

## 2.4 Surveillance, monitoring, evaluation, and research

### 2.4.1 Chronic NCD surveillance system

#### 2.4.1.1 Screening for chronic NCD

Screening for chronic NCDs is conducted in healthy lifestyle centers. During the year 2019, up to the third quarter, the eligible population screened included 40-65 years aged adults. However, from third quarter onwards, the eligible population screened includes the 35 years and above age group. Hence, the 35 years and above age group is considered as the target population eligible for screening, which is 40% of the mid-year population. Estimated mid-year population for the year 2019 is used for the calculation of target population. At the national level 605,148 participants from the target population are screened during the year 2019. Table 1 shows the cumulative number of eligible participants screened from the year 2011 to 2019.

*Table 1: Cumulative number of eligible participants screened from the year 2011 to 2019*

Year	Eligible participants screened (%)	Cumulative number of eligible participants screened	Cumulative % of eligible participants screened from the target population <sup>1</sup>
2011	131,144 (2.6 %)	131,144	2.6 %
2012	203,939 (4.0%)	335,083	6.6%
2013	336,446 (6.6%)	671,529	13.2%
2014	383,161 (7.5%)	1,054,690	20.7%
2015	391,260 (7.7%)	1,445,950	28.4%
2016	540,535 (10.6%)	1,986,485	39.0%
2017	493,965 (9.7%)	2,480,450	48.7%
2018	511,438 (10.0%)	2,991,888	58.8%
2019	605,148 (6.9%)	3,597,036	40.6%

<sup>1</sup> This percentage is calculated from the cumulative number of all eligible participants screened from the year 2011 to 2019. Target population of 40-65-year age group is calculated from the total population as indicated by 2012 Census, up to the year 2018 (5,089,860). For the year 2019, 35 years and above group is calculated from the total population as indicated by 2012 Census (8,856,356).

Figure 1 shows the distribution of percentage of eligible participants screened by district in 2019 while in Figure 2 depicts the distribution of percentages of eligible male and female participants screened by district in 2019. A total number of 435,816 (72.0%) females and 169,332 (28.0%) of males were screened during the year 2019 in Sri Lanka.

