2019

Trend Survey On Tobacco

ADIC
Alcohol and Drug Information Centre

Annual Trend Survey on Tobacco and Smoking in Sri Lanka

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TREND SURVEY ON TOBACCO

**Annual Trend Survey on Tobacco and Smoking in Sri Lanka
2019**

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EXECUTIVE SUMMARY

The Alcohol and Drug Information Centre (ADIC) conducts trend surveys annually for tobacco and alcohol since 1998. The current report will present the findings for the trend survey analysis for 2019. The main aim of this analysis was to determine trends of tobacco smoking across Sri Lanka thereby assisting policymakers in formulating effective policies towards its prevention and reduction. Data was collected through a survey administered among the population of males above 15 years of age across 11 selected districts. Status of smoking was not an inclusion criterion. Therefore, individuals who were either current smokers or lifetime abstainers were able to participate.

Data analysis and results were formulated based on a total of 2851 responses who fit the inclusion criterion. 24.2% (n=691) of the sample were current users of some sort of tobacco product. This was less than current smokers recorded in the previous year. The sample was divided into three age groups for analysis where smoking across all three age groups namely, 15-24, 25-39 and above 40 had decreased (19.9%, 27.4%, 24.8%) compared to figures from 2018. However, they were higher than observed in 2016. The highest smoking rate was observed form the 25-39 age group which was inconsistent with findings from the previous year. The highest smoking occupational category was skilled agricultural and fishery workers (36.9%). It was also seen how more than 60% (62.3%) of current smokers were daily smokers. Despite this being less than the previous year, the trend is significantly similar.

Most current smokers regardless of age or district were cigarette smokers (88.3%, n=636) which was consistent with previous findings. Product used at initiation was also cigarettes for many (89.2%) and the most common occasion of initiation was with friends (59.2%). The second highest smoked product was beedi (10.1%) while the third was cigars (1.3%). Other products were smoked at a significantly lower rate. Jaffna reported the highest smoking rates for 2019 (30%). Cigarettes and Beedi was the highest smoked combination among all current smokers (7.1%) regardless of district, frequency or age group.

Around 21% of the sample had been successful in quitting smoking at the time of the survey. A majority had been successful at quitting before the age of 30 as indicated by the overall mean age (29.95). The main reason for quitting among the younger age group had been the change of preference (9.3%) while the older age groups had quit mostly due to health concerns (10%). Among other factors were family/relationship concerns, financial issues, psychological and physiological issues. More than 50% of the sample (56.4%) were lifetime abstainers.

Results also show that 13.1% (n=77) of current smokers were under the age of 21 which clearly indicate a gap in the policies and formulations that are currently in place. The initiation product among a majority of youth under 21 were cigarettes. Addiction occurs through continuous exposure to smoking. Therefore, strict measures that are needed in delaying the initiation age such as banning of tobacco products to underage individuals are discussed further.

Overall, there is a reduction in tobacco smoking for 2019 compared to 2018.

INTRODUCTION

Despite the comprehensive monitoring systems that are in place across most countries around the world, tobacco smoking kills around 8 million people a year globally and more than seven million of those deaths are a result of direct tobacco use while the rest are non-smokers being exposed to second-hand smoke (WHO 2020). Smoking and exposure to second-hand smoke are known to cause serious cardiovascular and respiratory diseases such as coronary heart disease and lung cancer. According to the WHO Cancer report 2020, there are at least 20 different subtypes of cancer caused by tobacco. An estimated 2.4 million annual cancer deaths are caused by tobacco (Freedman and Thun 2020: 51).

According to the WHO, there are around 1.3 billion current smokers globally (de Janerio 2019, Freedman and Thun 2020: 51). Around 80% of these smokers were from middle-low income countries. This number continues to rise with the population growth being centred upon the South-East Asian region. Tobacco smoking accounts for around 20,000 deaths in Sri Lanka annually. This amount is proportional to 10% of all deaths caused each year. More than 50% of the deaths were caused by cardiovascular diseases thereby making it the most common cause of death. This was predominantly seen among the younger population given the mean age of smoking initiation being as low as 20.6 years.

Upon realizing the global threat to public health from tobacco and the urgent need for action to save human lives, WHO developed the Framework Convention on Tobacco Control (WHO-FCTC) in response to the globalization of the tobacco epidemic. The main provisions of the WHO-FCTC were to reduce both the demand and supply of tobacco products. Sri Lanka too had been working hard on addressing issues related to alcohol and tobacco and was one of the first countries to ratify the WHO-FCTC. The National Authority on Tobacco and Alcohol (NATA) was established in 2006 to enact strong legal aspects for prevention activities in Sri Lanka.

In many of its reports and publications, WHO has highlighted the importance of effective monitoring and evaluation strategies in formulating effective prevention policies. To help implement the WHO-FCTC, around the same time, WHO introduced a tool named MPOWER to assist this process. The tool consists of six main areas namely **M**-monitor, **P**-protect, **O**-offer, **W**-warn, **E**-enforce, and **R**-raise. Once the prevention policies are implemented, effective monitoring strategies could ideally protect people from tobacco smoke and in turn would be able to offer help to quit tobacco use, warn about dangers of tobacco use, enforce bans on tobacco advertising, promotion and sponsorship and raise taxes (WHO 2017, WHO 2019). Sri Lanka had been successful in several tobacco demand reduction activities such as 80% compulsory pictorial health warnings on cigarette packets. A price increase of 43% in 2016 largely contributed to the reduction of tobacco use Island wide. Alcohol and Drug Information Centre (ADIC) in Sri Lanka is responsible for mapping trends of alcohol and tobacco use across the country since 1998. ADIC conducts trend surveys annually to track all sorts of tobacco, alcohol and other drug consumption trends across the country. These surveys greatly help policymakers design more strong and targeted tobacco control policies on prevention (WHO 2017).

Results from trend surveys conducted previously in 2017 and 2018 show a significant reduction in tobacco use suggesting the high effectiveness of some of the policies that were implemented in the year 2016. There was a slight increase in tobacco smoking for the year 2018 compared to 2017 indicating that the policies implemented in previous years had been insufficient to withstand the

marketing strategies of the tobacco company. The aims and objectives of the 2019 trend survey analysis are as follows.

• Determine different trends of smoking across the country in terms of different products, age groups and districts.
• Analyze and compare the trends of smoking from surveys conducted in previous years.
• Identifying the underlying attitudes and reasons for smoking among different age groups, and districts.
• Determining the age of initiating tobacco smoking.

Smoking trends were analysed in different aspects and the following terminologies were defined and used for this purpose. Three groups namely, current smokers, last 30-day abstainers and lifetime abstainers were identified. **'Current Smokers'** were defined as individuals who have smoked within the past 30 days while **'Last 30-Day Abstainers'** were individuals who had smoked all long, however, have abstained during the past 30 days. Individuals who have never smoked in their lifetime were **'Lifetime Abstainers'**.

METHODOLOGY

Study Design

The SPOT survey used a multi-stage sample design to include a representative male population in Sri Lanka who were above 15 years of age.

Inclusion Criteria

Males above the age of 15 regardless of their status of smoking were included in the study. Females were not included as the rate of smoking among females in Sri Lanka was known to be 0.1% (WHO 2015).

Exclusion Criteria

Any individual who was not a Sri Lankan citizen or does not belong to the 11 selected districts were excluded from the study.

Sample Size

Similar to previous trend surveys, 275 participants (with a 10% standard error) from each district were targeted. In total, a sample size of 3025 was planned to be collected from 11 selected districts for 2019.

Sampling Method

Firstly, a randomized batch selection process was followed to select one district each from the nine administrative provinces in order to determine a representative sample of Sri Lanka. This procedure was repeated three times to create three batches of districts out of which two were used previously for the years 2017 and 2018. The third batch was used in this current survey for the year 2019. Colombo and Jaffna districts were included automatically as important districts. With this inclusion, there were 11 districts in total. In the next stage of sampling, age was divided into three sub-groups as 15-24 years, 25-39 years and above 40 years to get a representative sample of males above 15 years. Since prior surveys indicate that the first two age groups have lower usage, it was purposively oversampled. Therefore, the planned allocation for the chosen age groups were 35%, 45% and 20% respectively. This was determined based on population figures from the Department of Census and Statistics, Sri Lanka.

Data Collection

Data collection was carried out using an interviewer-administered questionnaire containing 40 questions in total (See Appendix). A number of demographic questions were also included. The questionnaire was initially prepared in Sinhala and translated into Tamil and conducted in a suitable language that suited the respondent.

Data collection was carried out by trained data collectors from the Faculty of Medicine, University of Kelaniya, Women Development Federation (WDF), Hambantota and Technical Colleges in Matale and Batticaloa Districts. The survey was conducted within the month of July 2019.

Data Analysis

Data were analysed using SPSS while tables and figures that represent trends were compiled using Microsoft Excel.

RESULTS

A total of 2851 valid responses were received from males above 15 years with a response rate of 95.21%. A summary of the status of responses from all the 11 districts are stated below on Table 1.

Table 1: Survey responses based on district

Province	District	Age Group			Total Responses
		15-24 Years n (%)	25-39 Years n (%)	Above 40 Years n (%)	
North-Central	Anuradhapura	95 (35.3)	110 (40.9)	64 (23.8)	269 (100)
Uva	Badulla	88 (32.4)	119 (43.8)	65 (23.9)	272 (100)
Western	Colombo	104 (38.4)	113 (41.7)	54 (19.9)	271 (100)
Western	Gampaha	81 (32.0)	110 (43.5)	62 (24.5)	253 (100)
Northern	Jaffna	86 (34.4)	102 (40.8)	62 (24.8)	250 (100)
Sabaragamuwa	Kegalle	92 (34.2)	116 (43.1)	61 (22.7)	269 (100)
North-Western	Kurunegala	97 (34.9)	130 (46.8)	51 (18.3)	278 (100)
Southern	Matara	98 (38.0)	111 (43.0)	49 (19.0)	258 (100)
Northern	Mullaitivu	74 (30.5)	112 (46.1)	57 (23.5)	243 (100)
Central	Nuwaraeliya	89 (34.6)	111 (43.2)	57 (22.2)	257 (100)
Eastern	Trincomalee	78 (33.8)	109 (47.2)	44 (19.0)	231 (100)
	Total	982 (34.4)	1243 (43.6)	626 (22.0)	2851 (100)

Demographic Information

626, 22%
982, 34%
1243, 44%

- 15-24
- 25-39
- 40 and above
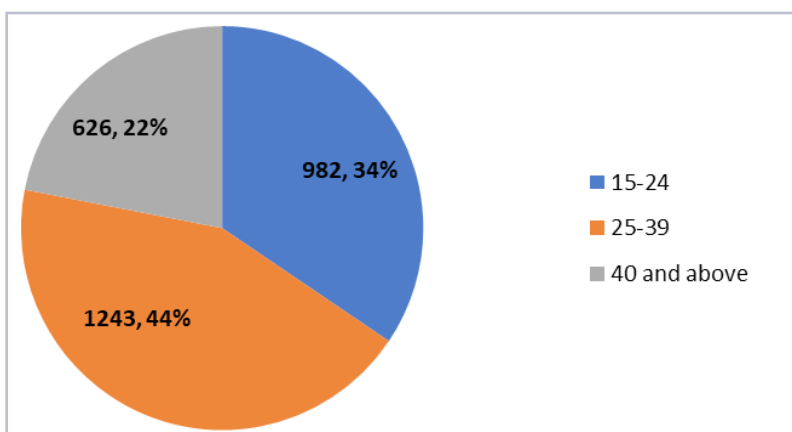
As seen in Figure 1, the majority of the respondents were from the 25-39 age group.

