Global Youth Tobacco Survey 2017

SAMOA COUNTRY REPORT

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GLOBAL YOUTH TOBACCO SURVEY (GYTS) 2017

Ministry of Health
Government of Samoa
Apia, Samoa
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FOREWORD

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DIRECTOR GENERAL

The Ministry of Health Samoa is proud to present "The Global Youth Tobacco Survey 2017: Samoa Country Report". This document represents a major achievement by the Ministry and its collaborators (the Centers for Disease Control, the CDC Foundation, RTI International and the World Health Organization) in valued partnership with the participating public schools throughout the country. It also represents the firm commitment of the health sector to the WHO Framework Convention on Tobacco Control through monitoring the elements of the MPOWER (monitoring tobacco control and prevention).

As tobacco use continues to drive up the rates of preventable deaths around the world, Samoa also faces evolving challenges to tobacco control and the effects of smoking on the health of population. Lung cancers attributable to tobacco smoking have remained among the top three causes of cancer admissions within Samoa for many years. Even though smoking has decreased compared to 40 years ago, demographic patterns in tobacco use, public knowledge and awareness, and the promotion of tobacco through media have shifted in recent years. There is an ongoing need to update public health knowledge on tobacco use and susceptibility, particular for school age youth who are a critical population to reach with prevention.

The results from the GYTS 2017 have been fully compiled into this report as a reference for public health practitioners, clinical service providers, and the general public to provide the information on the current situation of tobacco control in Samoa as it relates to youth ages 13-17. We encourage the use of this data for the mobilization of programs, policy, initiatives, and community engagement by both the public and private sectors as Samoa continues the fight against tobacco.

Finally, we would like to thank all of the technical and financial support provided by collaborating organizations for the implementation of this survey. We also extend our thanks to the schools, students, and families that participated in this endeavor. We value your time and commitment in helping us safeguard the health of our people.

Ma le fa'aaloalo lava.

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- ***RTI International***
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Disclaimer: The views expressed in this document are not necessarily those of the GYTS collaborating organizations.

This report and data analysis were prepared by Robert M. Carney, *Research, Monitoring and Evaluation Officer*, Ministry of Health Samoa and is based on the 2017GYTS findings in Samoa.

Formatting and graphic design for this report provided by Aaone Tanumafili, *Principal Officer for HIV, STI's and TB*, HSCRMD, Ministry of Health Samoa.

EXECUTIVE SUMMARY

2017 KEY RESULTS	ALL	BOYS	GIRLS
Tobacco Use			
Current Tobacco Users	15.0%	23.7%	7.2%
Current Cigarette Smokers	12.1%	20.7%	4.5%
Cessation			
Tried to quit in past 12 months	82.4%	82.8%	84.1%
Want to quit now	86.4%	86.3%	-
Exposure to Second Hand Smoke			
In home	51.7%	52.6%	50.7%
In enclosed public place	58.5%	58.8%	58.1%
Access & Availability			
Unit of purchase-Sticks	55.9%	52.9%	-
Got cigarettes from non-retail source	49.9%	47.3%	-
NOT prevented from buying cigarettes due to age	34.7%	-	-
Media			
Non- smokers not starting due to health warnings on cigarette packages	88.5%	87.2%	91.3%
Noticed tobacco ads at point of sale	40.0%	56.2%	53.0%
Never users susceptible to tobacco branding	40.7%	48.3%	34.8%
Knowledge & Attitudes			
Favored banning smoking inside enclosed public places	91.4%	89.4%	93.1%
Favored banning smoking at outdoor public places	91.6%	91.1%	92.6%

Recommendations:

1. *Strengthen enforcement of Tobacco Control Act and Regulations among vendors, schools, and public places covered by the current ban*
2. *Establish a national cessation programme*
3. *Ensure all interventions address gender disparities in tobacco use*
4. *Expand multi-sectoral smoke-free environment initiatives*
5. *Integrate tobacco control and prevention with Non-communicable Disease programming to expand the scale of current health promotion*
6. *Mobilize school youth in prevention and health advocacy*
7. *Strengthen the delivery of tobacco and health curriculum within public schools*
8. *Health promotion campaigns and interventions need to be scaled-up and expanded*
9. *Encourage country participation in global health awareness initiatives*
10. *Strengthen Ministry of Health partnership with law enforcement to target illegal tobacco advertizing*
11. *Implement further tobacco use surveillance such as GYTS or research studies with youth smokers*

1. INTRODUCTION

Tobacco use is the leading global cause of preventable death. WHO attributes nearly 6 million deaths a year to tobacco. That figure is expected to rise to more than 8 million deaths a year by 2030.[1]Most people begin using tobacco before the age of 18.[2]

The Global Youth Tobacco Survey (GYTS) was developed by the Tobacco Free Initiative (TFI), World Health Organization (WHO) and the Office on Smoking and Health (OSH) of the United States Centers for Disease Control and Prevention (CDC) in collaboration with a range of countries representing the six WHO regions to present comprehensive tobacco prevention and control information on young people. The GYTS provides a global standard to systematically monitor youth tobacco use and track key tobacco control indicators. GYTS is a nationally representative school-based survey of students 13-15 years of age, using a consistent and standard protocol across countries. It is intended to generate comparable data within and across countries.

1.1 Country Demographics

Samoa is a Member State of the Western Pacific Region and is considered a middle-income country. The current estimated population for 2019 from the DHS 2014 is 200,874 (195,979 for 2016 by the Census 2016), with about 80%living in rural areas, and 20% living in urban areas[3,4]. About 56% of the population is between the ages 15-30, with roughly 22% of the population between the ages of 15-19[3]. The average household size is large at 6.8 persons, with rural areas having larger households than urban[3]. One out of every 4 households in Samoa has 9 or greater family members living within[3]. Nearly 72% of all children under age 18 are living with both parents[3].

About 76% of females and 74% of males attain at least a secondary school level of educational attainment[3]. For primary school, the net attendance ratio (NAR) is 90.5% for males and 91.3% for females. However, for those in the lowest quintile of wealth, the attendance ratio is 88.0% for males and 90.5% for females, indicating a disparity in access to education for the poorer households[3]. Overall, net attendanceof secondary school is also significantly lower especially for males 57.7% and females 70.5%.

In terms of media exposure, Samoans regularly access media on a least a weekly basis with 64.9% reading a newspaper, 87.1% watching television and 77.7% listening to the radio[3]. The estimated employment rate is 18.6% for women and 36.9% for men for ages 15-49[3].

In terms of cigarette smoking, the Samoa Demographic Health Survey 2014 found that for ages 15-49, 36% of men and 12% of women smoked cigarettes, (which was the most common form of tobacco use), with 67% of men smoking 10 or more daily compared to 40% of women smoking 10+ cigarettes daily[3]. The ICHAP Survey 2017, conducted by Ministry of Health found that 56.2% of respondents ages 15-65 have ever attempted to quit smoking within their lifetime[5].

1.2 WHO Framework Convention on Tobacco Control and MPOWER

In response to the globalization of the tobacco epidemic, the 191 Member States of the World Health Organization unanimously adopted the WHO Framework Convention on Tobacco Control (FCTC) at the 56th World Health Assembly in May 2003. The FCTC is the world's first public health treaty on tobacco control. It is the driving force behind, and blueprint for, the global response to the pandemic of tobacco-induced deaths and diseases. The treaty embodies a coordinated, effective, and urgent action plan to

curb tobacco consumption and lays out cost-effective tobacco control strategies for public policies such as banning direct and indirect tobacco advertising, increasing tobacco tax and price, promoting smoke-free public places and workplaces, displaying prominent health messages on tobacco packaging, and tobacco surveillance, research, and exchange of information.

To help countries fulfill their WHO FCTC obligations, in 2008 WHO introduced MPOWER, a technical package of six evidence-based tobacco control measures that are proven to reduce tobacco use and save lives:

- Monitor tobacco use and prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use
- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

The GYTS supports WHO MPOWER by monitoring country-specific data on key tobacco indicators, including prevalence, knowledge, and behavior.

