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HEALTH STATUS IN TELANGANA

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## HEALTH STATUS IN TELANGANA

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### **1. Introduction**

The objective of the World Health Organisation (WHO), to ensure healthy lives and promote well-being for all at all ages, confirms the importance of the access to all health facilities for all socio-economic strata. In order to achieve this objective, it is necessary to first analyse existing health systems and institutional structure as well as estimate the projected health situation. This chapter maps the health status in Telangana state, with a focus on morbidity patterns, their socio-economic determinants, hospitalisation, cost of healthcare and maternal and child health.

The unit level data of National Sample Survey Organisation's 71<sup>st</sup> Round 'Key Indicators of Social Consumption in India: Health' (2014) is the main data source. The sample includes 6,582 respondents from Telangana drawn equally from rural and urban areas. The information from District Level Household and Facility Survey (DLHFS), Census of India and NFHS has also been used for the analysis.

Logistic regression analysis, ratios and percentages have been used extensively to capture the social, spatial, gender and economic dimensions of reported health status. The morbidity pattern is discussed under six major heads of socio economic variables: social group, place of residence, Monthly Per-capita Consumption Expenditure (MPCE), household size, sex and age group. A comparative analysis between Telangana and all India averages is presented in order to situate the socio-economic position of the state.

This chapter has seven sections: introduction to health systems in Telangana; basic health status of the Telangana, including the status of women and children; maternal and child health; morbidity, hospitalisation and health expenditure; preference of health care institutions; system of medicine; and insurance coverage. An attempt has also been made to estimate the overall health of Telangana by constructing a health deficiency index.

## 2. Public health care in Telangana

Health status has been widely considered as a development indicator that reflects a variety of socio-economic factors including the level of income, standard of living, housing, sanitation, water supply, education, employment, health awareness, personal hygiene and so on. It also reflects the way existing institutional arrangements address different types of health requirements, the level of availability, accessibility and affordability of health care delivery services (Nanda and Ali 2006).

The relationship between health status and standard of living has been widely discussed in development literature. Studies have identified a two-way causal relationship between economic growth and health status. For instance, economic growth enables higher health expenditure, and a healthy labour force contributes to economic growth. In other contexts, illhealth may cause higher out-of-pocket expenditure that leads to impoverishment and indebtedness. Factors such as income, education and medical inputs have also been found to exert a positive impact on health.

Compared to other areas, health remains one where India has achieved modest success in terms of commonly accepted parameters. At the same

time, there exist sharp variation across states, between rural and urban areas, and along lines of gender, class, social and religious groups (Chaudhuri et. al. 2015; Mukherjee 2015). Over the years, there has been a gradual decline in India's budgetary allocations in health sector and growth of private financing. As a result, India experienced sharp increase in the 'out-of-pocket' private expenditure (at rate of 12.5 percent) during 1995-96 to 2004 period (Bhat 1999; Chaudhuri et. al. 2015).

In the case of Telangana state, its performance in health sector remains relatively poor, despite governmental recognition of the importance of issues related to public health care delivery services. For instance, the budget speech of the finance minister of the state (2016-17) admits the fact that 'even poor patients hesitate taking treatment in government hospitals. We want to change this so that the poor on their own prefer government to private hospitals' (Government of Telangana 2016d: 18).

Government expenditure on medical and public healthcare can be taken as a proxy indicator for mapping the strategy followed in this sector. As per the 2016-17 budget allocation, 'Medicine and Public Health' is one of the few areas where the state increased its budgetary allocation. Compared

**Table 7.1: Government spending in health sector, Telangana (Rupees in Crores)**

Particulars	Accts 2014-15	R.E 2015-16	B.E 2016-17
<b>Urban Health Services</b>	1,131.51	1,479.43	3,246.06
<b>a. Allopathy</b>	1,082.79	1,336.04	3,155.81
<b>b. Other Systems of Medicine</b>	48.72	143.39	90.25
<b>Rural Health Services</b>	1,346.79	2,491.33	2,714.43
<b>a. Allopathy</b>	292.71	511.83	559.28
<b>b. Other Systems of Medicine</b>	15.98	47.95	47.82
<b>Medical Education, Training &amp; Research</b>	154.3	276.47	210.66
<b>Public Health</b>	146.77	394.59	495.22
<b>General</b>	71.63	93.66	230.4
<b>Family Welfare</b>	665.4	1,166.83	1,171.05
<b>Total</b>	2,478.30	3,970.76	5,960.49

Source: Government of Telangana (2016c)

to previous years, the amount proposed in the budget of 2016-17 for the health sector (Rs. 5967 crores) is significantly high. Details show that the increase in health expenditure is reflected in almost all key areas of public health (Table 7.1).

This pattern has direct impact on the public health infrastructure and provision of public health care services in the state. For instance, the number of sub centres, primary health centres and community health centres in the state of Telangana have been found to be lower than most of the southern states in the country (Table 7.2).

**Table 7.2: Health institutions in southern states and Telangana, 2015**

State	Sub Centre	PHCs	CHCs
Andhra Pradesh	7659	1069	179
Karnataka	9264	2353	206
Kerala	4575	827	222
Tamil Nadu	8706	1372	385
Telangana	4863	668	114
All India	153655	25308	5396

Source : Government of India 2015

Within the state, we find sharp differences in the distribution of government medical facilities. The distribution of sub-centres, PHCs, CHCs, area hospitals and district hospitals, availability of facilities such as PP Units, UFWC and UHCs varies sharply across the districts. Except Adilabad and Warangal, all districts have district hospitals equipped to provide advanced treatment (Table 7.3). Largely, general hospitals and speciality hospitals functioning in the government sector are concentrated in the city of Hyderabad and a few districts like Warangal, Medak and Nalgonda. The figures show that 21 general hospitals (out of 108) and 10 speciality hospitals (out of 17) functioning in the government sector (allopathic) are located in Hyderabad. Compared to other districts, Warangal district has 12 general hospitals and 5 speciality hospitals to serve its population (Table 7.4).

**Table 7.3: Distribution of health facilities in Telangana**

District	Sub-Centres	PHCs	CHNCs	CHCs	PP Units <sup>1</sup>	UFWCs	UHCs	Area Hospitals	District Hospitals
Mahbubnagar	680	84	19	14	6	1	11	4	1
Ranga Reddy	399	52	11	9	2	2	5	4	1
Hyderabad	53	85	14	10	4	24	1	3	1
Medak	489	67	10	8	3	4	4	3	1
Nizamabad	412	40	14	14	2	5	10	3	1
Adilabad	470	72	17	13	3	4	12	6	0
Karimnagar	580	71	20	16	3	3	16	3	1
Warangal	605	75	16	14	4	5	12	4	0
Khammam	549	57	14	11	2	4	8	5	1
Nalgonda	626	72	15	5	4	3	8	7	1
State	4863	675	150	114	33	55	87	42	8

Source: Commissioner of Health & Family Welfare, Government of Telangana  
<http://chfw.telangana.gov.in/getInfo.do> (last accessed on 3rd March, 2017)

<sup>1</sup> To admit postpartum period or postnatal period - the period beginning immediately after the birth of a child and extending for about six weeks

**Table 7.4: Government medical institutions in Telangana - 2014-15 (Allopathic)**

District	General Hospitals	Hospitals for Special Treatment							Total Hospitals (2+9)
		Fever	T.B	Eye, ENT & Dental	Psycho social	IDCD & Cancer	Women & Child	Total (3 to 8)	
1	2	3	4	5	6	7	8	9	10
Adilabad	10	-	-	-	-	-	1	1	11
Nizamabad	7	-	-	-	-	-	-	-	7
Karimnagar	8	-	-	-	-	-	-	-	8
Medak	12	-	-	-	-	-	1	1	13
Hyderabad	21	1	1	2	1	1	4	10	31
Rangareddy	9	-	-	-	-	-	-	-	9
Mahbubnagar	10	-	-	-	-	-	-	-	10
Nalgonda	12	-	-	-	-	-	-	-	12
Warangal	12	-	1	1	-	1	2	5	17
Khammam	7	-	-	-	-	-	-	-	7
<b>Total</b>	108	1	2	3	1	2	8	17	125

Source: Government of Telangana, (2016b)

Similarly, the availability of various medical facilities available in the government health sector (allopathic) has been found to be very high in Hyderabad and Warangal district. Thus, total number of PHCs, number of beds available (for men, women, children and common), number of dispensaries and number of regular doctors remain high in Hyderabad city and Warangal district. At the same time, districts like Nizamabad and Khammam have a very poor network of

government medical institutions and public health care facilities. Although Rangareddy mirrors Hyderabad in many indicators such as education, income, housing etc, the public health care arrangements in this district follow a different pattern (Table 7.5). This is probably compensated by proximity to the city, and thereby greater access to the health care institutions available in the state capital.

**Table 7.5: Government medical facilities in Telangana -2014-15 (Allopathic)**

District	Primary Health	Beds Available for					Dispensaries	Doctors	
		Men	Women	Children	Common	Total		Regular	Contract
Adilabad	72	179	1,411	80	124	1,794	2	152	103
Nizamabad	41	170	1,196	80	40	1,486	2	187	66
Karimnagar	71	-	1,616	-	-	1,616	2	198	55
Medak	69	-	1,394	-	100	1,494	8	256	34
Hyderabad	85	2,289	4,062	579	1,152	8,082	30	1,323	47
Rangareddy	48	-	978	-	10	988	10	161	27
Mahbubnagar	84	-	1,614	-	-	1,614	4	198	67
Nalgonda	74	-	1,454	-	-	1,454	4	222	30
Warangal	70	495	1,545	180	415	2,635	4	379	23
Khammam	57	-	1,332	-	-	1,332	4	156	58
<b>Total</b>	671	3,133	16,602	919	1,841	22,495	70	3,232	510

Source: Government of Telangana, (2016b)

In the case of other systems of medicines such as Ayurveda, Unani, Homoeopathy and Naturopathy (classified under Ayush) too, Hyderabad and Warangal account for the largest number of hospitals, beds available, doctors and patients treated in 2014-15 (Table 7.6 and Table 7.7).

These figures clearly show the regional disparity in the availability of public health care facilities across the districts of Telangana and the need for effective policy measures to widen the availability and access evenly.

**Table 7.6: Government medical facilities in Telangana - 2014-15 (Ayurveda and Unani)**

District	Ayurveda				Unani			
	Hospitals	Beds available	Doctors	Patients treated	Hospitals	Beds available	Doctors	Patients treated
Adilabad	-	-	-	-	-	-	-	-
Nizamabad	-	-	-	-	1	5	1	35,118
Karimnagar	-	-	-	-	-	-	-	-
Medak	1	9	1	17,057	-	-	-	-
Hyderabad	2	200	8	1,45,108	1	180	18	2,14,822
Rangareddy	-	-	-	-	-	-	-	-
Mahbubnagar	-	-	-	-	-	-	-	-
Nalgonda	-	-	-	-	-	-	-	-
Warangal	1	100	4	67,386	1	5	1	17,131
Khammam	-	-	-	-	-	-	-	-
<b>Total</b>	4	309	13	2,29,551	3	190	20	2,67,071

Source: Government of Telangana, (2016b)

**Table 7.7: Government medical facilities in Telangana in 2014-15 (Homeopathy and Naturopathy)**

District	Homeopathy				Naturopathy			
	Hospitals	Beds available	Doctors	Patients treated	Hospitals	Beds available	Doctors	Patients treated
Adilabad	-	-	-	-	-	-	-	-
Nizamabad	-	-	-	-	-	-	-	-
Karimnagar	-	-	-	-	-	-	-	-
Medak	-	-	-	-	-	-	-	-
Hyderabad	2	100	8	2,52,474	1	184	10	8,158
Rangareddy	-	-	-	-	-	-	-	-
Mahbubnagar	-	-	-	-	-	-	-	-
Nalgonda	1	10	1	47,700	-	-	-	-
Warangal	-	-	-	-	-	-	-	-
Khammam	-	-	-	-	-	-	-	-
<b>Total</b>	3	110	9	3,00,174	1	184	10	8,158

Source: Government of Telangana, (2016b)

**Table 7.8: Building position of health institutions in Telangana**

Type of Institutions	Sub-Centers	Primary Health Centres	Community Health Centres
<b>Total number of institutions</b>	4863	668	114
<b>Govt. Building</b>	2425	638	104
<b>Rented Building</b>	2438	30	10
<b>Rent Free Panchayat / Vol. Society Building</b>	0	0	0
<b>Buildings under construction</b>	255	40	0

Source: Government of India (2015). As on 2015

While looking at the physical condition of existing facilities in the government health care sector, we find that a large number sub centres (2438 out of 4863) are currently functioning in rented buildings. Comparative to this, most of the PHCs and CHCs are functioning in government's own buildings (Table 7.8). Similarly, we find shortage of personnel at various levels of government health care system. Although the state has surplus

of health workers (female), doctors and health assistants (female) at PHCs, there are severe shortages of health assistants (male in PHCs); specialists like surgeons, obstetricians and gynaecologists, physicians, paediatricians and radiologists (in CHCs); pharmacists, laboratory technicians, nursing staff (in PHCs and CHCs); and Block Extension Educator (in PHCs) in the state (Table 7.9).

**Table 7.9: Human resources in PHCs and CHCs in Telangana**

Human Resources	Required	Sanctioned	In Position	Vacant
	(R)	(S)	(P)	(S-P)
<b>Health Worker [Female] / ANM at Sub-Centres and PHCs*</b>	5531	9141	7705	1436
<b>Doctors at PHCs (Allopathy) *</b>	668	1318	1024	294
<b>Health Assistants [Female] / LHV at PHCs*</b>	668	1111	944	167
<b>Health Assistant [Male] at PHCs*</b>	668	0	0	0
<b>Surgeons at CHCs*</b>	114	71	14	57
<b>Obstetricians &amp; Gynaecologists at CHCs*</b>	114	71	41	30
<b>Physicians at CHCs*</b>	114	71	28	43
<b>Paediatricians at CHCs*</b>	114	71	33	38
<b>Radiographers at CHCs*</b>	114	71	28	43
<b>Pharmacists at PHCs &amp; CHCs*</b>	782	928	691	237
<b>Laboratory Technicians at PHCs &amp; CHCs*</b>	782	765	566	199
<b>Nursing Staff at PHCs &amp; CHCs**</b>	1466	1666	1453	213
<b>Block Extension Educator at PHCs</b>	-	633	544	89

Note: As on 31st March, 2015.

\*One per Primary Health Centre;

\*\* One per Primary Health Centre and seven per Community Health Centre

Source: Government of India (2015).

The existing institutional arrangements in the public health sector partially address the requirement but remain inadequate for the provision of quality service to the entire population in the state. At the same time, providing health infrastructure and focusing on access may not ensure their effective use.

In general, there has been gradual improvement in some areas such as maternal care and related services (Table 7.10). At the same time, however, the government continues to face tremendous challenges in providing comprehensive health care evenly spread across location and social groups throughout the state.

### 3. Basic health status of Telangana

#### 3.1. Sex ratio, mean age at marriage and sanitation facilities

##### a. Sex ratio

All the districts in Telangana register improvement in sex ratio from 2007-08 to 2012-13. During 2007-08, there was only one district with favourable female-male ratio in Telangana

–Nizamabad. Now four districts, namely Adilabad, Nizamabad, Karimnagar and Khammam have a sex ratio higher than 1000. The highest ranking district in this regard continues to be Nizamabad and the lowest ranking continues to be Hyderabad (Table 7.11). *The improvement in sex ratio over this period is an indication of social progress, but it is important to see sex discrimination in terms of the lower female-male ratio that continues to prevail in most of the districts (Figure 7.1).*

##### b. Mean age at marriage

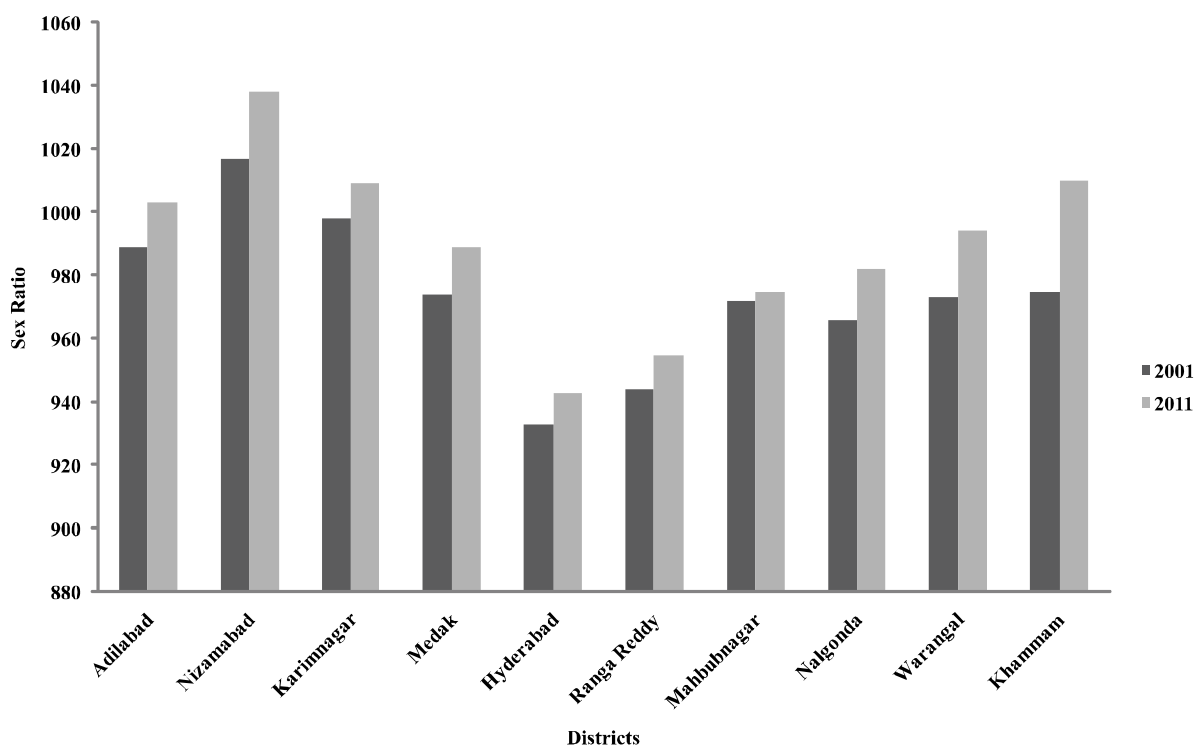
The mean age at marriage of girls ranged from 18.2 in Mahbubnagar to 21.7 in Hyderabad in 2007-08 (Table 7.11). In the case of the former about 47 per cent of the girls were married before legal age; but in Hyderabad the percentage is only 5 per cent. The situation improved greatly in 2012-13, wherein only 1.8 per cent of girls in Hyderabad were married below legal age and the highest percentage, 18 per cent, was found in Medak. All districts on the whole have registered improvement from 2007-08 to 2012-13, except Ranga Reddy district where a slight decline has been reported from 19.6 per cent in 2007-08 to 19.0 per cent in 2012-13.