Figure 1: Survey responses based on age

Figure 2: Education level of respondents
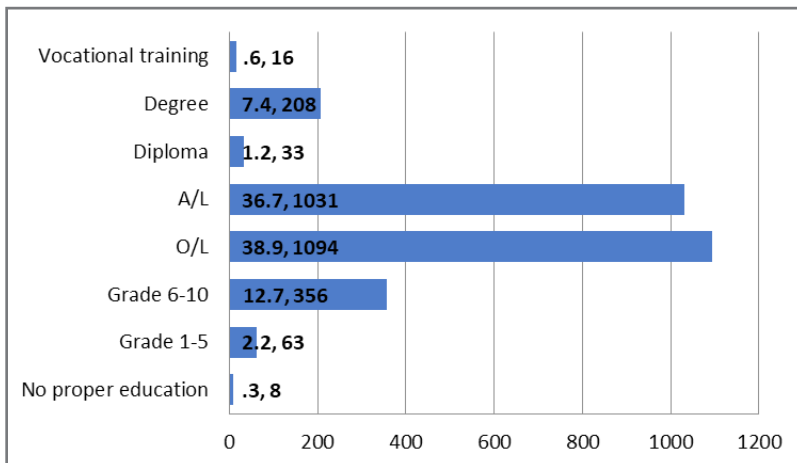
Majority of the respondents were individuals who had finished up to GCE Ordinary Level Examinations while the second highest was individuals who completed up to GCE Advanced Level. A minority of the sample had received no proper education. (See Figure 2)
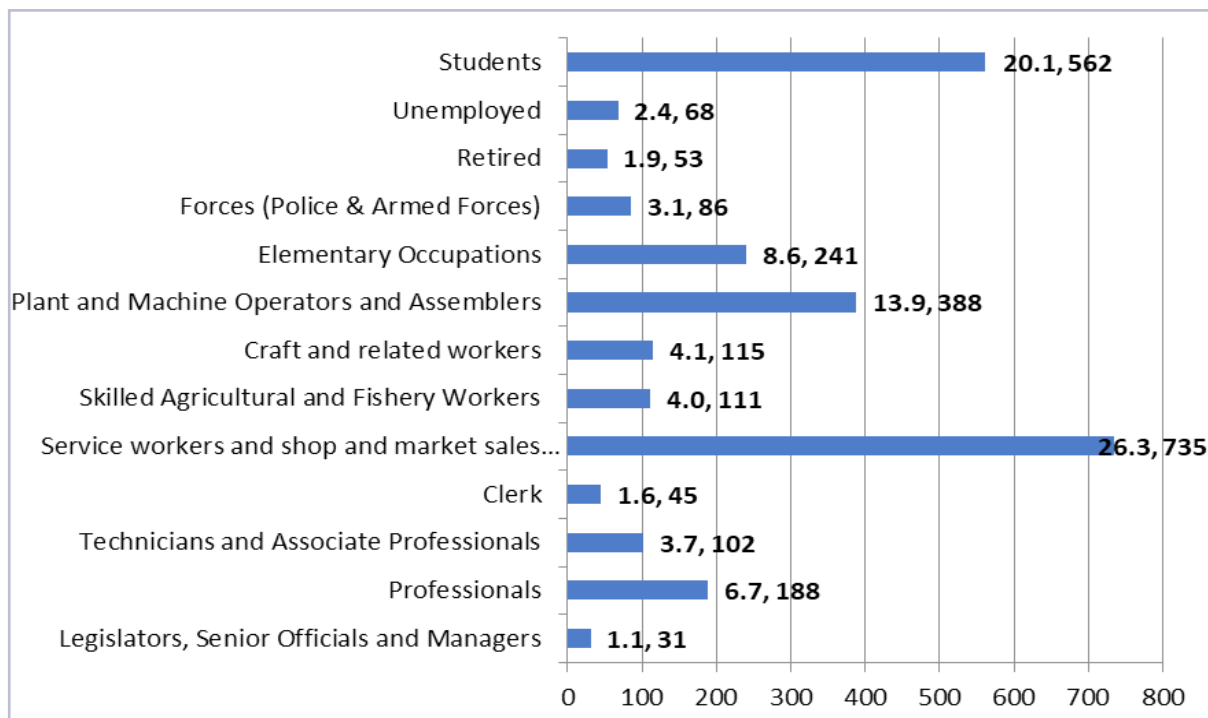
Figure 3: Occupation of respondents

Respondents were classified based on their jobs according to the Sri Lanka Standard Classification of Occupations (SLSCO). In addition to this classification, students, retired individuals, Police and Armed forces were included. Distribution of respondents as per their occupation is seen in Figure 3. A majority were service workers and shop market sales workers while the legislators, senior officials and managers were the least group among the sample.

Status of Tobacco Smoking among Males

A majority from the current sample were lifetime abstainers. The least proportion of the sample were last 30-day abstainers.
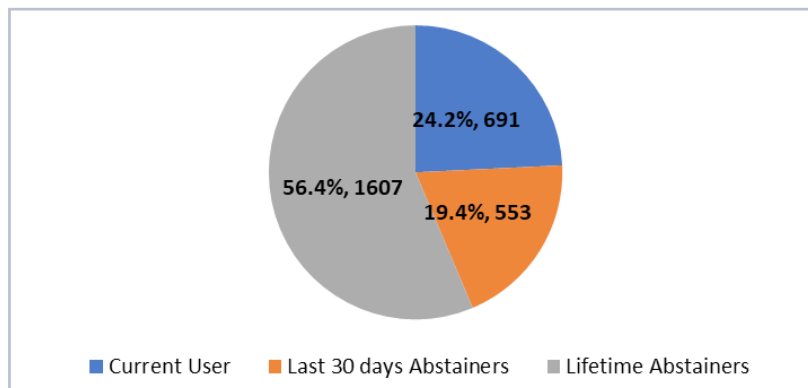
Figure 4: Trends of smoking tobacco
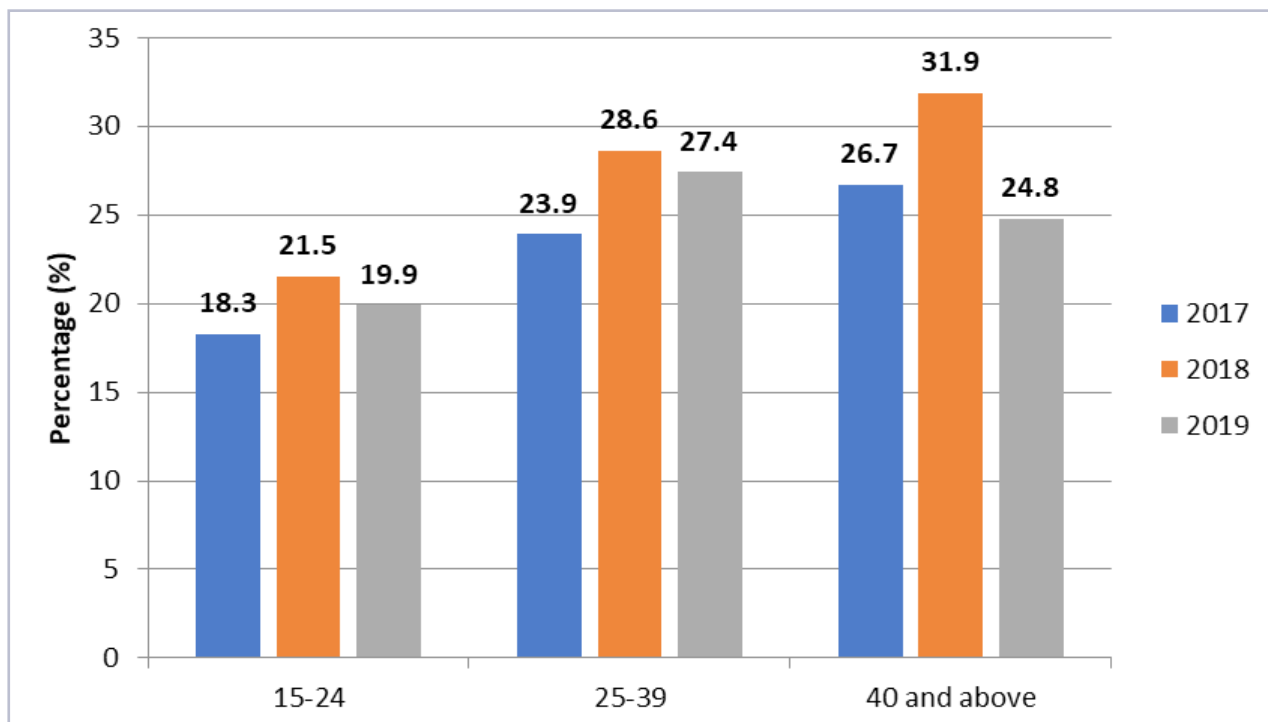
Figure 5: Comparison on tobacco smoking with previous years

As shown in Figure 5, there is a significant decrease in tobacco smoking across all age groups compared to last year (2018). The largest decrease (7.1%) was among the age group of 40 and above. Tobacco smoking was higher when compared to 2017 across two age groups namely 15-24 and 25-39. Statistics indicate a decrease in tobacco smoking among the 40 and above group, making it the lowest rate across the three years. The highest rate of tobacco smoking was reported from the 25-39 age group, while the lowest was reported from the 15-24 age group.
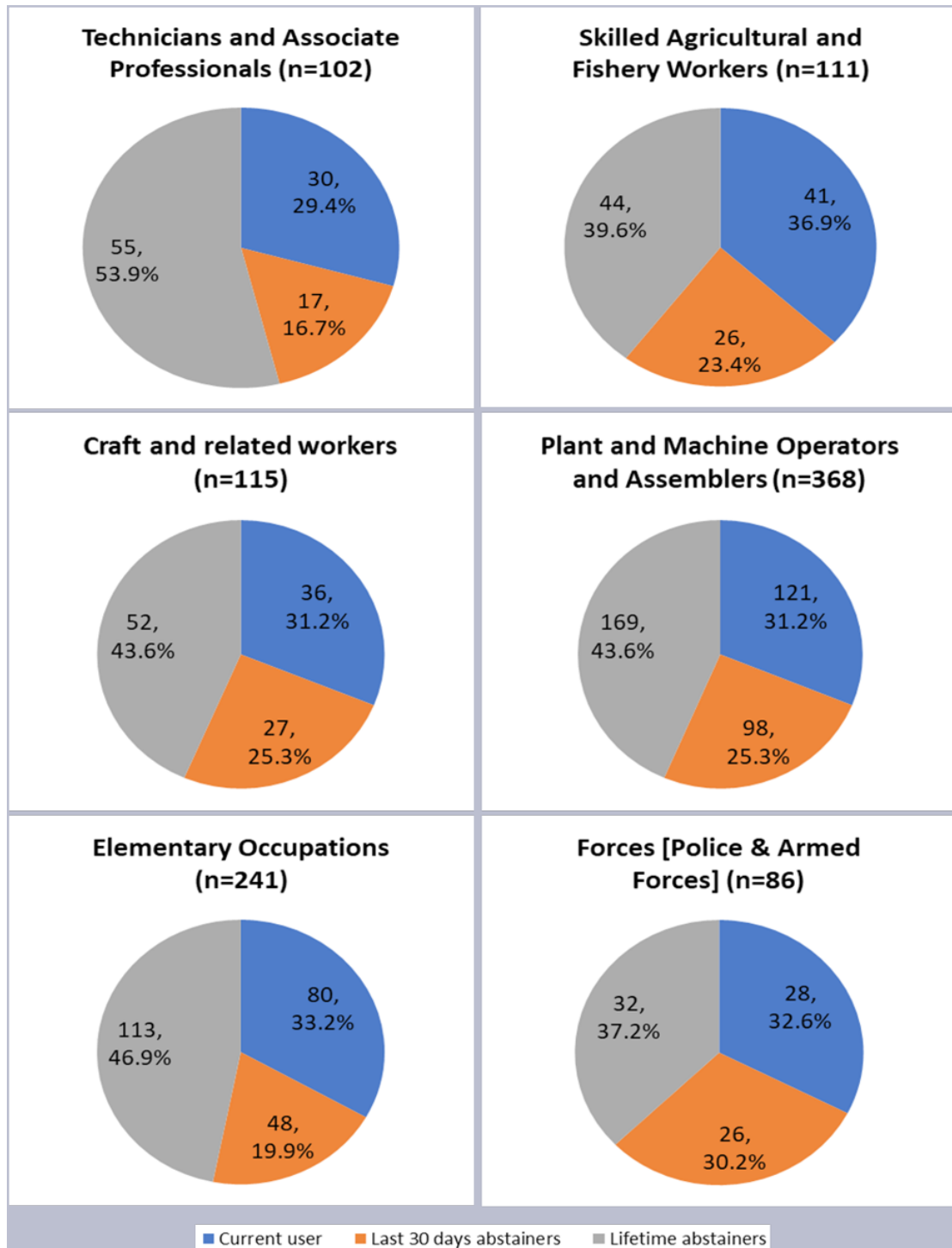
Figure 6: Status of smoking by occupation

According to Figure 6, it is evident that the highest proportion of current users were from the occupational group of skilled agricultural and fishery workers. Forces and elementary occupations showed similar estimates and were second highest among the groups while the lowest rate of current smokers was from technicians and associate professional occupation groups.

Current user
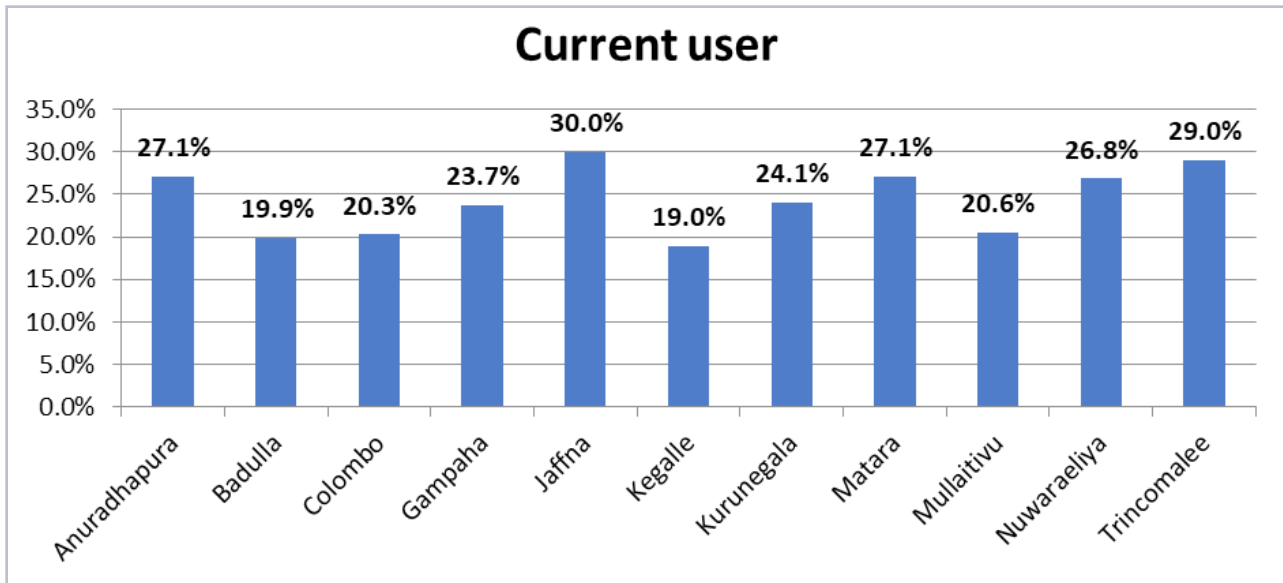
Figure 7: Status of current smokers by district

The highest rate of current smokers was observed in the Jaffna District while the second highest was seen in the Trincomalee District. The lowest rate was reported from Kegalle District. The average percentage of smokers across all districts was 24.32%. Matara, Anuradhapura and Nuwaraeliya Districts showed above average rates while the rest of the districts had below average rates.