1.3 Purpose and Rationale

Samoa became independent in 1962,the smoking prevalence trends have mirrored the globalization of the economy since that period. Smoking imported tobacco proliferated from the original use of the indigenous tobacco (called tipi or more recently tapa'asamoa). In 1978, daily tobacco use prevalence was 76% and 27% in women, which steadily declined through 2013 to 36% in men and 15% in women, as more information about the harmful effects of tobacco were also globally disseminated simultaneously with tobacco trade.[6]Males had consistently higher rates of smoking, a trend that is also found among youth.

The 2007 GYTS found that among youth ages 13-15 about 15.2% smoked cigarettes regularly (16% boys and 12.7% girls).[7]The Global School Based Student Health Survey 2011 found current cigarette smoking prevalence to be much higher for youth 11-17 with 36.1% of students being current smokers of cigarettes (smoking any cigarettes within the past 30 days). Males also had higher cigarette smoking prevalence than females (38% compared to 21% respectively). For ages 15-49, males also tend to smoke higher quantities of cigarettes with 67% of men smoking 10 or more daily compared to 40% of women (DHS 2014)[3].

Despite decreasing prevalence, tobacco use remains a public health threat for several reasons;

1) Gender disparities in smoking still exist.

2) Quantity of cigarettes smoked by current smokers is consistently high.

3) Additionally, foreign tobacco companies are increasing their efforts to distribute and market tobacco products to the country.

4) The Ministry of Health has also been working against lobbying attempts by tobacco companies to interfere with tobacco legislation for the last 5 years.

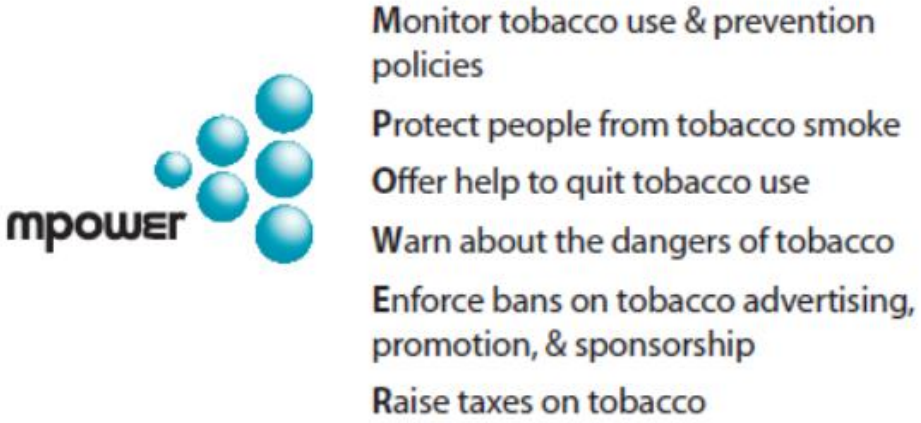
5) The Tobacco Control Act 2008 and Tobacco Control Regulations 2013 were passed despite tobacco lobbying, but the current capacity of the health sector to enforce these acts is still lacking.

6) There is no national cessation programming or mechanism currently in place.

7) The recent global rise of e-cigarettes is not addressed by existing legislation, and youth are frequently the targets of e-cigarette marketing internationally.

8) Poor health outcomes associated with tobacco smoking are also still persistent. Lung or bronchus cancers are among the top 3 types of cancer related admissions in the country (1st most frequent in 2016 and 3rd most frequent in 2017)[8].

For these reasons, Samoa (through Ministry of Health) has further committed itself in the FCTC-2030 by becoming party to additional articles under the convention in June 2018. Though prevalence has decreased, changes in tobacco lobbying and the vulnerability of youth indicate a clear need to monitor tobacco use as the public health fight against tobacco begins to shift. Samoa's participation in MPOWER is therefore critical to advance policy and programming for tobacco control.



1.4 Current State of Policy

Currently, in Samoa, there are 1 policy and 2 legislations that align with MPOWER recommendations in place. There are 1)the National Non-communicable Diseases Policy 2018 to 2023- which addresses tobacco use as a risk factor for cancers, 2) the Tobacco Control Law 2008- which provides the legal framework for the Ministry of Health to regulate tobacco, and 3) the Tobacco Control Regulations 2013- which control the marketing, sale and taxation of tobacco products. The new National Tobacco Policy is currently being developed with technical assistance at the Ministry of Health and will align with MPOWER and the articles of the FCTC2030.

1.5 Other Tobacco Surveys

The GYTS waspreviously conducted in Samoa in 2007. Additionally the Global School Based Student Health Survey 2011 also captures data on tobacco use. However, the Demographic Health

Surveys (most recent 2014) include indicators on tobacco relevant to GYTS and FCTC 2030. Additionally, the ICHAP survey (a survey used on community outreach programs) captures questions on smoking status and cessation.

1.6 Country Specific Objectives

The proposed objectives of the GYTS (in joint implementation with the GSHS) was to provide accurate data on health behaviours and protective factors amongst students to:

- Help countries develop priorities, establish programmes, and advocate for resources for school health and youth related programmes and policies
- Evaluate the prevailing trends with the health behaviours/understanding of young people to inform the formulation of School Health Programs and Youth Health Promotions.
- Allow countries, international agencies, and others to make comparisons across countries regarding the prevalence of health behaviours and protective factors amongst young people.

From those broad objectives, the desired outcomes for the GYTS survey were;

- Use data to help countries develop and design cessation interventions, policies, and advocate for resources to support enforcement capacity as it relates to youth and tobacco use.
- Evaluate tobacco use trends among youth to inform health promotion in school settings and for youth as a target population
- Provide comparable data to report on the Sustainable Development Goals, National Development Goals, the Health Sector Plan and to compare progress to other Pacific Island Countries

2. METHODOLOGY

2.1 Questionnaire

The GYTS questionnaire contained 80 multiple-choice questions. The survey included 43questions from the GYTS Standard Core Questionnaire, 24 selected optional questions, and 9 country-specific questions. The final questionnaire was translated into Samoan and back-translated into English to check for accuracy. The 2017 Samoa questionnaire is provided in ***Appendix A***.

2.2 Sampling Design

The 2017 Samoa GYTS is a school-based survey, which employed a two-stage cluster sample design to produce a nationally representative sample of students in grades 8-13. The implementation of the GYTS was a joint endeavor with the Global School-Based Health Survey (GSHS). The sampling frame consisted of all primary schools with more than 40 students containing grades 8-13. In the first stage, schools were selected with probability proportional to school enrollment size. The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school selected during the first stage. Among all the classes from grades 8-13 in a selected school, half of them were assigned to GYTS and the rest were assigned to GSHS. The GYTS was conducted in 30 schools and 100 classrooms. 2,706 students participated in the GYTS.

2.3 Data Collection

Data collection took place from 23rd October 2017 to 27th November 2017, and was supported by over 17 field staff.

Survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation. The questionnaire was self-administered in the classroom. Students recorded their responses directly on an answer sheet that could be scanned by a computer.

2.4 Data Analysis

A weighting factor was applied to each student record to adjust for probability of selection, non-response, and post-stratification adjustment to population estimates. SUDAAN, a software package for statistical analysis of complex survey data, was used to calculate weighted prevalence estimates and standard errors (SE) of the estimates (95% confidence intervals [CI] were calculated from the SEs). Frequency tables were developed for the survey questions that are considered key tobacco control indicators from the GYTS using EpiInfo™ statistical software. Indicators are in accordance with the WHO FCTC and MPOWER technical package.

Table 1 provides sample size and response rate information. For the 2017 Samoa GYTS, 2,076 questionnaires were completed in 30 schools. A total of 2,076students participated in the GYTS. For age groups 13-17, there were 1,758 individuals (Male: 647, Female: 1,102). These respondents were selected for analysis to align results in the report with international targets for the Sustainable Development Goals. The school response rate was 100%, the class response rate was 96.2%, and the student response rate was 64.4%. The overall response rate was 61.9%.

Table 1: Sample sizes and response rates, by region (unweighted) – GYTS Samoa, 2017.

