

## 4.2.6 BIOCHEMICAL MEASUREMENTS

This section includes information obtained through biochemical measurements of capillary blood for fasting blood glucose and urine samples for urinary sodium, potassium and creatinine levels. The results have been presented in *tables 4.2.6.1 to 4.2.6.3 and figure 4.2.6.1*.

### KEY FINDINGS

- Prevalence of raised fasting blood glucose including those on medication was **9.3%**.
- **5.0%** newly detected cases were identified in the survey.

### Blood glucose

**Table 4.2.6.1 Fasting blood glucose levels (mg/dl) by area of residence and gender (Mean)**

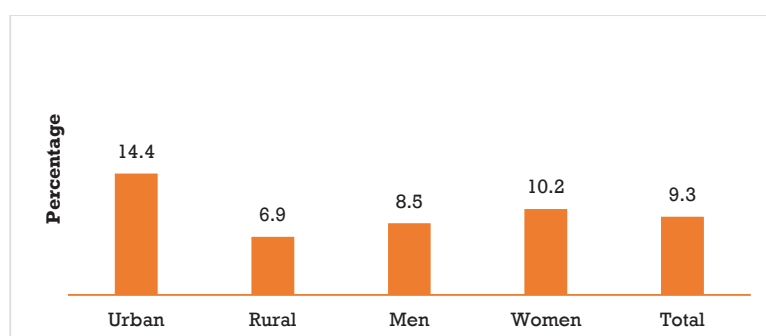
18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Mean fasting blood glucose	100.4	102.9	101.6	92.4	96.5	94.4	95.1	98.5	96.7

The mean fasting blood glucose was 96.7 mg/dl, 101.6 mg/dl urban, 98.5 mg/dl women and 105.6 mg/dl among 45-69 years of age. (*Table 4.2.6.1 and Annexure table 4.2.6.1a*)

**Table 4.2.6.2 Adults with raised fasting blood glucose (known and newly detected) by area of residence and gender (Percentage)**

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Known	8.9	7.5	8.2	2.1	2.7	2.4	4.3	4.2	4.3
Newly detected	5.2	7.2	6.1	3.6	5.4	4.5	4.2	6.0	5.0

Among the surveyed adult population, those who reported with a diagnosed history of raised blood glucose were 4.3%, 8.2% urban and 2.4% rural areas, while not much differences were observed by gender (*Table 4.2.6.2*). The diagnosed cases of raised blood glucose were almost eight times higher in the 45-69 years age group (10.8%) than 18-44 years (1.4%). 5.0% cases were newly detected during the survey, higher percentage were detected in the urban areas, in women and age group of 45-69 years. (*Table 4.2.6.2 and annexure table 4.2.6.2b*)



**Figure 4.2.6.1 Adults with raised fasting blood glucose including those on medication by area of residence and gender (Percentage)**

The prevalence of raised blood glucose, including those on medication was 9.3%, 14.4% urban and 6.9% rural areas; 10.2% women and 8.5% men; and 19.2% among 45-69 years. (Figure 4.2.6.1 and annexure table 4.2.6.3a)

**Table 4.2.6.3 Fasting blood glucose categories among those measured by area of residence and gender (Percentage)**

Fasting Blood Glucose	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
<100 mg/dl	62.6	54.2	58.7	74.7	67.3	71.1	70.7	63.2	67.1
100–125 mg/dl	27.2	33.8	30.3	20.4	26.0	23.1	22.6	28.4	25.4
≥126 mg/dl	10.2	12.0	11.0	4.9	6.7	5.8	6.7	8.4	7.5

Those measured for fasting capillary blood glucose have been categorized into those with fasting blood glucose levels <100 mg/dl, 100-125 mg/dl and ≥126 mg/dl. (Table 4.2.6.3)

25.4% and 7.5% were found to have fasting blood glucose of 100–125 mg/dl and ≥126 mg/dl, respectively. The proportion with 100–125 mg/dl and ≥126 mg/dl were higher in the urban areas, among women and 45-69 years age group, respectively. (Table 4.2.6.3 and annexure table 4.2.6.4b)

### Estimation of urinary Sodium, Potassium and Creatinine excretion

**Table 4.2.6.4 Spot urinary Sodium, Potassium and Creatinine excretion levels by area of residence and gender (Mean)**

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Sodium (mmol/L)	109.1	102.1	105.8	111.5	109.9	110.8	110.7	107.4	109.1
Potassium (mmol/L)	26.4	24.9	25.7	26.1	27.3	26.7	26.2	26.5	26.4
Creatinine (mmol/L)	90.6	59.1	76.0	86.0	64.4	75.7	87.6	62.7	75.8

Among the respondents who consented for spot urine analysis, the mean Sodium, Potassium and Creatinine levels were found to be 109.1 mmol/L, 26.4 mmol/L and 75.8 mmol/L respectively. (Annexure table 4.2.6.5a and b)