



Quarterly NCD Report

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STEPS Survey

Non-Communicable Diseases (NCDs) make the largest contribution to mortality both globally and in the majority of low- and middle- income countries. NCDs account for around 60% (35 million) of global deaths worldwide. The largest burden - 80% (28 million) - occurs in low and middle income countries, making NCDs a major cause of poverty and other development issues. They are predicted to be the global cause of disability by 2030. As per the available data, more than 80% of deaths in Sri Lanka were caused by NCDs. The STEP surveillance of the WHO includes two surveillance systems namely; STEPwise approach to risk factor surveillance of NCD and STEPwise approach to stroke surveillance.

STEPS is a population based national survey, which aims on obtaining data on already established risk factors among the population to determine the burden of NCD in the country. This method has been used in many countries across the globe including Sri Lanka to assess the current prevalence of the NCD risk factors. This is a part of the STEP-wise approach to surveillance (STEPS) - Adult Risk Factor Surveillance project by the World Health Organization (WHO) is a survey methodology to help countries develop their own surveillance method consisting three steps—questionnaire, physical measurements, and biochemical measurements. It is a simple, standardized method for collecting, analyzing, and disseminating data on key NCD risk factors in countries.

The risk factor assessment of Sri Lankans for NCD by this STEP wise approach has been carried out since 2003 at the frequency of once in five years. Latest concluded STEPS survey was conducted in the year 2015.

This survey is carried out among adults aged 18-69 years and collects data on key behavioral risk factors: tobacco use, alcohol use, physical inactivity, unhealthy diet, overweight and obesity, raised blood pressure, raised blood glucose, and total cholesterol, urinary sodium, creatinine and cotinine levels. Countries could adapt expanded modules and thereby could cover a range of topics beyond these risk factors.

Currently, STEPS survey is underway for the year 2020/21 covering all the districts of Sri Lanka in a manner to get a representative sample amidst Covid-19 pandemic with so many challenges and now it is at near completion

This was conducted as a Joint effort of Ministry of Health and Department of Census and Statistics with the technical guidance of World Health Organization. The enumeration teams consisted of officials of DCS as well as public health staff and internal supervisors. The whole process was supervised by the Medical Officers - NCD (MONCD) and Regional/Provincial Consultant Community Physicians with the guidance of the Directorate of NCD.

The current STEPS survey was conducted as an eSTEPS survey where Android App was utilized for preparation and implementation of data collection using Personal Digital Assistants (PDA). Utilization of this PDA based data collection tool had many advantages such as allowing immediate error-checking during data collection, being easy for the data collectors as there were fewer materials to be carried as no paper-based questionnaire forms were utilized. Therefore, this e-STEP method was time saving, cost effective and environmentally friendly.

In addition to the supervision of the process, quality checks of the data/data collection were conducted in regular intervals with a mechanism in place to give feed backs to the data collectors, by using set of indicators recommended by WHO that includes number of re-selections, refusal, average household member per data collector, regularity, coverage and compliance with recommendations and reliability by test-re-test method. At the end of the STEPS survey, it is expected to have a set of valuable valid and reliable data on NCDs and their risk factors for action.

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Screening of eligible participants for chronic NCDs

Screening for chronic NCDs is conducted in healthy lifestyle centers. There are 990 Healthy Life Centers in Sri Lanka with the majority of them functioning in primary care institutions. The 35 years and above age group are considered as the target population eligible for screening, which is estimated as 40% of the mid-year population. A total of 48,624 participants were screened during the 3rd quarter of 2021 and the estimated mid-year population for the year 2020 was used for the calculations.

Table 1 shows the cumulative number of eligible participants screened from the year 2011 to the third quarter of 2021.

Table 1: Eligible participants screened from the year 2011 to third-quarter 2021

Year	Eligible participants screened (%)	Cumulative number of eligible participants screened	Cumulative % of eligible participants screened from the target population ¹
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	41.2%
2020	321,055 (3.7%)	3,918,091	44.2%
2021 Q1, Q2 & Q3	151,110 (1.7%)	4,024,662	46.4%

¹ This percentage is calculated from the cumulative number of all eligible participants screened from the year 2011 to 2019. Target population of 40 to 65 age group is calculated from the mid-year population as indicated by 2012 Census (5,089,860) up to 2018. From 2019, target population of 35 years and above group is calculated from the total estimated mid-year population for 2019 calculated based on the Census of Population and Housing 2012 (8,721,200). For 2020, target population of 35 years and above group is calculated from the total estimated mid-year population for 2020 calculated based on the Census of Population and Housing 2012 (8,767,600).