School Level	
Number of Sampled Schools	30
Number of Participating Schools	30
School Response Rate (%)	100
Class Level	
Number of Sampled Classes	104
Number of Participating Classes	100
Class Response Rate (%)	96.2
Student Level	
Number of Sampled Students	3,225
Number of Participating Students	2,076
Student Response Rate (%)	64.4%
Overall Response Rate (%)[1]	61.9%

[1]Overall Response Rate = School Response Rate X Class Response Rate X Student Response Rate

3. RESULTS

3.1 Tobacco Use

Prevalence of tobacco use is a standard measure used commonly as an indicator for tobacco control. The GYTS captures detailed tobacco use by type of tobacco product (cigarettes, smokeless tobacco products, or other tobacco) as well as susceptibility factors of non-smokers who indicate that they may use tobacco products within the next year. Additionally, the GYTS captures respondents who have ever used tobacco products, even if they did not do so within the past month. Across all categories of tobacco use and susceptibility to tobacco use, tobacco use is more prevalent among boys.

A current tobacco smoker is defined as someone who has indicated they have smoked tobacco within the last 30 days before the time of the survey. Overall 15% of respondents were current tobacco smokers.Boys were more likely to smoke tobacco products than girls, with 23.7% of boys being current tobacco smokers compared to only 7.2% of girls.

Table 2: Detailed tobacco use status among students 13-17 years old, by gender – GYTS, Samoa, 2017.

	Overall	Boys	Girls
	Percentage (95% Confidence Interval)		
Smoked Tobacco			
Current tobacco smokers[1]	15.0% (11.8-18.2)	23.7% (19.8-27.6)	7.2% (5.3-9.1)
Current cigarette smokers[2]	12.1% (9.1-15.2)	20.7% (16.9-24.6)	4.5% (3.1-6.0)
Frequent cigarette smokers[3]	1.3% (0.6-2.1)	2.8 (1.4-4.2)	0.0
Current smokers of other tobacco[4]	4.2% (2.7-5.6)	5.0% (2.7-7.3)	3.2% (1.9-4.6)
Ever tobacco smokers[5]	26.9% (22.4-31.5)	37.7% (32.4-43.0)	16.4% (13.3-19.4)
Ever cigarette smokers[6]	20.6% (16.5-24.7)	30.7% (25.4-36.0)	11.2% (8.6-13.8)
Ever smokers of other tobacco[7]	12.3% (9.7-14.8)	17.1% (13.6-20.7)	7.1% (5.4-8.8)
Smokeless Tobacco			
Current smokeless tobacco users[8]	2.3% (1.3-3.3)	3.1% (1.4-4.8)	1.6% (0.9-2.4)
Ever smokeless tobacco users[9]	5.3% (4.0-6.7)	5.6% (3.2-8.0)	4.9% (4.0-5.8)
Tobacco Use			
Current tobacco users[10]	17.0% (13.3-20.7)	26.3% (21.7-30.8)	8.6% (6.5-10.8)
Ever tobacco users[11]	30.0% (25.5-34.6)	40.6% (34.7-46.5)	19.8% (16.7-22.9)
Susceptibility to Tobacco Use			
Never tobacco users susceptible to tobacco use in the future[12]	15.1% (12.1-18.2)	20.1% (13.9-26.2)	11.7% (9.1-14.3)
Never smokers who thought they might enjoy smoking a cigarette[13]	17.7% (14.2-21.3)	27.7% (20.6-34.8)	11.6% (8.5-14.7)

[1] Smoked tobacco anytime during the past 30 days.[2] Smoked cigarettes anytime during the past 30 days.[3] Smoked cigarettes on 20 or more days of the past 30 days. [4] Smoked tobacco other than cigarettes anytime during the past 30 days. [5] Ever smoked any tobacco, even one or two puffs. [6] Ever smoked cigarettes, even one or two puffs. [7] Ever smoked tobacco other than cigarettes, even one or two puffs. [8] Used smokeless tobacco anytime during the past 30 days. [9] Ever used smokeless tobacco. [10] Smoked tobacco and/or used smokeless tobacco anytime during the past 30 days. [11] Ever smoked tobacco and/or used smokeless tobacco. [12] Susceptible to future tobacco use includes those who answered “Definitely yes”, “Probably yes”, or “Probably not” to using tobacco if one of their best friends offered it to them or those who answered “Definitely yes”, “Probably yes”, or “Probably not” to using tobacco during the next 12 months. [13] Those who answered “Agree” or “Strongly

agree" to the statement: "I think I might enjoy smoking a cigarette".

The majority of current smokers used cigarettes (12.1% of respondents) and 4.2% of respondents reported smoking other tobacco products.Out of all respondents, 26.9% (roughly 1 out of 4 students) have ever tried smoking tobacco in any form within their lifetime, even one or two puffs. The use of smokeless forms of tobacco is much less common, with 2.3% currently using smokeless tobacco products and 5.3% reporting ever using smokeless tobacco within their lifetime.

Due to social desirability response bias, students world-wide are commonly underreporting their smoking status on surveys, especially so for girls. Though smoking is common in Samoa, there is a pervasive social stigma associated with tobacco use (especially cigarettes) and is considered inappropriate or rude in certain contexts. Women especially are discouraged from smoking, as it is seen as improper behavior for their gender. This is also true for all youth groups. Smoking was less taboo in older generations, but has become more stigmatized in recent times as global culture and understanding of tobacco has changed. Youth today are more socially discouraged from smoking than their parents and grandparents. Additionally, after the Ministry of Health implemented tobacco control policies (Health Village/Homes Initiatives) in the early 90's and the eventual Tobacco Control Act 2008, many villages and schools developed their own fines or prohibitions around tobacco use. Due to these factors, the actual prevalence of tobacco use in students ages 13-17 may be higher than estimated.

Susceptibility is assessed by two indicators in GYTS. One is the proportion of never tobacco users susceptible to using tobacco in the future among never tobacco users, and the other one is the proportion of never smokers who think they might enjoy smoking a cigarette. Out of those who have never used tobacco, 15.1% (20.1% boys and 11.7% girls)are susceptible to tobacco use. Out of those who have never smoked, 17.7% (27.7% boys and 11.6% girls) indicated that they would enjoy smoking a cigarette. Boys were more susceptible to cigarette smoking than girls.

Table 3: Cigarettes smoked per day among current cigarette smokers 13-17 years old, by gender– GYTS,Samoa 2017

Number of cigarettes usually smoked[1]	Overall	Boys	Girls
		Percentage (95% CI)	
Less than 1 per day	36.8% (28.2-45.4)	36.4% (25.4-47.5)	39.5% (21.2-57.7)
1 per day	39.5% (31.9-47.1)	37.8% (27.4-48.2)	44.5% (31.0-57.9)
2 to 5 per day	16.9% (12.2-21.7)	18.0% (12.0-24.0)	13.2% (1.0-25.4)
6 to 10 per day	3.1% (0.4-5.7)	3.2% (0.3-6.0)	2.9% (0.0-7.3)
11 to 20 per day	3.7% (0.5-6.9)	4.6% (0.6-8.6)	0.0
More than 20 per day	0.0	0.0	0.0
Total	100	100	100

[1] On the days that current cigarette smokers smoked cigarettes during the past 30 days,

The majority of those who did smoke reported having 1 or less cigarette per day. This response is expected as cigarettes are often shared between friends and are frequently sold in sticks rather than boxes or cartons. No significant gender differences were reported.

The age of initiation of smoking was also reported for respondents who indicated that they have ever smoked cigarettes. The majority of ever cigarette smokers were 12 years or older when they tried

their first cigarette. However, approximately 27% of ever cigarette smokers had their first cigarette when they were 11 years or younger. There were too few cases to make valid comparisons by gender for age groups.

Table 4: Age at cigarette smoking initiation among ever cigarette smokers 13-17 years old, by gender– GYTS, Samoa 2017

Age when first trying a cigarette[1]	Overall	Boys	Girls
		Percentage (95% CI)	
11 years old or younger	27.1% (19.4-34.9)	23.0% (14.3-31.6)	36.4% (25.8-47.0)
12 or 13 years old	25.4% (17.1-33.7)	27.8% (18.5-37.2)	19.4% (6.8-32.1)
14 or 15 years old	23.4% (16.7-30.2)	23.1% (14.9-31.4)	24.8% (14.7-34.9)
16 years or older	24.1% (13.1-35.0)	26.0% (14.4-37.7)	19.4% (7.4-31.4)
Total	100	100	100

[1] Among those that have ever tried a cigarette.