**Table 7.10: Health care service: Selected indicators in Telangana**

Services	2013-14	2014-15
<b>Outpatients</b>	28795252	28739087
<b>In Patients</b>	1455907	1564100
<b>ANCs registered</b>	752545	798279
<b>Total Deliveries</b>	606331	611857
<b>Institutional Deliveries</b>	585801	596872
<b>Share of Institutional deliveries (%)</b>	97	97
<b>Public Institutional Deliveries</b>	263769	275167
<b>Share of Public institutional deliveries (%)</b>	44	45
<b>Home Deliveries</b>	20530	14985
<b>Share of Home deliveries (%)</b>	3	2
<b>Full Immunizations</b>	600501	620797
<b>Sterilizations</b>	214377	195479
<b>108-Pregnant women transported</b>	114660	106257

Source: Commissioner of Health & Family Welfare, Government of Telangana  
<http://chfw.telangana.gov.in/getInfo.do> (last accessed on 3rd March, 2017)



**Figure 7.1: Sex ratio in Telangana by districts, 2001-2011**

Source: Various reports of district and state levels of DLHFS-3 and DLHFS-4 Rounds (2007-08 and 2012-13)

**Table 7.11: Sex ratio, mean age at marriage and sanitation facilities over the years in Telangana**

Districts	Sex ratio		Mean age at marriage		Percentage of households with toilet facilities*	
	2001	2011	2007-08	2012-13	2007-08	2012-13
Adilabad	989	1003	18.7	20.7	25.3	36.4
Nizamabad	1,017	1038	19.2	20.5	37.7	60.1
Karimnagar	998	1009	19.5	20.2	36.9	74.5
Medak	974	989	19.1	19.3	34.5	65.3
Hyderabad	933	943	21.7	20.5	96.9	89.2
Ranga Reddy	944	955	19.6	19.0	70.4	64.3
Mahbubnagar	972	975	18.2	19.9	21.2	58.5
Nalgonda	966	982	18.3	19.3	29.1	63.3
Warangal	973	994	18.6	18.9	40.6	47.4
Khammam	975	1010	18.6	20.3	32.1	67.9

Note: \*Household having access to toilet facility = improved source of sanitation + flush not to sewer/septic/pit/twin pit + pit without slab + dry toilet

Source: Various reports of district and state levels of DLHFS-3 and DLHFS-4 Rounds (2007-08 and 2012-13)

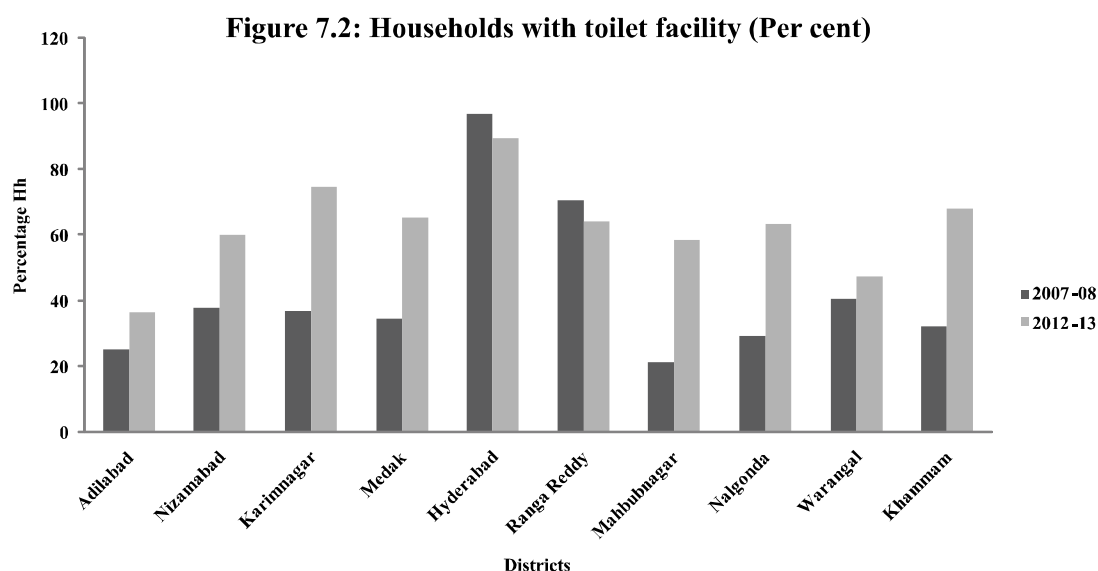
### c. Sanitation

Only 55 per cent of the households in Telangana reported improved sanitation facilities during 2012-13 (DLHFS 4, 2014). However, compared to the previous survey period of 2007-08, the condition has improved significantly across districts. The highest percentage of sanitation coverage is registered in Hyderabad and Ranga Reddy districts, and the lowest san in Adilabad and Warangal districts in 2012-13. *There is a small decline in the availability of improved sanitation facilities in Hyderabad and Ranga Reddy from 2007-08 to 2012-13, the reasons for which have to be further investigated* (Figure 7.2).

### d. Early age at marriage

In Telangana, NFHS 4 reported that about a quarter of the female respondents (25.7 per cent) aged between 20 to 24 years had been married before they reached 18 years. Mahbubnagar district had the highest number of respondents (45.6 per cent) who were married before age of 18, followed by Nalgonda district (36.8 per cent). The lowest number was reported in Nizamabad (10.5 per cent) (Table 7.12).

In Telangana, the percentage of women married before the age of 18 (who belonged to the age group of 20-24 years during the time of the survey)



Source: Various reports of district and state levels of DLHFS-3 and DLHFS-4 Rounds (2007-08 and 2012-13)

**Table 7.12: Age at marriage, family planning and role of health workers**

District/State	Women age 20-24 years married before age 18 years (%)		Current use of family planning methods (currently married women aged 15-49 years) - any method method	Whether a health worker has ever spoken to female non-users about family planning (%)
	Rural	Total		
Adilabad	40.5	31.7	48.7	11.1
Nizamabad	33.3	10.5	55.8	11.3
Karimnagar	16.9	12.7	38.6	7.9
Medak	35.2	31.6	49.6	8.9
Hyderabad	10.5	10.5	55.8	11.3
Ranga Reddy	82.6	22.8	69.1	6.6
Mahbubnagar	51.6	45.6	64.3	12.4
Nalgonda	36.7	36.8	68.0	10.1
Warangal	34.7	27.7	50.8	8.8
Khammam	55.3	30.9	69.1	15.3
Telangana	35.0	25.7	57.2	9.7

Source: Various district and state level reports of NFHS-4 (2015-16)

is much higher in rural areas (about 35 per cent). In urban areas the corresponding percentage is 15.7. *This indicates the prevalence of early marriage system in Telangana, especially in the rural areas (Figure 7.3).*

#### e. Family planning and role of health workers

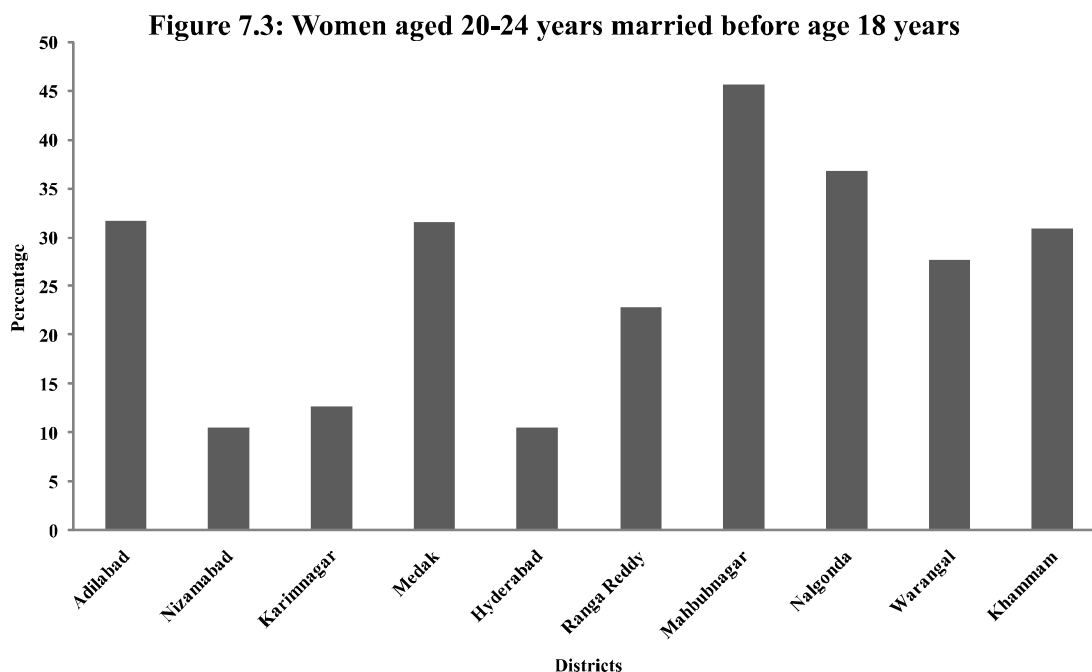
As far as current use of family planning methods (by currently married women aged 15–49 years) is concerned, more than half the respondents (57.2 per cent) reported using some sort of family planning. Khammam and Ranga Reddy districts report highest use of family planning methods (69.1 per cent) followed by Nalgonda district (68.0 per cent). But there are certain other districts like Karimnagar (38.6 per cent) and Adilabad (48.7 per cent), where use of family planning methods is comparatively lower (Table 7.12). The use of family planning methods is about 59 and 56 per cent in urban and rural areas respectively among the women in the age group 15–49 years.

According to NFHS-4 (2015-16), even though antenatal care is good among women in terms of their first visit, it is only 47 and 37 per cent respectively for urban and rural areas. Also, only around half of the pregnant women had consumed iron and/or folic acid for more than 100 days. With

regard to health workers promoting family planning among female non-users, only a minority (9.7 per cent) reported such an intervention. Although the rate is low, 15.1 per cent of the female non-users in Khammam district had been advised on family planning methods; the proportion is lowest in Ranga Reddy district (6.6 per cent). Only two-fifths of mothers (42.2 per cent) in the state had received ante-natal care, 29.3 per cent in Nalgonda district got the antenatal care, but this situation is comparatively better in Hyderabad and Nizamabad districts, where a significant proportion of mothers received antenatal care (62.6 per cent) followed by Warangal district (60.7 per cent) (Table 7.12).

#### f. Maternal and child health

While institutional births in Telangana are high (96 per cent in urban and 87 per cent in rural), institutional births in public facilities are very low: only 27 and 34 per cent for urban and rural areas respectively (NFHS 4, 2015-16) (Table 7.13). According to NSSO (2014) 71<sup>st</sup> round survey, the percentage distribution of women (aged 15–49 years) who gave birth to children in private hospitals is higher in Telangana both in rural (59.3 per cent) and urban areas (74.3 per cent), when compared to the all India average (22.5 per cent



Source: Various district and state level reports of NFHS-4 (2015-16)

and 45.8 per cent respectively). The rate of utilisation of public hospitals for this purpose is very low in Telangana (29.4 per cent in rural and 22.5 per cent in urban) when compared to all India (41.4 per cent and 38.4 per cent respectively). It is to be noted that the rate of home births is very low in Telangana (2.2 per cent in rural and 1.6 per cent in urban) when compared to all India (19.9 per cent and 10.5 per cent respectively) (Table 7.13).

*This necessitates state policy oriented towards ensuring maternal and neo-natal care through public institutions.*

At the same time, it has to be noted that about 96 per cent of children aged between 12 to 23 months in rural Telangana had received most of their

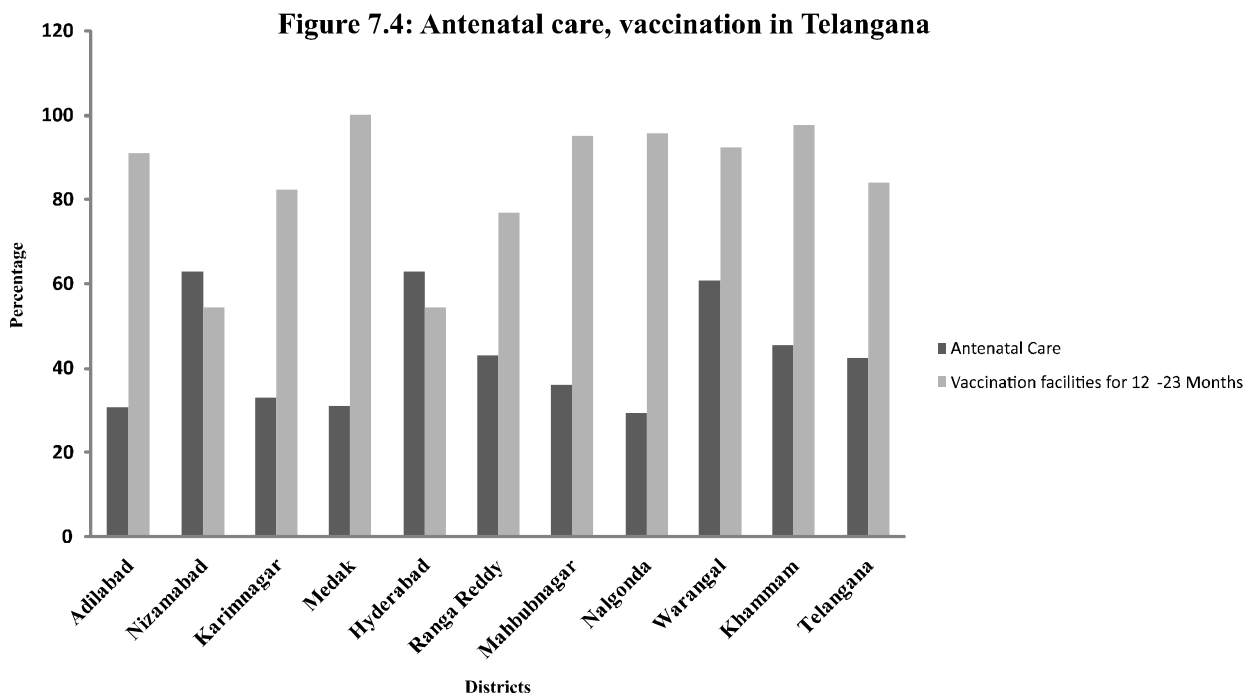
immunisation from public health facilities. The rate is, however, only 72 in urban Telangana. An important positive factor is that the percentage of children who were given immediate medical attention during illness is higher both in rural and urban Telangana (NHFS-4, 2015-16). But about 33 per cent of children under the age of 5 years were under-weight in rural Telangana; the proportion being lower in urban Telangana (22 per cent). Another alarming situation is that around 68 per cent of the children from the age of 6 to 59 months in rural Telangana are anaemic. The IMR is also a cause for concern. The rural IMR is 35 and urban IMR is 20. The situation of under-five mortality rate in Telangana is 38 in rural and 25 in urban (NFHS-4, 2015-16) (Figure 7.4).

**Table 7.13: Percentage distribution of women aged 15-49 by place of childbirth over the last 365 days (2014)**

Telangana / All India	Rural / Urban	Percentage of women who gave birth in					
		HSC/PHC and others*	Public hospital	Private clinic	Private hospital	At home	All
Telangana	Rural	6.9	29.4	2.3	59.3	2.2	100.0
	Urban	0.6	22.5	0.8	74.5	1.6	100.0
All India	Rural	14.1	41.4	1.6	22.5	19.9	100.0
	Urban	3.3	38.4	1.7	45.8	10.5	100.0

\* includes ANM/ASHA/AWW/dispensary/CHC/MMU

Source: Estimated from NSSO 71st Round Report, Key Indicators of Social Consumption in India: Health, 2014



Source: Various district and state level reports of NFHS-4 (2015-16)

**g. Nutritional health of women**

Body mass index (BMI) is indicative of nutritional health. Twenty three per cent of women in Telangana have a BMI below normal (BMI < 18.5 kg/m<sup>2</sup>). Adilabad reported the highest incidence of women with low BMI at 35.1 per cent (Table 7.14). Fifty five per cent of pregnant women (15-49 years) in rural areas are anemic.