Frequencies of Smoking
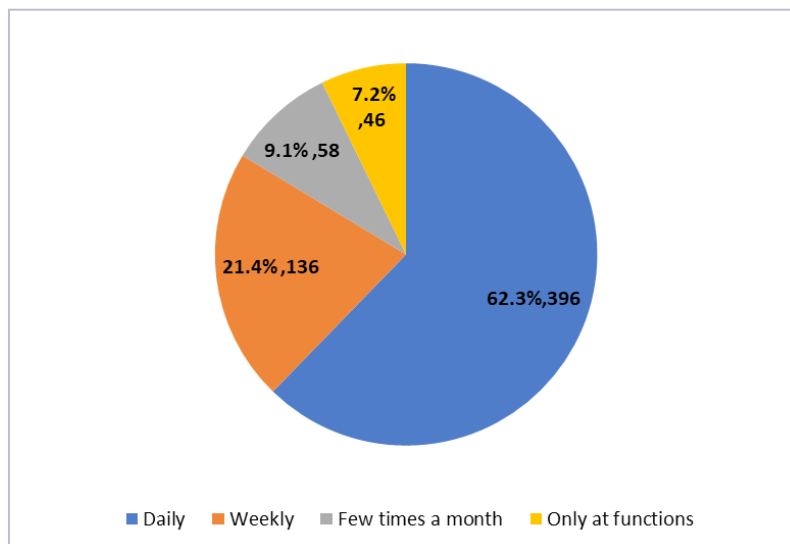
Figure 8: Frequency of tobacco smoking

According to Figure 8, more than half of the current smokers were daily users. One-fourth of the sample were weekly users while a minority smoked a few times a month or only at functions.
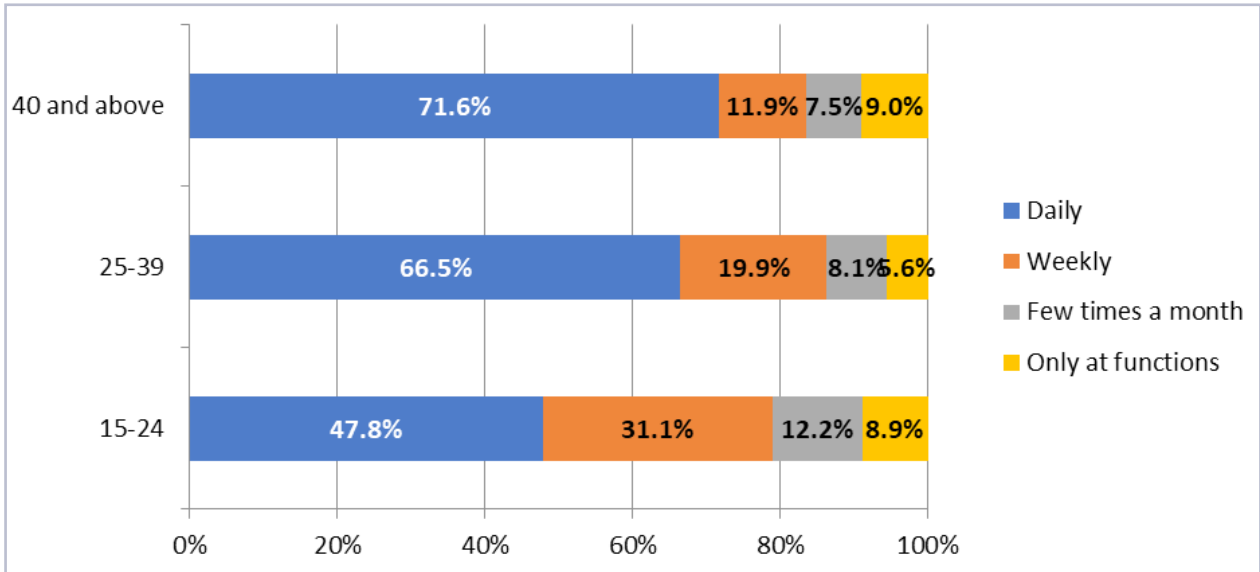
Figure 9: Frequencies of smoking by age

According to Figure 9, a majority were daily smokers across all age groups. A consistent increase in the rate of daily smokers with age is visible. Highest daily smokers were the 40 and above age group while the lowest was 15-24 age group. While daily smoking rates increased with age, weekly smoking rates and few times a month rates decreased with age. Highest number of weekly smokers were from the 15-24 age group. Highest number of respondents who smoke only at functions were from the above 40 age group while the lowest was from the 25-39 age group.

Different Products used by Smokers
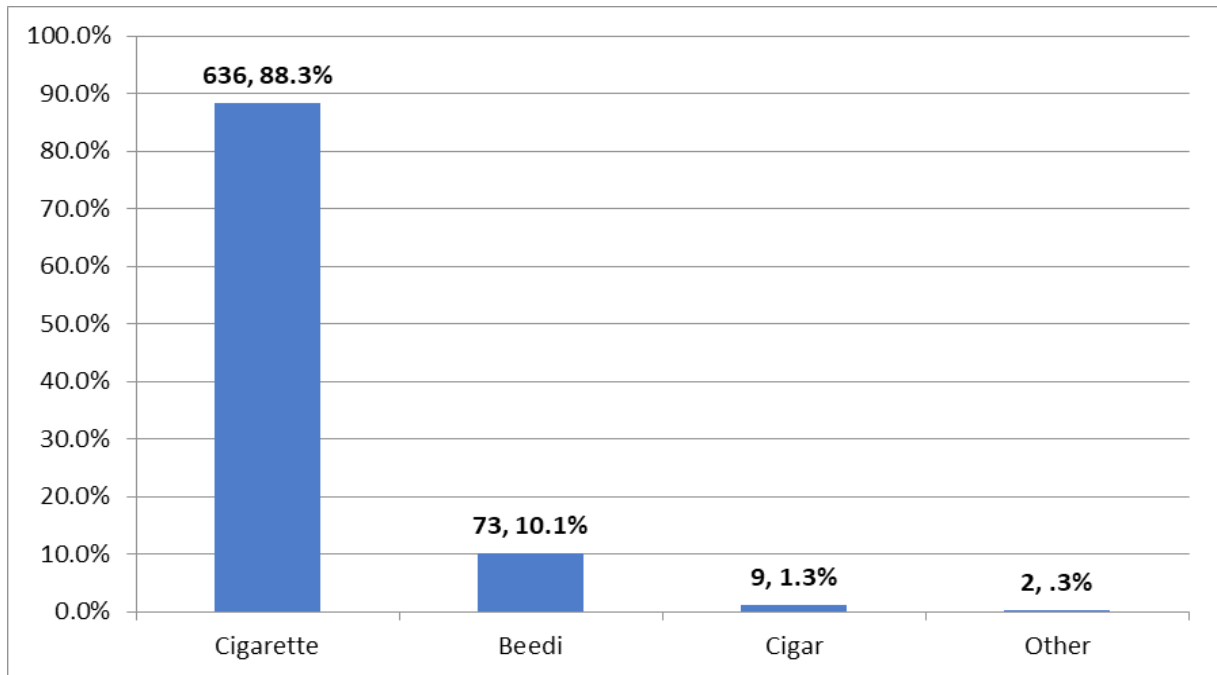
Figure 10: Types of products used by current smokers

According to data on Figure 10, it is evident that a majority of the sample smoked cigarettes. This figure was almost eight times higher than the rate for beedi. A minority of the sample smoked cigars (Individuals who use a mix of products were also included).
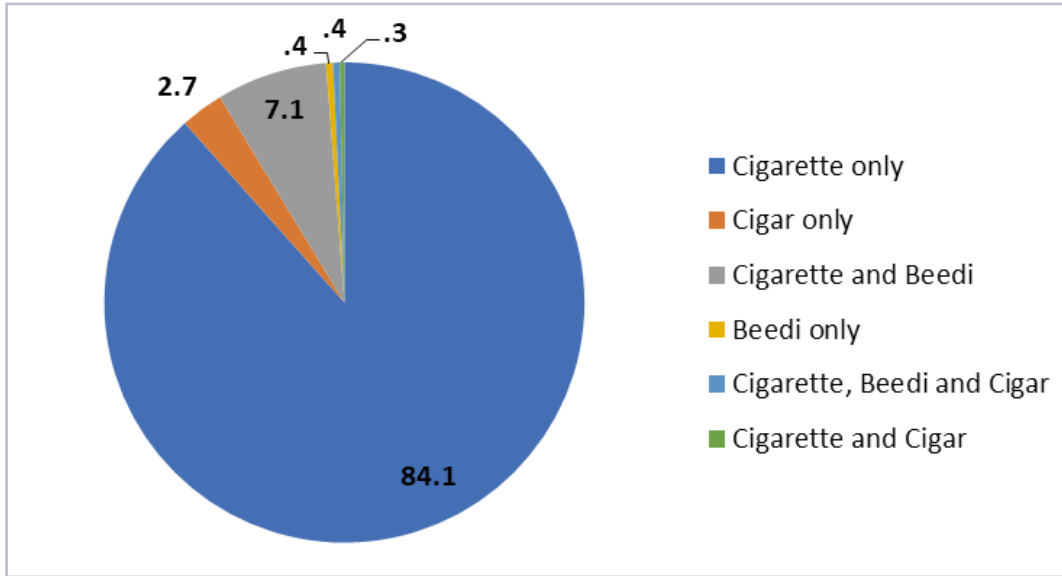
Figure 11: Exclusive/ Mix use of tobacco smoking products by current users

Majority of the current smokers were exclusively smoking cigarettes. Smoking of cigarettes and beedi was the second highest combination out of the current smokers while the third highest was individuals who smoked only cigars. The combination of cigarettes and cigars were smoked at the lowest.
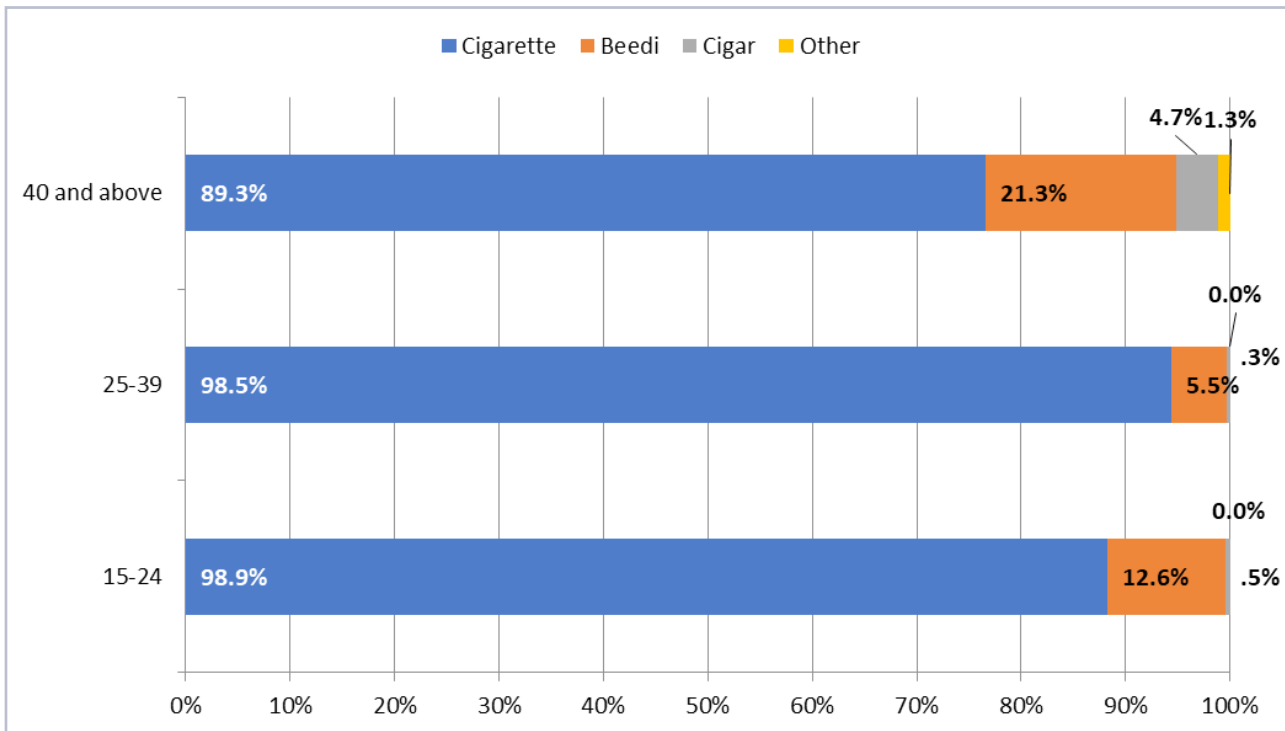
Figure 12: Types of smoking products used in different age groups

In support of data from Figure 11, Figure 12 also shows the highest consumption rate is for cigarettes as opposed to beedi, cigar or other products, across all age groups. The highest consumption of beedi was seen in the 40 and above age group while the lowest was in the 25-39 age group.