The GYTS defines signs of smoking dependence as 1) feeling like smoking first thing in the morning, or 2) feeling a strong desire to smoke again within one full day after smoking. Roughly half of all current smokers showed signs of smoking dependence.

Table 5: Current smokers 13-17 years old who are showing signs of smoking dependence, by gender – GYTS Samoa 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Signs of smoking dependence[1]	50.7% (41.3-60.0)	60.0% (39.5-62.5)	47.9% (32.5-63.4)

[1] Those who answered: 1) they sometimes or always smoke tobacco or feel like smoking tobacco first thing in the morning, or they start to feel a strong desire to smoke again within one full day after smoking.

Students who indicated they currently smoke were also asked where they usually smoke. About 35% indicated they smoked at their home and about 34% smoked at a friend's house. There were too few cases to provide estimates by gender and report on public locations or social events. This suggests that although public and work places are covered under existing legislation, youth ages 13-17 tend to smoke in locations that are not regulated. Therefore, village based initiatives and community level fines may be better able to reduce youth smoking by location.

Table 6: Location of smoking among current smokers 13-17 years old, by gender – GYTS Samoa, 2017.

Location	Overall	Boys	Girls
		Percentage (95% CI)	
At home	34.6% (22.1-47.1)	31.1% (17.9-44.4)	48.6% (30.0-67.2)
At school	9.2% (2.6-15.8)	8.5% (2.5-14.4)	12.1% (0.0-25.8)
At work	0.0	0.0	0.0
At friends' houses	34.1% (24.4-43.8)	36.7% (24.6-48.8)	22.5% (10.4-34.6)
At social events	12.4% (4.6-20.1)	13.8% (4.9*22.8)	7.3% (1.2-13.5)

In public places	6.3% (2.7-9.9)	6.4% (2.3-10.5)	6.2% (0.0-12.7)
Other	3.4% (0.6-6.2)	3.5% (0.0-3.9)	3.3 (0.0-8.5)
Total	100	100	100

-Estimates based on unweighted cases less than 35 are not presented

At the time of the GYTS 2017, there were no retail sources of e-cigarettes within the country. Nevertheless, 12.4% of students reported having ever used electronic cigarettes and 7.4% reported currently using electronic cigarettes. It should be noted, however, only 28% have heard of e-cigarettes before the time of the survey, which implies that there might be respondent error due to students' understanding of electronic cigarettes when reporting the ever and current use. Other questions on the survey assessed the awareness, knowledge and attitudes of students toward e-cigarette use, which provide insight into the susceptibility of youth age 13-17 to future potential e-cigarette promotion by the tobacco industry. Positively, only 8.2% of respondents thought that smoking e-cigarettes was safe. Conversely, a significant portion of students (about 12%) thought they would enjoy smoking an e-cigarette. This indicates significant receptivity to potential e-cigarette promotion and marketing.

Table 7: Electronic cigarette use, awareness and perception among students13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	**Boys**	**Girls**
		Percentage (95% CI)	
Ever electronic cigarette users	12.4% (8.8-16.0)	19.3% (14.6-24.0)	6.0% (4.0-7.9))
Current electronic cigarette users	7.4% (4.8-9.9)	11.8% (8.4-15.2)	3.1% (1.6-4.7)
Heard of e-cigarettes	27.9% (23.5-32.2)	34.3% (29.1-39.5)	21.2% (16.9-25.4)
Think it is safe to smoke e-cigarettes[1]	8.2% (5.9-10.5)	9.4% (6.2-12.7)	6.8% (4.8-8.7)
Never e-cigarette users who think they might enjoy smoking e-cigarettes[2]	12.3% (9.2-15.4)	17.1% (12.2-22.1)	9.3% (6.4-12.1)

[1]Answered "Definitely yes" or "Probably yes" ,[2]Answered "Strongly agree" or "Agree",
-Estimates based on unweighted cases less than 35 are not presented

3.2 Cessation

The GYTS also captures important indicators on cessation of tobacco use. Among those that currently smoke tobacco aged 13-17, 82.4% have tried to quit within the past 12 months (82.8% boys and 84.1% girls),86.4% indicated they want to stop smoking now, 83.6% thought that they would be able to stop smoking if they wanted to. Additionally, 38.5% have ever received professional assistance in quitting tobacco smoking. These results demonstrate a clear opportunity for up-scaling cessation programming.

Table 8: Smoking tobacco cessation indicators among current smokers 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Current smokers who…			
Tried to stop smoking in the past 12 months	82.4% (73.7-91.1)	82.8% (72.4-93.3)	84.1% (69.3-98.8)
Want to stop smoking now	86.4% (78.7-94.1)	86.3% (76.3-96.2)	-
Thought they would be able to stop smoking if they wanted to	83.6% (76.0-91.1)	81.4% (73.2-89.6)	91.3% (81.9-100.7)
Have ever received help/advice from a program or professional to stop smoking	38.5% (26.0-51.0)	33.7% (21.5-45.9)	-

-Estimates based on unweighted cases less than 35 are not presented

3.3 Secondhand Smoke

In addition the tobacco use itself, exposure to second-hand smoke has also been proven to cause cancer and other adverse health outcomes. By measuring exposure to second-hand smoke, the full impact of tobacco use on the population can be monitored. Students were asked about their exposure to second-hand smoke within the last 7 days at their home and in public places and if they had observed smoking at their school within the past 30 days.

Overall, almost 52%% of students aged 13-17 were exposed to tobacco smoke in their homes within the last 7 days, 58.5% in enclosed public places and 60.3% in outdoor public places. This is significant as the current law prohibits smoking in workplaces (which covers indoor and outdoor depending on organizational policy). The legal definition of workplace in the Tobacco Control Act 2008 is broad and refers to;

"any indoor or enclosed area that is occupied by an employer and that employees usually frequent during the course of their employment and includes any vehicle, cafeteria, corridor, lift, lobby, stairwell, toilet and washroom and also includes any enclosed common areas and employer provided vehicles normally used by employees, but does not include any place which is primarily used as a residence occupied by the employer."

However, these findings suggest that even with the current law in place, enforcement and compliance are still challenges, even 10 years after the legislation went into effect. While homes and non-work related property are not under the jurisdiction of the law with regards to smoking, exposure to tobacco smokein those places poses a significant threat to students' health.

In terms of smoking on school grounds, 66.2% of students indicated that they saw others smoking either inside the school building, or outside within the school property lines within the past 30 days. Considering that students age 13-17 spend a majority of their time on school grounds, this is a significant source of exposure to tobacco smoke (to a larger extent than home and public settings).

Table 9: Students13-17 years old who were exposedto tobacco smoke, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Exposed to tobacco smoke at home in the past 7 days	51.7% (47.4-55.9)	52.6% (45.9-59.3)	50.7% (45.4-56.2)
Exposed to tobacco smoke inside any public transportation vehicles in the past 7 days	42.3% (38.7-45.9)	49.7% (44.2-55.1)	36.0% (32.3-39.6)
Exposed to tobacco smoke inside any enclosed public place in the past 7 days	58.5% (55.0-62.0)	58.8% (54.5-63.0)	58.1% (53.5-62.7)
Exposed to tobacco smoke at any outdoor public place in the past 7 days in	60.3% (56.7-63.9)	60.8% (56.6-65.0)	51.3% (55.1-63.2)
Saw anyone smoking inside the school building or outside on school property in the past 30 days	66.2% (59.8-72.7)	67.3% (60.4-74.1)	65.1% (57.6-72.7)

-Estimates based on unweighted cases less than 35 are not presented

Compared to non-smokers, students who currently smoked tobacco were significantly more likely to report having friends or parents who smoke.

Table 10: Current Smokers 13-17 years old with Parents and Friends that Smoke – GYTS Samoa, 2017.