**Figure 1: Distribution of percentage of eligible participants screened by district in 2019**

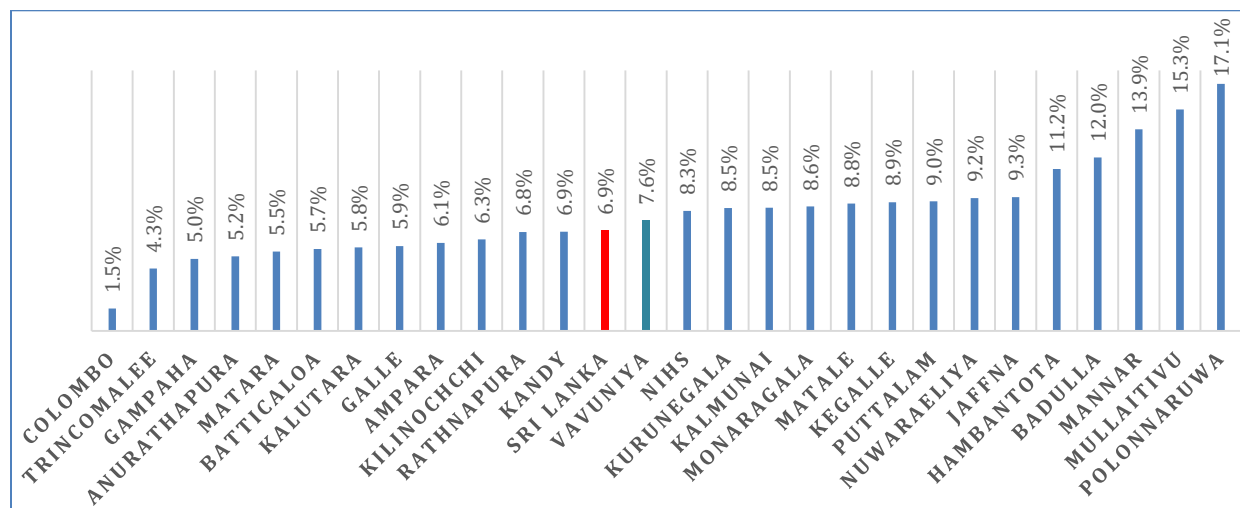
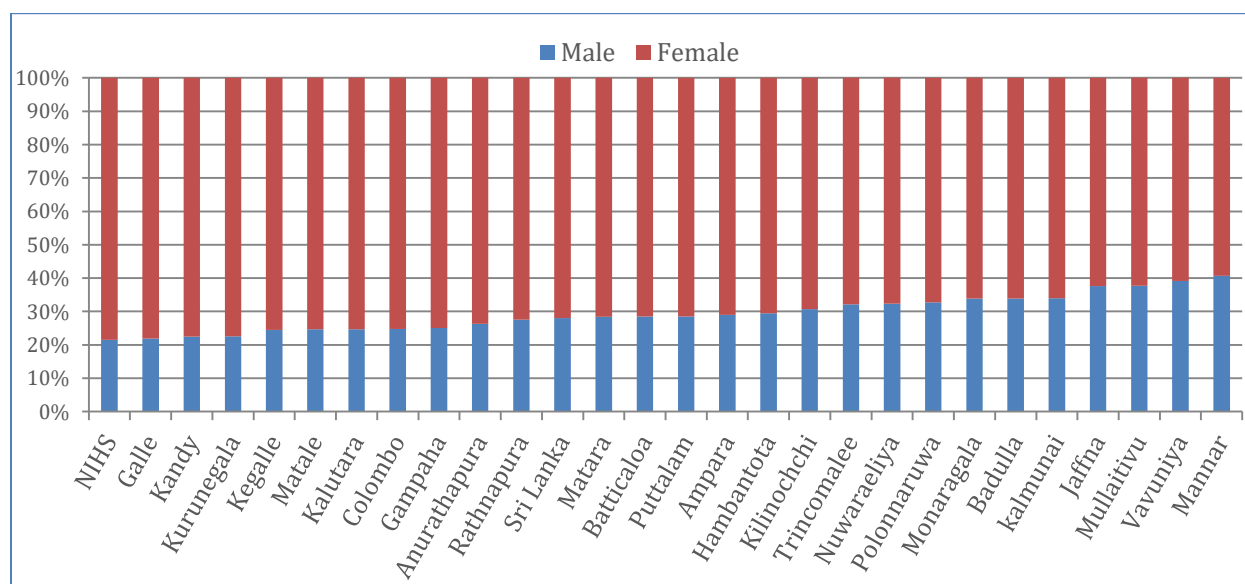


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**Figure 2: Distribution of percentage of eligible male and female participants screened by district in 2019**

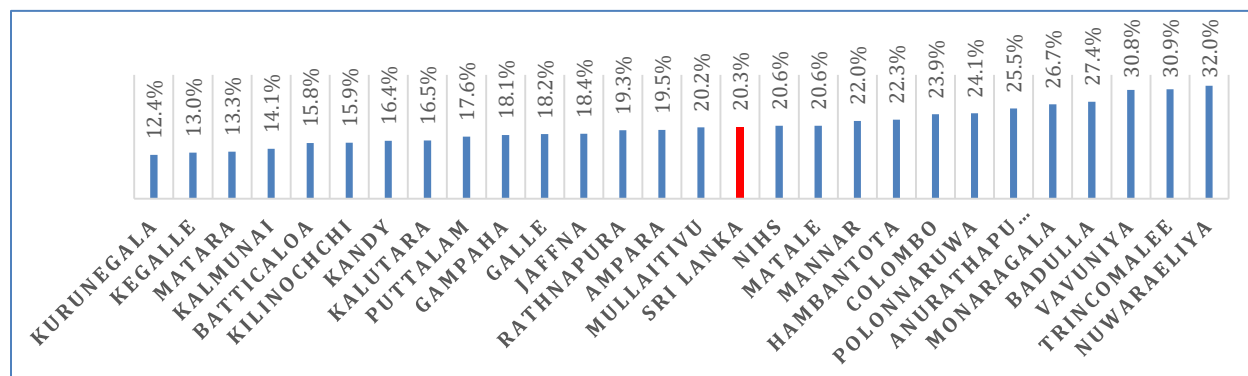


### 2.4.1.2. Screening of Risk Factors

#### Tobacco Smoking

Out of the total eligible population screened, 5.9 % (n=37,004) were tobacco smokers<sup>2</sup>. From the eligible male population screened 35,961(20.3%) were tobacco smokers while among the eligible female population screened only 1,043 (0.2%) were tobacco smokers.

