of mother's education.

Two Focused Group Discussions (FGDs) were organised to understand the health problems faced by adolescent boys and girls. All adolescent boys and girls admitted that they had no prior information about the physical changes taking place in their bodies. There were feelings of surprise as well as fear in them, especially in case of girls at the time of onset of menstruation. Moreover, many misconceptions were found pertaining to the sexual behaviour in case of adolescent boys.

Many of the results from the RCH module of this survey of 544 household from 22 low-income settlements in Surat, are similar to that of National Family Health Survey (NFHS-3) results which point towards the larger need for interventions to prevent skipping ante natal care, pregnancy complications, delayed introduction of complimentary food etc. There is also need to promote disease awareness as well as demand side health care financing models like micro or community-based health insurance and health vouchers that can protect low-income people from the burden of health care expenditure especially during hospitalisation which can lead to medical poverty trap. Much of the studies and literature in health policy research has a clear rural focus which is of course required but at the same time health system inequities in urban India is also glaring and demand further research.

End Notes

[i] Between 1999-2000, Below Poverty Line (BPL) population has decreased by 4.68 per cent in rural areas. However, the pace of reduction has been found to be slower (only about 2.12 per cent) in urban areas.

[ii] Gujarat, a highly urbanised state also has a higher urban poverty ratio as compared to rural.

References

Acharya, Akash and M Kent Ranson. 2005. "Health Care Financing for the Poor: Community-based Health Insurance schemes in Gujarat" *Economic and Political Weekly* 40:4141-4150.

Agrawal, Siddarth. et. al. 2005. "Health Concerns and Organising Health Care Delivery to Urban Slums" in *Ranbaxy Scinece Foundation's 16th roundtable conference*: Urban Health Resource Centre.

Asthana, Sheena. 1995. "Variations in poverty and health between slum settlements: contradictory findings from Vishakhapatnam, India" *Social Scinece and Medicine* 40:177-188.

CBHI 1996. *Health information of India*, Directorate of Health Services, MoHFW, Government of India.

Das, Biswaroop. 1994. *Socio-Economic Study of Slums in Surat City*, Centre for Social Studies (CSS), Surat.

Dreze, Jean and A K Sen. 1995. *India: Economic Development and Social Opportunity*, Oxford: Clarendon Press.

Geetha, S. and Madhura Swaminathan. 1996. "Nutrition status of slum children of Mumbai: A socio-economic survey", *Economic and Political Weekly* (EPW), Vol XXXI No 14 pp. 896-900.

Gumber, Anil and Peter Berman 1995. *Measurement and Pattern of Morbidity and Utilisation of Health Services*, Working paper no. 65, Gujarat Institute of Development Research (GIDR), Ahmedabad.

Gupta, Indrani., Purnima Dasgupta and Pradosh Simlani 2000. *Health-seeking behaviour in urban India: A case study of Delhi*, Discussion Paper Series No. 16, Institute of Economic Growth (IEG), Delhi.

Karn, Sunil., Shigeo Shikuran and Hideki Haradia 2003. "Living Environment and Health of Urban Poor: A Study in Mumbai" *Economic and Political Weekly*:3575-3586.

Madhiwala, Neha., Sunil Nandraj and Roopashri Sinha 2000. "Health, Households, and Women's Lives: A study of illness and childbearing among women in Nashik district", Centre for Inquiry into Health and Allied Themes (CEHAT), Mumbai.

Pernia, E M. 1994. *Urban Poverty in Asia: A Survey of Critical Issues*: Oxford University Press.

Russell, S. (2001) *Can households afford to be ill? The role of the health system, material resources and social networks in Sri Lanka*, PhD thesis, London School of Hygiene & Tropical Medicine, University of London.

Sahu, Gagan Bihar and Biswaroop Das (2008) *Money Remittance Channels of Oriya Migrant Workers*, Centre for Social Studies (CSS), Surat.

Sundar, Ramamani and Abhilasha Sharma. 2002. "Morbidity and Utilisation of Health Care Services: A survey of urban poor in Delhi and Chennai" *Economic and Political Weekly* (EPW), November 23.

United Nations. 1996. *World Development Prospects, The 1996 Revision*, New York, US.

Wagstaff, Adam. 2002. *Poverty and Health Sector Inequalities, Bulletin of the World Health Organisation*, 80 (2).