Of the target population, only 0.59 % (51,492) was screened which included 33,875 (61.3%) females and 21,376 (38.7%) of males. Mannar, Kaluthara, and Badulla were the districts with the best coverage.

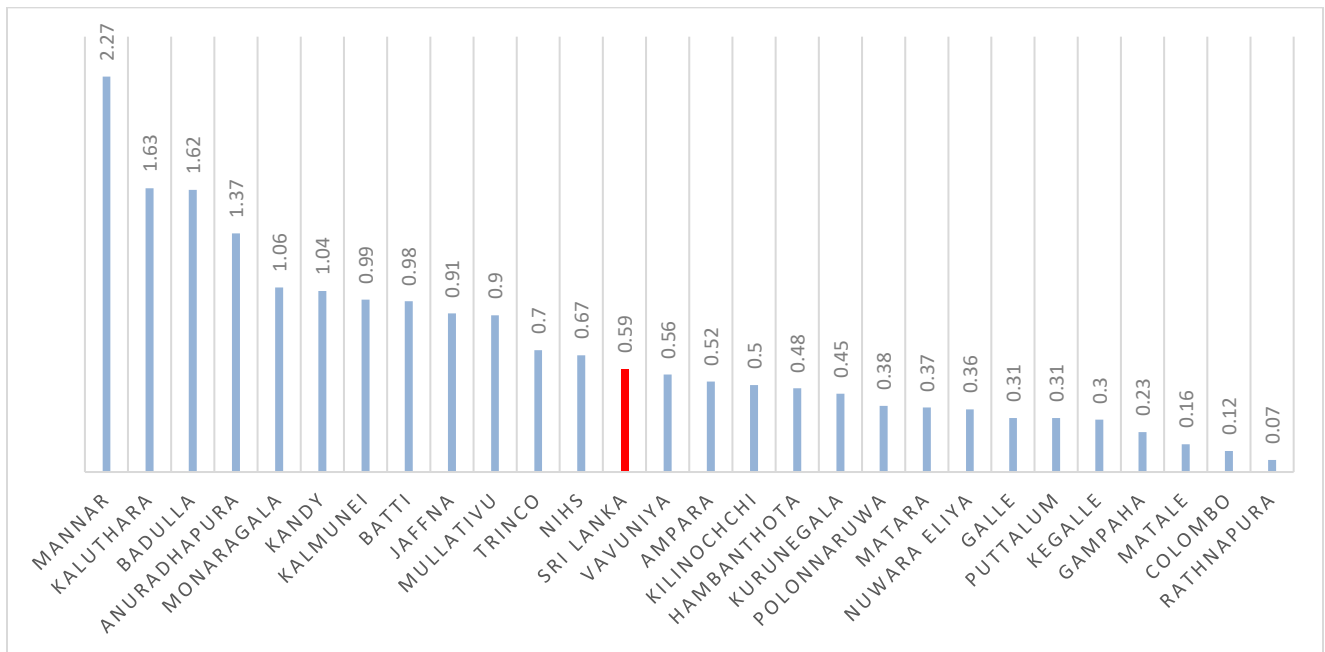


Figure 1: Distribution of percentage of eligible participants screened by the district in 3rd quarter, 2021.