	Overall	Current Smokers	Non-smokers
		Percentage (95% CI)	
Have parents who smoke[1]	38.6% (35.6-41.6)	50.1% (43.0-58.7)	35.8% (31.4-40.2)
Have any friends who smoke[2]	28.0% (24.2-31.9)	54.1% (40.0-68.2)	23.1% (20.1-26.0)

[1]Answered 1 or more parent that smokes, [2]Answered "some", "most" or "all" of their friends smoke

3.4 Access and Availability

Measures of access and availability to tobacco products provide further insight into smoking behaviors of youth, as well as inform programming, health marketing, and other interventions. About 50% of students age 13-17 who currently smoke cigarettes predominantly indicated that they got their cigarettes from someone else. This result is expected as it is more common for youth to share cigarettes or packs rather than purchase them individually. This also poses challenges for regulating the sale of tobacco products, as one purchase may expose multiple individuals to tobacco.

Table 10: Source for obtaining cigarettes among cigarette smokers 13-17 years old, by gender – GYTS Samoa, 2017.

Source[1]	Overall	Boys	Girls
		Percentage (95% CI)	
Purchased from a retail exchange (shop, street vendor, or stall)	39.3% (31.2-47.4)	40.4% (31.1-49.7)	62.6% (49.1-76.1)
Got them from someone else (non-retail)	49.9% (40.1-59.7)	47.3% (34.4-60.2)	32.4% (20.1-44.4)
Got them some other way	4.4% (1.7-19.8)	12.3% (1.2-23.3)	5.0% (0.0-11.7)
Total	100	100	100

[1]How cigarette smokers obtained the cigarette they last smoked during the past 30 days.
-Estimates based on unweighted cases less than 35 are not presented

Overall, 34.7% of students 13-17 that currently smoke cigarettes were not prevented from buying cigarettes from vendors because of their age. This is consistent with social practice of vendors and communities. It is common for older individuals to send younger family or community members on errands to buy the elder's cigarettes. Local vendors know the community and their families, and often don't question the practice. Additionally, the legal age of purchase (21 years) was not introduced until the Tobacco Control Act 2008 and the Regulations 2013 that covers vendors. Subsequently, social practices and awareness, as well as enforcement are still catching up. Additionally, 12.7% of all students 13-17 reported being able to purchase tobacco products near their school. This also is restricted through the current legislation, regulation, and the Healthy Schools initiatives which are monitored on a quarterly basis by the MoH.

Table 11: Current cigarette smokers 13-17 years old who were not prevented from buying cigarettes because of their age, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Current cigarette smokers who were not prevented from buying cigarettes because of their age[1]	34.7% (18.0-51.3)	37.8% (19.9-55.8)	24.1% (2.9-45.3)
Can purchase tobacco near their school	12.7% (7.5-18.0)	19.1% (11.2-27.2)	7.0% (3.5-10.6)

[1]Among those who tried to buy cigarettes during the past 30 days.

The available spending money of students (who usually do not have income of their own) is also a factor of interest designing interventions that address access to tobacco products. Amongst all students, the majority of individuals had less than $30.00 Samoan Tala available to spend on whatever they

wanted within an average week. Roughly 23% had no available money to spend on themselves on an average week.

Table 12: Weekly spending money among all students 13-17 years old, by gender – GYTS Samoa, 2017.

Self-reported average weekly spending money[1]	Overall	Boys	Girls
		Percentage (95% CI)	
Usually no spending money	23.4 % (20.6-26.3)	26.6% (22.5-30.8)	20.0% (17.4-22.8)
Less than $30 Samoan Tala	48.7% (44.4-53.0)	44.3% (39.6-49.0)	53.3% (49.0-57.6)
$30.00 to $34.99 Samoan Tala	5.7% (3.6-7.8)	6.0% (2.7-9.2)	5.4% (3.8-7.0)
$35.00 to $39.99 Samoan Tala	2.8% (1.9-3.7)	3.0% (1.8-4.3)	2.2% (1.3-3.1)
$40.00 to $44.99 Samoan Tala	3.2% (2.4-4.0)	4.3% (2.6-6.0)	2.2% (1.6-2.8)
$45.00 to $49.99	1.3% (0.8-1.8)	1.0% (1.9-2.9)	1.6% (0.8-2.5)
$50.00 Samoan Tala or greater	14.8% (12.5-17.1)	14.7% (11.2-18.2)	15.2% (12.2-18.2)
Total	100	100	100

[1]Defined as money available to be "spent on yourself, however you want", *-Estimates based on unweighted cases less than 35 are not presented*

Individual sticks are the main unit of purchase among cigarette smokers age 13-17 (35.6%). There were insufficient cases to present estimates by gender. The brand of cigarettes usually purchased by current cigarette smokers age 13-17 was Pall Mall (52.6%, CI 95%-39.9-65.5).

Sticks as the most frequently purchased unit is a finding consistent with social practices of vendors and individuals, where individual sticks are sold at around 0.80 cents. People often donot have enough income to purchase whole packs, and vendors therefore respond to demand by selling sticks, despite this be illegal under current regulation. There is also a growing issue of people selling sticks without being licensed as a vendor to supplement their household income.

Table 13: Unit of cigarette purchase among current cigarette smokers 13-17 years old, by gender – GYTS Samoa, 2017.

Unit of purchase[1]	Overall	Boys	Girls
		Percentage (95% CI)	
Individual sticks	55.9% (41.0-70.8)	52.9% (38.1-67.7)	-
Pack	28.7% (14.2-43.3)	30.5% (15.3-45.7)	-
Carton	5.7% (0.7-10.7)	5.5% (0.1-10.9)	-
Rolls	0.1% (3.4-14.8)	10.4% (3.8-17.0)	-
Loose tobacco for hand-rolled cigarettes	0.6% (0.0-1.7)	0.7% (0.0-2.1)	-
Total	100	100	100

[1]Based on the last purchase, among those who bought cigarettes during the past 30 days.
-Estimates based on unweighted cases less than 35 are not presented

Additionally, all students age 13-17 (smokers and non-smokers) were asked to estimate the cost of a pack of 20 cigarettes. Roughly 51% estimated the cost of a pack of 20 to be between $11.00 and 13.99 Samoa Tala, or 0.55-0.70 cents per stick. This also provides insight into why sticks are the main unit of purchase, as minimum wage in currently set at $2.50 as of 2019.

Consumers age 13-17 would find a $13.99 tala pack to be a very difficult purchase. Students age 13-17 instead buy sticks from pooled funds among friends. Ultimately, this demonstrates that sales to youth age 13-17 are highly under-regulated, due to the purchase of tobacco in stick units.

Table 14: Cost of cigarettes among students 13-17 years old, by gender – GYTS Samoa, 2017.

Cost of a pack (20 cigarettes)[1]	**Overall**	**Boys**	**Girls**
		Percentage (95% CI)	
Less than 5 Samoan Tala	11.9% (8.3-15.5)	12.4% (8.4-16.5)	11.2% (6.6-15.8)
5.00 - 7.99 Samoan Tala	11.2% (8.2-14.2)	10.7% (6.5-14.9)	11.5% (7.5-15.5)
8.00 - 10.99 Samoan Tala	18.8% (15.4-22.2)	19.1% (13.4-24.9)	18.3% (14.8-21.8)
11.00 – 13.99 Samoan Tala	50.6% (45.1-56.0)	49.1% (43.0-55.3)	53.3% (45.5-61.2)
14.00 – 16.99 Samoan Tala	5.0% (3.0-7.1)	5.4% (2.9-7.9)	4.3% (2.3-6.4)
17.00 or more	2.5% (1.5-3.6)	3.2% (1.8-4.7)	1.4% (0.6-2.2)
Total	100	100	100

3.5 Media

Media is a platform utilized by both tobacco control and tobacco marketing alike. Children of all ages are exposed to both health messages and promotion in addition messaging marketing and promoting tobacco use. For health promotion, understanding what messages students age 13-17 are exposed to regarding tobacco use is critical to inform interventions that target awareness, knowledge, and behavior change, as well as inform the design of anti-tobacco multimedia campaigns. Indicators of exposure to tobacco messages in the media can also measure the impact of existing media campaigns.