	ANR	BDL	CMB	GMP	JFN	KGL	KRN	MTR	MLT	NWR	TRN
☐ Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	0.0%
☐ Cigar	1.4%	0.0%	2.0%	0.0%	2.7%	0.0%	0.0%	1.4%	7.0%	0.0%	1.6%
☐ Beedi	8.5%	5.8%	9.8%	5.1%	23.3%	0.0%	10.8%	10.1%	23.3%	19.4%	4.7%
☐ Cigarette	98.6%	100.0%	98.0%	100.0%	90.4%	100.0%	100.0%	98.6%	90.7%	90.3%	95.3%
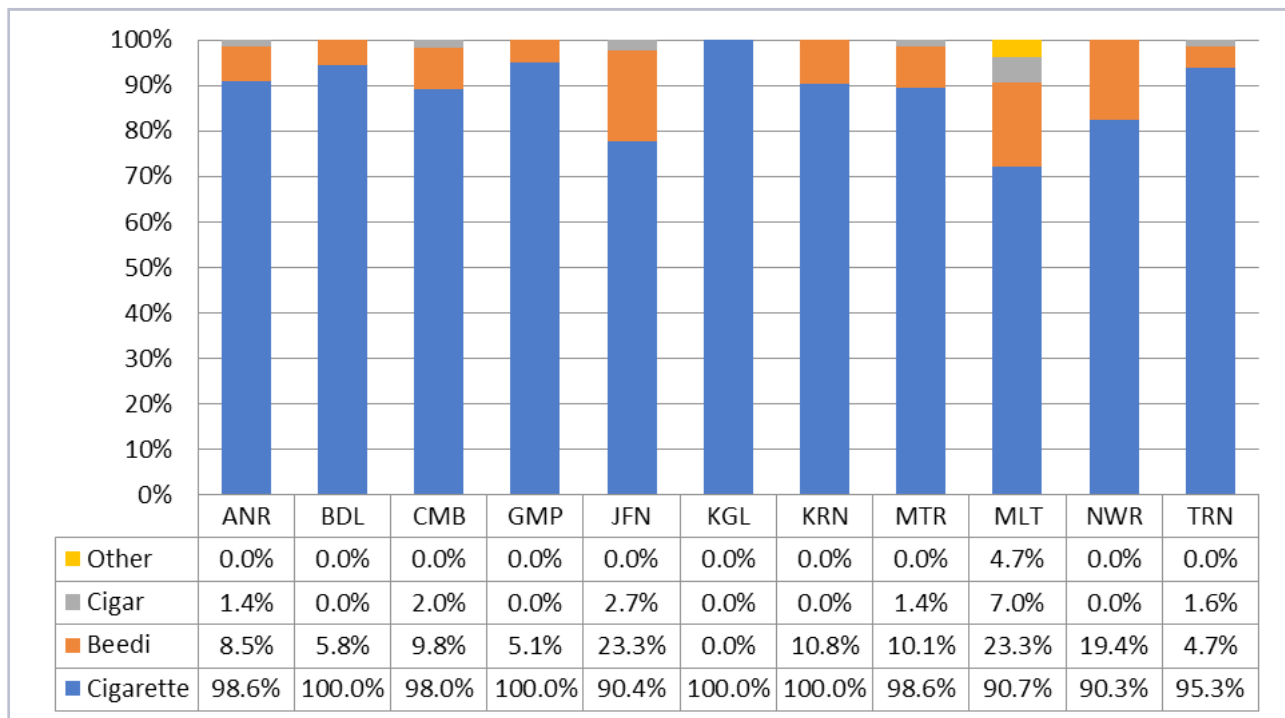
Figure 13: Different smoking products used by current smokers at district level

Note: ANR – Anuradhapura, BDL – Badulla, CMB – Colombo, GMP – Gampaha, JFN – Jaffna, KGL – Kegalle, KRN- Kurunegala, MTR – Matara, MLT – Mullaitivu, NWR – Nuwaraeliya, TRN – Trincomalee

Consistent with data from the two previous figures, according to Figure 13, a majority of smokers used cigarettes in contrast to other products across all districts. All current smokers from the Kegalle District were cigarette smokers. The second highest product smoked across all districts was beedi, but compared to cigarettes the rates of beedi smoking was relatively low. The highest percentage of beedi smokers were observed from the Districts of Jaffna and Mullaitivu while the lowest was reported from Trincomalee District. Smoking of cigars was very low compared to cigarettes and beedi. The highest recorded cigar consumption was observed from the Mullaitivu District while cigar smoking was not observed in Districts of Kegalle and Kurunegala. Smoking of other products were only observed in the Mullaitivu District.

	ANR	BDL	CMB	GMP	JFN	KGL	KRN	MTR	MLT	NWR	TRN
Cigarette, Beedi and Cigar	1.4%	0.0%	2.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Beedi and other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%
Cigarette and Cigar	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%
Cigarette and Beedi	5.6%	5.8%	5.9%	5.1%	12.3%	0.0%	10.8%	10.1%	14.0%	9.7%	1.6%
Beedi only	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	2.3%	0.0%	1.6%
Cigar only	1.4%	0.0%	2.0%	0.0%	9.6%	0.0%	0.0%	0.0%	4.7%	9.7%	3.1%
Cigarette only	91.5%	94.2%	90.2%	94.9%	75.3%	100.0%	89.2%	88.4%	72.1%	80.6%	93.8%
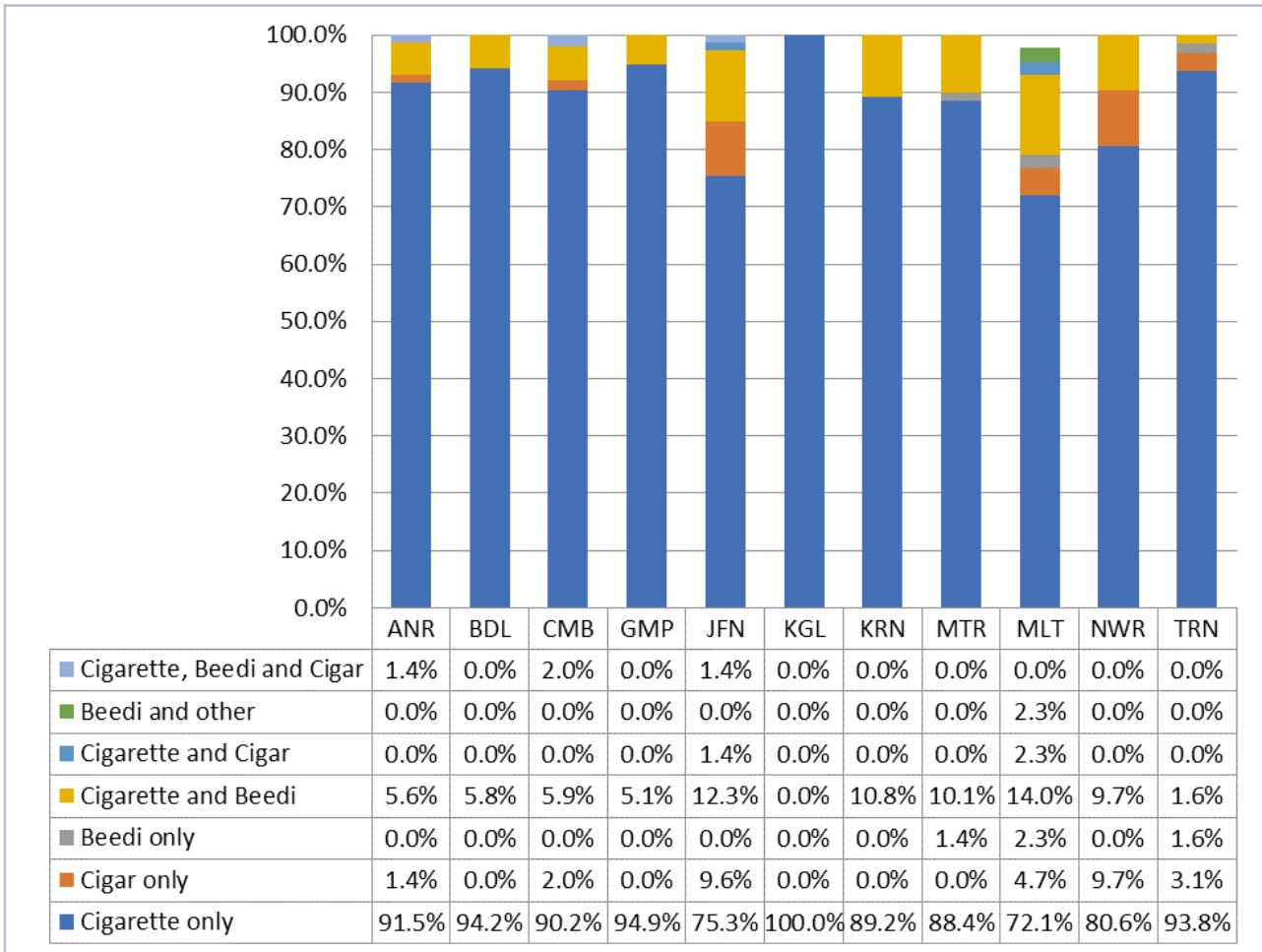
Figure 14: Exclusive/ Mix use of different products by current smokers across all districts

According to Figure 14, a majority of current smokers only smoked cigarettes across all districts. Among current smokers, the combination of cigarette and beedi was the second highest across all districts except for Kegalle District. Regarding smoking only cigars Jaffna and Nuwara Eliya Districts report a higher percentage than other distrcts. However, five districts did not report any use of cigars. The use of beedi only was reported in three districts namely Matara, Mullaitivu and Trincomalee. Overall, the use of various tobacco products by current smokers were relatively higher in the Mullaitivu district.
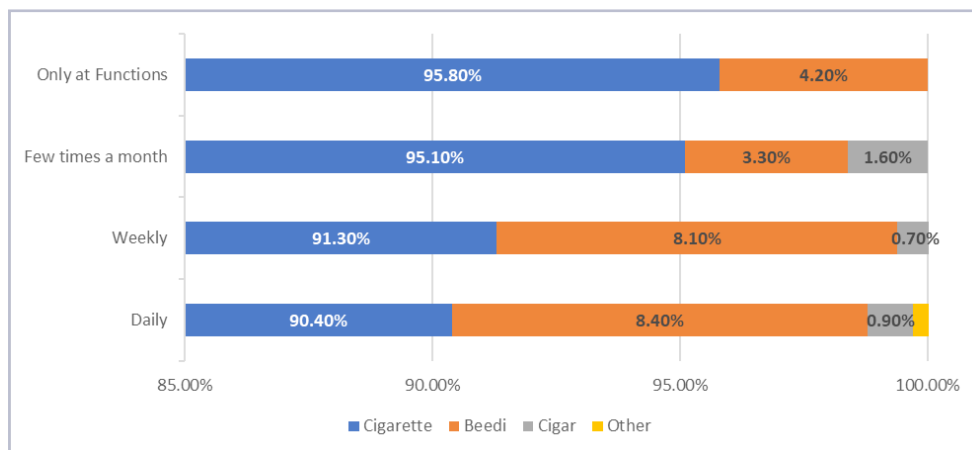
Figure 15: Smoking frequency of different tobacco products

As shown in Figure 15, cigarettes were the most smoked product across different frequencies of smoking. Beedi was the second highest smoked product across all frequencies while cigars were the third. There were no Cigar users who used only at functions. The highest rate of beedi consumption was observed in the daily smoking group while the lowest was in the group which smoked a few times a month.