**h. Vaccination from public health facility**

A majority (84 per cent) of children in the age group 12-23 months had received most of their vaccinations from a public health facility. Vaccination coverage of infants in public health facilities in Medak district was 100 per cent. On the other hand, the rate of receiving vaccination is comparatively lower in Nizamabad district (54.3 per cent).

**i. Prevalence of selected ailment (diarrhoea) among infants**

With respect to occurrence of childhood diseases (aged < 5 years), 23.1 per cent of infants below the age of 5 years reportedly had diarrhoea in Telangana. The district-wise analysis shows that

Adilabad district reported the lowest rate of diarrhoea (12.2 per cent), but in Medak district, it was relatively higher at 29.0 per cent.

**3.2. Morbidity, hospitalisation and health expenditure****a. Morbidity**

For the purpose of the present study, morbid persons are defined as the number of living persons reporting ailment (per 100 persons) during a 15-day reference period. It is reported that Telangana has higher morbidity in rural areas (9.7 per cent), than urban (9.5) as against the national pattern of 8.9 per cent and 11.8 per cent for rural and urban areas respectively. As far as morbidity is concerned, the morbidity is higher in rural Telangana than rural India, but the morbidity is lower in urban Telangana than urban India.

**b. Hospitalisation**

In the case of hospitalisation, rural Telangana reported a slightly higher proportion (4.8 per cent) than rural India, while urban Telangana reported the same rate of hospitalisation (4.9 per cent) as that of urban India (Table 7.15).

**Table 7.14: Antenatal care, vaccination, prevalence of diarrhoea and Women's BMI**

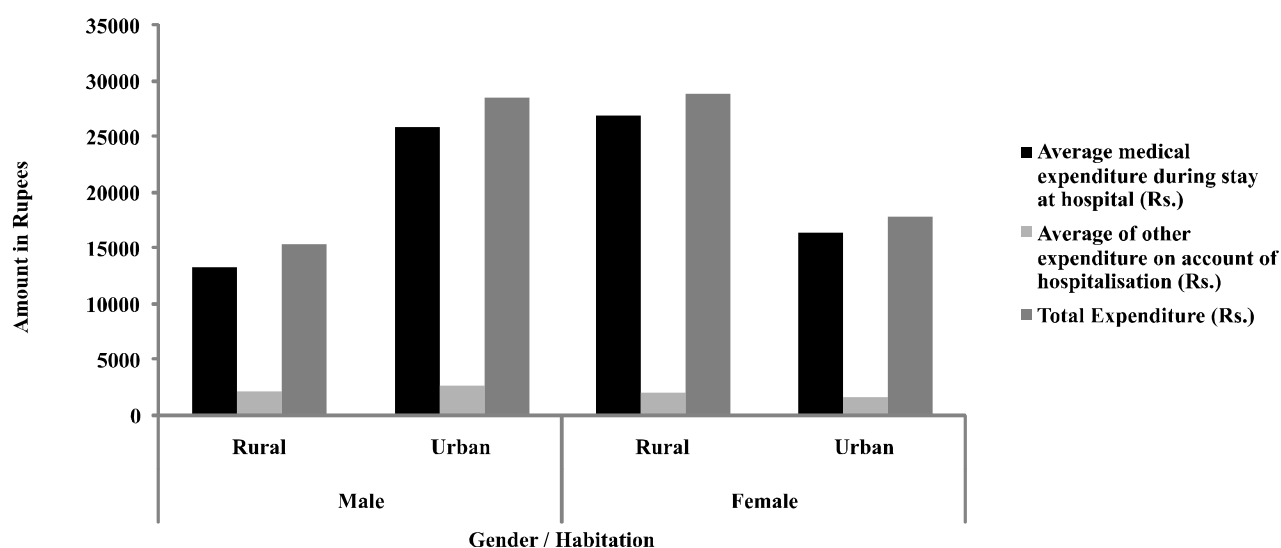
District/State	Mothers who had full antenatal care (%)	Children age 12-23 months who received most of the vaccinations in public health facility (%)	Prevalence of diarrhoea (reported) in the last two weeks preceding the survey (%)	Women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m <sup>2</sup> ) 14 (%)
Adilabad	30.6	90.8	12.2	35.1
Nizamabad	62.6	54.3	12.9	12.9
Karimnagar	32.8	82.2	23.3	23.3
Medak	31.0	100.0	29.0	29.0
Hyderabad	62.6	54.3	12.9	12.9
Ranga Reddy	43.0	76.7	19.3	19.3
Mahbubnagar	36.0	95.0	28.3	28.3
Nalgonda	29.3	95.6	24.9	24.9
Warangal	60.7	92.3	24.3	24.3
Khammam	45.1	97.6	20.2	20.2
Telangana	42.2	83.7	23.1	23.1

Source: Various district and state level reports of NFHS-4 (2015-16)

**Table 7.15: Distribution of persons reporting ailment (PAP) and persons hospitalized in Telangana and all India (Percentage)**

Telangana/ All India	Number of persons reporting ailment (percentage)		Number of persons hospitalised (percentage)	
	Rural	Urban	Rural	Urban
Telangana	9.7	9.5	4.8	4.9
All India	8.9	11.8	4.4	4.9

Source: Estimated from NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health*, 2014.

**Figure 7.5: Average medical and non-medical expenditure on account of hospitalisation in Telangana**

Source: NSS 71<sup>st</sup> Round Report, *Key Indicators of Social Consumption in India: Health*, 2014

### c. Medical expenditure

As far as medical expenditure is concerned, it was higher in rural Telangana (Rs. 21,683) than rural India (Rs. 16,956) with a 28 percentage point difference (Figure 7.5).

But the health expenditure is comparatively lower in urban Telangana (Rs. 22,584) than urban India (Rs. 26,455) with a 14 percentage point difference (Table 7.16).

The average cost of medical expenditure for treatment per childbirth is very high in Telangana, both in rural (Rs. 13,320) and urban areas (Rs. 18,969), when compared to all India (Rs. 5,544 in rural India and Rs. 11,685 in urban India) with a percentage difference of 140 points in rural and 62 points in urban areas (Table 7.17). *A major reason for the high health expenditure may be the higher prevalence of acute morbidity and the dependence of people on private hospitals for treatment.*

**Table 7.16: Average medical expenditure (Rs.) and non-medical expenditure (Rs.) on account of hospitalisation per hospitalisation case (EC) for Telangana and all India, gender and sector**

Expenditure item	Sex	Telangana		All India	
		Rural	Urban	Rural	Urban
Average medical expenditure during stay at hospital (Rs.)	Male	13325	25946	17528	28165
	Female	26939	16350	12295	20754
	Total	19664	20617	14935	24436
Average of other expenditure on account of hospitalisation (Rs.)	Male	2068	2541	2199	2286
	Female	1963	1506	1841	1757
	Total	2019	1966	2021	2019
Total expenditure (Rs.)	Male	15393	28486	19727	30450
	Female	28902	17856	14136	22511
	Total	21683	22584	16956	26455

Source: NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health, 2014*

**Table 7.17: Average total medical expenditure (Rs.) for treatment per childbirth during stay at hospital (as inpatient) over last 365 days by type of hospital in Telangana and all India**

System of medicine	Type of hospital	Telangana		All India	
		Rural	Urban	Rural	Urban
Allopathy	Public	1511	2433	1589	2114
	Private	20054	23215	14761	20320
	All	13320	18760	5547	11687
Other	Public	0	0	1235	3211
	Private	0	50000	26771	28678
	All	0	50000	4603	10397
All	Public	1511	2433	1587	2117
	Private	20054	23443	14778	20328
	All	13320	18969	5544	11685

Source: NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health, 2014*

### 3.3. Preference of health care institutions, system of medicine and insurance coverage

#### a. Preference of institutions

Preference of the place of treatment is one of the major reasons for higher health expenditure. In Telangana, a majority of the people go to private hospitals, and private doctors. Access to private institutions is comparatively higher in Telangana than the national level, while seeking health care in public hospitals or PHCs is comparatively lower when compared to the all India situation. Of those who prefer private hospitals, males (57.7 per cent) outnumber females (40.8 per cent) as against all India, which has rates of 24.3 per cent and 23.9 per

cent respectively. In rural areas, the rate of persons using public hospitals is comparatively low in Telangana (28.6 per cent) when compared to all India (41.9 per cent). The same tendency can be seen in urban areas too. But in the case of utilising private hospitals, the rate is higher in Telangana, when compared to all India (Table 7.18).

#### b. Place of treatment

In rural areas of Telangana, only 29 per cent of those who were hospitalised were in public hospitals as compared to all India (41.9 per cent). The same tendency can also be seen in urban areas. In case of utilising private hospitals, the rate is higher in Telangana, when compared to all India (Table 7.19).

**Table 7.18: Distribution of spells of ailment treated on medical advice over levels of care in Telangana and all India by gender (percentage)**

Telangana/all India	Gender	HSC/PHC and others	Public hospital	Private doctor	Private hospital	Total
Telangana	Male	4.1	6.4	31.8	57.7	100.0
	Female	6.4	11.7	41.0	40.8	100.0
All India	Male	7.0	16.4	51.3	24.3	100.0
	Female	9.0	17.4	49.7	23.9	100.0

Source: Estimated from NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health, 2014*

**Table 7.19: Percentage distribution of hospitalisation cases (EC) during the last 365 days by type of hospital and gender, Telangana and all India**

Telangana/all India	Rural/Urban	Percentage of hospitalised cases in						All
		Public hospital			Private hospital			
		Male	Female	Person	Male	Female	Person	
Telangana	Rural	14.8	13.9	28.6	38.7	32.7	71.4	100.0
	Urban	10.1	11.1	21.2	34.4	44.4	78.8	100.0
All India	Rural	20.1	21.8	41.9	30.3	27.8	58.1	100.0
	Urban	16.5	15.6	32.0	33.2	34.8	68.0	100.0

Source: Estimated from NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health, 2014*



### c. Preference of health care system

In rural Telangana, almost all respondents (97 per cent of males and 98.7 per cent of females) resort to allopathy compared to the national average (90.6 and 88.7 per cent respectively) (Table 7.20). But in case of urban areas, a significant proportion of urban males (18 per cent) in Telangana resort to 'other' sources when compared to the all India situation (6.8 per cent).

### d. Health coverage

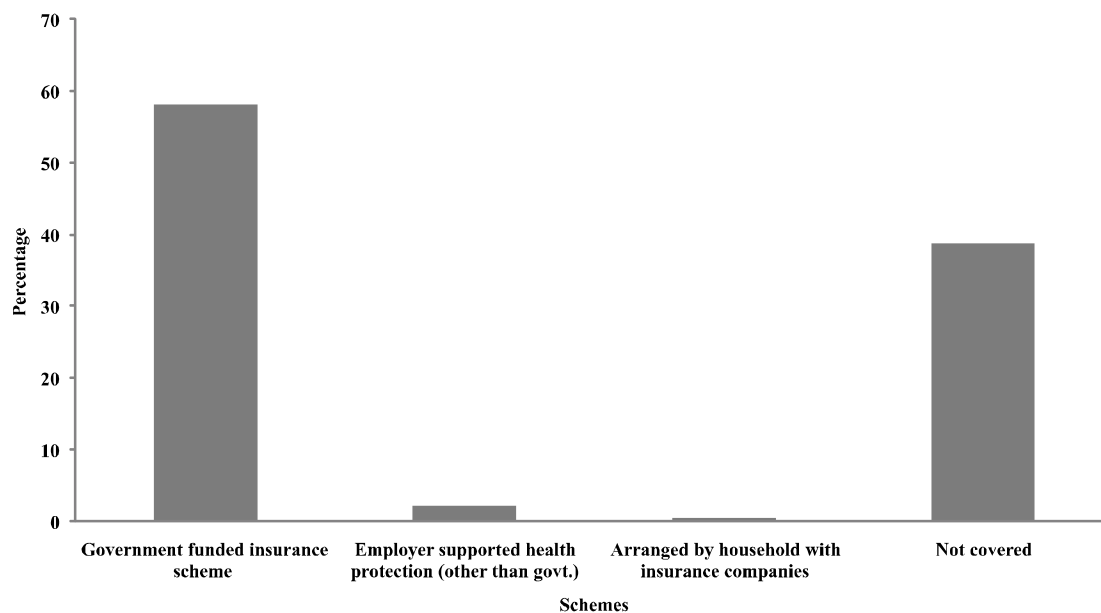
In the case of covering health costs, 38.8 per cent of the respondents have not benefited from any scheme. Place of residence shows that a majority of the respondents in urban Telangana have not been covered by any scheme (38.8 per cent). Only 1.3 per cent of the respondents received part or full reimbursement in Telangana and none from rural areas received this reimbursement (Figure 7.6).

**Table 7.20: Percentage distribution of spells of ailment by nature of treatment received in Telangana and all India**

Telangana/ all India	Rural/ Urban	Male				Female			
		None	Allopathy	Other	All	None	Allopathy	Other	All
Telangana	Rural	0.7	97.0	2.3	100.0	0.0	98.7	1.3	100.0
	Urban	0.0	82.0	18.0	100.0	0.0	98.3	1.6	100.0
All India	Rural	4.1	90.6	5.3	100.0	4.0	88.7	7.3	100.0
	Urban	2.8	90.4	6.8	100.0	2.5	91.0	6.5	100.0

Source: Estimated from NSS 71st Round Report, *Key Indicators of Social Consumption in India: Health, 2014*

**Figure 7.6: Schemes for health expenditure support in Telangana**



Source: Estimated from the unit level data of NSS 71<sup>st</sup> Round, *Key Indicators of Social Consumption in India: Health, 2014*

The NFHS-4 (2015-16) information more or less confirms this finding. According to NFHS-4, about 54 per cent in urban and 77 per cent in urban

households of Telangana had at least one member covered by a health scheme or health insurance (Table 7.21).

**Table 7.21: Covering by any scheme for health expenditure support (Percentage), Telangana**

Background variables	Attributes	Scheme					
		Government funded insurance scheme (e.g. RSBY, Arogyasri, CGHS, ESIS, etc.)	Employer supported health protection (other than govt.)	Arranged by household with insurance companies	Others	Not covered	Total
Area	Rural	72.9	0.5	0.1		26.5	100.0
	Urban	33.7	5.4	1.4	0.1	59.5	100.0
Caste	ST	87.6				12.4	100.0
	SC	57.6	2.0			40.4	100.0
	OBC	59.6	2.2	0.6		37.6	100.0
	Others	45.0	3.7	1.3	0.1	49.9	100.0
MPCE Groups	Low MPCE	57.0	0.9			42.1	100.0
	Medium MPCE	68.0	2.1			30.0	100.0
	High MPCE	43.8	3.6	2.0	0.1	50.5	100.0
Household size	3 & below	60.4	1.4	1.0		37.1	100.0
	4 – 5	58.0	2.6	0.7	0.0	38.7	100.0
	6 – 7	55.0	3.3			41.7	100.0
	8 & Above	60.1	0.8			39.1	100.0
Sex	Male	56.8	2.6	0.8		39.8	100.0
	Female	59.7	2.0	0.5	0.1	37.8	100.0
Age Group	0 – 4	32.0	2.8			65.2	100.0
	5 – 14	60.8	1.3	0.4		37.5	100.0
	15 – 34	57.6	3.2	0.3		39.0	100.0
	35 – 59	60.9	2.1	0.8	0.1	36.1	100.0
	60 & above	68.9	1.0	1.9		28.2	100.0
Total		58.2	2.3	0.6	0.0	38.8	100.0

Source: Estimated from the unit level data of NSS 71st Round, *Key Indicators of Social Consumption in India: Health*, 2014

### 3.4. Morbidity pattern and its socio-economic determinants

#### a. Pattern of ailment

Among morbid persons, a majority (56.3 per cent) were suffering from chronic ailment. We can see a clear pattern that the occurrence of the chronic ailment is higher in advantaged groups like urban respondents (61.1 per cent), forward caste (70.8 per cent), high MPCE group (68.4 per cent), male

(60.9 per cent) and elderly group (82.9 per cent) when compared to their counterparts (Table 7.22). On the other hand, we can say that the chance of having an acute ailment is higher in disadvantaged groups like rural, SC, low MPCE, and females (Table 7.23). *The higher incidence and prevalence of acute diseases among the rural poor and socially disadvantaged implies the need for more curative care facilities within the reach of people, along with adequate health personnel and infrastructure.*

**Table 7.22: Ailment pattern of the morbid respondents among different socio-economic groups in Telangana, 2014 (Percentage)**

Background variables	Attributes	Type of ailment (Percentage)	
		Chronic	Acute
Area	Rural	53.5	46.5
	Urban	61.1	38.9
Caste	ST	52.4	47.6
	SC	33.9	66.1
	OBC	58.0	42.0
	Others	70.8	29.2
MPCE group	Low MPCE	46.4	53.6
	Medium MPCE	54.4	45.6
	High MPCE	68.4	31.6
Household size	3 & below	58.0	42.0
	4 – 5	51.0	49.0
	6 – 7	63.9	36.1
	8 & Above	72.2	27.8
Sex	Male	60.9	39.1
	Female	52.9	47.1
Age group	0 – 4	17.7	82.3
	5 – 14	10.9	89.1
	15 – 34	33.5	66.5
	35 – 59	60.3	39.7
	60 & above	82.9	17.1
Total		56.3	43.7

Source: Estimated from the unit level data of NSS 71st Round, *Key Indicators of Social Consumption in India: Health, 2014*

**Table 7.23: Morbidity status of respondents among different socio-economic groups in (Percentage) in Telangana and India (2014)**

Background variables	Attributes	Morbidity (percentage)	
		Telangana	India
Area	Rural	9.8	8.9
	Urban	9.5	11.8
Social Group	ST	13.0	6.9
	SC	11.7	9.2
	OBC	8.5	9.8
	Others	10.8	11.1
MPCE Group	Low MPCE	10.6	7.4
	Medium MPCE	10.2	9.8
	High MPCE	8.2	14.0
Household size	3 & below	12.7	15.5
	4 – 5	8.6	9.9
	6 – 7	7.8	7.9
	8 & Above	13.2	6.8
Sex	Male	8.3	8.7
	Female	11.1	11.0
Age Group	0 – 4	11.1	10.6
	5 – 14	4.4	5.5
	15 – 34	4.4	5.0
	35 – 59	10.6	12.8
	60 & above	34.1	30.2
<b>Total</b>		9.7	9.8

Source: Estimated from the unit level data of NSS 71st Round, *Key Indicators of Social Consumption in India: Health, 2014*

It is reported that Telangana has higher morbidity in rural areas (9.8 per cent), than urban areas (9.5) as against the national pattern of 8.9 per cent and 11.8 per cent for rural and urban areas respectively. The higher rural morbidity in Telangana is contrary to the general tendency of morbidity being reported more in urban areas. This is due to access to health care institutions. A similar discrepancy can also be seen in the MPCE and social group-wise analysis. As against the general tendency, the higher MPCE group reports lower morbidity and morbidity is found to be higher

among ST households compared to those of other social groups.