3.5.1 Anti-Tobacco

Students were asked about their exposure to anti-tobacco messages in the media and in school. Overall, 76% of students age 13-17 noticed anti-tobacco messages on the television, radio, internet, billboards, posters, newspapers, magazines or movies within the last 30 days. Among those who attended sporting or community events in the last 30 days, about 68.6% noticed anti-tobacco messages at those events. This suggests well-established mechanisms in Samoa for marketing anti-tobacco messages in terms of being able to reach youth with health messages via media and community events. Within the past 12 months, 62% of students age 13-17 were taught in school about the dangers of tobacco use. This suggests that there is further work needed to deliver anti-tobacco curriculum to some students.

Table 15: Noticing anti-tobacco information among students 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Noticed anti-tobacco messages in the media[1] in the past 30 days[2]	76.0% (73.5-78.5)	75.4% (71.3-79.5)	76.4% (73.7-79.2)
Noticed anti-tobacco messages at sporting or community events			
Among all students in the past 30 days	43.2% (39.4-47.0)	44.0% (39.4-48.6)	42.3% (37.2-47.5)
Among those who attended sporting or community events in the past 30 days	68.6% (63.8-73.4)	69.8% (64.3-75.2)	67.2% (61.4-73.1)
Taught in school about the dangers of tobacco use in the past 12 months[2]	62.0% (57.3-66.6)	61.1% (55.1-67.0)	63.0% (58.7-67.2)

[1] For example, television, radio, internet, billboards, posters, newspapers, magazines, movies.

[2]Among all students age 13-17 years old.

Students that currently smoke tobacco were asked specifically health warnings that are printed on cigarette packages. The majority (88.5%) did notice these warnings, which made 61.1% of these individuals consider quitting tobacco smoking. The health warnings on packages also made non-smokers think about not initiating tobacco use. Among never smokers, 54.7% thought about never starting smoking because of health warnings printed on cigarette packages.

Table 16: Noticing of health warnings on cigarette packages among current and never smokers 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Current smokers who noticed health warnings on cigarette packages[†]	88.5% (82.0-95.0)	87.2% (80.4-94.1)	91.3% (83.6-99.1)
Thought about quitting smoking because of health warnings on cigarette packages[†]			
Among current smokers	61.1% (53.0-69.2)	60.0% (52.0-68.1)	67.2% (51.8-82.7)
Among current smokers who noticed health warnings	69.0% (62.3-75.7)	68.8% (60.3-77.2)	73.6% (60.8-86.5)
Never smokers who thought about not starting smoking because of health warnings on cigarette packages[†,1]	54.7% (50.0-59.3)	49.5% (44.0-55.1)	58.7% (51.6-65.6)

[†] During the past 30 days.

[1] Among never smokers who noticed health warnings on cigarette packages in the past 30 days.

3.5.2 Tobacco Marketing

Media is also used by tobacco companies and retailers to market tobacco products, often targeting specific demographics like youth. Students reported being exposed to tobacco marketing in stores, television, movies, videos, as well as on the internet within the past month. Among students age 13-17 that visited a point of sale in the past 30 days, 54.8% noticed tobacco advertisements or promotions. Among students that watched television, videos, or movies within the past 30 days, 77% noticed people using tobacco in these media. Among students that used the internet in the past 30 days, 43.6% saw advertisements for tobacco products online. Among that same group of students, 29.7% saw videos that promoted tobacco smoking as fun or cool. TV, movies and videos were the most frequently reported media platforms for tobacco marketing, but a significant number of students also reported tobacco marketing in stores and on the internet.

Table 17: Noticing tobacco marketing among students 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Noticed tobacco advertisements or promotions at points of sale			
Among all students in the past 30 days	40.0% (35.7-44.3)	41.0% (35.9-46.1)	38.7% (34.3-43.1)
Among those who visited a point of sale in the past 30 days	54.8% (48.2-61.4)	56.2% (48.8-63.5)	53.0% (46.1-59.9)
Noticed anyone using tobacco on television, videos, or movies			
Among all students in the past 30 days	59.9% (56.1-63.8)	61.6% (56.2-67.1)	58.5% (53.6-63.3)
Among those who watched television, videos, or movies in the past 30 days	77.0% (74.3-79.7)	78.5% (75.7-81.4)	75.3% (70.4-80.2)
Ever offered a free tobacco product from a tobacco company representative	9.7% (6.8-12.5)	13.7% (10.0-17.5)	5.8% (3.1-8.5)
Saw advertisements for tobacco products online in past 30 days[1]	43.6% (39.9-47.4)	45.2% (38.7-51.6)	41.2% (36.9-45.5)
Saw videos on the internet that promote tobacco smoking or made smoking look fun/cool in past 30 days[1]	29.7% (25.5-33.8)	33.5% (27.8-39.2)	25.3% (20.8-29.8)

[1] Only amongst respondents that used internet in past 30 days

Students were also asked if they owned items that have tobacco company name, product or logo printed on it in order to gauge receptivity of students to tobacco marketing. A significant percentage of never smokers age 13-17 (40.7%) indicated that they either own something with tobacco branding or might use or wear a tobacco branded item. These students are considered highly receptive to tobacco marketing and therefore at risk for future tobacco use.

Table 18: Ownership and receptivity to tobacco marketing among students 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Students who owned something with a tobacco brand logo on it[1]	12.8% (10.1-15.5)	18.3% (13.7-22.9)	7.8% (6.2-9.4)
Never tobacco users who owned something with a tobacco brand logo on it or might in the future[2,3]	40.7% (35.4-4459)	50.1% (43.1-57.0)	34.8% (29.9-39.8)

[1] For example, a t-shirt, pen, backpack.

[2] Those who might use or wear something that has a tobacco company or product name or picture on it.

[3] Considered highly receptive to tobacco marketing (at risk for future tobacco use).

3.6 Knowledge and Attitudes

Knowledge and attitudes towards tobacco use is key information for designing public health interventions. Designing curriculum of programs for students age 13-17 or the content of health promotion campaigns necessitates knowing students perception of cessation, social smoking, and second-hand smoke. Overall students age 13-17 had higher knowledge and more progressive attitudes regarding second-hand smoke compared to smoking cessation and social smoking, but lack critical awareness of the harm of tobacco use and the difficulty of cessation.

Table 19: Knowledge and attitudes towards smoking cessation and social smoking among students13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	Boys	Girls
		Percentage (95% CI)	
Students who…			
Aware that smoking is harmful to one's health[1, 2]	73.4% (61.8-78.5)	65.1% (57.7-72.4)	80.9% (75.4-86.3)
Definitely thought it is difficult to quit once someone starts smoking tobacco	14.1% (11.3-16.9)	14.7% (10.7-18.7)	13.6% (11.0-16.1)
Thought smoking tobacco helps people feel more comfortable at celebrations, parties, and social gatherings	34.9% (32.5-37.4)	39.1% (35.8-42.4)	30.6% (27.8-33.4)
Would use a tobacco product if offered by one of their best friends[1]	10.3% (8.3-12.4)	15.1% (12.3-17.9)	5.8% (4.4-7.2)

[1]Among all students age 13-17 years old.[2]Students age 13-17 years old that answered "Probably yes" or "Definitely yes"

[3]Answered "Probably yes" or "Definitely yes" that they would use a tobacco product if offered by one of their best friends,

About 73% of students were aware that smoking is harmful to one's health, which suggests that a significant portion of students still have not received key anti-tobacco messages. Overall, only 14.1% of students age 13-17 definitely thought that it was difficult to quit once someone starts smoking tobacco.

This is important to health promotion as it highlights the need to educate youth about how addictive tobacco products are and ultimately the importance of not initiating smoking. A significant portion of students age 13-17 (34.9%) thought that smoking tobacco helps people feel more comfortable at social events. Boys more frequently reported this than girls (39.1% compared to about 30.6% respectively). Additionally, 10.3% of students would use a tobacco product if offered by one of their best friends, more so with boys (15.1% compared to 5.8% of girls). This indicates susceptibility among youth towards peer pressure to initiate tobacco use, especially among those that have close friends that smoke.

Table 20: Knowledge and attitudes towards secondhand smoke among students 13-17 years old, by gender – GYTS Samoa, 2017.