	Daily	Weekly	Few times a month	Only at functions
■ All	.3%	0.0%	0.0%	0.0%
■ Cigarette, Beedi and Cigar	.5%	0.0%	1.7%	0.0%
■ Cigarette and Cigar	.3%	.7%	0.0%	0.0%
■ Cigarette and Beedi	8.6%	8.8%	1.7%	4.3%
■ Cigarette only	90.4%	90.4%	96.6%	95.7%
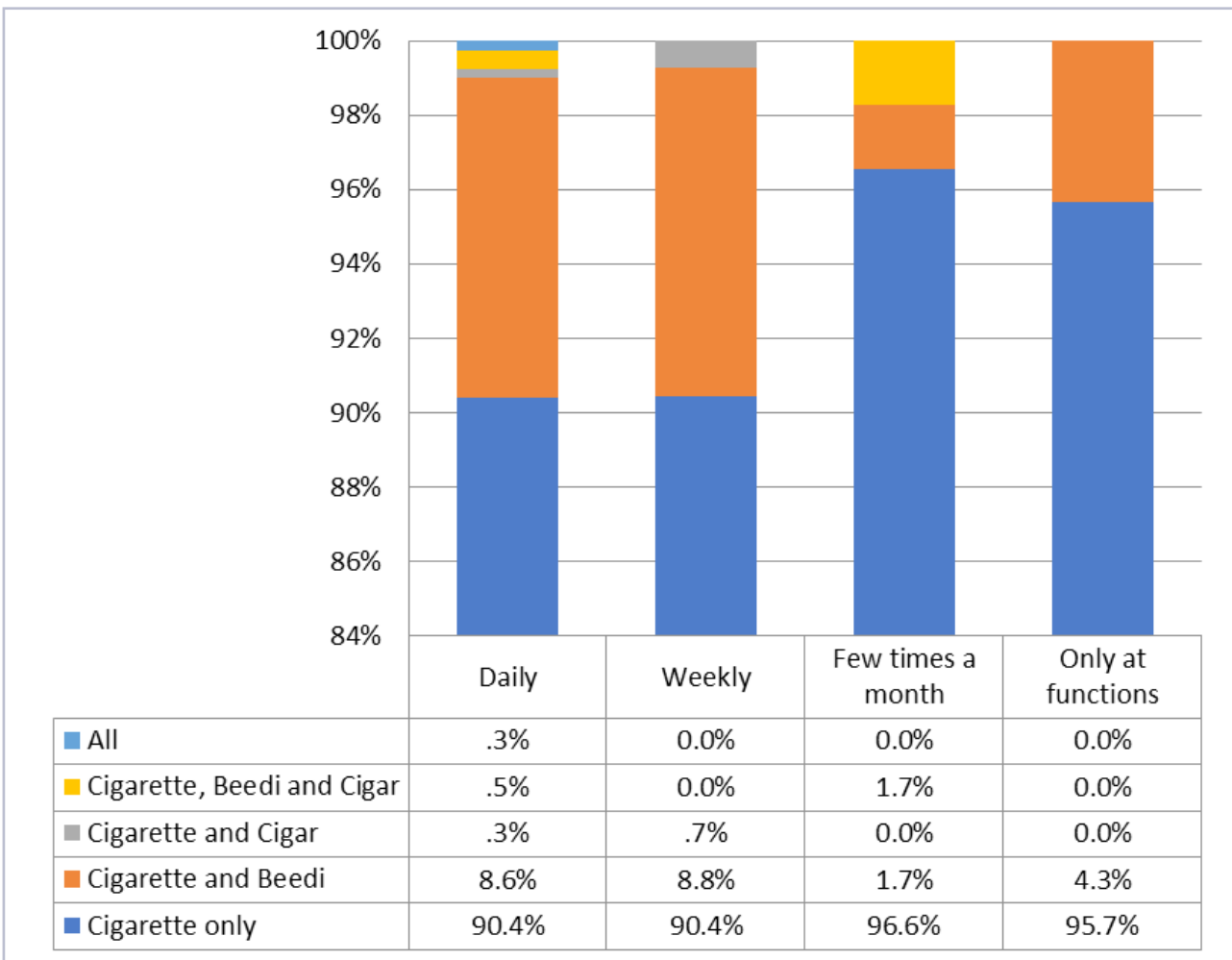
Figure 16: Exclusive/ Mix use of products in different types of smokers

Among daily users, a majority smoked only cigarettes while the second highest recorded combination was cigarette and beedi. The use of cigarettes only was highest across all frequencies of smokers with individuals who smoked a few times a month recording the highest. The second highest combination of products used among all types of smokers were cigarettes and beedi. The highest percentage for cigarette and beedi users were from the few times a month group. Very few daily users were using all the products. (Figure 16)

	LSOM	PROF	TAP	CLRK	SWSMW	SAFW	CRW	PMOA	EO	FOR	RET	UNEMP	STUD
■ All	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
■ Cigarette, Beedi and Cigar	0.0%	0.0%	0.0%	0.0%	.6%	0.0%	2.9%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%
■ Beedi and other	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
■ Cigarette and Cigar	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%
■ Cigarette and Beedi	0.0%	0.0%	0.0%	12.5%	5.0%	12.2%	20.0%	3.4%	16.4%	0.0%	11.1%	11.8%	12.7%
■ Beedi only	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	.9%	2.7%	0.0%	0.0%	0.0%	0.0%
■ Cigar only	0.0%	0.0%	0.0%	0.0%	1.7%	9.8%	2.9%	1.7%	8.2%	0.0%	0.0%	0.0%	0.0%
■ Cigarette only	100.0%	100.0%	100.0%	87.5%	92.8%	70.7%	74.3%	94.0%	69.9%	100.0%	88.9%	88.2%	87.3%

Figure 17: Exclusive/ Mix use of tobacco products by occupation

LSOM - Legislators, Senior Officials and Managers, PROF – Professionals, TAP – Technicians and Associate Professionals, CLRK – Clerk, SWSMW – Service Workers and Shop Market Sales Workers, SAFW – Skilled Agricultural and Fishery Workers, CRW – Craft and Related Workers, PMOA – Plant and Machine Operators and Assemblers, EO – Elementary Occupations, FOR – Forces (Police and Armed Forces), RET – Retired, UNEMP – Unemployed, STUD – Students

Smoking cigarettes only was the highest across all occupations. The occupational groups of Legislators, Senior Officials and Managers, Professionals, Technicians and Associate Professionals and Forces (Police and Armed Forces) exclusively smoked cigarettes only. The second highest combination across all occupations were smoking cigarettes and beedi. The highest percentage of cigarette and beedi users were recorded from the occupational group of craft and related workers.

The combination of cigarettes and cigar was smoked in a small percentage in two occupation groups namely, skilled agricultural fishery workers and elementary occupations. Consumption of beedi was seen only in two occupational groups which were plant and machine operators and assemblers and elementary occupations. (Figure 17)

Initiation
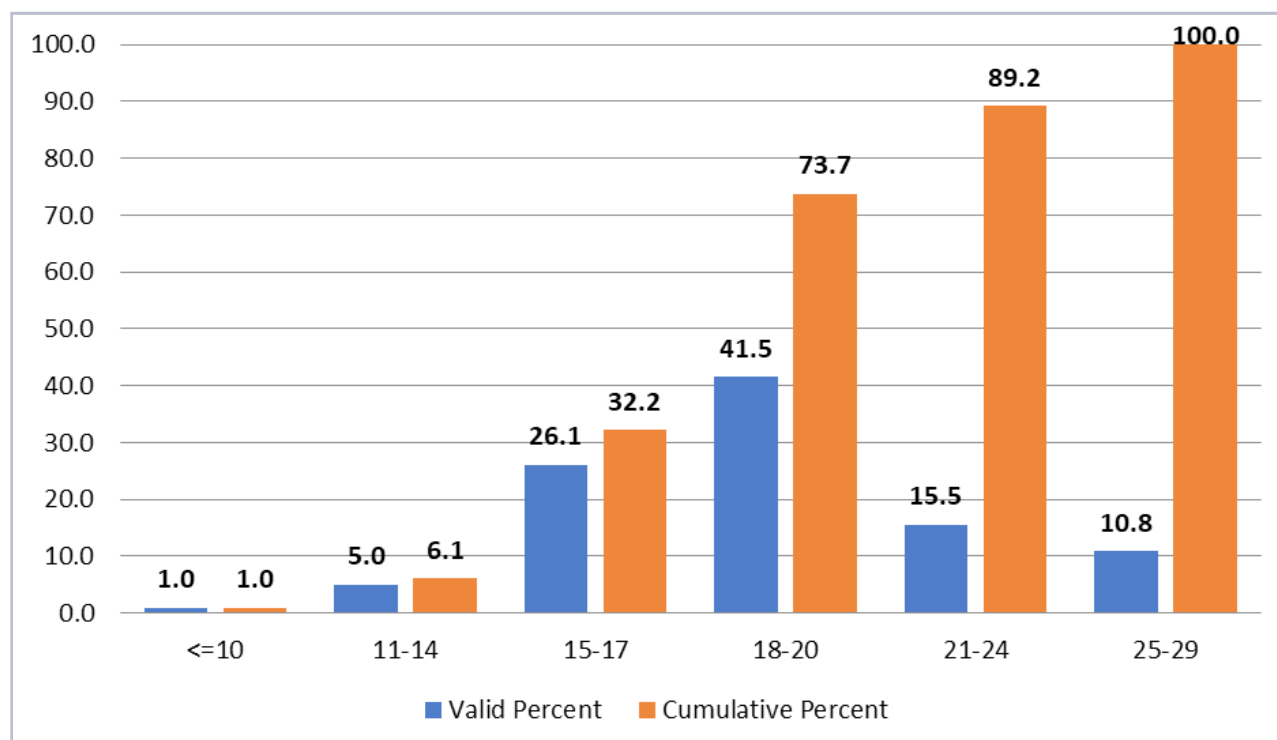
Figure 18: Initiation age of tobacco smoking

As shown in Figure 18, majority of tobacco smoking initiation has occurred in the age group of 18-20 (Valid Percent). More than one-fourth of tobacco smokers had initiated tobacco smoking below the age of 18. More than two-thirds of tobacco smoking initiation has occurred under the age of 21. Almost all current tobacco smokers have initiated under the age of 30.

Table 2: Initiation age by age group

Age group	N	Mean	Median	Std. Deviation	Std. Error of Mean		F value
15-24	305	17.35	17	2.294	.131	-.257	
25-39	598	19.97	20	4.083	.167	.713	59.866 .000
40 and above	333	21.38	20	4.083	.167	.713	
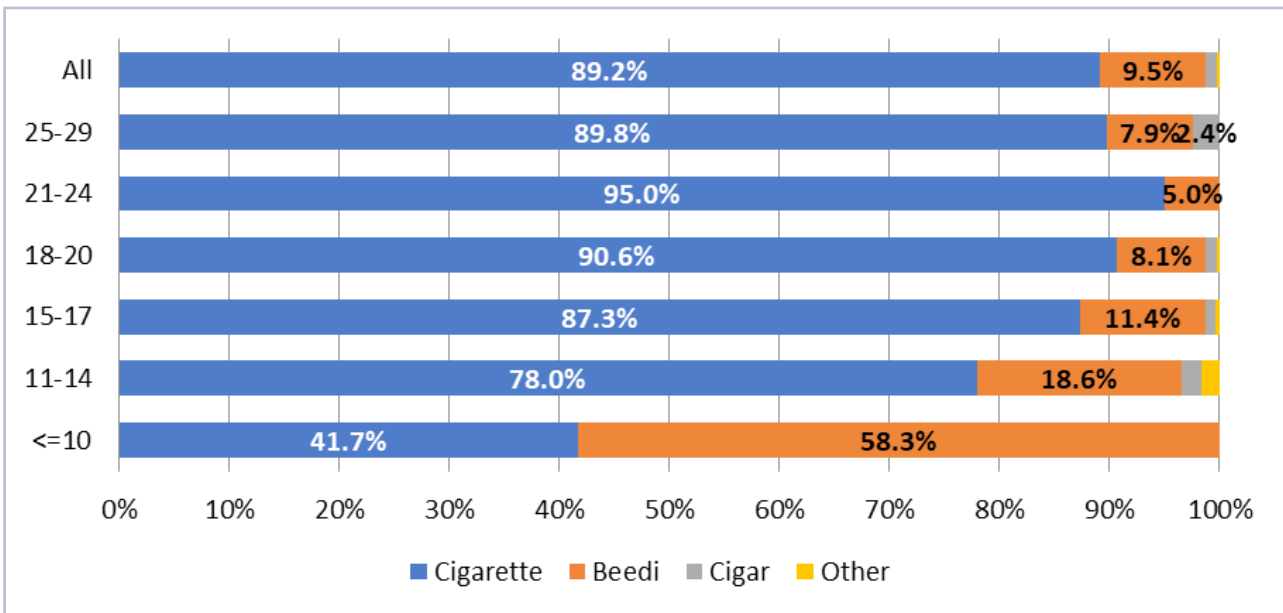
Figure 19: Type of product used at initiation