There are two approaches to analysing data on morbidity – one questions the comparability of reported rates of morbidity, and the other admits the higher rates of as actually representing the situation on the ground. In other words, the first approach attributes higher rate of morbidity to higher reporting of cases of sickness, which in turn is linked to higher education levels and health care institutions prevailing in the state. The second

approach makes a direct connection between conditions of ill health prevailing in the state, which in turn cause the higher morbidity.

Regarding the trends of morbidity, Duraisamy (2001) comments that morbidity is higher among non-literates than among educated persons in rural India. According to Ashokan and Ibrahim (2007), the poor are exposed to a relatively higher morbidity load than the non-poor. There are also observations that the occurrences of most chronic diseases and disabilities are more frequently associated with people with a lower level of education (Pincus *et al.* 1987; La-Vecchia *et al.* 1987; Leclerc *et al.* 1992). Another study observed that educational attainment was inversely associated with long term limitation of activity, number of chronic conditions, number of bed days and days of short hospital stay (Liao *et al.* 1999).

There are certain studies which consider higher morbidity a positive indicator. Sen (1987) was of the opinion that a more literate population, with access to medical attention and health care, is likely to report illness more thoroughly. It is contended that universal literacy, coupled with extended medical facilities, has resulted in earlier diagnosis and detection of diseases than ever before and this is often cited as a reason for the higher morbidity (Kannan *et al.* 1991; Gumber and Berman 1997). As people are highly educated and more aware, ailments are easily diagnosed and are often cited as reasons for high morbidity (Murray and Chen 1990, Kannan *et al.* 1991; Gumber and Berman 1997).

In this section, the differences in prevalence of ailments within the population of Telangana state according to 2014 NSSO unit level data has been examined. In order to find the effect of select background characteristics on the reported health status of the population, the logistic regression analysis has been carried out. In this analysis, reported morbidity has been taken as a dependent variable, while other variables like area, caste, MPCE, household size, sex, and age group are treated as independent. The odds ratio [ $\exp(b)$ ] for each category of independent variables obtained from the analysis indicated the odds of

reporting illness compared to the reference category during the reference period, when keeping the effect of all other variables constant. The category with odds ratio 1 is the reference category.

The result shows that there is no indication of multicollinearity<sup>2</sup> as none of the independent variables in this analysis have a standard error larger than 2.0. The presence of relationships between the dependent variable and combinations of independent variables is based on the statistical significance of the final model of chi-square in the table. In this analysis, the probability of the model chi-square (477.688) was  $<0.001$ , less than or equal to the level of significance of 0.05. The null hypothesis, that there was no difference between the model without an independent variable, has been rejected. The existence of a relationship between the independent variables and dependent variable has been supported (Table 7.24).

The logistic model requires that the minimum ratio of valid cases to independent variables be at least 10 to 1. The ratio of valid cases (6,582) to the number of independent variables (6) was 1097, which was greater than the minimum ratio of cases to independent variables, and was satisfied following the preferred ratio. The Hosmer-Lemeshow test<sup>3</sup> satisfies the goodness of fit test with the value 5.022,  $p(0.755)$ .

In this section, an attempt has been made to examine the relationship between morbidity and background variables like size of the household, age, place of residence, sex and caste. Many authors have analysed the relationship between these background variables and morbidity.

<sup>2</sup>Multicollinearity in the multinomial logistic regression model is detected by examining the standard errors for the b coefficients. A standard error larger than 2.0 indicates numerical problems, such as multicollinearity among the independent variables.

<sup>3</sup>In logistic regression, we find a goodness of fit statistic with a p value displayed along with it. The null hypothesis is that the model is fit. If the p value is less than 0.05 and the null hypothesis is rejected, it means that the model is not fit.

**b. Size of family**

As household size increases, the perceived morbidity rate tends to decrease (Krishnaswami 2004). Similarly, it is reported that ailments in larger households are under-reported (Dilip 2002).

**c. Age**

The extent and variety of morbidity rises with increasing age (Munro 1990). It was also reported that the risk of morbidity is greater among children compared to pre adolescents, adolescents, and young adults (Navaneetham et al. 2009).

**d. Monthly Per-capita Consumption Expenditure (MPCE)**

Dilip (2002) was of the opinion that MPCE and prevalence of ailments were positively related. Similarly, Krishnaswami (2004) established a positive association between morbidity and economic level. Likewise, Ghosh and Arokiasamy (2009) were of the opinion that MPCE has a positive relationship on the prevalence of morbidity.

**e. Place of residence**

Urban areas appear less healthy than rural (O'Reilly et al. 2007). But, Suryanarayana (2008) reported morbidity being higher in rural areas than in urban.

**f. Sex**

Morbidity is higher among women than men (Suryanarayana 2008). Females are at greater risk of morbidity than males. Females are more likely to report ailments than males (Navaneetham et al. 2009).

**g. Caste**

Caste is a prominent determinant in deciding the health status of a society (Iyer 2005). Iyer examined the relationship between the social patterning of women's self-reported health status in India and their caste structure. Low caste and

lower socioeconomic position are associated with worse reported health status, and associations between socio-economic position and reported health status vary across castes. It was found that women from lower castes, i.e., Scheduled Castes/Scheduled Tribes (SC/ST) reported a higher prevalence of poor health than those from forward castes (Mohinidra et al. 2006).

The cited studies show that there definitely exists a relationship between morbidity and select background variables. But at the same time, there are also differences in opinion pertaining to the direction, whether there is a direct or indirect relationship, between morbidity and background variables. An attempt has been made in the following sections to find the effect of select background characteristics on the reported health status of the population. Logistic regression analysis shows that among the gender groups, females were more morbid and they showed 17 per cent more likelihood of reporting morbidity than males (Table 7.24).

Age group analysis shows that the 'elderly' group, 60 years and above, showed 80 per cent more likelihood to be morbid than the 0-4 age group, and is the next most probable morbid group. Household size analysis shows that small families with three and fewer members have 52 per cent more chance of having morbidity than families larger than eight. High MPCE group is 17 per cent less likely to be morbid than medium MPCE.

**4. Analysis of overall health status: health deficiency (ill-health) index**

We have tried to estimate the overall health status of Telangana state across various socioeconomic groups in comparison with all India by using NSSO unit level data. For this purpose, we have constructed a health deficiency index (or an ill-health index) on the basis of seven variables such as morbidity, hospitalisation, mortality, delivery at home, unavailability of medical insurance, unavailability of latrine, and unavailability of drainage. We assign a value of 'one' to each of the variables for the households reporting as morbid, hospitalised, having mortality, delivery at home, unavailability of medical insurance, unavailability

of latrine and drainage; and assign value zero otherwise. Therefore the maximum score a households can have is 7, and zero if the household does not have any problem. Now using the UNDP method<sup>4</sup> of constructing a normalisation index we arrive at values of health deficiency index ranging from 0 to 1, where 0 stands for the lowest health deficiency and 1 stands for highest health deficiency. Further, for analytical purpose, the index thus arrived at is categorised into three: low (value ranging from 0 to 0.33), medium (>0.33&<0.66) and high (>0.66).

When compared to the all India status, the overall health status of Telangana is better in terms of the health deficiency index we constructed (Table 7.25). A very large majority (78.7 per cent) of the households in Telangana have a low deficiency index, when compared to all India situation (58.8 per cent). Only a small fraction of households (1.7 per cent) show a high health deficiency, when compared to all India (5.7 per cent). But when this health deficiency is analysed across different socio-economic groups, some significant points emerge.

**Table 7.24: Determinants of morbidity**

Independent variables	Attributes	B	S.E.	Sig.	Exp(B)
<b>Area</b>	<b>Rural</b>	-0.056	0.092	0.54	0.945
	<b>Urban</b>				1
<b>Social group</b>	<b>ST</b>	-0.205	0.218	0.348	0.815
	<b>SC</b>	0.039	0.14	0.783	1.039
	<b>OBC</b>	-0.135	0.108	0.212	0.874
	<b>Others</b>			0.331	1
<b>MPCE group</b>	<b>Low MPCE</b>	-0.14	0.139	0.314	0.869
	<b>Medium MPCE</b>	0.159	0.102	0.118	1.173
	<b>High MPCE</b>			0.029	1
<b>Household size</b>	<b>3 &amp; below</b>	0.422	0.167	0.012	1.525
	<b>4 – 5</b>	0.066	0.151	0.661	1.068
	<b>6 – 7</b>	-0.081	0.164	0.621	0.922
	<b>8 &amp; Above</b>			0.001	1
<b>Sex</b>	<b>Male</b>	-0.186	0.085	0.029	0.831
	<b>Female</b>				1
<b>Age group</b>	<b>0 – 4</b>	-1.564	0.146	0	0.209
	<b>5 – 14</b>	-2.427	0.185	0	0.088
	<b>15 – 34</b>	-2.637	0.138	0	0.072
	<b>35 – 59</b>	-1.424	0.117	0	0.241
	<b>60 &amp; above</b>			0	1
<b>Constant</b>		-0.424	0.189	0.024	0.654

No. of observations=6582

Omnibus Tests of Model Coefficients Chi-square=477.688, p (0.000)

-2Log Likelihood =3918.278

Cox & Snell R Square=0.07

Nagelkerke R Square=0.144

Hosmer and Lemeshow Test Chi-square=5.022, p(0.755)

Source: Estimated from the unit level data of NSS 71st Round, *Key Indicators of Social Consumption in India: Health*, 2014

<sup>4</sup>(Actual minus minimum/maximum minus minimum.) Here maximum is 7 and minimum is 0. For example, if a household has problems of only morbidity and hospitalization, then its actual value will be 2. Now, the index will be:  $(2-0)/(7-0)=0.286$ .

**Table 7.25: Deficiency index of the households in Telangana and all India (2014)**

Background variables	Attributes	Health deficiency index (percentage)					
		Telangana			India		
		Low	Medium	High	Low	Medium	High
Area	Rural	75.2	22.4	2.4	50.0	42.4	7.6
	Urban	84.6	14.9	0.5	76.9	21.3	1.8
Caste	ST	72.0	25.0	3.0	40.2	51.6	8.2
	SC	60.1	36.6	3.3	51.8	40.5	7.6
	OBC	80.9	17.5	1.6	59.1	35.2	5.7
	Others	86.7	12.8	0.5	68.6	27.6	3.7
MPCE group	Low MPCE	74.4	21.6	4.0	44.9	46.9	8.2
	Medium MPCE	75.1	23.0	1.8	58.0	36.0	6.0
	High MPCE	85.8	14.0	0.3	76.0	21.5	2.5
Household size	3 & below	83.0	16.4	0.6	65.8	30.8	3.3
	4 – 5	79.9	18.1	2.0	60.5	34.3	5.2
	6 – 7	60.5	35.0	4.5	49.7	42.1	8.2
	8 & Above	51.8	45.3	3.0	43.0	45.0	12.0
<b>Total</b>		78.7	19.6	1.7	58.8	35.5	5.7

Source: Estimated from the unit level data of NSS 71st Round, *Key Indicators of Social Consumption in India: Health, 2014*

The percentage of households with low health deficiency index is lower in rural Telangana (75.2 per cent) when compared urban Telangana (84.6), indicating the ill-health situation in rural Telangana. The social group-wise analysis shows that SC and ST households experience comparatively poor health status (with 60.1 per cent and 72.0 per cent respectively) when compared to OBC (80.9 per cent) and 'Others' (86.7 per cent). Similarly, the percentage of households with high health deficiency is higher among SC and ST households compared to OBC and 'Others' categories. However, for all the social groups in Telangana, the health index is better than that of all India.

A similar pattern can be seen among different MPCE groups. Households belonging to lower MPCE groups are found to have poor health status

compared to the high MPCE groups, indicating the vulnerability of the poor to exposure to ill-health conditions. In the case of all India too, we find a similar situation, with poor households having higher percentage of ill-health status. The households with smaller size also experience higher percentages of ill-health. The social, spatial, gender and economic characterization of health status in Telangana thus gives us ample clues for policy making which must focus more on the rural poor and other socially disadvantaged communities.

## 5. Conclusion

The analysis of the health status of Telangana shows a comparatively better position than that of all India, but there exist some issues when we analyse the situation across different socio-



economic groups, which necessitates the importance of state intervention, especially in the case of public provisioning for ensuring maternal and child health. The higher incidence and prevalence of acute diseases among the rural poor and socially disadvantaged implies the need for more curative care facilities within the reach of the people, along with adequate health personnel and infrastructure, especially through the public sector. The health deficiency index or ill-health index we constructed also confirms the need for state intervention among socially disadvantaged groups. To address the poor and socially disadvantaged and the rural population and women, the role of the public sector is a necessary condition as private health care is costly and therefore, unaffordable to these groups. The quality aspects of private health care, the reasons for relying on private health care, the extent and reach of the public sector, the nature and the availability of preventive health care and the accessibility of health care facilities are important areas that need to be empirically examined further in Telangana state.

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HOUSING, WATER AND RELATED  
AMENITIES IN TELANGANA

# 8

## HOUSING, WATER AND RELATED AMENITIES IN TELANGANA

*Rishi Kumar*

### 1. Introduction

Housing plays an important role in the welfare of a household. Apart from providing shelter, the availability of adequate housing facilities with proper supply of potable water, sufficient sanitation facilities and clean surroundings is necessary for good health and well-being. Such facilities help in checking the engendering, prevalence and spread of diseases, in turn helping households avoid monetary and other costs related to morbidity. Hence, the importance of these facilities is immense from a public health point of view. Further, a healthy population contributes to a higher output. Therefore, it becomes important to ensure that people in a country have access to a decent level of housing and its related amenities. Given this backdrop, this chapter aims to understand the situation of housing, sanitation and drinking water in Telangana using the NSSO data.

The chapter is broadly divided into three sections, i.e. housing and related amenities which basically evaluates types of house; availability of bathroom and kitchen, sanitation, drainage and garbage disposal facilities; and drinking water. We will study the situation among different geographical,

social and religious categories at state as well as district levels. The comparison will also be made with the situation in southern states and India as a whole to understand the relative position of Telangana. The study will further focus on the district level situation as well. To understand how the situation has changed over time, we will also compare the data from the latest round of the NSS survey i.e. 69<sup>th</sup> round pertaining to year 2012 with NSS data from the 65<sup>th</sup> round for the year 2008-09. We have also relied on Census 2011 data for some of the indicators.