	Overall	**Boys**	**Girls**
		Percentage (95% CI)	
Students who…			
Definitely thought other people's tobacco smoking is harmful to them	83.3% (80.4-86.2)	78.4% (74.4-82.3)	88.1% (85.3-90.9)
Favored banning smoking inside enclosed public places	91.4% (89.3-93.4)	89.4% (86.3-92.6)	93.1% (90.9-95.2)
Favored banning smoking at outdoor public places	91.6% (89.7-93.6)	91.1% (87.2-95.0)	92.6% (89.9-95.3)
Favored increasing price of tobacco products	75.3% (71.8-78.8)	76.1% (72.9-79.3)	74.6% (69.4-79.7)

Conversely, students age 13-17 were very aware of second-hand smoke and were overwhelmingly supportive of public bans to tobacco use. Roughly 83% of students definitely thought other peoples tobacco smoking was harmful to them. Additionally, 91.4% and 92.6% favored banning smoking in enclosed and outdoor public places respectively. Congruently, 75.3% of students favored increasing prices of tobacco products.

4. DISCUSSION

4.1 Discussion of Survey Findings

Tobacco Use

- *Overall, 12.1% (roughly 1 out of every 10) students age 13-17 currently smoked cigarettes.*
- *Cigarette smoking was the most common form of tobacco use, with current cigarette smoking being significantly higher than current smokeless tobacco use (2.3%).*

Although tobacco use is declining amongst youth and adult age groups, a significant percentage of youth age 13-17 (12.1%) reported currently smoking cigarettes, which the most frequent type of tobacco use. This is significant because children in these age groups are supposed to have the least amount of access to tobacco because 1) it is legally prohibited on school property since 2008, 2) children have little to no personal income to obtain tobacco, and 3) youth smoking is culturally discouraged. For these reasons, the majority of current smokers have 1 or less cigarettes per day, as cigarettes are often shared between friends. About 34.6% indicated they smoked at their home and about 34.1% smoked at a friend's house, which indicates some degree of discretion and secrecy for youth smoking behavior.

There are also gender disparities where boys reported significantly higher cigarette smoking rates than girls (20.7 % and 4.5% respectively). Part of this difference might be related to response bias, where boys are more likely to report smoking as it is considered less taboo for males to smoke and because smoking makes them seem "cooler". Conversely, smoking for girls is taboo and often deemed inappropriate or unattractive, therefore making them less likely to report tobacco use. However, disparity between gender may be due to boys having more access to smoking due to other underlying factors not captured in the survey. This indicates prevalence may actually be higher than estimated by the survey, especially for girls.

In addition to current tobacco use, dependency and susceptibility to tobacco use were also significantly prevalent amongst students 13-17. Out of all the students who have never smoked tobacco, 17.7% indicated that they are susceptible to future tobacco use (27.7% boys and 11.6% girls). Additionally, 50.7% of the current smokers reported dependence on tobacco use. Overall, these findings a significant possibility of tobacco use rates increasing for this age group without intervention.

Cessation

- *Overall, 86.4% of students who currently smoke cigarettes reported that they desired to stop smoking.*
- *82.4% of students who currently smoke cigarettes have attempted to quit in the last 12 months.*

The majority of all students that currently smoke tobacco reported they desire to quit and have attempted to quit. This indicates an overwhelming need for cessation programming with students age 13-17, who would normally be missed by programming for adults. Currently there is no formal mechanism or strategy that addressing cessation within the country due to resourcing. However, this finding provides a strong justification for the population need.

Secondhand Smoke (SHS)

- *Nearly half of all students (51.7%)were exposed to smoke in their home.*
- *Approximately 59% of all students were exposed to SHS in public places.*
- *Roughly two thirds (66.2%) of all students witnessed smoking on school property within the past month.*
- *Nearly all (91.6%) of students thought smoking should be banned in outdoor public places.*

Students also indicated that second hand smoke was a significant health issue for this group. Overall, 19.2% of students 13-17 were exposed to tobacco smoke in their homes within the last 7 days. Additionally, 66.2% of students indicated that they saw others smoking either inside the school building, or outside within the school property lines within the past 30 days. Congruently, 38.6% of current smokers reported having at least 1 parent that smokes and 27.7% having a least one friend that smokes, indicating a higher likelihood of initiating smoking if someone in your social circle smokes. In public, 58.5% of students were exposed to tobacco smoke in enclosed public places and 60.3% in outdoor public places in the past week. Between these factors at home, school, within their social circles, and in public, this amounts to a large degree of environmental exposure to second-hand smoke for students age 13-17.

Though the current law prohibits smoking in workplaces broadly covering schools, restaurants, offices, etc., organizational policy of outdoor smoking within property lines varies between organizations. Additional there are no legal restrictions on private property (though some villages/communities may have their own local regulations). These findings suggest that even with the current laws in place, enforcement and compliance are still challenges. Additionally, there may be likely legal and policy gaps when it comes to controlling youth exposure to second hand smoke, especially at the school level. The solution may not only require strengthening monitoring and compliance but revising existing law and policy.

Access and Availability

- *Overall, almost half (49.9%) students who currently smoke cigarettes usually obtained them from a friend or non-retail source.*
- *Roughly 3 in 10 (34.7%) students who bought cigarettes in a store were not refused purchase of cigarettes because of their age.*

Students age 13-17 who currently smoke predominantly indicated that they got their cigarettes from someone else or a non-retail source. This result is expected as it is more common for youth to share cigarettes rather than purchase them individually. Compounding this, tobacco is most frequently sold by the stick, with many families selling sticks to supplement household income. This poses challenges for regulating the sale of tobacco products, as one purchase may expose multiple individuals to tobacco, and is difficult to regulate unlicensed sales. Additionally interventions regulating tobacco at the point of sale may not prevent youth age 13-17 from accessing tobacco products.

This result also indicates that tobacco use is more social than individual in Samoa. Therefore, youth with more family and friends that currently smoke are more susceptible to future tobacco use and

have more access. Interventions aimed at addressing access and availability should consider a network-based approach towards youth age 13-17.

Overall, 34.7% of students 13-17 that currently smoke cigarettes were not prevented from buying cigarettes from vendors because of their age. This is consistent with social practice of vendors and communities. It is common for older individuals to send younger family or community members on errands to buy the elder's cigarettes. Local vendors know the community and their families, and often don't question the practice. Additionally, the legal age of purchase (21 years) was not introduced until the Tobacco Control Act 2008 and the Regulations 2013 that covers vendors. Subsequently, social practices and awareness, as well as enforcement are still catching up. This lag between public awareness, social values and policy can be effectively addressed through a health promotion or communication campaign.

Exposure to Anti-Tobacco Information

- *Overall, 62% of students reported having been taught in school about the dangers of tobacco during the preceding school year.*
- *Five in 10 (about 54%) of those who have never smoked, noticed health warnings on tobacco products that made them think about never starting tobacco use.*

Although more than half of students reported had been taught about the dangers of tobacco use in the past year, 38% had not received any information in the past year. This is a significant gap in the curriculum delivery for age groups 13-17, who should be receiving a comprehensive health education every year. This highlights strengthening a comprehensive annual health curriculum (which includes tobacco use) as an area of intervention for the next 10 years.

Students reported receiving anti-tobacco information more frequently from media (such as television, radio, internet, billboards, posters, newspapers, magazines, and movies) compared to schools (76% from media as opposed to 62% from school). This suggests well-established health promotion campaigns and mechanisms by both government and civil society organizations. It also suggests that these campaigns and mechanisms are the best platform to utilize going forward with anti-tobacco health communication. Current campaigns should be updated according to new anti-tobacco priorities, catering to youth age 13-17 within the design.

The most significant source of anti-tobacco information reported were the graphic health warnings printed onto cigarette packages. Out of students age 13-17 that currently smoke, 88.5% noticed these health warnings on the package and 69% of those smokers thought about quitting because of those messages. As for the students who reported never smoking, 54.7% reported also noticing these health warnings, which made them think of never starting tobacco use. These health warnings are mandated by the Tobacco Control Regulations 2013 and were fully implemented in 2015 (two years preceding the GYTS). This indicates a significant impact on public awareness within that two year period amongst smokers and non-smokers alike. As these warnings are effective for both smokers and non-smokers, it stands to reason that health warnings could be effective using other media platforms for a wider audience.