As seen in Figure 19, the most common type of product used at initiation across all age groups (except for below 10 years) were cigarettes. A majority of individuals who were under the age of 21 had used cigarettes as their first product. The most common initiation product across the age group of below 10 was beedi. Beedi was the second highest initiation product across all other age groups.
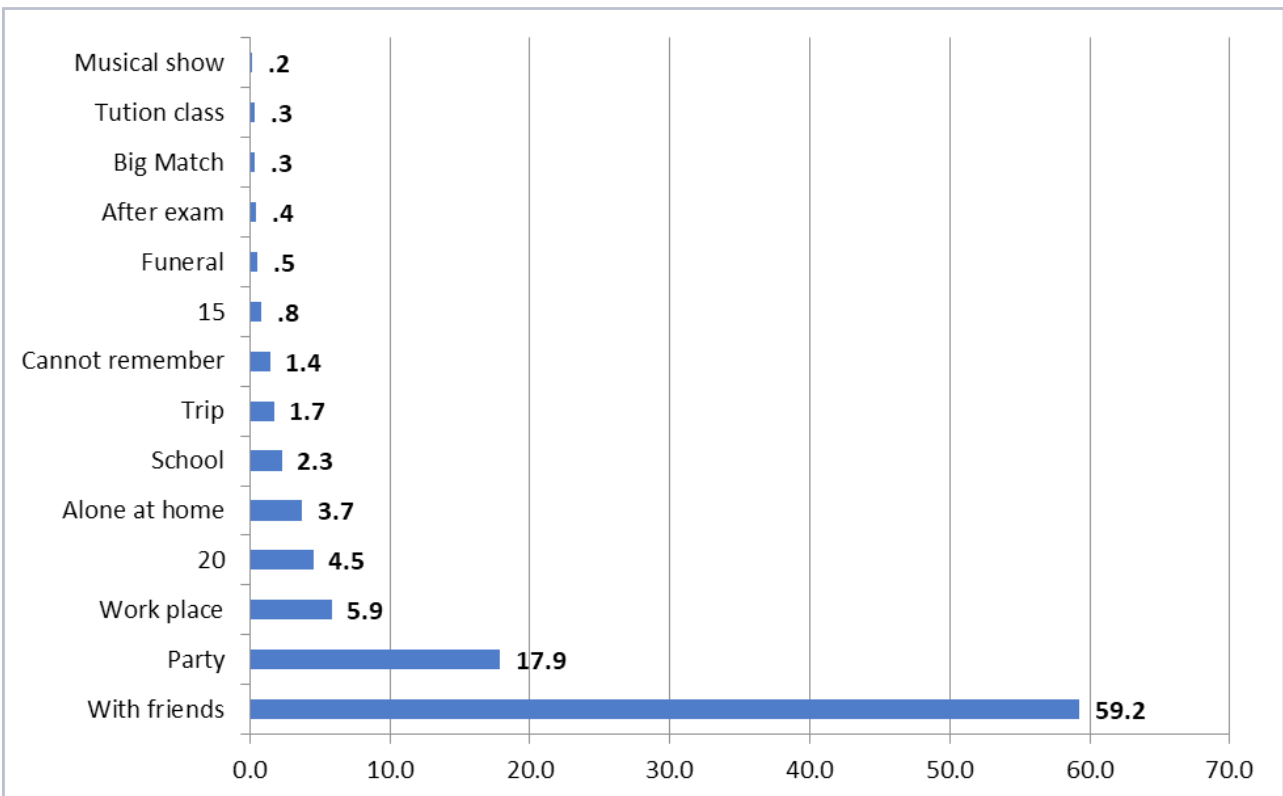
Figure 20: Initiation occasion of smoking

It is clear from Figure 21 that a majority of smokers had initiated with friends. The second highest initiation occasion was at parties and thirdly the workplace. The lowest initiation occasions observed were in musical shows, tuition classes and big match.

Smoking Cessation
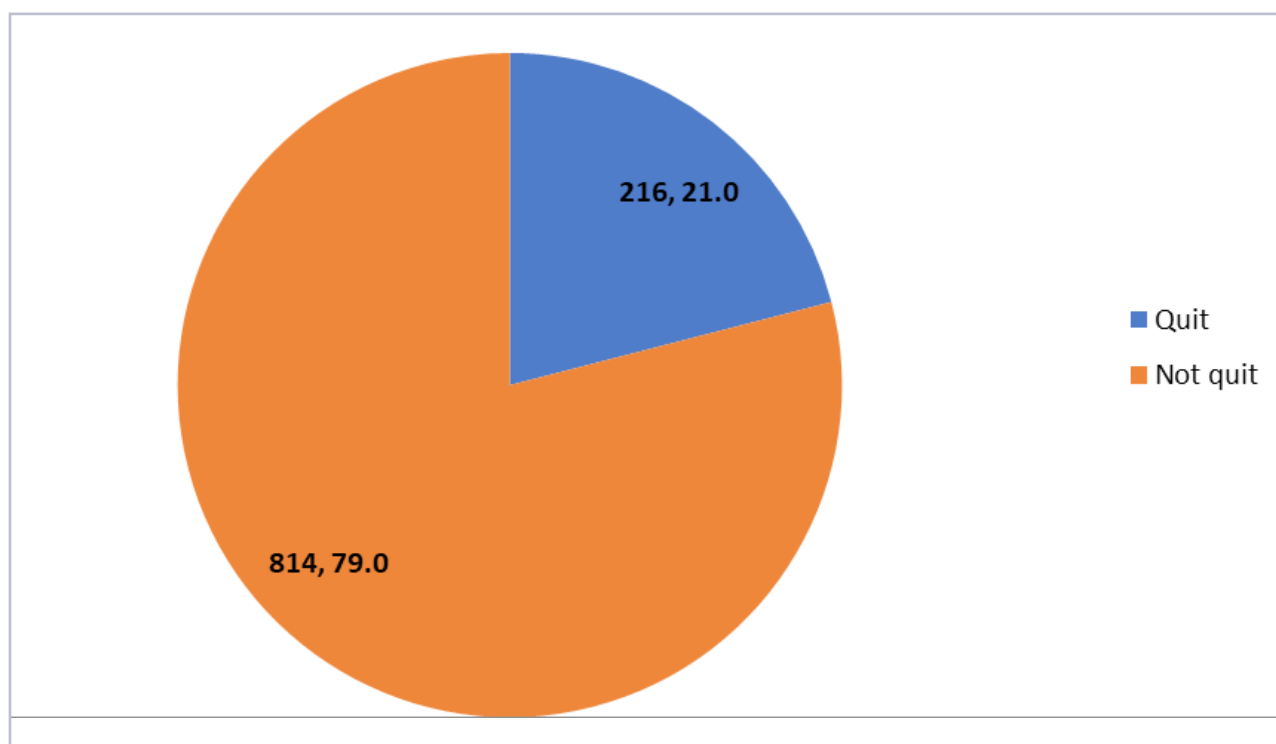
Figure 21: Quitting from tobacco smoking

As illustrated in Figure 22, only one-fifth of the lifetime smokers had quit smoking at the time of the survey. A large proportion of the sample was still smoking.

Table 3: Quitting age from tobacco smoking

	No. of respondents	Mean quit age	Std. Deviation	Min-Max
Overall (Weighted)	376	29.95	11.397	10-78
Age Group				
15-24	64	19.06	2.525	10-24
25-39	163	27.23	6.025	15-50
40 or above	149	37.60	12.973	15-78

As seen in Table 3, the average age of quitting tobacco smoking was 30 years (M=29.95).
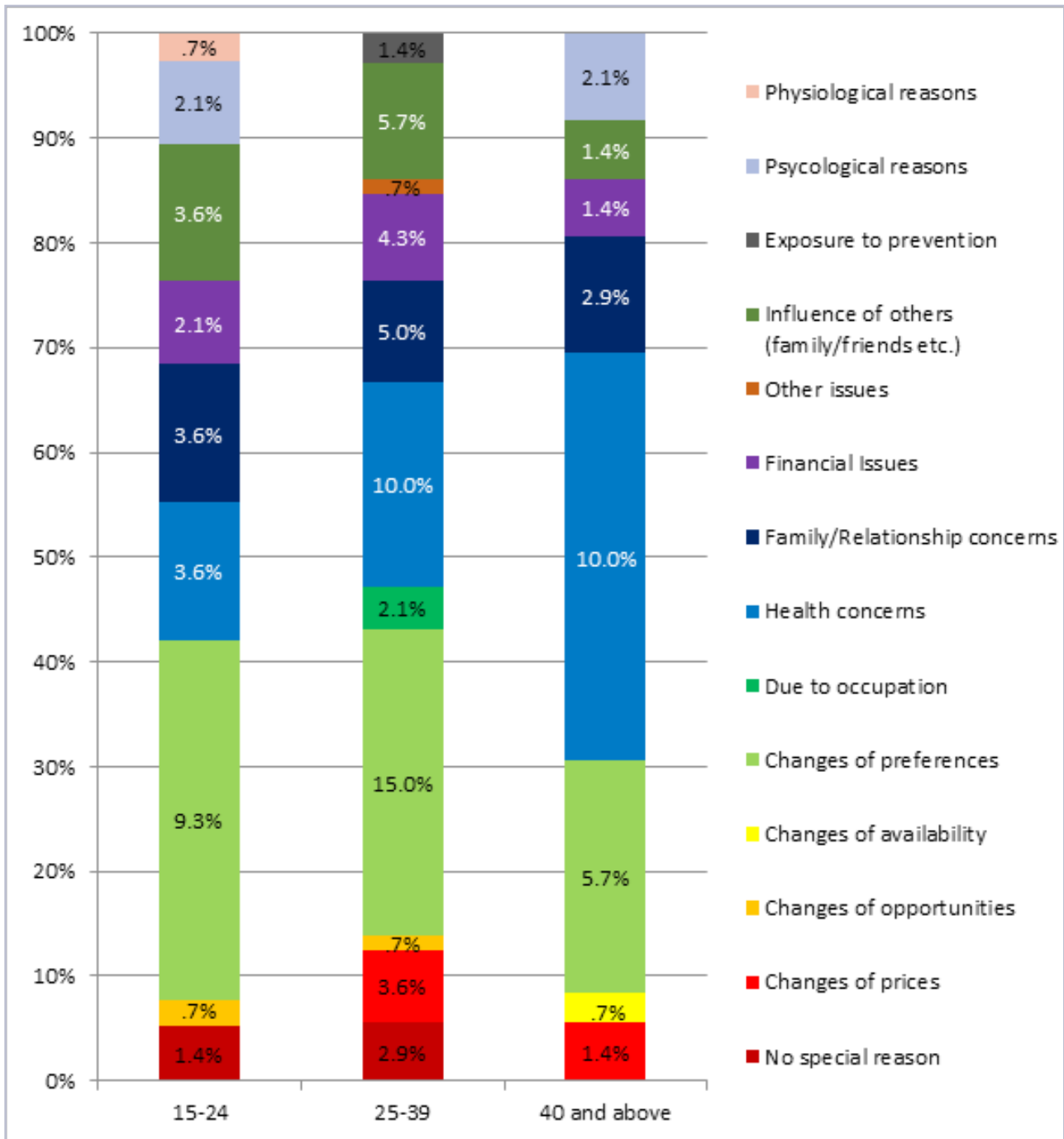
Figure 22: Reasons to quit smoking

A majority from the age groups of 15-24 and 25-39 had quit smoking due to their change in preference while the prominent reason for quitting in the 40 and above age group was due to health concerns. Family and relationship concerns had been of considerable influence for all age groups in quitting smoking. Furthermore, psychological reasons had also influenced in quitting smoking across all age groups. Financial issues had also had equally contributed to quitting smoking across all age groups. Exposure to prevention was a contributory factor for quitting smoking only in the 25-39 age group. (Figure 22)

Expenditure on Smoking

Table 4: Monthly expenditure on smoking per user

	NO. of respondents	Median (in rupees)	Interquartile Range (in rupees)	Min -Max (in rupees)
Age group (all current smokers)				
15-24	173	2000.00	5330	00-58500
25-39	312	3900.00	6000	00-39000
40 and above	134	3900.00	6615	00-45000
Age group (Daily Smokers)				
15-24	85	5000.00	4100	1000-58500
25-39	210	5850.00	5850	1950-39000
40 and above	90	5850.00	5913	1950-45000
Smoking Frequency				
Daily	385	5850	5850	1000-58500
Weekly	123	800	2100	0-15000
Few times a month	51	325	517.5	0-2800
Only at functions	33	260	517.5	0-2800
Overall (Weighted)	619	3900	6800	0-58500

Note: Expenditure is for all types of tobacco smoking products

Table 4 illustrates the monthly expenditure on all products among smokers in different age groups. The median value of expenditure of daily smokers for the past month is considerably higher compared to the overall median value. A clear difference in the median values of current smokers and daily smokers is visible. Median expenditure for some age groups is almost double when comparing daily smokers to all current smokers. Therefore, analysing expenditure patterns of daily smokers would help get a better understanding of the level of expenditure.