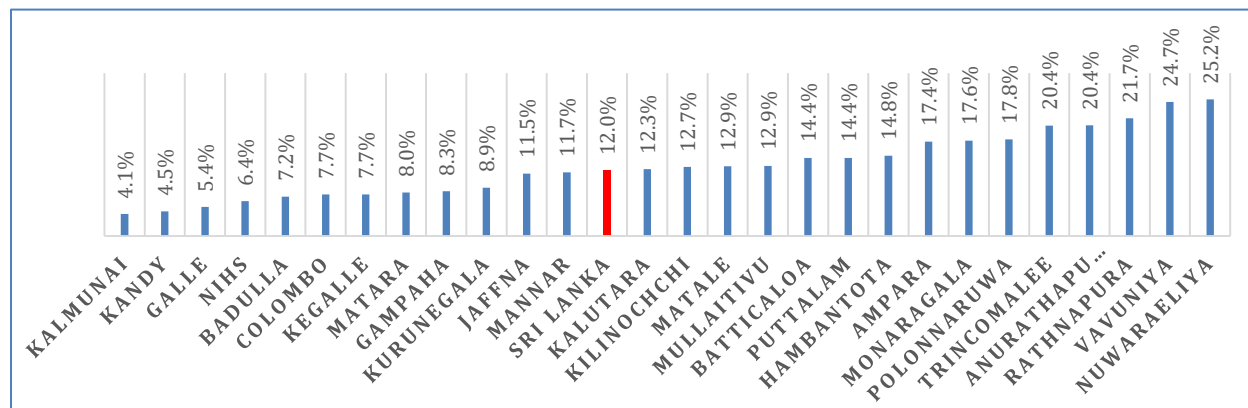
**Figure 3: Distribution of percentage of male smokers among the total eligible male population screened by district in 2019**



#### Chewing Tobacco (with or without betel)

Among the eligible population screened 75,484 (12.0%) chew tobacco (with or without betel)<sup>3</sup>. 25.6% (n=45,248) males and 6.7% (n=30,236) females chew tobacco among the respective eligible populations screen.

**Figure 4: Distribution of percentage of participants chewing tobacco among the eligible population screened in the districts in 2019**



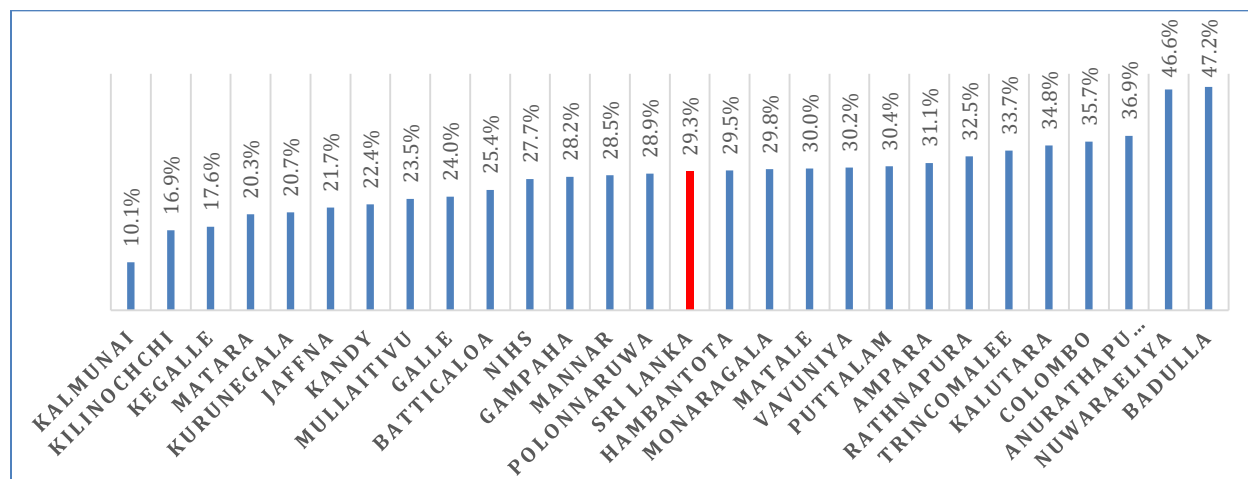
<sup>2</sup> Current tobacco smokers or those who have quit tobacco smoking less than a year before the assessment were considered as tobacco smokers. Since tobacco smoking among females was very low, the percentage of male smokers out of the eligible males screened is described to prevent the underestimation of the prevalence of smoking where the majority of eligible screened were females

