

4.5 HEALTH SYSTEM RESPONSE INDICATORS

As per the survey methodology framework, a total of 537 public primary care facilities, 415 community health centres (CHCs) and 335 districts hospitals (DHs) serving the selected PSUs were surveyed in the public health care system. Additionally, 512 private primary care facilities were also surveyed in the same PSUs. A health facility mapping was used to select the health facilities serving that or near the cluster being surveyed. One primary level, one CHC and one district hospital government facility and one private primary level equivalent health facility were covered for each cluster.

Information on implementation of National Program for Prevention and Control of Cancer, Diabetes and Cardiovascular Disease and Stroke (NPCDCS), availability of human resources; technologies and medicines; and services being provided at these facilities were collected. The data pertaining to the coverage of different services (e.g. screening and treatment for specific NCDs) were also obtained in the survey. The results of the survey for primary and secondary health facilities are presented below.

4.5.1 PUBLIC PRIMARY HEALTH CARE FACILITIES

This section presents results on the information obtained from all the public primary care facilities surveyed.

KEY FINDINGS

- **Higher** number of patients with **Diabetes mellitus and Hypertension** attended **public primary care facilities** in a month than those with CVDs (including Stroke) and Cancer.
- **2.3%** and **1.1%** of public primary care facilities in urban and rural areas respectively had all the essential technologies and medicines as per **WHO guidelines**.

Table 4.5.1.1 Overall facilities and infrastructure available in public primary care facilities for all conditions (Percentage)

Availability of facilities and infrastructure	Urban (n = 257)	Rural (n = 280)
Types of services provided		
Outpatient services	100.0	100.0
Inpatient services	35.0	67.5
Emergency services	34.2	46.4
Telephone, electricity and ambulance services		
Landline or a mobile telephone number functional on the day of assessment	58.4	57.9
Electricity backup functional on the day of assessment	56.8	74.3
Available ambulance services/patient transport services	63.8	77.1

Among the public primary care facilities surveyed, 35.0% provided inpatient services in urban areas and 67.5% in rural areas. 58.4% of urban and 57.9% of rural primary care facilities had functional landline or a mobile telephone number, while 63.8% urban and 77.1% rural facilities provided ambulance services. (Table 4.5.1.1)

Table 4.5.1.2 Services available for NCDs in public primary care facilities (Percentage)

Availability of services for NCDs	Urban (n = 257)	Rural (n = 280)
Availability of written standard treatment guidelines under NPCDCS	49.0	26.1
Services for management of NCDs		
All are referred/not present	12.8	15.7
Fixed days/day in a week	10.5	6.4
Seen daily/no dedicated day	76.7	77.9
Availability of laboratory tests for diagnosis/management of NCDs	68.1	70.4

49.0% of urban and 26.1% of rural public primary care facilities reported availability of written standard treatment guidelines under NPCDCS, while 76.7% of urban and 77.9% of rural facilities had no dedicated day, rather attended to patients with NCDs daily. Laboratory tests for diagnosis/management of NCDs like (diabetes, CVDs, cancer) were available in 68.1% urban and 70.4% rural public primary care. (Table 4.5.1.2)

Table 4.5.1.3 Average number of patients with major NCDs attending public primary care facilities in the month prior to the survey

NCD category	Urban (n = 257)	Rural (n = 280)
Diabetes mellitus	107	62
Hypertension	134	101
Cardiovascular diseases with Stroke	9	7
Chronic Obstructive Pulmonary Disease (COPD)	60	35
Cancer	9	6

It was observed that the average number of patients attending the public primary care facilities (urban and rural) with cancer and CVDs were less compared to the other major NCDs. (Table 4.5.1.3)

Table 4.5.1.4 Services available for management of specific NCDs in public primary care facilities (Percentage)

Service availability for management of NCDs	Urban (n = 257)		Rural (n = 280)	
	Inpatient services	Outpatient services	Inpatient services	Outpatient services
Diabetes mellitus	24.8	93.0	34.4	93.6
Hypertension	24.8	94.6	39.6	98.2
Cardiovascular diseases including Stroke	6.4	53.3	9.9	44.6
COPD	16.8	72.4	25.0	68.2
Cancer	0.8	26.1	2.4	20.0

The outpatient services available at public primary care facilities (urban and rural) for hypertension were (94.6% and 98.2%), diabetes (93.0% and 93.6%), COPD (72.4% and 68.2%), cardiovascular diseases including stroke (53.3% and 44.6%) and cancer (26.1% and 20.0%), respectively. The availability of inpatient services for NCDs was much lower among both the urban and rural surveyed public primary care facilities. The proportion was lowest for cardiovascular problems including stroke (urban 6.4% and rural 9.9%) and cancer (urban 0.8% and rural 2.4%) than other NCDs. (Table 4.5.1.4)

