## 4.2.7 COMPOSITE RISK ASSESSMENT

This section provides information on composite risk assessment, which comprises of clustering of risk factors for respondents aged 18-69 years and ten-year CVD risk proportion for adults aged 40-69 years.

The clustering of risk factors contains the presence of ≥3 risk factors among adults, which include daily tobacco use, inadequate fruits and/or vegetable intake, insufficient physical activity, overweight (≥25.0 Kg/m$^2$), raised blood pressure, and raised fasting blood glucose including those on medication.

A 10-year CVD risk* of <10%, (10 - <20%), (20 - <30%), (30 - <40%) and ≥40% has been defined according to the age (40-69 years), gender, systolic blood pressure, current smoked tobacco use and diabetes (previously diagnosed/fasting plasma glucose concentration ≥126 mg/dl) as for South-East Asia Region.

**KEY FINDINGS**

- **40.2%** aged 18-69 years had presence of ≥3 risk factors.
- **12.8%** aged 40-69 years were at ≥30% ten-year CVD risk or with existing CVD.
- Older adults (60-69 years) at a higher risk than younger adults (40-49 years).

### Clustering of risk factors

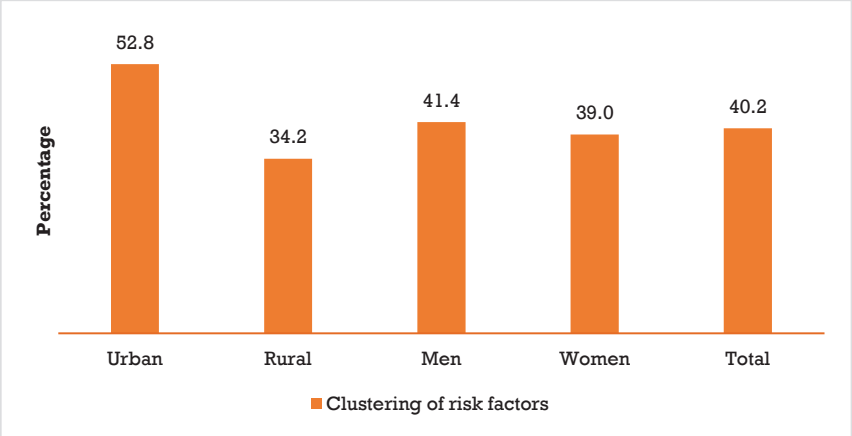


**Figure 4.2.7.1 Clustering of at least ≥3 risk factors among adults (18–69 years) by area of residence and gender (Percentage)**

40.2% of surveyed adults had the presence of at least ≥3 risk factors; urban areas (52.8%) and rural areas (34.2%) *(Figure 4.2.7.1)*. Across the age groups the proportion of clustering of risk factors increased with age. *(Annexure table 4.2.7.1a)*

*WHO/ISH Risk prediction charts for 14 WHO epidemiological sub-regions [internet]. 2007. [cited 11 December 2018]. Available from: http://ishworld.com/downloads/activities/colour_charts_24_ Aug_07.pdf

## Ten-year CVD risk assessment

**Table 4.2.7.1 Adults (40–69 years) with 10-year CVD risk (as per WHO guidelines) by area of residence and gender (Percentage)***

| 10-year CVD risk | Urban | | | Rural | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | Combined | Men | Women | Combined | Men | Women | Combined |
| <10% | 76.1 | 69.7 | 73.1 | 78.5 | 72.7 | 75.7 | 77.6 | 71.5 | 74.7 |
| 10 - <20% | 8.6 | 12.2 | 10.3 | 11.0 | 13.8 | 12.3 | 10.1 | 13.2 | 11.5 |
| 20 - <30% | 7.7 | 9.9 | 8.7 | 5.2 | 8.2 | 6.6 | 6.2 | 8.9 | 7.4 |
| 30 - <40% | 3.3 | 1.2 | 2.3 | 2.5 | 2.1 | 2.3 | 2.8 | 1.8 | 2.3 |
| ≥40% | 4.2 | 7.1 | 5.6 | 2.8 | 3.2 | 3.0 | 3.4 | 4.7 | 4.0 |

*excluding those with existing CVD

Among survey respondents aged between 40–69 years, 11.5% had 10 - <20%, 7.4% had 20 - <30%, 2.3% had 30 - <40% and 4.0% had ≥40% ten-year CVD risk. The percentage of adults in the urban areas were at a higher risk than those in the rural areas. Similarly, women were at a higher risk when compared to men *(Table 4.2.7.1).* The 10-year CVD risk of ≥40% increased with age, older adults of age 60-69 years were at a higher risk when compared to the younger adults (40-49 years). *(Annexure table 4.2.7.2a and b)*

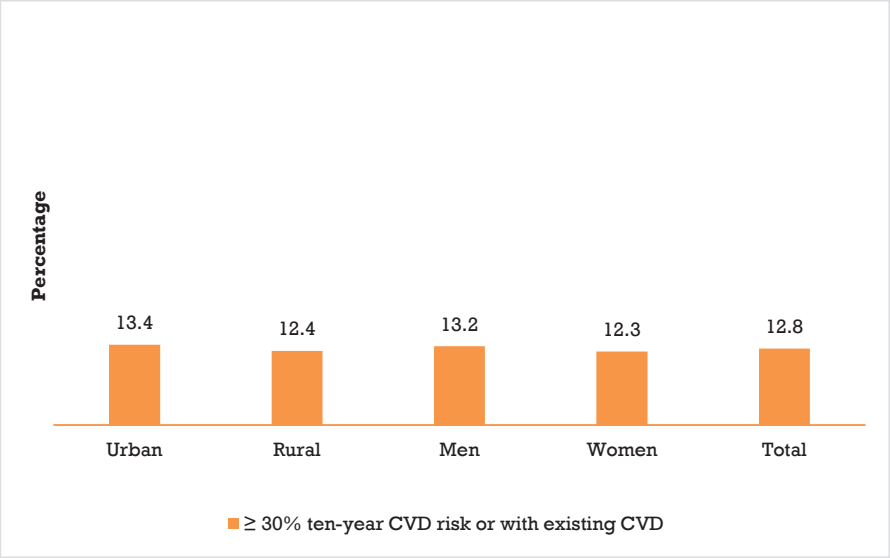


**Figure 4.2.7.2 Adults (40–69 years) with 10-year CVD risk of ≥30% or with existing CVD by area of residence and gender (Percentage)**

12.8% of adults aged 40-69 years were at ≥30% ten-year CVD risk or with existing CVD, higher percentage from urban areas (13.4%) and were men (13.2%) *(Figure 4.2.7.2).* Across the age groups of 40-49, 50-59 and 60-69 years, the risk was higher with increasing age (6.4%, 12.7% and 22.8% respectively). *(Annexure table 4.2.7.3a)*