Figures 23 and 24 illustrate the expenditure on tobacco smoking over the past month for all current smokers and daily smokers respectively. Lowest expenditure values were shown from the Districts of Kegalle and Mullaitivu while the highest expenditure was observed from Matara and Badulla Districts. Among the group of daily smokers, the lowest expenditure was observed from the Districts of Kegalle and Nuwara Eliya while the highest was reported from Matara. Trends on the expenditure of daily smokers and all current smoker seem to be similar. However, daily smokers tend to spend much higher amounts compared to all current smokers.
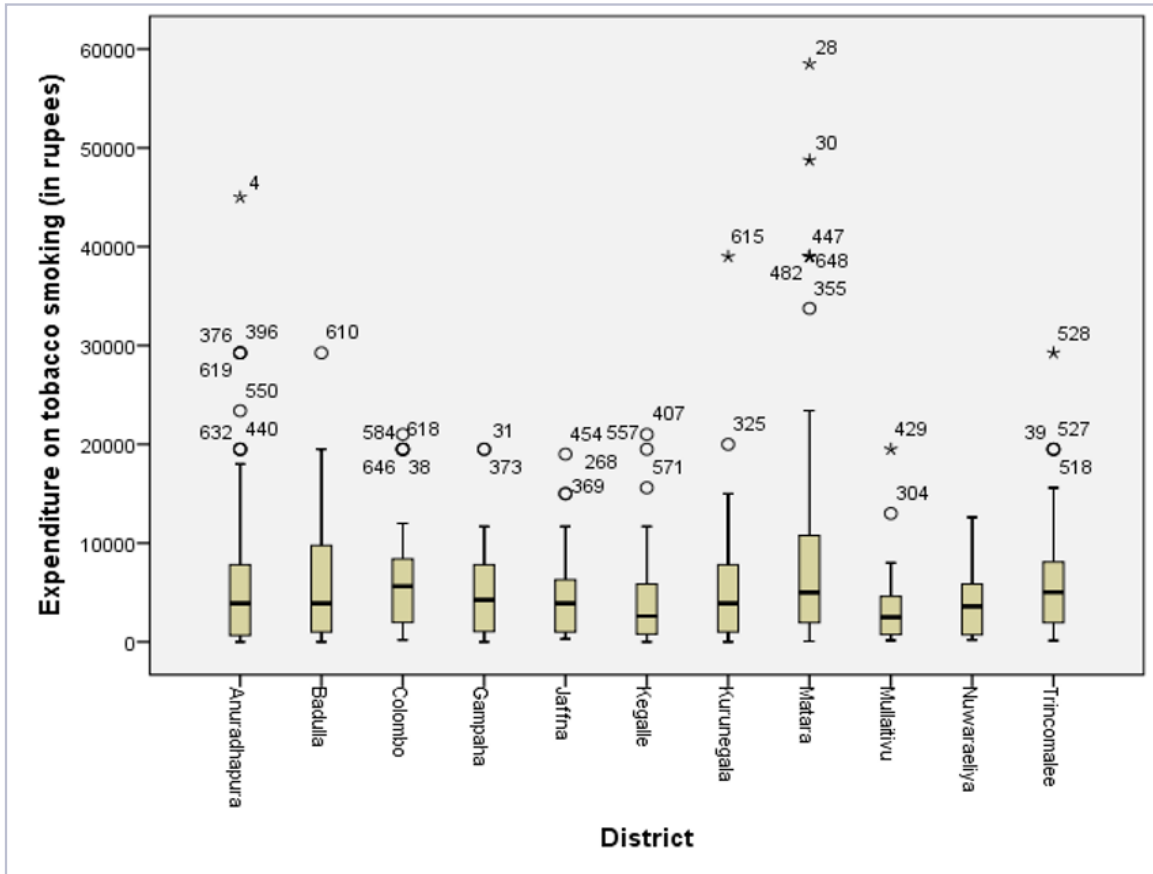
Figure 23: Monthly expenditure on tobacco smoking for a single smoker
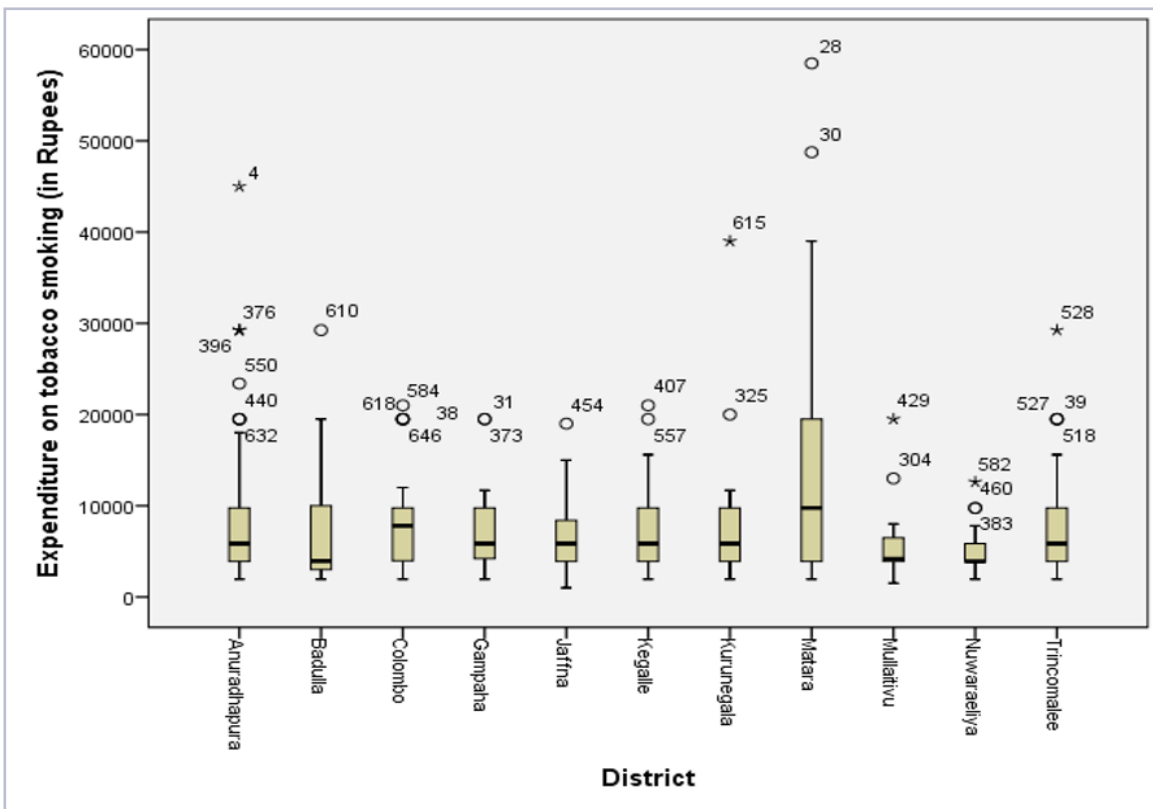
Figure 24: Monthly expenditure on tobacco smoking per smoker (daily)

Underage Smoking
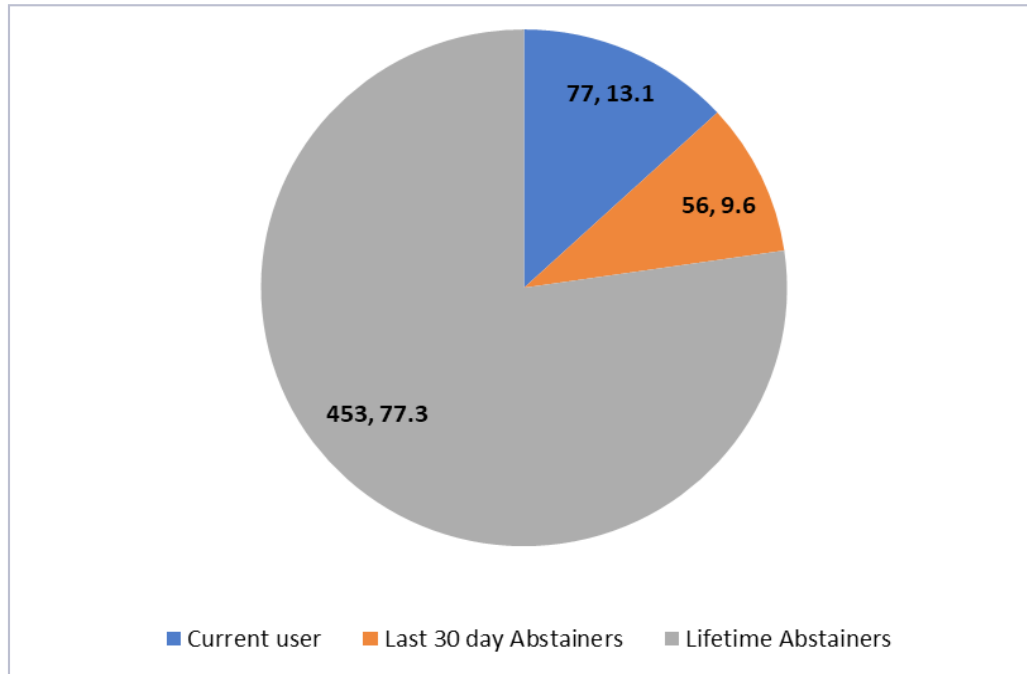
Figure 25: Status of smoking below 21 years

586 respondents of this survey were under the age of 21. As illustrated in Figure 25, almost three-quarter of the under 21 respondents were lifetime abstainers. However, around one fifth were either current users or last 30-day abstainers.
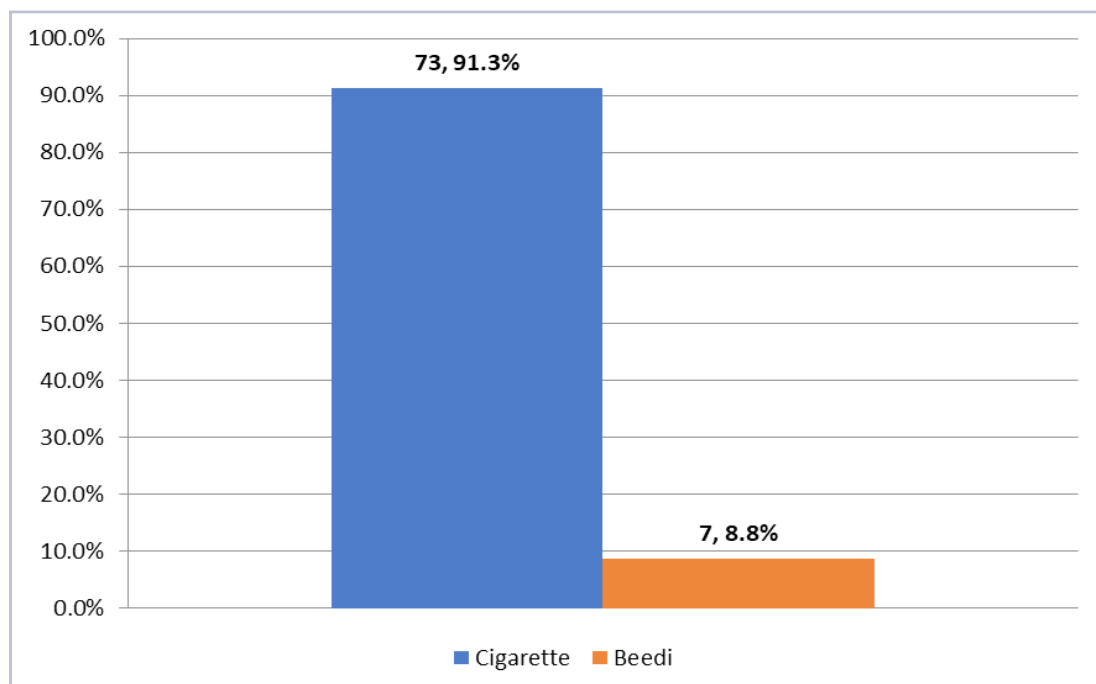
Figure 26: Types of smoking products used by current smokers below the age of 21

As seen in Figure 26, a majority of the current smokers below the age of 21 were smoking cigarettes. Around one-tenth of the current smokers were smoking beedi.

Miscellaneous
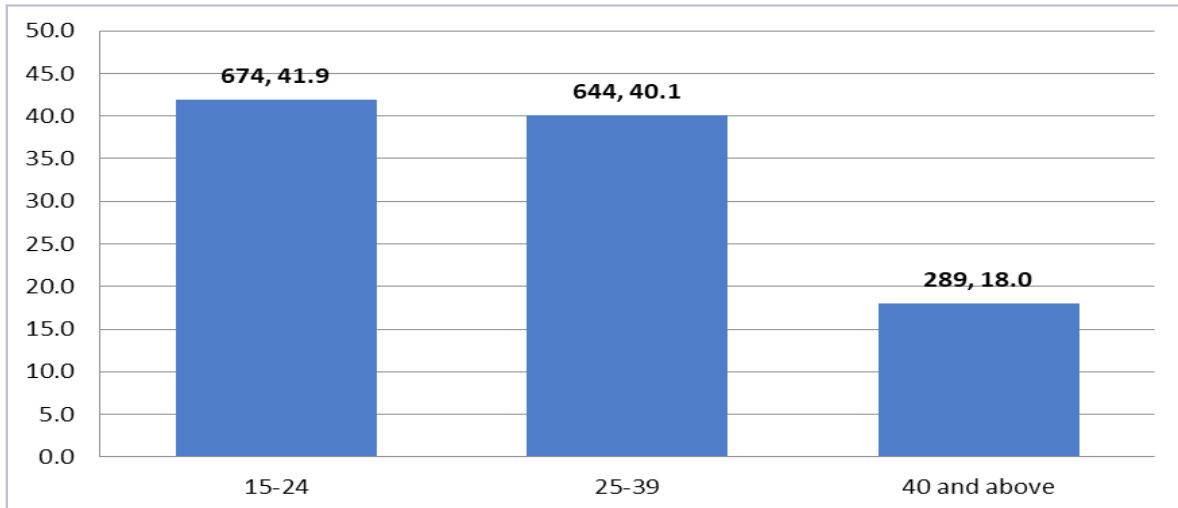
Figure 27: Life-time abstainers of smoking