### 2. Housing and surroundings

#### 2.1. Type of house

The significance of housing is embodied in an old political slogan '*Roti, Kapda aur Makaan*' (food, clothes and shelter) summarising the basic needs of a person. *Pucca* houses are robust structures made of concrete material which provide better protection against extreme weather and natural calamities and have a longer life. *Kutcha* houses, on the other hand, are more or less temporary in nature and become severely damaged during adverse events, causing high costs. Governments

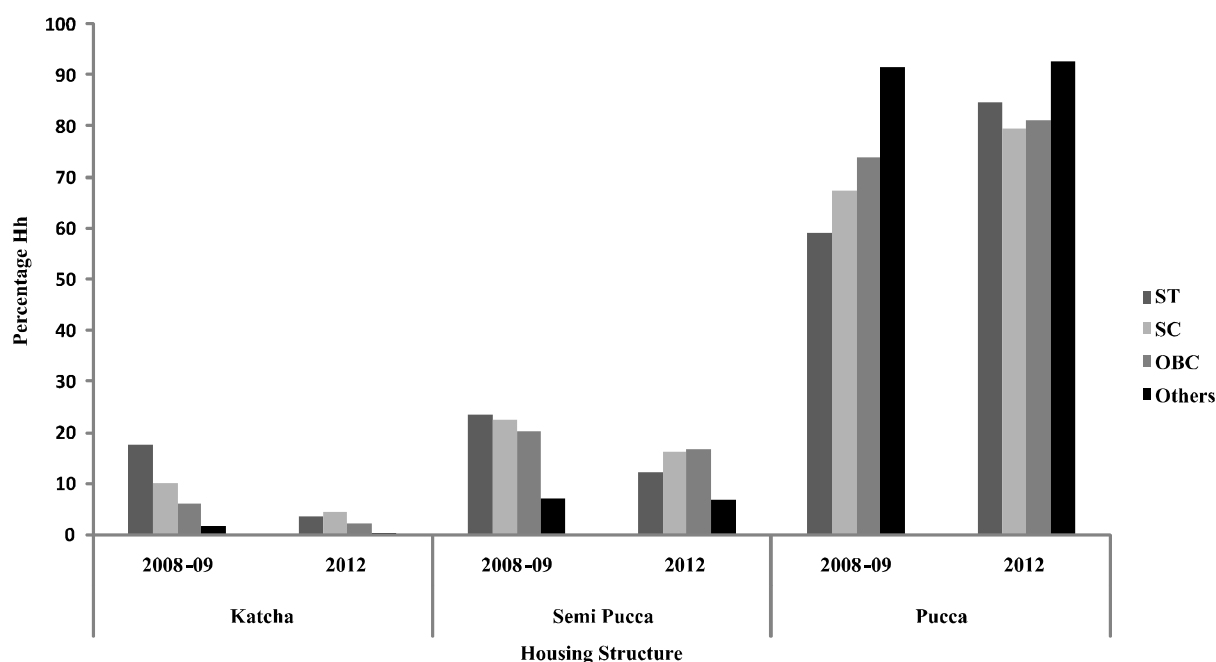
over the years at both central and state levels have pursued the goal of providing pucca houses to poor people through numerous schemes. An assessment of types of housing structure in the state shows that Telangana as a state has fared better than much of India and is comparable to other southern states (Table 8.1). However, in rural areas, 20.8 per cent of households are still residing in semi-pucca structures. Going by social categories, at 79.6 per cent, SC households had the lowest level of pucca housing (Figure 8.1). It is also worth noting that although the poor in urban areas may be staying in pucca houses, most of the time these houses may be small dwellings.

A point of concern however, is the increase in kutchha and semi-pucca houses and decline in pucca houses in urban areas between 2008-09 and 2012 (Table 8.1). The comparison with 2008-09 suggests that the changes among the categories like rural, ST and SC have been quite large. This same trend of decline in pucca houses and increase in semi-pucca is also reflected in the religious group 'Others'.

A point of concern however, is the increase in kutchha and semi-pucca houses and decline in pucca houses in urban areas between 2008-09 and 2012 (Table 8.1). The comparison with 2008-09 suggests that the changes among the categories like rural, ST and SC have been quite large. This same trend of decline in pucca houses and increase in semi-pucca is also reflected in the religious group 'Others'.

At district level, the situation in Medak is the worst with only 54 per cent of households living in pucca houses (Table 8.2). Warangal, Adilabad and Karimnagar are other backward districts in terms of households living in pucca houses. In Hyderabad and Mahbubnagar, over 90 per cent of households lived in pucca houses. The 2-BHK scheme introduced by the Government of Telangana aimed to provide two-bedroom houses to the poor in the state to provide adequate housing.

**Figure 8.1 : Housing structure among social groups in Telangana**



Source: NSSO, 65<sup>th</sup> round, 2008-09 and 69<sup>th</sup> round, 2012

**Table 8.1: Type of housing structure (Per cent), Telangana, 2008-09 and 2012**

Indicator	Type of structure	Telangana		Southern states		India			
		2008-09	2012	2008-09	2012	2008-09	2012		
Residence	Rural	Kutcha	9.9	2.9	12.2	7.3	17.0	9.6	
		Semi-Pucca	27.1	20.8	23.1	18.3	27.6	24.5	
		Pucca	63.0	76.2	64.7	74.5	55.4	65.9	
	Urban	Kutcha	1.1	1.2	3.3	1.8	2.1	1.4	
		Semi-Pucca	2.3	3.2	8.1	6.7	6.2	5.0	
		Pucca	96.6	95.6	88.5	91.5	91.7	93.6	
Social group	ST	Kutcha	17.6	3.4	15.3	9.0	16.4	10.3	
		Semi-Pucca	23.4	12.0	24.3	21.6	44.2	40.6	
		Pucca	59.0	84.7	60.4	69.4	39.4	49.2	
	SC	Kutcha	10.1	4.3	16.0	10.0	18.7	11.4	
		Semi-Pucca	22.5	16.2	19.0	14.0	23.2	19.5	
		Pucca	67.4	79.6	65.0	75.9	58.1	69.2	
	OBC	Kutcha	5.8	2.2	8.4	4.5	12.4	6.7	
		Semi-Pucca	20.3	16.8	18.7	14.9	20.7	17.7	
		Pucca	73.9	81.0	72.9	80.6	66.9	75.6	
	Others	Kutcha	1.5	0.3	3.5	2.1	7.6	3.7	
		Semi-Pucca	7.0	6.8	12.9	8.3	14.1	11.8	
		Pucca	91.6	92.8	83.5	89.6	78.3	84.5	
	Religious group	Hindu	Kutcha	7.2	2.5	9.9	5.6	12.6	7.1
			Semi-Pucca	18.9	15.4	18.2	14.4	21.6	18.5
			Pucca	73.9	82.2	71.9	80.0	65.7	74.4
Muslim		Kutcha	1.7	0.3	3.0	2.0	14.9	7.4	
		Semi-Pucca	9.1	5.2	17.5	12.4	20.8	19.2	
		Pucca	89.2	94.5	79.5	85.6	64.3	73.4	
Christian		Kutcha	2.0	1.5	5.3	2.9	9.5	5.0	
		Semi-Pucca	19.8	7.8	11.0	6.9	18.8	18.0	
		Pucca	78.2	90.7	83.7	90.2	71.7	77.1	
Others		Kutcha	0.0	0.0	0.4	0.4	4.4	3.2	
		Semi-Pucca	0.0	4.1	18.0	13.6	14.0	10.5	
		Pucca	100.0	95.9	81.7	86.0	81.6	86.3	
Total	Kutcha	6.6	2.3	9.0	5.1	12.6	7.0		
	Semi-Pucca	18.0	14.3	17.7	13.7	21.3	18.3		
	Pucca	75.4	83.4	73.3	81.2	66.1	74.7		

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

**Table 8.2: Households living in pucca houses (Per cent)**

District	Residence		Social Group				Religious Group			Total
	Rural	Urban	ST	SC	OBC	General	Hindu	Muslim	Christian	
Adilabad	70.6	98.9	68.9	55.5	79.9	99.5	74.8	98.8	100.0	76.6
Nizamabad	80.4	99.3	100.0	83.7	81.0	91.5	83.7	94.1	100.0	84.4
Karimnagar	73.6	92.3	7.0	80.7	77.3	82.5	77.0	84.3	-	77.7
Medak	51.8	72.2	85.0	59.1	46.6	54.6	53.2	74.0	-	54.0
Hyderabad	-	96.3	99.3	76.4	96.8	100.0	95.5	99.9	97.0	96.3
Ranga Reddy	82.8	99.4	77.7	96.8	83.0	72.7	83.2	100.0	100.0	84.2
Mahbubnagar	90.1	91.2	99.8	87.8	89.9	88.2	90.0	95.2	67.5	90.2
Nalgonda	88.1	99.3	95.1	90.3	88.2	86.9	89.8	93.6	66.7	89.7
Warangal	63.0	93.7	72.6	77.0	63.6	87.5	68.3	100.0	78.1	69.7
Khammam	80.9	99.3	97.3	74.6	82.4	90.1	83.9	72.5	100.0	83.0
<b>Total</b>	76.2	95.6	84.7	79.6	81.0	92.8	82.2	94.5	90.7	83.4

Source: NSSO, 69th round, 2012

## 2.2. Bathroom facility

The presence of a bathroom in the house is indicative of high welfare status as it may be indicative of greater space as well as the presence of more basic facilities. The data on presence of bathroom in a household showed that in the state,

28 per cent of the households lacked bathroom facility. However, Telangana performed much better than all-India ratio. The proportion was low among rural, ST and SC households, indicating their houses are small and lack basic facilities (Table 8.3).

**Table 8.3: Households having bathroom facility in their house: State and national (Per cent)**

Indicator		Telangana		Southern states		India	
		2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	38.1	57.5	51.9	55.7	35.6	37.8
	Urban	91.4	96.8	83.5	88	78.5	83.3
Social group	ST	35.6	52.9	40.9	44.2	31	29.6
	SC	40.7	57.1	42.5	47.4	31.5	35.8
	OBC	56.6	71	65.7	70.6	47	51.2
	Others	83.5	95.6	78.9	84.3	66.4	71
Religious group	Hindu	55.3	69.7	60.6	65.7	46.6	50.7
	Muslim	81.4	91.9	79.3	83.2	51.6	53.8
	Christian	55.4	91.1	78.7	84.4	71.1	77
	Others	100	100	80.1	31.1	67.2	69.9
<b>Total</b>		57.7	72	63.3	68.4	48.3	52.2

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

At district level, Karimnagar had the lowest proportion of houses with bathroom inside the premises, followed by Mahbubnagar and Khammam (Table 8.4). Hyderabad and Ranga Reddy were the best performing districts as per NSSO. The analysis across time shows that Telangana has performed better than other southern states and at the all-India level in terms of improvement over the years.

### 2.3. Kitchen

The separate kitchen in a house is linked to better health outcomes, especially respiratory health of

the family since this way, the smoke generated by cooking is not inhaled by most members. Further, the facility of tap water inside the kitchen is a matter of convenience as time and effort are saved in carrying and storing water. In Telangana, the overall situation is worse than other southern states and all-India (Table 8.5). The situation among rural households, ST and SC households is particularly bad. Over the period from 2008-09 to 2012, the overall situation slightly improved. However, in urban houses, the situation with regard to availability of a kitchen improved a lot.

**Table 8.4: Households having bathroom facility in their house:  
Districts and socio-religious groups (Per cent)**

Districts/ Indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hindu	Muslim	Christian	
Adilabad	63.3	89.1	51.7	46.0	76.7	93.0	66.8	92.5	100.0	68.8
Nizamabad	58.3	90.7	71.9	71.0	58.3	85.4	63.3	88.1	100.0	65.0
Karimnagar	38.4	93.4	0.0	32.1	52.2	80.8	46.1	90.9	-	50.3
Medak	58.7	87.4	42.9	65.5	61.1	89.1	61.4	72.7	-	61.8
Hyderabad	-	99.2	99.3	100.0	98.1	100.0	99.0	100.0	100.0	99.2
Ranga Reddy	85.2	90.9	86.1	68.5	89.2	96.6	84.7	100.0	100.0	85.7
Mahbubnagar	49.8	92.6	71.9	9.1	56.2	91.9	52.8	94.3	67.5	55.4
Nalgonda	56.1	86.5	50.3	64.0	59.6	96.4	62.0	36.1	79.2	60.6
Warangal	71.3	95.7	30.1	74.6	81.7	100.0	75.8	100.0	56.7	76.6
Khammam	51.1	99.8	8.9	25.2	69.2	89.8	54.2	88.8	100.0	56.8
<b>Total</b>	<b>57.5</b>	<b>96.8</b>	<b>52.9</b>	<b>57.1</b>	<b>71.0</b>	<b>95.6</b>	<b>69.7</b>	<b>91.9</b>	<b>91.1</b>	<b>72.0</b>

Source: NSSO, 69th round, 2012<sup>1</sup>

<sup>1</sup>Census 2011 data were also analysed for this chapter. However, as there is a difference in the final outcomes between NSSO & Census data, we have retained the former since NSSO data is especially collected for the purpose of drinking water, sanitation, hygiene and housing condition, we base our discussion on the tables based on NSSO while Census tables are reported in the Appendix.



**Table 8.5: Availability of separate kitchen (Per cent)**

Indicator		Type of structure	Telangana		Southern States		India		
			2008-09	2012	2008-09	2012	2008-09	2012	
Residence	Rural	With tap water	2.8	4.4	9.4	14.3	4.1	6.5	
		Without tap water	28.6	27.3	53.2	47.8	41.3	40.8	
		No separate kitchen	68.6	68.3	37.4	37.8	54.7	52.6	
	Urban	With tap water	28.1	48.9	32.4	42.4	32.1	39.7	
		Without tap water	21.5	13.7	40.4	30.8	30.5	26.3	
		No separate kitchen	50.4	37.5	27.3	26.8	37.4	34.0	
Social group	ST	With tap water	1.7	9.8	4.3	8.3	3.5	5.3	
		Without tap water	23.2	19.3	45.9	40.1	37.0	38.5	
		No separate kitchen	75.1	70.9	49.8	51.6	59.5	56.3	
	SC	With tap water	3.1	3.6	6.5	10.3	4.5	6.7	
		Without tap water	20.2	23.2	44.1	40.2	32.0	31.3	
		No separate kitchen	76.7	73.2	49.4	49.4	63.5	62.1	
	OBC	With tap water	7.6	17.0	17.5	26.3	9.5	14.8	
		Without tap water	27.5	24.0	53.1	42.3	40.6	36.5	
		No separate kitchen	64.9	59.1	29.4	31.4	49.9	48.7	
	Others	With tap water	33.8	50.6	29.9	38.6	24.0	30.5	
		Without tap water	29.2	18.0	41.3	38.4	39.1	38.3	
		No separate kitchen	37.0	31.4	28.8	23.0	36.9	31.2	
	Religious group	Hindu	With tap water	11.6	19.2	15.3	22.5	11.8	16.5
			Without tap water	25.4	22.8	49.0	41.6	37.7	35.8
			No separate kitchen	63.0	58.1	35.7	36.0	50.5	47.7
Muslim		With tap water	16.5	30.4	30.8	37.5	10.8	14.1	
		Without tap water	33.1	19.6	48.5	40.5	39.8	38.5	
		No separate kitchen	50.5	50.0	20.8	22.0	49.4	47.5	
Christian		With tap water	18.4	52.0	31.5	47.3	24.3	35.2	
		Without tap water	14.8	8.5	42.9	35.1	43.9	41.1	
		No separate kitchen	66.8	39.5	25.7	17.6	31.7	23.7	
Others		With tap water	100.0	95.9	55.4	14.0	23.7	30.8	
		Without tap water	0.0	0.0	36.8	53.5	37.7	35.3	
		No separate kitchen	0.0	4.1	7.8	32.5	38.6	33.9	
Total	With tap water	12.2	20.8	17.7	25.4	12.4	17.1		
	Without tap water	26.0	22.3	48.6	41.1	38.1	36.2		
	No separate kitchen	61.9	57.0	33.7	33.5	49.6	46.7		

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

At the district level, the situation across the districts was not satisfactory. We observe that Karimnagar, Warangal and Khammam fared worse as less than a quarter of households reported having a separate kitchen (Table 8.6). Even in the best performing district of Hyderabad, less than 75 per cent of households had kitchens.

## 2.4. Electricity

The importance of access to electricity cannot be overemphasised in modern times. Availability of the electricity at household level is of paramount importance. For example, electricity gives students an opportunity to study comfortably after daylight fades, and housewives have an option of using home appliances to save their time and

energy. The Government across time and levels in India has acknowledged this and worked towards the goal of 100 per cent electrification of households. In this matter, Telangana fares well with around 99 per cent of households having electricity in their houses (Table 8.7).