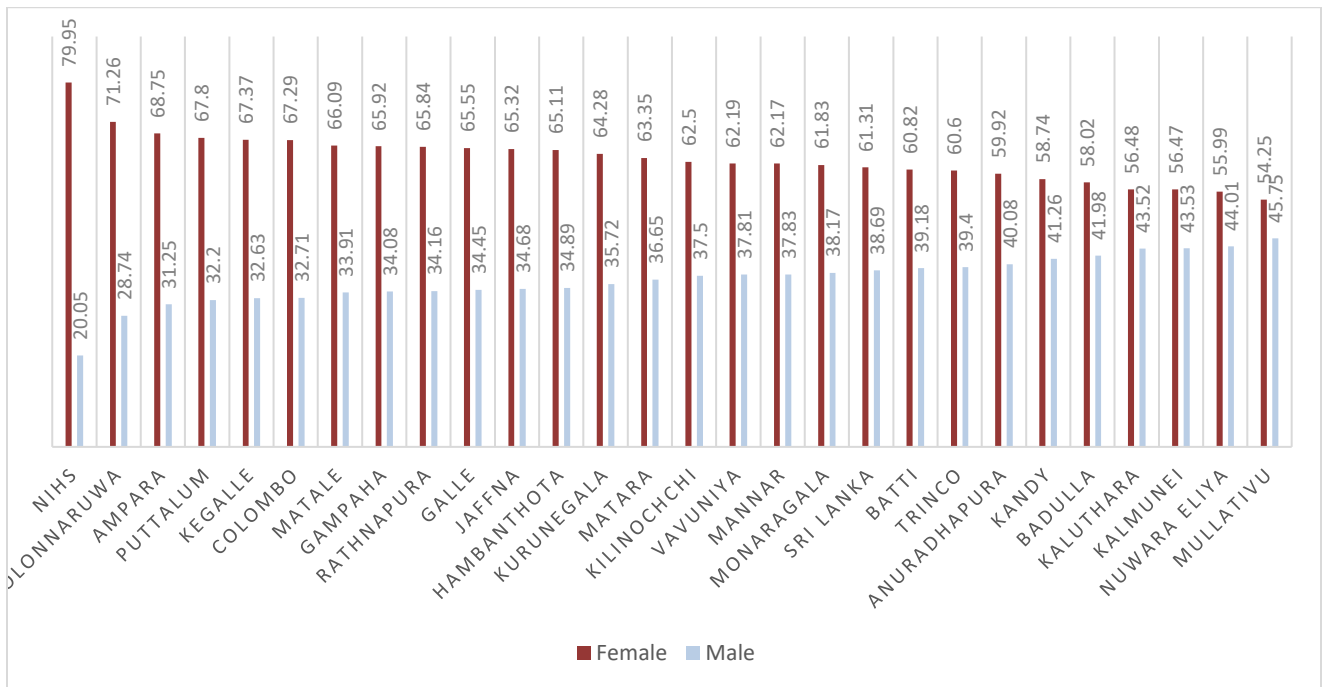


Figure 2: Distribution of percentage of eligible males and female participants screened by the district in 3rd Quarter of 2021

Screening for risk factors

Tobacco Smoking²

Out of the total eligible population screened, 9.39% (n=5,188) were tobacco smokers. From the eligible male population screened 23.58% (n= 5,040) were tobacco smokers while among the eligible female population screened only 0.44% (n=148) were tobacco smokers.

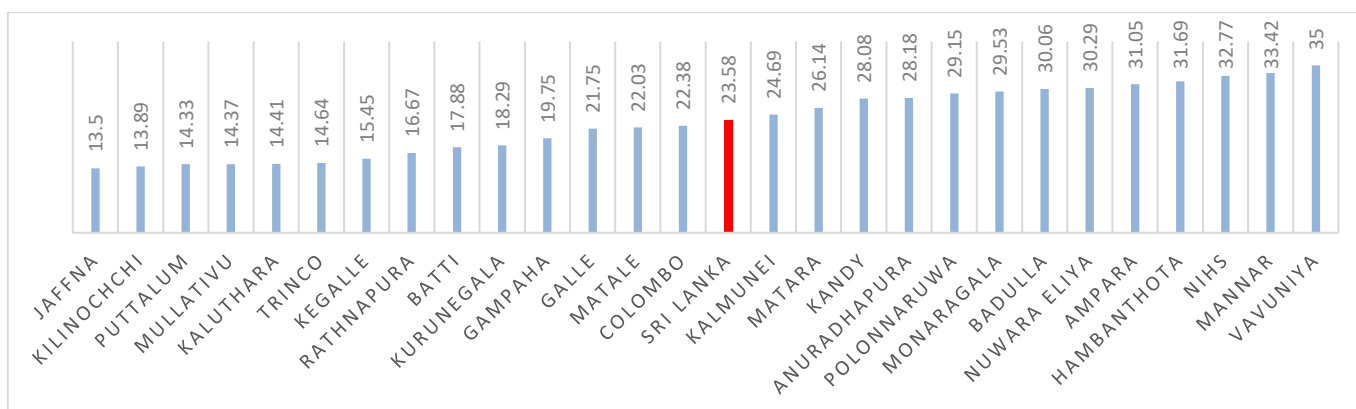


Figure 3: Distribution of percentage of male tobacco smokers among the total eligible male population screened by the district in 3rd quarter 2021

Chewing betel (with tobacco or arecanut)³

Among the eligible population screened 17.93% (9,904) chew betel (with or without tobacco) while 30.67% (n=6,556) males and 9.88% (n=3,348) females chew betel among the respective eligible populations screened.