<sup>3</sup> Current tobacco chewers (with or without betel) and those who had quit tobacco chewing within a year of the assessment were considered as tobacco chewers.

### Alcohol use

Of the eligible population screened 8.5% (n=53,153) were alcohol users<sup>4</sup>. There were 0.3% (n=1,363) female and 29.3% (n=51,790) male alcohol users among the respective eligible populations screened.

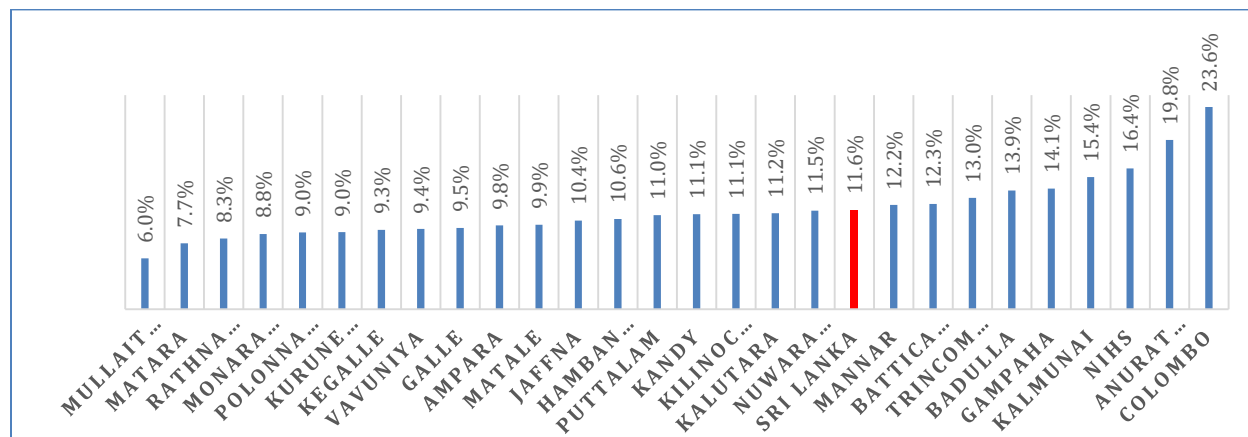
*Figure 5: Distribution of percentage of male alcohol users among the eligible males by the districts in 2019*



### Overweight and obesity

Of the eligible population screened 175,021(30.1%) and 67,526(11.6%) were found to be overweight<sup>5</sup> and obese<sup>6</sup> respectively. Prevalence of obesity was 8.8% (n=15,719) among males and 12.7% (n=51,807) among females screened.

*Figure 6: Distribution of percentage of participants with obesity among the eligible population screened by districts in 2019*



<sup>4</sup> Current alcohol users and those who had quitted alcohol use within a year of the assessment were considered as alcohol users