Among the districts, Medak with coverage of around 97 per cent was the least performing district (Table 8.8). After achieving almost universal coverage of electricity, Telangana government has in collaboration with the central government initiated the project 'Power for All' with 24X7 electricity to households as one of the goals. It should be mentioned that electricity connection to households was good even during 2008-09

**Table 8.6: Households with separate kitchen (Per cent)**

Districts/ Indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hinduism	Muslim	Christian	
<b>Adilabad</b>	54.8	61.9	41.4	40.7	63.2	73.4	54.9	77.9	31.0	56.3
<b>Nizamabad</b>	61.0	72.1	71.9	51.1	59.7	83.4	61.8	82.4	100.0	63.3
<b>Karimnagar</b>	11.8	31.4	0.0	7.7	16.7	29.9	14.1	34.3	-	16.0
<b>Medak</b>	31.2	23.3	0.0	44.8	31.1	52.3	31.6	0.0	-	30.3
<b>Hyderabad</b>	-	72.7	79.2	32.6	71.1	82.4	72.9	68.1	83.9	72.7
<b>Ranga Reddy</b>	61.9	54.8	48.1	50.3	61.9	74.2	60.7	71.8	0.0	61.3
<b>Mahbubnagar</b>	23.8	83.3	0.0	41.5	31.4	56.7	32.4	18.8	67.5	31.6
<b>Nalgonda</b>	39.4	29.5	18.2	53.2	36.2	77.7	39.9	15.9	0.0	38.0
<b>Warangal</b>	12.2	24.5	9.9	17.8	13.0	24.9	15.4	3.7	7.1	14.9
<b>Khammam</b>	23.6	13.8	8.9	2.0	28.9	40.6	22.2	25.6	0.0	22.5
<b>Total</b>	31.7	62.5	29.1	26.8	40.9	68.6	41.9	50.0	60.5	43.0

Source: NSSO, 69th round, 2012

**Table 8.7: Households having electricity in their house (Per cent)**

Indicator		Telangana		Southern States		India	
		2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	92.4	99.4	93.3	96.8	66.1	80.1
	Urban	98.9	99.4	97.6	99.0	96.1	97.9
Social Group	ST	88.5	99.9	84.1	93.7	61.1	79.6
	SC	92.3	100.0	91.9	96.2	66.4	79.6
	OBC	94.9	99.0	95.4	97.9	75.3	84.6
	Others	99.2	99.7	97.6	99.0	84.3	93.3
Religious Group	Hindu	94.4	99.3	94.5	97.5	75.2	85.7
	Muslim	98.5	99.9	97.9	99.2	67.5	82.4
	Christian	98.2	99.6	95.4	98.7	86.1	94.0
	Others	100.0	100.0	100.0	100.0	89.7	95.8
<b>Total</b>		94.8	99.4	94.8	97.7	75.0	85.8

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

**Table 8.8: Households with electricity (Per cent)**

Districts/ Indicator	Residence		Social Group				Religious Group			Total
	Rural	Urban	ST	SC	OBC	Others	Hindu	Muslim	Christian	
Adilabad	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nizamabad	99.9	100.0	100.0	100.0	99.9	100.0	99.9	100.0	100.0	99.9
Karimnagar	99.8	100.0	100.0	100.0	99.8	99.7	99.9	99.5	0.0	99.8
Medak	96.3	99.1	100.0	100.0	94.8	100.0	96.5	100.0	0.0	96.6
Hyderabad	0.0	99.4	100.0	100.0	98.5	100.0	99.2	100.0	100.0	99.4
Ranga Reddy	99.7	97.1	86.4	100.0	99.4	100.0	99.4	100.0	100.0	99.5
Mahbubnagar	100.0	98.2	99.8	100.0	99.7	100.0	99.7	100.0	100.0	99.7
Nalgonda	98.9	99.9	100.0	99.6	99.3	90.5	98.9	100.0	100.0	99.0
Warangal	99.4	99.0	100.0	100.0	98.8	100.0	99.3	100.0	96.7	99.3
Khammam	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Total</b>	99.4	99.4	99.9	100.0	99.0	99.7	99.3	99.9	99.6	99.4

Source: NSSO, 69th round, 2012

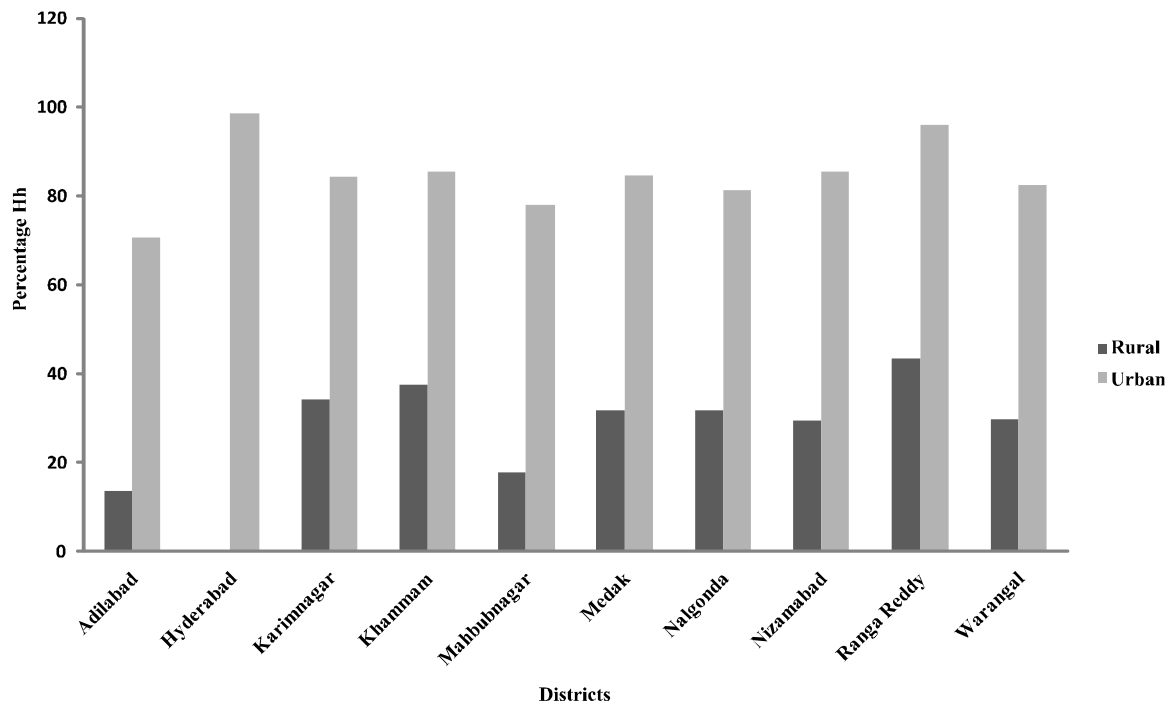
### 3. Sanitation, drainage and garbage disposal

As seen in the section above, with only 16.6 per cent of households residing in *kutchha* and semi-*pucca* houses, the status of housing in terms of structures is quite decent in terms of coverage and almost all of them are electrified. However, ensuring a healthy environment requires more than a permanent structure for housing. Proper sanitation and drainage system together with efficient garbage disposal is required for safe disposal of waste, so that it does not lead to the spread of communicable diseases. It also ensures that the waste, including used water, does not stagnate around the housing premises. This checks the breeding of insects and other parasites and hence contributes to checking parasite-borne and communicable diseases in the surroundings.

### 3.1. Sanitation

In a country like India, sanitation assumes great importance as one of the major public issues in the country as a whole; open defecation particularly leads to ill-health and diseases. Insufficient sanitation is found to be linked to greater incidence of illness in children and even mortality. Given the close association between sanitation facilities and public health outcomes, it is a matter of concern that in Telangana, 36.7 per cent of households still have no latrines (Table 8.9). The data shows that absence of latrines is one of the major public health issues in this state. From 2008-09 to 2012, Telangana has made good progress in terms of access to latrines, especially exclusive latrines. However, the situation in rural areas is dismal, with more than half the population having no latrine (Figure 8.2). The ST and SC households also have low access to latrines (Figure 8.3).

Figure 8.2 : Households with latrines in Telangana

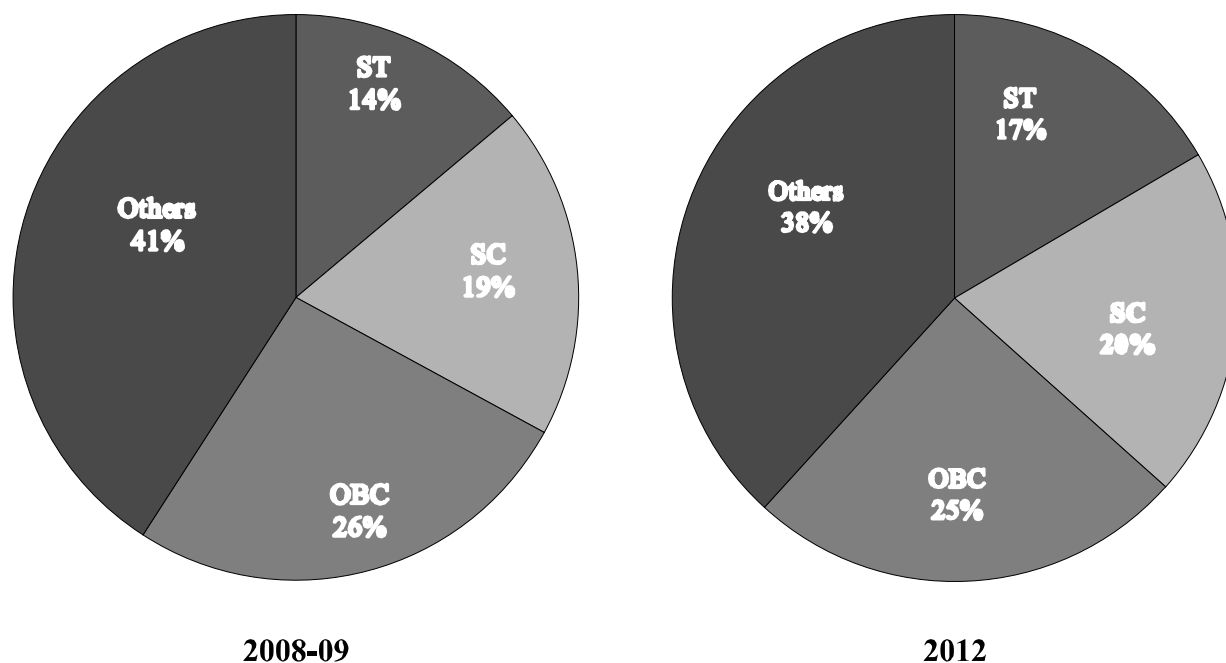


Source: Census 2011

**Table 8.9: Households with latrines: State and National (Per cent)**

Indicator		Telangana		Southern States		India	
		2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	32.6 (27.8)	45.9 (35.6)	41.4 (35.3)	46.6 (39.5)	34.8 (27.9)	40.6 (32.0)
	Urban	94 (51.3)	93.2 (73.9)	86.8 (60.4)	90.5 (66.1)	88.7 (58.1)	91.2 (63.9)
Social Group	ST	28.3 (12)	40.1 (22.9)	35 (21.3)	31.6 (21.5)	30.9 (20.7)	32.8 (23.1)
	SC	38.9 (22.7)	48.6 (35.2)	34.4 (22.9)	44.9 (27.1)	35 (22.8)	41.4 (26.4)
	OBC	53.5 (35.5)	61.0 (47.9)	59.8 (46.2)	65.2 (51.9)	45.8 (33.6)	52.5 (39.3)
	Others	83.5 (59.9)	92.7 (78.8)	76.7 (61.7)	81.9 (69.1)	73.9 (55.4)	79.7 (61.9)
Religious group	Hindu	52.3 (34.9)	60.8 (47.9)	53.7 (40.3)	60.0 (45.8)	47.5 (34.6)	53.5 (39.7)
	Muslim	83.7 (51.6)	84.2 (63.6)	80.5 (66.9)	84.2 (71.6)	64.2 (44.2)	68.7 (48.5)
	Christian	54.9 (30.6)	89.5 (70.9)	83.4 (67.7)	87.2 (75.0)	77.8 (61.9)	84.2 (72.3)
	Others	100 (100)	100 (100)	71.6 (65.3)	37.8 (20.7)	70.1 (55.4)	75.5 (59.9)
<b>Total</b>		55.3 (36.5)	63.3 (49.7)	57.9 (44.3)	63.9 (50.0)	50.8 (36.9)	56.6 (42.1)

Note: The figures in brackets refer to households having latrines with exclusive use  
Source: NSSO, 65th round, 2008-09 and 69th round, 2012

**Figure 8.3: Households with latrines by social group (Per cent)**

Source: NSSO, 69th round, 2012

The situation is poor across the districts with Hyderabad being the only exception with coverage of about 95 per cent (Table 8.10).

It is necessary to link the issue of sanitation and construction of latrines to the availability of running water and mechanised and safe management of septic tanks and sewerage. It cannot be forgotten that the issue of insanitary latrines is inseparable from the larger issue of manual scavenging and the extreme vulnerability of persons engaged in this activity, who are exposed to hazardous cleaning.<sup>2</sup>

In deciding on policy frameworks for decent housing, there must be a convergence between housing policy and the implementation of *The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013*. A closely related issue is sewer deaths and the lack of basic safeguards for conservation workers (see Gatade 2016).

**Table 8.10: Households with latrines: Districts and socio-religious groups (Per cent)**

Districts/ Indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hindu	Muslim	Christian	
Adilabad	63.3	89.1	51.7	46.0	76.7	93.0	66.8	92.5	100.0	46.2
Nizamabad	58.3	90.7	71.9	71.0	58.3	85.4	63.3	88.1	100.0	52.7
Karimnagar	38.4	93.4	0.0	32.1	52.2	80.8	46.1	90.9	-	54.1
Medak	58.7	87.4	42.9	65.5	61.1	89.1	61.4	72.7	-	44.8
Hyderabad	-	99.2	99.3	100.0	98.1	100.0	99.0	100.0	100.0	95.3
Ranga Reddy	85.2	90.9	86.1	68.5	89.2	96.6	84.7	100.0	100.0	68.7
Mahbubnagar	49.8	92.6	71.9	9.1	56.2	91.9	52.8	94.3	67.5	49.6
Nalgonda	56.1	86.5	50.3	64.0	59.6	96.4	62.0	36.1	79.2	56.2
Warangal	71.3	95.7	30.1	74.6	81.7	100.0	75.8	100.0	56.7	59.5
Khammam	51.1	99.8	8.9	25.2	69.2	89.8	54.2	88.8	100.0	47.0
<b>Total</b>	57.5	96.8	52.9	57.1	71.0	95.6	69.7	91.9	91.1	63.3

Source: NSSO, 69th round, 2012

<sup>2</sup>Insanitary Latrine, as per Section 2 (e) of the Manual Scavenging Act means a latrine which requires human excreta to be cleaned or otherwise handled manually, either in situ, or in an open drain or pit into which the excreta is discharged or flushed out, before the excreta fully decomposes in such manner as may be prescribed: According to Section 2(d) "hazardous cleaning" by an employee, in relation to a sewer or septic tank, means its manual cleaning by such employee without the employer fulfilling his obligations to provide protective gear and other cleaning devices and ensuring observance of safety precautions, as may be prescribed or provided in any other law, for the time being in force or rules made thereunder

### 3.2. Drainage

The data indicates that access to drainage is much higher than the average across the country in Telangana. However, rural households lag behind when it comes to access. Among the social categories, accessibility of ST and SC households

remains below average (Table 8.11). The district-wise analysis shows that the condition in Mahbubnagar is especially poor with only 33.5 per cent households having drainage facility. Across the districts, the situation is comparatively worse for rural households, SCs, STs and OBCs (Table 8.12).

**Table 8.11: Access of households to drainage system (Per cent)**

Indicator		Telangana		Southern States		India	
		2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	55.8	62.9	38.5	47.6	43.4	50.2
	Urban	91.9	94.7	78.3	85.4	85.2	87.5
Social Group	ST	42.4	58.9	39.5	44.5	32.8	34.4
	SC	66.5	67.0	42.8	48.7	47.7	54.8
	OBC	67.6	72.0	54.4	64.4	56.3	64.3
	Others	84.0	95.5	59.8	71.9	67.0	71.6
Religious Group	Hindu	67.7	72.9	53.0	60.7	55.3	61.1
	Muslim	83.7	89.9	54.3	79.2	55.7	64.4
	Christian	65.7	85.4	48.2	60.3	53.4	62.6
	Others	100.0	100.0	85.8	86.0	72.0	79.0
<b>Total</b>		69.1	74.6	52.9	62.5	55.7	62.0

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

**Table 8.12: Households with drainage (Per cent)**

Districts/ Indicator	Residence		Social Group				Religious Group			Total
	Rural	Urban	ST	SC	OBC	Others	Hindu	Muslim	Christian	
Adilabad	84.1	95.9	72.4	72.7	93.4	100.0	85.5	100.0	100.0	86.6
Nizamabad	88.8	94.5	40.4	97.3	92.2	99.0	89.5	97.3	100.0	90.0
Karimnagar	56.6	96.7	3.6	67.2	56.8	98.1	61.7	99.2	-	65.3
Medak	87.2	100.0	64.8	80.9	96.3	78.2	89.8	59.9	-	88.6
Hyderabad	-	95.1	100.0	77.8	93.4	100.0	94.6	96.5	100.0	95.1
Ranga Reddy	72.9	83.4	70.5	35.0	83.3	94.5	72.4	95.6	100.0	73.8
Mahbubnagar	27.0	76.7	0.3	7.6	36.7	60.2	34.5	17.8	67.5	33.5
Nalgonda	47.3	95.1	33.4	58.2	60.3	49.0	52.3	93.9	11.4	54.4
Warangal	49.3	96.6	58.1	62.7	54.3	87.6	57.7	100.0	75.2	59.6
Khammam	94.4	100.0	100.0	91.7	93.9	100.0	94.6	100.0	100.0	95.1
<b>Total</b>	62.9	94.7	58.9	67.0	72.0	95.5	72.9	89.9	85.4	74.6

Source: NSSO, 69th round, 2012

### 3.3. Garbage disposal

As far as garbage disposal is concerned, although Telangana fares relatively better compared to southern states and all-India levels, there is a scope for improvement. For around 29 per cent of households, there is no government arrangement for garbage disposal with 37 per cent of households making their own arrangements (Table 8.13). At the district level, the data shows that Mahbubnagar is the worst hit, with a staggering 83 per cent of households not having any arrangement for garbage disposal, followed by Nalgonda and Medak (Table 8.14). Further, over the period from 2008-09 to 2012, although Telangana made progress in terms of access to drainage, it has been slower than that of the other southern states and all-India performance. But at the same time, the number of households with no arrangement for garbage disposal has substantially gone down, although most of this improvement can be attributed to households making their own arrangements for the same. A lot of effort is required by the government to bolster safe and hazard-free sanitation and drainage as well as garbage disposal facilities in the state.

### 4. Drinking water

The supply of clean drinking water is one of the basic requirements for good health. However, the provisions for round the clock supply of clean drinking water in adequate quantity remains an unrealised goal in our country. Further, waterborne diseases, owing to the supply of dirty and untreated water, are widely prevalent in developing countries, including India, posing a major public health challenge. The impact of such diseases on health is severe, especially in early childhood, and they also entail additional monetary and time costs.

Another major problem with drinking water in such countries is the distance one must often travel to retrieve a clean supply. In most cases, it is women who have to travel long distances to collect water which takes a toll on their time, work and health.