The highest proportion of lifetime abstainers were observed from the 15-24 age group while the lowest was from 40 and above age group. Lifetime abstainers from the ages of 25-39 were almost equal to the 15-24 age group. (Figure 27)
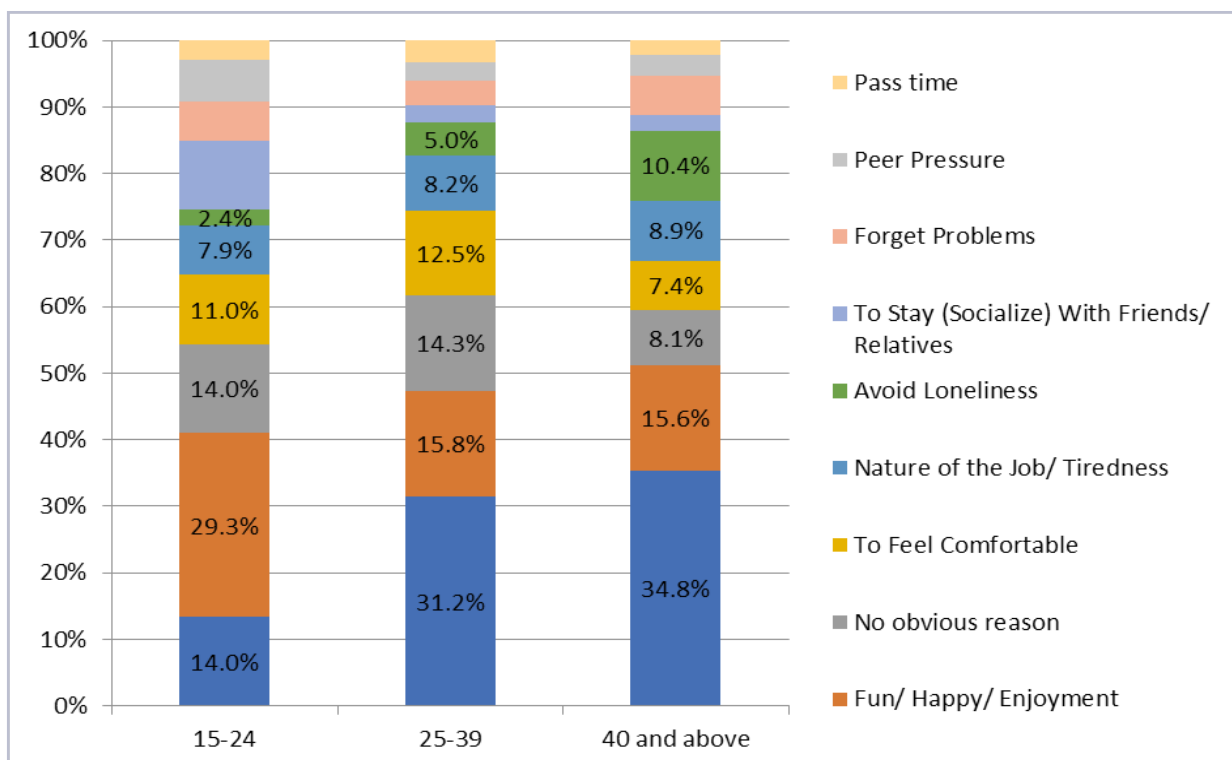
Figure 28: Reasons for smoking by current smokers

As seen in Figure 29, a majority from the 15-24 age group reported fun and enjoyment as reason for smoking. The main reason for smoking reported in the other two age groups (25-39 and 40 above) was the nature of their jobs and tiredness. The second highest reason for smoking reported by these two age groups was fun and enjoyment. Meanwhile, a considerable proportion of individuals from all age groups were reported to have been smoking for no obvious reason and was the third most common reason in 15-24 and 25-39 age groups. In the 40 and above age group avoiding loneliness was ranked the third highest reason for smoking. Smoking to avoid loneliness was seen the lowest from the 15-24 age group.

Figure 29: Tobacco smoking trend within the last 10 years

Overall tobacco smoking trend shows a decline across the past 10 years (Figure 29). Between 2017 and 2019, overall tobacco smoking has slightly increased in 2018 and decreased again in 2019.

DISCUSSION

Tobacco consumption in comparison to last year has decreased significantly across all age groups which is evident when referring to past trend surveys conducted by ADIC. In 2019, an overall decrease of around 4% is visible. However, tobacco smoking was slightly higher in 2019 than in 2017 (ADIC 2017). A large decrease in tobacco 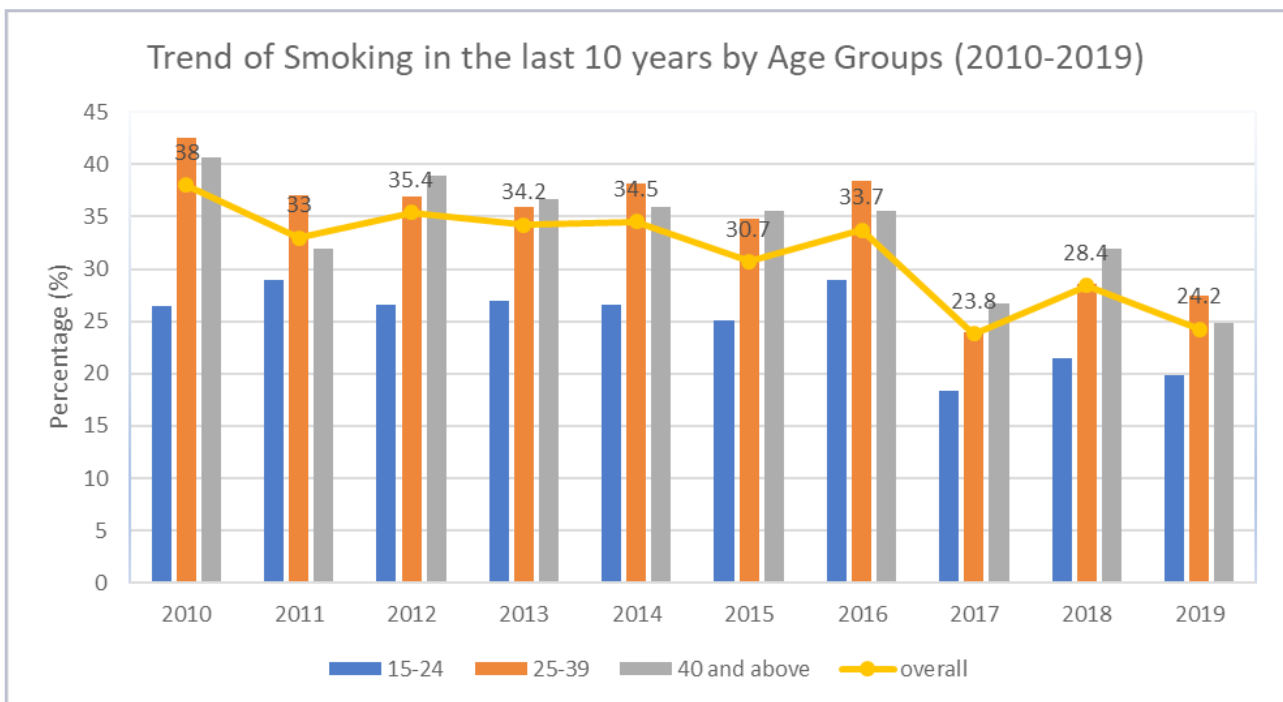smoking was observed in 2017 as a result of the 43% increase in cigarette prices. Trend survey analysis in 2017, revealed a 27% reduction in the overall tobacco consumption across the country from the year 2016 to 2017. However, a 4% increase was observed in 2018 which was due to the absence of price increases for around 20 months (ADIC 2018).

In 2019, referring to Figure 4, the current smoking rate among males above the age of 15 was 24.2% (n=691). Although this was a 4% decrease from the previous year, it was higher than the lowest recorded rate across the past 10 years which was in 2017 (ADIC 2017, ADIC 2018). The largest decrease (7%) was observed from the 40 and above age group as shown in Figure 5 in comparison with 2018. This decrease may have been likely due to increased prices or health concerns as indicated in Figure 23. Another possible cause could be the increase of excise duty and tax revisions on legal cigarettes which resulted in a further 30% increase in price throughout the year (CTC 2019a, CTC 2019b, CTC 2019c). The slight decrease in consumption among the rest of the age groups could also be likely due to the increase in tax and implementation of effective policies such as pictorial health warnings on cigarette packets. According to the world cancer report, tobacco causes an estimated 2.4 million deaths annually (International Agency for Research on Cancer 2020: 50). It was projected that 1 billion deaths would occur this century if measures are not taken to reduce the use of tobacco products.

When analysing the status of smoking by occupation, the highest proportion of current smokers were reported from skilled agricultural and fishery workers. This result was consistent with 2018 trend survey results (ADIC 2018). One drawback during data collection of occupation-based smoking status was that samples for each occupational category were not stratified. Some occupations had larger samples while others were comparatively small. Therefore, these statistics do not represent the population of each occupation group. However, it was useful in understanding smoking trends. The highest proportion of lifetime abstainers were observed from the occupation category of technicians and associate professionals which was also consistent with findings from the previous year (ADIC 2018). The highest proportion of last 30-day abstainers were observed from the occupation category of police and armed forces. Considering job responsibilities, the social role that is reflected through the above occupations, as well as data from Figure 23, occupation was seen the second highest reason to quit smoking across all age groups suggesting a higher number of 30-day abstainers among employees of forces compared to other occupation groups.

During sampling, Jaffna and Colombo Districts were automatically included in the analysis as important districts. In 2019, highest smoking rates were observed from the Jaffna District which was the second highest in the previous survey. Despite Jaffna reporting the highest smoking rates for 2019, this was 5% less than the figures observed in 2018 (ADIC 2018). The highest smoking rate for 2018 was observed from the Hambanthota District which was not studied in the current survey. Furthermore, an unexpected finding was that the Colombo District was below the average smoking percentage of 24.32 compared to previous trend survey results. Smoking rates have reduced by almost 10% in the Colombo District.

Consistent with previous findings, the majority of current smokers were daily smokers. This was consistent across all age groups and districts. Percentage of daily smokers were almost 10% less than the previous year indicating an overall decrease in tobacco use. Majority of current smokers were smoking cigarettes while beedi and cigars were smoked at a significantly low rate across all districts which too was consistent with previous survey results (ADIC 2018, ADIC 2017).

The most common type of product used during initiation to tobacco smoking was cigarettes. It is considered that tobacco initiation age and feeling at first experience are two of the key factors to consider when analysing smoking trends. Referring to Figure 21, the most common initiation occasion was with friends. Results from previous surveys indicate that individuals during initiation either felt nothing or overall unpleasant indicating that marketing strategies and other social factors largely contribute to the ongoing trends of tobacco smoking (ADIC 2018). According to Figure 18 majority of tobacco smoking initiation has occurred in the age group of 18-20. More than one-fourth of tobacco smokers had initiated tobacco smoking below the age of 18 and more than two-thirds of tobacco smoking initiation has occurred under the age of 21. This highlights the lack of policies/ prevention strategies to control initiation and the gaps in implementation of laws on legal purchasing age of 21. A large-scale mass media campaign across the country would yield effective results in combatting marketing tactics of the tobacco industry thus preventing or delaying initiation. The WHO highlights how well-designed anti-tobacco mass media campaigns could significantly reduce tobacco use (WHO 2019).

One reason for the low initiation age is likely due to cigarette sales happening close proximity to schools (ADIC 2017). Although this was highlighted in one of the previous trend surveys, the government to date have not been successful in banning cigarette sales in shops near schools. Despite the legal limit being over 21 years of age, out of the 586 respondents who were under 21, around 75 (13%) were current users. This was slightly less than the figures observed from previous surveys. There is a need for strict policies and strengthening implementation of existing policies to control the rates of underaged smoking.

Once addicted through initiation, individuals have found to spend large amounts of money on tobacco smoking. Comparing expenditure figures from last year, a drastic increase was observed. The median value for monthly expenditure on tobacco was Rs 900 higher than the previous year. Overall, some individuals were spending almost twice as much on tobacco products compared to the previous trend survey findings (ADIC 2018). Increase in expenditure is directly related to the increase in excise tax that was imposed within the year. (CTC 2019a). Referring to table 4, daily smokers tend to spend a significantly higher amount compared to non-daily smokers. Therefore, studying expenditure patterns of daily smokers help get an overall understanding of the level of expenditure among current smokers.

According to the WHO, five billion people (around 65% of the world population) are currently covered by at least one measure of MPOWER (WHO 2019). The trend survey analysis along with other programs and activities conducted by ADIC thoroughly covers many aspects of MPOWER such as monitoring, protecting, offering and warning by annually gathering data on current tobacco smokers and daily users, creating awareness and gathering data on attempts to quit (WHO 2017). Sri Lanka had been successful in increasing excise duty on cigarettes in 2019, thus contributing to the prevention activities of the global tobacco epidemic. Furthermore, Sri Lanka was a pioneer in ratifying the world's first public health treaty, WHO FCTC which had largely helped achieve the highest levels of the MPOWER strategies in many aspects.

Despite the increase in taxes which incurred a revenue of almost 80 billion rupees to the government, this was slightly less compared to 2018 (CTC 2019c). Although the CTC claims to be the largest revenue generator for the government, the cost that the government bears to treat those who are ill as a result of tobacco is much higher than this revenue from the CTC (ADIC 2018). Despite increasing tax on tobacco being one of the most effective ways to reduce tobacco smoking, it is the least covered area though the MPOWER strategy (WHO 2019). Therefore, the need for strict policies coupled with national awareness campaigns is evident to control and reduce the percentage of smoking including underaged smoking and early age initiation, which would reduce tobacco smoking in the long-term and thereby reduce health, social and economic harm from tobacco in Sri Lanka.

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