Table 4.5.1.5 Available human resources (medical/paramedical/other staff) in public primary care facilities (Percentage)

Available staff	Urban (n = 257)		Rural (n = 280)	
	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS/NHM (NCD related) program	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related) program
General duty medical officer	84.8	32.7	85.4	28.2
AYUSH* medical officer	23.0	2.3	35.0	7.9
Nurses	73.5	22.6	67.5	24.3
Female health assistant	34.2	8.6	41.1	9.6
Male health assistant/PHN	14.8	2.3	29.6	5.7
Auxiliary nurses	70.0	15.2	76.4	17.9
Male health worker (MPW)	14.8	1.9	33.2	5.4
Male nurse assistant	5.1	0.0	8.6	0.4
Pharmacist	82.9	14.8	81.1	14.3
Lab technician	73.5	13.6	68.2	15.0
Counsellor	6.6	1.2	10.4	3.9
Physiotherapist	2.3	0.0	0.7	0.0
Care coordinator	2.3	1.2	3.9	0.7
Data entry operator	23.7	1.9	33.2	7.5

*The systems of medicine included for survey under AYUSH are, Ayurveda; Unani; Siddha and Homeopathy

Overall, 84.8% and 85.4% of public primary care facilities had general duty medical officers and 32.7% and 28.2% urban and rural facilities had trained medical officers. Urban and rural facilities - nurses (73.5% and 67.5%), auxiliary nurses (70.0% and 76.4%), pharmacist (82.9% and 81.1%) and lab technician (73.5% and 68.2%), counsellor (6.6% and 10.4%) and data entry operator (23.7% and 33.2%) respectively reported availability. The percentage of facilities trained for NCDs under NPCDCS/NHM in urban and rural areas - nurses (22.6% and 24.3%), auxiliary nurses (15.2% and 17.9%), pharmacist (14.8% and 14.3%) and lab technician (13.6% and 15.0%), counsellor (1.2% and 3.9%) and data entry operator (1.9% and 7.5%). (Table 4.5.1.5)

Table 4.5.1.6 Availability¹ of essential technologies and medicines for NCDs in public primary care facilities (Percentage)

As per WHO guidelines	Technologies		Medicines		Both technologies and medicines	
	Urban (n = 257)	Rural (n = 280)	Urban (n = 257)	Rural (n = 280)	Urban (n = 257)	Rural (n = 280)
Diabetes mellitus ^{2,6}	47.5	52.9	21.0	20.4	10.9	14.3
Hypertension and Cardiovascular diseases ^{3,7}	67.7	60.0	37.4	24.6	32.7	19.3
Chronic respiratory diseases ^{4,8}	99.2	99.3	15.6	13.9	15.6	13.9
All ^{5,9}	38.1	38.2	4.3	2.1	2.3	1.1
1.	Availability of an item is defined as being available within the facility.					
2.	Any technology related to diabetes are at least one of each "glucometer, glucostrips, urine strips".					
3.	Any technology related to hypertension & CVDs are at least one of each "blood pressure measuring instrument, weighing scale, stadiometer, stethoscope".					
4.	At least one "stethoscope", should be available at the facility for chronic respiratory diseases.					
5.	All technologies to be available are at least one "blood pressure measuring instrument, weighing scale, stadiometer, stethoscope, glucometer, glucostrips and urine strips".					
6.	Available medicines for Diabetes are "metformin and insulin".					
7.	Available medicines for hypertension and CVDs are "aspirin, at least one of each Statin, ACE inhibitor, diuretic, long acting calcium channel blocker".					
8.	Available medicines for chronic respiratory diseases are at least one of each of "bronchodilator and a steroid inhalant".					
9.	All the medicines to be available are at least one of each "aspirin, a statin, an ACE inhibitor, diuretic, a long acting calcium channel blocker, metformin, insulin, a bronchodilator and a steroid inhalant".					

Among the public primary care facilities, essential technologies (as per WHO) for diabetes mellitus are available at 47.5% urban and 52.9% rural, for hypertension and cardiovascular problems at 67.7% urban and 60.0% rural and for chronic respiratory diseases at 99.2% urban and 99.3% rural facilities. Also, essential medicines for diabetes mellitus at 21.0% urban and 20.4% rural facilities, for hypertension and cardiovascular problems at 37.4% urban and 24.6% rural and for chronic respiratory diseases at 15.6% urban and 13.9% rural facilities. In rural areas, only 1.1% public primary care facilities had all the essential medicines and technologies available as per WHO guidelines. (*Table 4.5.1.6*)

IEC materials related to NCDs either displayed/available in waiting room/outpatient department in public primary care facilities

60.9%, 5.2%, 33.3% and 20.7% of public primary care facilities had posters, videos, pamphlets and booklets related to NCDs displayed/available in the waiting room/outpatient department, respectively. (*Annexure table 4.5.1a*)