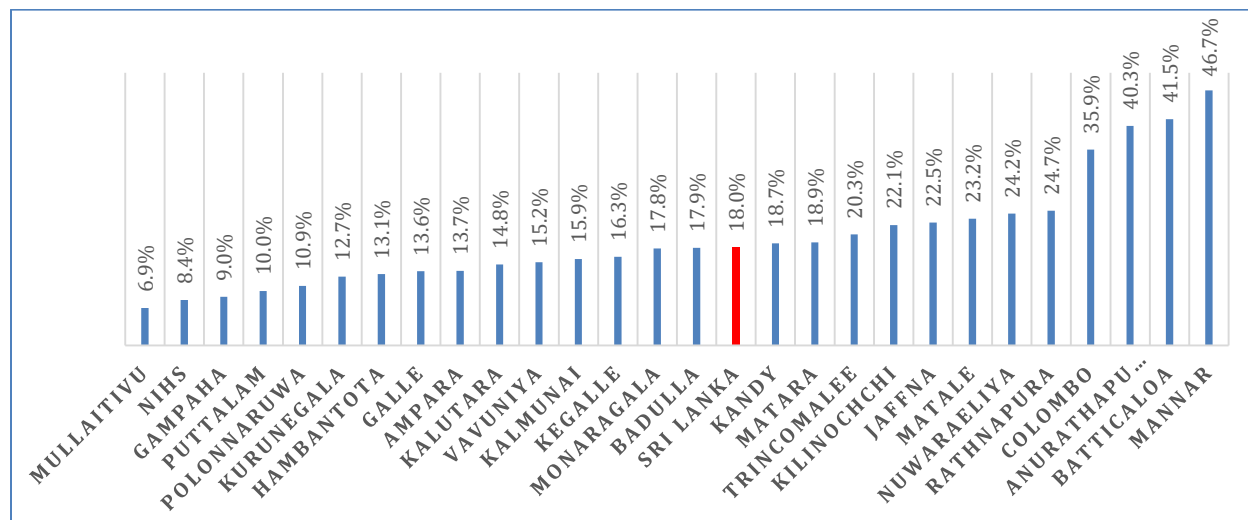
<sup>5</sup> BMI between 25 to 29.9 kg/m<sup>2</sup> is considered as overweight.

<sup>6</sup> BMI of 30 kg/m<sup>2</sup> or above is considered as obese.

## High Blood pressure<sup>7</sup>

Of the eligible population screened, 109,018 (18.0%) had high blood pressure. Among the participants screened 18.5% (n=74,485) females and 20.7% (n=34,533) males had high blood pressure among the respective eligible populations screened.

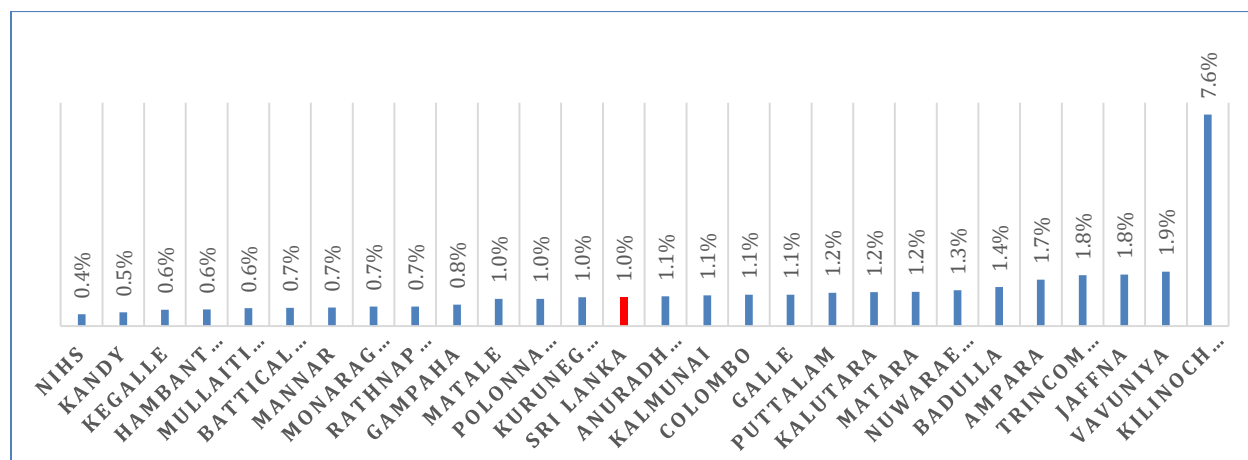
**Figure 7: Distribution of percentage of participants with high blood pressure among the eligible population screened by districts in 2019**



## Risk of Cardiovascular disease ≥ 20%

The 10-year cardiovascular risk is estimated using WHO/ISH Cardiovascular Risk Prediction Chart. Cardiovascular Risk is categorized as <10%, 10% to <20%, 20% to <30% and ≥30%. During 2019, among the eligible participants screened 6,196 (1.0%) were found with cardiovascular risk ≥20%.

**Figure 8: Distribution of percentage of participants with cardiovascular risk ≥20% among the population screened by districts in 2019**



<sup>7</sup> Blood pressure of ≥140/90mmHg was considered as high blood pressure.