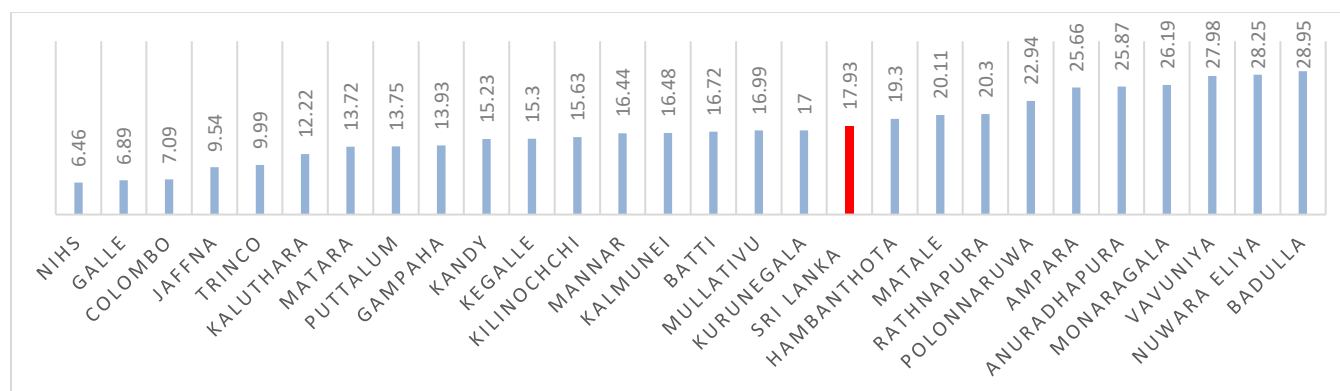


Figure 4: Distribution of percentage of participants chewing betel with tobacco or arecanut among the eligible population in screened-in 3rd quarter, 2021

² All current tobacco smokers and 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 screened were females

³ Current betel chewers (with tobacco or arecanut) and those who have quit betel chewing within a year of the assessment were considered as betel chewers

Alcohol use⁴

Of the eligible population screened 14.37% (n=7,937) were alcohol users. There were 0.30% (n=100) female and 36.66% (n=7,937) male alcohol users among the respective eligible populations screened.

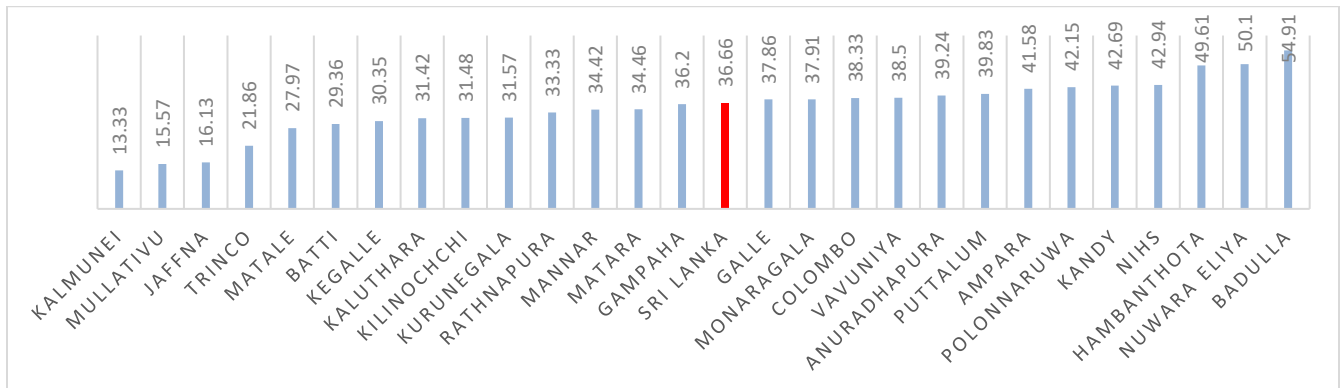


Figure 5: Distribution of percentage of male alcohol users among the eligible males screened by the districts in 3rd quarter, 2021

Overweight⁵ and obesity⁶

Of the eligible population screened 27.57% (n=15,111) and 10.43% (n=5,715) were found to be overweight and obese respectively. Prevalence of obesity was 6.67% (n=1,411) among males and 12.79% (n=4,304) among females screened.



Figure 6: Distribution of percentage of participants with overweight and obesity among the eligible population screened by districts in 3rd quarter, 2021

⁴ Current alcohol users and those who had quit alcohol use within a year of the assessment were considered as alcohol users. Since alcohol usage among females was very low, the percentage of male alcohol users out of the eligible males screened is described to prevent the underestimation of the prevalence of alcohol use where the majority of screened were females

⁵ BMI between 25 to 29.9 kg/m² was considered as overweight

⁶ BMI of 30 kg/m² or above was considered as obese