In this section, we assess the situation in Telangana with regard to drinking water. First, we compare the various sources of water which are used for drinking in the state with all-India and southern states. We find that the situation of the source of drinking water seems much better in this state as access to piped water (including to dwelling and yard/plot) is substantially higher than the country average. One of the striking features revealed by the data is that about 18 per cent of households rely on bottled water for drinking, with rural households exceeding averages for southern states and India (Table 8.15). This may be indicative of rural households' willingness to pay for drinking water in view of limited access to clean sources or insufficient supply. It warrants deeper analysis to understand public behaviour with regard to drinking water. At district level, there are about five major sources of drinking water: bottled, piped Water to dwelling, piped to yard/plot, public tap/standpipe, tube well/borehole (Figure 8.4).

The percentage of population using different sources of drinking water varies across districts (Table 8.16). Telangana government has launched a mega scheme called Mission Bhagiratha to ensure the availability of piped water to each household.

Further, in NSS 69<sup>th</sup> round, the data on source of drinking water was collected using a code structure to facilitate computation of one of the Millennium Development Goals (MDG) indicators *viz.* 'improved source' of drinking water, components of which are depicted below (Figure 8.5). It is worth noting that Telangana fared much better *vis-à-vis* other southern states and India. Also, the access to improved sources was high across rural-urban households, social and religious groups (Table 8.17). A district-wise analysis also indicated that a large proportion of households across districts had access to improved sources of drinking water (Table 8.18).



**Table 8.13: Garbage disposal in households (per cent)**

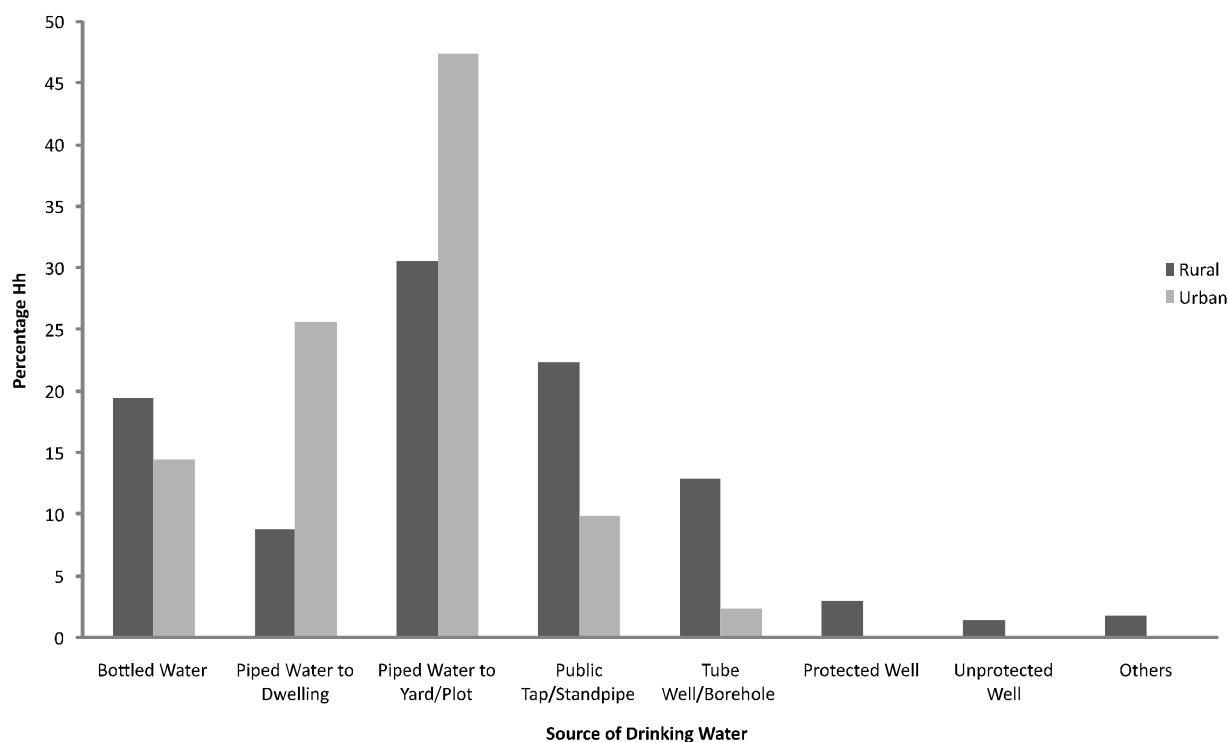
Indicator			Telangana		Southern States		India	
			2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	By Panchayat/Municipality/Corporation	14.3	8.1	7.2	7.9	3.3	3.5
		By Resident/Group of Residents	12.7	52.1	14.5	30.0	19.0	25.9
		No Arrangement	71.8	38.2	77.5	60.9	75.7	68.0
		Others	1.3	1.6	0.8	1.2	2.0	2.6
	Urban	By Panchayat/Municipality/Corporation	55.1	71.5	68.0	64.7	62.0	51.9
		By Resident/Group of Residents	17.6	11.2	7.2	11.8	13.1	21.5
		No Arrangement	24.0	12.0	21.5	20.6	21.4	24.2
		Others	3.3	5.4	3.4	2.9	3.6	2.4
Social Group	ST	By Panchayat/ Municipality/Corporation	13.4	16.3	15.4	14.7	6.4	7.5
		By Resident/Group of Residents	9.4	50.2	7.3	36.6	18.1	22.6
		No Arrangement	76.9	25.8	76.9	46.3	74.0	65.9
		Others	0.3	7.7	0.3	2.4	1.5	4.1
	SC	By Panchayat/ Municipality/Corporation	21.5	20.0	21.6	21.4	13.9	12.6
		By Resident/Group of Residents	12.0	44.7	14.0	26.2	17.7	23.5
		No Arrangement	63.2	31.1	63.7	50.1	66.2	61.7
		Others	3.3	4.2	0.7	2.3	2.2	2.2
	OBC	By Panchayat/ Municipality/Corporation	26.9	26.2	31.1	31.4	19.7	18.4
		By Resident/Group of Residents	14.2	37.4	12.3	21.2	17.4	23.5
		No Arrangement	56.4	33.8	54.7	45.9	60.3	55.3
		Others	2.5	2.6	1.9	1.5	2.6	2.7
	Others	By Panchayat/Municipality/Corporation	47.4	62.6	33.2	37.3	30.7	26.8
		By Resident/Group of Residents	19.2	23.6	9.6	22.5	16.5	27.0
		No Arrangement	33.1	12.6	55.0	37.9	50.0	44.1
		Others	0.4	1.3	2.3	2.3	2.8	2.1
Religious Group	Hindu	By Panchayat/Municipality/Corporation	26.8	27.7	29.2	29.8	20.4	18.7
		By Resident/Group of Residents	14.3	39.3	12.4	24.1	17.2	25.2
		No Arrangement	56.6	29.6	56.8	44.4	59.9	53.6
		Others	2.3	3.4	1.5	1.8	2.5	2.5
	Muslim	By Panchayat/ Municipality/Corporation	52.7	61.2	29.6	38.3	22.2	20.1
		By Resident/Group of Residents	15.7	17.4	9.6	18.2	14.8	18.9
		No Arrangement	31.6	21.4	59.4	41.8	61.0	58.7
		Others	0.0	0.0	1.4	1.7	2.1	2.3
	Christian	By Panchayat/ Municipality/Corporation	38.0	76.0	27.1	25.2	23.0	22.2
		By Resident/Group of Residents	15.4	17.4	8.0	10.9	15.7	17.5
		No Arrangement	46.6	6.5	60.5	60.6	57.5	54.4
		Others	0.0	0.0	4.5	3.2	3.8	5.9
	Others	By Panchayat/Municipality/Corporation	41.9	100.0	63.9	19.9	22.4	14.6
		By Resident/Group of Residents	58.2	0.0	11.5	65.3	29.3	33.1
		No Arrangement	0.0	0.0	24.6	13.4	46.0	50.0
		Others	0.0	0.0	0.0	1.4	2.3	2.3
By Panchayat/ Municipality/Corporation		29.3	31.4	29.2	30.3	20.7	18.8	
Total		By Resident/Group of Residents	14.5	37.0	11.9	22.9	17.2	24.5
		No Arrangement	54.2	28.5	57.2	45.0	59.6	54.1
		Others	2.0	3.0	1.7	1.9	2.5	2.6

Source: NSSO, 65<sup>th</sup> round, 2008-09 and 69<sup>th</sup> round, 2012

**Table 8.14: Households with no arrangement for garbage disposal (Per cent)**

Districts/ Indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hindu	Muslim	Christian	
Adilabad	3.2	0.0	0.0	0.0	4.4	0.0	2.8	0.0	0.0	2.5
Nizamabad	0.0	9.9	0.0	0.0	3.2	0.0	2.2	0.0	0.0	2.1
Karimnagar	8.2	3.6	2.1	23.4	1.4	0.0	8.0	0.0	-	7.2
Medak	55.5	4.7	45.6	26.9	55.1	47.9	52.1	0.0	-	50.1
Hyderabad	-	13.0	12.6	51.0	9.9	7.3	12.4	18.4	0.0	13.0
Ranga Reddy	36.6	21.6	77.6	52.2	21.3	50.9	36.7	14.1	0.0	35.3
Mahbubnagar	91.7	28.3	99.7	98.4	82.5	54.7	83.5	82.3	32.5	83.3
Nalgonda	80.5	24.4	50.6	55.8	83.9	63.0	71.7	87.9	21.7	72.1
Warangal	29.0	5.9	10.7	16.0	32.8	1.8	25.0	0.0	24.8	24.0
Khammam	2.9	0.0	0.0	0.1	0.7	10.6	2.8	0.0	0.0	2.6
<b>Total</b>	<b>38.2</b>	<b>12.0</b>	<b>25.8</b>	<b>31.1</b>	<b>33.8</b>	<b>12.6</b>	<b>29.6</b>	<b>21.4</b>	<b>6.5</b>	<b>28.5</b>

Source: NSSO, 69th round, 2012

**Figure 8.4 : Source of drinking water in Telangana (Per cent)**Source: NSSO, 69<sup>th</sup> round, 2012

**Table 8.15: Source of drinking water for households (Per cent)**

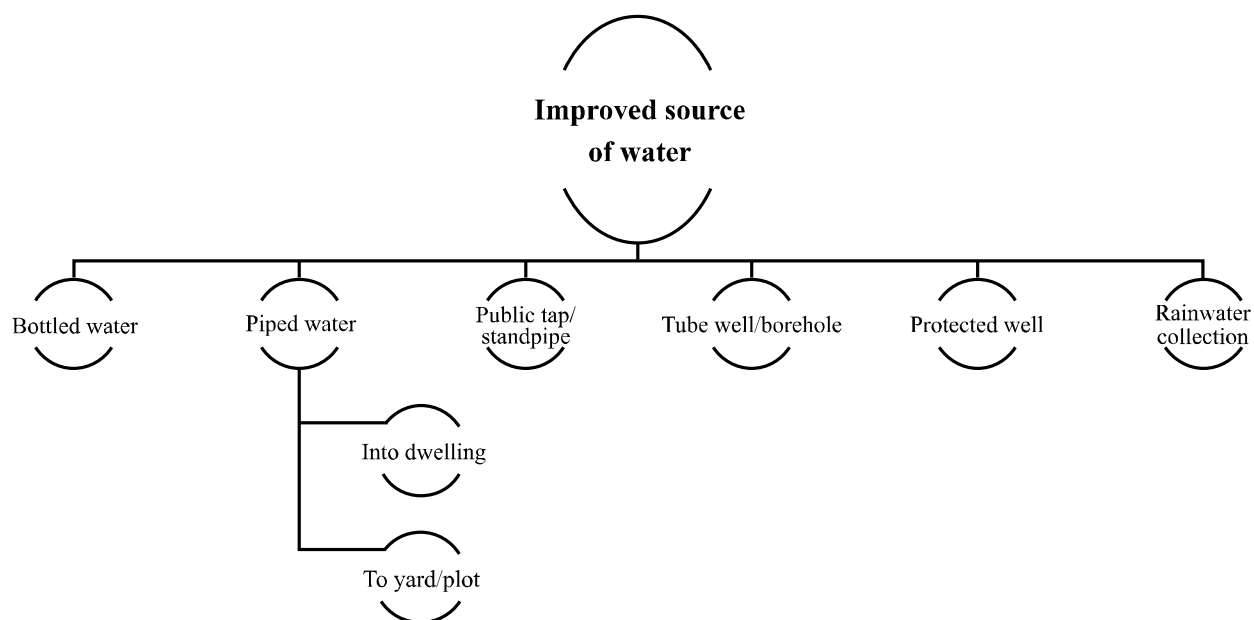
Source	Telangana			Southern States			India		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
<b>Bottled water</b>	19.4	14.5	17.6	3.6	12.5	7.1	1.7	5.2	2.8
<b>Piped water to dwelling</b>	8.8	25.6	15.0	5.8	21.6	12.0	6.5	35.1	15.5
<b>Piped water to yard/plot</b>	30.6	47.3	36.7	16.2	28.1	20.9	10.5	21.2	13.9
<b>Public tap/standpipe</b>	22.3	9.9	17.7	39.9	19.4	31.8	14.3	12.8	13.9
<b>Tube well/borehole</b>	12.9	2.4	9.0	12.8	7.6	10.7	52.3	19.9	42.1
<b>Protected well</b>	3.0	0.1	1.9	3.7	2.0	3.0	2.7	1.1	2.2
<b>Unprotected well</b>	1.4	0.1	0.9	14.9	5.6	11.2	9.0	2.2	6.8
<b>Others</b>	1.8	0.1	1.2	3.3	3.3	3.4	2.8	2.5	2.9

Source: NSSO, 69th round, 2012

**Table 8.16: District level principal source of drinking water**

District	Bottled water	Piped water to dwelling	Piped water to yard/plot	Public tap/standpipe	Tube well/borehole	Protected well	Unprotected well	Other surface water	Others
<b>Adilabad</b>	7.4	5.0	40.4	21.8	24.4	0.9	0	0	0
<b>Nizamabad</b>	9.1	5.1	67.4	10.5	7.7	0	0	0	0.2
<b>Karimnagar</b>	7.8	0.4	50.4	13.7	6.7	13.9	0.6	6.3	0.2
<b>Medak</b>	1.7	15.6	39.0	32.3	11.3	0	0	0	0
<b>Hyderabad</b>	11.6	33.0	44.1	9.0	2.2	0	0	0	0.1
<b>Ranga Reddy</b>	38.2	1.6	35.5	10.0	6.6	0	0	0	8.1
<b>Mahbubnagar</b>	35.9	4.5	27.5	14.0	18.2	0	0	0	0
<b>Nalgonda</b>	19.5	8.5	3.1	36.9	22.8	0	9.1	0	0
<b>Warangal</b>	40.8	27.5	19.0	7.5	2.3	3.0	0	0	0
<b>Khammam</b>	3.6	9.0	45.7	41.7	0	0	0	0	0
<b>Total</b>	17.6	15.0	36.7	17.7	9.0	1.9	0.9	0.7	0.5

Source: NSSO, 69th round, 2012

**Figure 8.5: Improved water sources****Table 8.17: Access of households to improved source of water (Per cent)**

Indicator		Telangana	Southern States	India
<b>Residence</b>	Rural	96.8	81.9	88.5
	Urban	99.8	91.2	95.3
<b>Social group</b>	ST	98.3	91.9	81.3
	SC	94.8	88.1	92.7
	OBC	98.5	85.8	90.3
	Others	98.8	81.4	92.8
<b>Religious group</b>	Hindu	97.7	88.0	91.0
	Muslim	99.6	73.8	91.1
	Christian	99.1	69.7	74.2
	Others	100.0	84.4	92.9
<b>Total</b>		97.9	85.5	90.6

Source: NSSO, 69th round, 2012

**Table 8.18: Proportion of households with improved drinking water source**

Districts/ indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hinduism	Muslim	Christian	
<b>Adilabad</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Nizamabad</b>	99.8	99.5	100.0	99.2	100.0	100.0	99.8	100.0	100.0	99.8
<b>Karimnagar</b>	91.4	98.5	33.2	83.3	33.2	33.2	92.2	100.0	-	93.0
<b>Medak</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0
<b>Hyderabad</b>	-	99.9	100.0	99.3	100.0	100.0	99.9	100.0	100.0	99.9
<b>Ranga Reddy</b>	91.2	100.0	84.6	100.0	84.6	84.6	91.4	100.0	100.0	91.9
<b>Mahbubnagar</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Nalgonda</b>	89.3	100.0	100.0	81.2	100.0	100.0	90.6	100.0	100.0	90.9
<b>Warangal</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Khammam</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Total</b>	96.8	99.8	98.3	94.8	98.3	98.3	97.7	100.0	100.0	-

Source: NSSO, 69th round, 2012

Further, the data on distance of households from source of drinking water also corroborated that around 90 per cent of households had water sources within 0.2 km of the premises, though the situation for rural, SC, ST and OBC households remains below average (Table 8.19). Further, over the period from 2008-09 to 2012, the distance of the households from the drinking water source has decreased. In terms of location of drinking water sources, the situation of rural and ST households remains the worst (Tables 8.20 and 8.21).

One of the major problems with the drinking water supply in the country is distance from the house,

resulting in people, usually women, spending a lot of time travelling to fetch water. Further, in case of public water sources, there are long queues, leading to more wastage of time. In Telangana, around 66.4 per cent of households reported having sources of drinking water within the premises, which is much higher than other southern states and India. However, in terms of spending time in collecting water and waiting in line, the households ended up exhausting around 15.4 minutes and 12 minutes, respectively (Table 8.22).

Table 8.19: Distance of household from source of drinking water

Indicator		Distance	Telangana		Southern States		India	
			2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	Within premises	42.4	53.4	35.7	40.1	40.6	46.3
		less than 0.2 km	50.8	32.0	55.7	49.0	48.1	41.1
		0.2 - 0.5 km	6.4	8.1	6.6	7.9	9.2	9.3
		≥0.5 km	0.4	6.5	2.0	3.0	2.2	3.3
	Urban	Within premises	81.2	88.5	65.8	72.4	74.5	77.5
		less than 0.2 km	17.3	8.3	31.5	22.8	22.8	18.4
		0.2 - 0.5 km	0.4	3.0	2.1	2.9	2.0	2.9
		≥0.5 km	1.2	0.2	0.6	2.0	0.7	1.2
Social group	ST	Within premises	24.6	48.2	27.3	36.3	24.2	27.3
		less than 0.2 km	68.4	34.9	65.5	55.1	57.7	50.5
		0.2 - 0.5 km	7.0	10.2	4.4	5.5	14.8	16.4
		≥0.5 km	0	6.6	2.8	3.1	3.3	5.8
	SC	Within premises	41.7	52.7	24.9	36.3	36.2	44.7
		less than 0.2 km	51.0	28.7	66.3	51.0	53.1	43.8
		0.2 - 0.5 km	6.5	10.2	7.5	8.7	8.9	8.6
		≥0.5 km	0.8	8.5	1.3	4.0	1.7	2.9
	OBC	Within premises	56.1	64.1	47.6	53.2	51.7	57.8
		less than 0.2 km	38.9	26.1	46.5	39.1	40.4	33.4
		0.2 - 0.5 km	4.2	6.5	4.4	5.5	6.2	6.6
		≥0.5 km	0.8	3.2	1.4	2.2	1.8	2.2
	Others	Within premises	82.9	92.2	65.7	68.6	66.5	69.9
		less than 0.2 km	15.5	5.0	28.6	24.0	27.5	23.4
		0.2 - 0.5 km	1.0	0.4	4.2	4.9	4.8	4.8
		≥0.5 km	0.5	2.4	1.6	2.5	1.2	2.0
Religious group	Hindu	Within premises	54.3	64.0	43.7	50.4	48.5	54.3
		less than 0.2 km	40.6	24.9	49.5	40.5	42.2	35.3
		0.2 - 0.5 km	4.5	6.5	5.2	6.3	7.4	7.7
		≥0.5 km	0.7	4.7	1.6	2.7	1.8	2.7
	Muslim	Within premises	79.6	87.7	62.1	64.8	59.3	64.8
		less than 0.2 km	17.9	9.0	33.2	28.5	34.2	28.4
		0.2 - 0.5 km	1.6	3.3	3.3	4.7	5.3	5.0
		≥0.5 km	0.9	0	1.5	2.0	1.1	1.8
	Christian	Within premises	59.7	83.0	63.6	66.8	57.4	58.4
		less than 0.2 km	35.9	7.2	31.5	28.2	34.6	33.0
		0.2 - 0.5 km	2.2	9.8	4.3	3.2	6.7	5.5
		≥0.5 km	2.3	0	0.6	1.8	1.3	3.2
	Others	Within premises	100	100	76.8	43.7	73.6	73.7
		less than 0.2 km	0	0	21.1	55.6	21.9	17.8
		0.2 - 0.5 km	0	0	0	0	3.2	5.6
		≥0.5 km	0	0	2.1	0.7	1.3	3.0
Total	Within premises	56.7	66.4	46.6	52.8	50.6	56.2	
	less than 0.2 km	38.5	23.2	47	38.7	40.6	33.9	
	0.2 - 0.5 km	4.2	6.2	4.9	6.0	7.1	7.3	
	≥0.5 km	0.7	4.2	1.5	2.6	1.7	2.6	

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

**Table 8.20: Location of drinking water source (per cent of households)**

Districts	Residence						Total		
	Rural			Urban			Near premises	Within premises	Away
	Near premises	Within premises	Away	Near premises	Within premises	Away			
Adilabad	25.8	36.0	38.3	60.5	23.4	16.2	35.2	32.5	32.2
Hyderabad	-	-	-	92.4	5.4	2.2	92.4	5.4	2.2
Karimnagar	61.4	22.2	16.4	74.7	13.4	11.8	64.6	20.1	15.3
Khammam	43.3	34.1	22.6	61.6	25.5	12.9	47.4	32.2	20.4
Mahbubnagar	28.1	40.2	31.7	64.1	22.3	13.5	33.2	37.7	29.1
Medak	34.6	37.8	27.6	65.2	22.4	12.4	41.7	34.2	24.1
Nalgonda	35.7	36.3	28.0	58.2	24.0	17.8	39.7	34.1	26.2
Nizamabad	36.9	38.6	24.4	56.1	31.3	12.6	41.1	37.1	21.8
Ranga Reddy	41.0	36.2	22.8	83.7	8.1	8.2	71.8	15.9	12.3
Warangal	46.6	26.9	26.5	66.9	17.1	16.0	52.0	24.3	23.7
Telangana	39.9	33.8	26.3	77.7	13.2	9.1	54.2	26.0	19.8

Source: Census 2011

**Table 8.21: Location of drinking water source (per cent of households)**

Districts	Social group									Total		
	ST			SC			Others			Near premises	Within premises	Away
	Near premises	Within premises	Away	Near premises	Within premises	Away	Near premises	Within premises	Away			
Adilabad	12.0	38.2	49.8	28.7	36.5	34.8	44.0	29.7	26.3	35.2	32.5	32.2
Hyderabad	81.9	11.5	6.6	83.6	12.2	4.2	93.9	4.3	1.7	92.4	5.4	2.2
Karimnagar	35.9	31.6	32.6	54.5	25.0	20.5	68.4	18.4	13.2	64.6	20.1	15.3
Khammam	25.7	43.9	30.4	44.6	34.9	20.5	58.3	26.0	15.7	47.4	32.2	20.4
Mahbubnagar	15.6	47.1	37.3	24.6	42.7	32.7	37.7	35.1	27.1	33.2	37.7	29.1
Medak	18.3	37.0	44.7	33.4	38.0	28.7	45.7	33.0	21.3	41.7	34.2	24.1
Nalgonda	21.7	44.1	34.2	36.8	35.8	27.4	43.3	32.1	24.6	39.7	34.1	26.2
Nizamabad	17.6	43.8	38.5	29.6	43.0	27.4	45.8	35.2	19.1	41.1	37.1	21.8
Ranga Reddy	51.4	27.3	21.3	59.1	23.5	17.4	75.7	13.6	10.6	71.8	15.9	12.3
Warangal	26.9	36.5	36.6	43.0	29.1	27.9	59.9	20.4	19.7	52.0	24.3	23.7
Telangana	26.4	38.8	34.7	43.7	31.8	24.4	60.4	22.9	16.7	54.2	26.0	19.8

Source: Census 2011

**Table 8.22: Time taken to collect water and waiting time (in minutes)**

Indicator		Time taken in a day			Waiting time in a day		
		Telangana	Southern states	India	Telangana	Southern states	India
Residence	Rural	16.2	14.5	20.3	12.0	13.8	15.2
	Urban	10.3	13.3	15.1	12.0	15.6	16.0
Social group	ST	14.9	12.6	22.4	13.0	13.8	14.6
	SC	20.2	14.5	18.8	13.2	14.9	15.6
	OBC	13.9	14.2	20.2	11.3	14.2	15.8
	Others	16.8	14.5	16.7	13.9	13.1	14.6
Religious group	Hindu	15.5	14.0	19.6	12.0	14.2	15.4
	Muslim	11.8	17.0	19.1	12.0	14.5	16.0
	Christian	17.0	14.3	15.9	14.6	12.1	10.6
	Others	-	19.1	20.2	-	27.1	16.9
<b>Total</b>		15.4	14.2	19.5	12.0	14.2	15.3

Source: NSSO, 69<sup>th</sup> round, 2012**Table 8.23: Households with access to sufficient drinking water (per cent)**

Indicator		Telangana		Southern states		India	
		2008-09	2012	2008-09	2012	2008-09	2012
Residence	Rural	94.1	79.2	86.8	86.9	86.2	85.8
	Urban	95.1	76.5	92.1	89.6	91.1	89.6
Social group	ST	84.5	81.9	82.6	84.8	77.2	77.6
	SC	97.7	81.3	87.9	90.0	87.4	87.4
	OBC	96.1	74.8	89.7	87.0	88.9	86.9
	Others	91.3	84.2	87.9	89.9	89.2	89.7
Religious Group	Hindu	95.2	77.8	89.5	88.1	87.6	86.9
	Muslim	88.1	80.6	81.9	84.8	88.8	88.8
	Christian	90.0	93.0	87.2	90.4	83.2	81.3
	Others	100.0	100.0	90.8	96.9	87.5	85.6
<b>Total</b>		94.5	78.2	88.7	88.0	87.6	87.0

Source: NSSO, 65th round, 2008-09 and 69th round, 2012

The sufficiency of drinking water is also an important parameter with which to assess water supply. In fact, improved access to drinking water sources can only make a difference if the water is available in sufficient quantity. An insufficient water supply not only leads to higher time spent in fetching water but also paying relatively higher prices for water from other sources. The data clearly shows that the availability of drinking water in Telangana is far from sufficient. This is indicative of the fact that Telangana as a state requires more access to water in order to cater to its population in rural as well as urban areas. Social

group-wise analysis indicates that OBCs as a group face greater problems in terms of water sufficiency (Table 8.23). One interesting finding is that minority religious groups mentioned the higher availability of sufficient water supply in Telangana as well as other southern states. The district-wise analysis shows that households in Nizamabad had the greatest access to sufficient drinking water. The situation was dismal in Mahbubnagar. Even in the district of Hyderabad, access to sufficient drinking water remains low (Table 8.24). The 2012 situation with regard to sufficiency of water was worse than in 2008-09.



**Table 8.24: Proportion of households with sufficient drinking water**

Districts/ indicator	Residence		Social group				Religious group			Total
	Rural	Urban	ST	SC	OBC	Others	Hinduism	Muslim	Christian	
Adilabad	50.6	99.7	70.7	55.8	55.1	76.1	57.9	99.1	100.0	61.1
Nizamabad	82.9	98.9	100.0	100.0	79.1	99.0	85.4	97.3	100.0	86.2
Karimnagar	98.3	99.5	94.6	100.0	97.6	100.0	98.4	100.0	-	98.6
Medak	82.8	99.2	100.0	71.7	86.3	65.4	84.0	99.5	-	84.6
Hyderabad	-	72.9	75.8	54.7	68.4	80.8	70.9	75.7	100.0	72.9
Ranga Reddy	70.8	63.2	98.2	38.5	82.2	72.4	72.9	28.1	100.0	70.2
Mahbubnagar	47.6	77.2	62.9	52.2	50.0	60.4	50.7	62.8	67.5	51.5
Nalgonda	80.5	64.3	78.4	87.2	75.7	76.2	78.9	72.0	46.7	78.1
Warangal	96.0	59.1	89.3	96.8	82.8	97.6	87.8	89.3	100.0	88.0
Khammam	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Total</b>	79.2	76.5	81.9	81.3	74.8	84.2	77.8	80.6	93.0	-

Source: NSSO, 69th round, 2012

## 5. Conclusion

In the state of Telangana, a large proportion of households have *pucca* housing and the state is doing very well in terms of electricity coverage, with almost 100 per cent households having electricity. However, we saw that the proportion of households with separate kitchens lagged in the state and the situation across districts was bad. The facility for drinking water is also good in the state with a majority of the households having access to improved water sources. But the sufficiency of water in many districts is very low. When it comes to infrastructure including sanitation, drainage and garbage disposal, which is intricately linked to public health, the state has a lot of ground to cover. Over the period of time studied, Telangana has made significant improvements in these areas but efforts still have to be made to achieve universal coverage. Coming to the districts, Mahbubnagar was seen to be one of the most backward in Telangana when it came to these specific facilities.

One of the ways in which to improve parameters for the state can be to focus on the districts which are especially backward. Among the social categories, the situation of STs remained the worst followed by SCs households, suggesting that these groups need more attention and efforts on the part of the authorities. Further, the situation is grimmer in rural areas *vis-à-vis* urban settlements. The need of the hour is to focus on the sections of the population which are lagging behind. As mentioned in the beginning, the facilities discussed in this chapter are among the most basic for ensuring a decent standard of living. Dedicated and focused policies and their proper implementation are a must for solving these problems on a durable basis.

## References

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## Annexures

Annexure 8.1: Households having bathroom facility in their house (Per cent)

Districts/ indicator	Residence		Social group			Total
	Rural	Urban	ST	SC	Others	
Adilabad	16.0	68.8	8.7	20.9	68.8	30.4
Hyderabad	-	98.0	90.7	95.3	98.0	98.0
Karimnagar	29.4	78.8	18.5	24.4	78.8	41.1
Khammam	28.1	80.2	12.8	31.4	80.2	39.9
Mahbubnagar	24.2	79.4	12.6	17.0	79.4	32.0
Medak	33.6	83.3	19.6	30.8	83.3	45.2
Nalgonda	24.6	75.5	10.2	19.4	75.5	33.6
Nizamabad	32.5	81.3	14.4	26.1	81.3	43.1
Ranga Reddy	46.3	95.1	60.3	66.6	95.1	81.5
Warangal	20.5	76.8	10.7	23.3	76.8	35.4
Telangana	27.4	88.4	19.1	34.2	88.4	50.3

Source: Census 2011

Annexure 8.2: Households with electricity (Per cent)

Districts/ indicator	Residence		Total
	Rural	Urban	
Adilabad	83.6	95.5	86.9
Hyderabad	-	98.7	98.7
Karimnagar	93.4	98.0	94.5
Khammam	87.4	96.5	89.4
Mahbubnagar	85.1	96.5	86.7
Medak	88.7	97.1	90.7
Nalgonda	88.7	97.1	90.2
Nizamabad	91.0	97.4	92.4
Ranga Reddy	90.4	98.0	95.9
Warangal	91.9	96.8	93.2
Telangana	89.0	97.7	92.3

Source: Census 2011

Annexure 8.3: Households with latrine (Per cent)

Districts / indicator	Residence		Total
	Rural	Urban	
Adilabad	13.8	70.7	29.3
Hyderabad	-	98.5	98.5
Karimnagar	34.2	84.4	46.2
Khammam	37.4	85.4	48.2
Mahbubnagar	17.9	78.1	26.4
Medak	31.8	84.6	44.1
Nalgonda	31.9	81.2	40.6
Nizamabad	29.4	85.5	41.6
Ranga Reddy	43.5	96.0	81.4
Warangal	29.7	82.4	43.7
Telangana	29.5	90.4	52.4

Source: Census 2011

Annexure 8.4: Source of drinking water (Per cent)

Districts	Tap water from treated source	Tap water from untreated source	Covered well	Un-covered well	Hand Pump	Tubewell/borehole	Spring	River/canal	Tank/pond/lake	Other sources	Total
Adilabad	27.6	14.0	0.9	14.3	28.8	12.2	0.4	0.5	0.2	1.1	100.0
Hyderabad	96.0	1.8	0.1	0.1	0.3	0.7	0.1	0.0	0.1	0.8	100.0
Karimnagar	42.4	27.1	0.5	13.6	7.1	6.7	0.1	0.0	0.0	2.4	100.0
Khammam	41.0	21.6	0.8	6.3	20.0	8.2	0.2	0.6	0.1	1.3	100.0
Mahabubnagar	37.0	41.0	0.4	0.7	12.3	6.7	0.2	0.3	0.1	1.4	100.0
Medak	43.9	30.2	0.4	1.4	8.5	13.9	0.0	0.0	0.1	1.4	100.0
Nalgonda	32.8	35.5	0.6	3.3	10.9	7.6	0.1	0.1	0.0	9.0	100.0
Nizamabad	48.9	27.3	0.4	1.4	6.0	13.3	0.1	0.1	0.1	2.4	100.0
Ranga Reddy	72.3	14.7	0.2	0.7	3.1	5.7	0.1	0.0	0.1	3.1	100.0
Warangal	34.0	33.3	0.7	7.6	11.7	7.9	0.1	0.1	0.1	4.6	100.0
Telangana	49.4	24.3	0.5	4.8	10.1	7.7	0.1	0.2	0.1	2.9	100.0

Source: Census 2011

# NOTES ON CONTRIBUTORS

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# TELANGANA SOCIAL DEVELOPMENT REPORT 2017

The **Telangana Social Development Report 2017** (TSDR) presents a statistical profile of the social sector in the state of Telangana, drawing on data from various rounds of NSSO supplemented by Census data, for the ten districts comprising the state prior to district re-organisation in 2016. The TSDR begins with a demographic profile of the state and maps the present status of development in Telangana through the following parameters: land and agriculture; credit and indebtedness; employment/unemployment; education; public distribution system; health; and household amenities. The data has been analysed along the grids of social and religious groups, gender, and rural/urban location. The aim of the TSDR is to assess the achievements of our social and economic interventions in the lives of various sections of society. This assessment in turn points towards directions for further action by the state in order for it to attain its stated objective of development with justice and social inclusion.

**Council for Social Development** is an institution of advanced research in the social sciences and humanities, with two centres located in Delhi and Hyderabad. It was established by a group of scholars and policymakers in social development in the 1960s led by Durgabai Deshmukh and C.D. Deshmukh. CSD, through its research, publications and advocacy, seeks to initiate critical debate on social policy, promote informed dialogue and secure justice for all in every sphere of life in India.

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