Awareness and Receptivity to Tobacco Marketing

- *Overall, 12.8% of students owned an object with a cigarette brand logo on it.*
- *Overall, about one in 10 students (9.7%) were offered free cigarettes by a tobacco company representative.*
- *Out of never tobacco users, 40.7% either owned an item with tobacco branding on it or indicated that they might in the future.*

As addition to the health sector, tobacco companies are also utilizing media as a means of promoting tobacco. The most common form of tobacco advertisement occurred at the point of sale with 54.8% of students age 13-17 who visited a vendor noticing advertisements in the past month. Online advertizing of tobacco use was also quite common with 43.6% of students who accessed the internet in the past month noticing tobacco product ads. Out of those respondents, 29.7% saw videos that promoted tobacco use as "fun" or "cool". Tobacco use is also frequently observed by students in television, videos and movies, with 77% of students who accessed these media noticing tobacco use in the past month. Finally, although Samoa is a small market for tobacco companies, almost 1 out of 10 students age 13-17 (9.7%) reported being offered free cigarettes by a tobacco company representative.

These findings suggest multiple areas of intervention in terms of addressing the promotion of tobacco use;

- Vendor regulations on the advertisement of tobacco products
- Health promotion campaigns to counter online tobacco promotion
- Encourage country participation in global health awareness initiatives to depict smoking as harmful within movies, videos, and television
- Strengthen Ministry of Health partnership with law enforcement to up-scale monitoring and enforcement targeting tobacco companies in Samoa and their tobacco product promotions to youth. Strengthening health sector enforcement capacity is a priority area for Samoa under the FCTC-2030

Knowledge and Attitudes

- *The majority (73.4%) were aware that other peoples' smoking was harmful to them.*
- *Only 14.1% of students thought it was difficult to quit once starting tobacco use*
- *One in 10 students (10.3%) would use a tobacco product if their best friend offered it to them, more so with boys (15% compared to 5.8% of girls).*

Though the majority of students are aware of the harmful effects of tobacco (73%), only 14.1% definitely thought that it was difficult to quit once someone starts smoking tobacco. This is a key message to deliver through health promotion, and indicates a vulnerability of youth ages 13-17 to tobacco use due to this lack of knowledge. Additionally, a significant portion of students age 13-17 (34.9%) thought that smoking tobacco helps people feel more comfortable at social events. This further elaborates on the social elements of smoking in Samoa discussed in previous sections. Youth purchase

cigarettes together, share tobacco products, use them at friends' houses, and use tobacco at social events to feel more comfortable. Many students have friends that smoke and would use tobacco if offered by their friends (10.3%). Social pressure is likely a major factor in initiation for youth. This social dimension of tobacco use therefore needs to be addressed by interventions, and the same social networks that encourage tobacco use can also be used to promote cessation and prevent initiation.

4.2 Comparison to Previous Tobacco Surveys

In this section, we compare the GYTS 2007 results to the GYTS 2017. Data for GYTS 2007 are only available for age groups 13-15, so only the results for ages 13-15 in GYTS 2017 are provided for comparison. Age groups 13-15 are the standard groups used by the CDC for the international comparison of GYTS data between all partner countries, where age groups 13-17 are used for reporting on national indicators and the Sustainable Development Goals. For some GYTS questions, data were not available between both years of the survey. Only questions with data for comparison of both years are presented in this section to analyze overall change.

Since 2007, tobacco use prevalence remains relatively the same in 2017 with no statistically significant changes in overall tobacco use. However, significant declines are observed in 1) current cigarette smoking among girls, 2) frequent cigarette smoking in girls, 3) current tobacco use among girls, and 4) decreased overall susceptibility to tobacco use and also among girls. Gender disparities still exist where boys use tobacco more than girls and are more susceptible to future tobacco use if they haven't used. Additionally, the reduction in prevalence (though significant) is small for a 10 year period for current cigarette smokers (15% in 2007 to about 11% in 2017), and susceptibility of never smokers (27% in 2007 to about 17% in 2017). For boys, the number of current cigarette smokers actually increased from 16% in 2007 to 17.5% in 2017. This suggests that though much progress has been made at controlling tobacco use prevalence and achieving some reduction, more prevention programming is needed to reinvigorate stagnating progress, as well as address cigarette use in boys (which is increasing).

Table 21: Tobacco Use Prevalence Among Students 13-15 – GYTS Samoa, 2007-2017

Prevalence	Samoa 2007			Samoa 2017		
Tobacco Use	Overall	Boys	Girls	Overall	Boys	Girls
Smoked Tobacco						
Current cigarette smokers	15.2 (11.5 - 19.8)	16.0 (10.3 - 24.0)	12.7 (8.2 - 19.2)	15.0 (7.2 - 15.1)	17.5 (13.4 - 22.5)	3.9 (2.0 - 7.3)
Frequent cigarette smokers	2.4 (1.3 - 4.7)	3.5 (1.6 - 7.5)	1.1 (0.3 - 3.4)	0.9 (0.4 - 2.2)	1.9 (0.9 - 4.0)	0
Ever cigarette smokers	21.9 (16.6 - 28.3)	25.9 (17.4 - 36.6)	17.0 (12.1 - 23.2)	18.3 (14.0 - 23.6)	26.8 (21.6 - 32.8)	10.4 (7.6 - 14.0)
Tobacco Use						
Current tobacco users	23.5 (19.0 - 28.7)	25.8 (19.0 - 33.9)	20.4 (16.1 - 25.5)	15.1 (11.1 - 20.3)	22.5 (17.6 - 28.2)	8.1 (5.4 - 12.0)
Susceptibility						
Never tobacco users susceptible to tobacco use[1]	26.9 (22.3 - 32.0)	28.6 (21.8 - 36.5)	24.6 (18.5 - 31.9)	16.5 (12.9 - 20.8)	20.2 (13.5 - 29.2)	13.5 (10.1 - 17.8)

1 Among current cigarette smokers/2017: Among current tobacco users

While smoking prevalence is seeing a stagnating trend, the willingness and capacity of youth smokers to engage in cessation is high in both 2007 and 2017. The majority of youth smokers have attempted to quit; 82.2% in 2017 and 70.1% in 2007.. Additionally the majority of smokers in both years

have the desire to stop smoking now (89% in 2017 and 66.2% in 2007) and believe they will be able to if they want to (85.4% in 2017 and 73.1% in 2007). These results indicate a clear opportunity for future cessation programming with youth.

Table 22: Cessation Among Students Age 13-15, 2007-2017 GYTS, Samoa.

Prevalence **Cessation**	Samoa 2007 Overall	Samoa 2017 Overall
	Percentage (CI 95%)	
Tried to stop smoking in the past 12 months[1]	70.1 (50.4 - 84.5)	82.2 (68.9 - 90.6)
Want to stop smoking now[1]	66.2 (50.0 - 79.4)	89.0 (65.9 - 97.2)
Thought they would be able to stop[1]	73.1 (52.2 - 87.1)	85.4 (70.0 - 93.6)

[1] Among current cigarette smokers/2017: Among current tobacco smokers

-Estimates based on unweighted cases less than 35 are not presented

Exposure to second hand smoke among students remains considerably high in both 2007 and 2017. For both surveys, exposure to tobacco within the last 7 days in public places is higher compared to at home for students 13-15. There were no significant differences in exposure by gender.

Table 23: Second Hand Smoke Exposure Among Students Age 13-15, 2007-2017 GYTS, Samoa.

Prevalence **Second Hand Smoke**	Samoa 2007 Overall	 Boys	 Girls	Samoa 2017 Overall	 Boys	 Girls
			Percentage (CI 95%)			
Exposed to tobacco smoke at home[1]	59.1 (52.8 - 65.1)	60.8 (54.1 - 67.1)	56.4 (46.6 - 65.8)	49.7 (44.0 - 55.5)	50.8 (42.5 - 59.1)	48.1 (39.5 - 56.7)
Exposed to tobacco smoke inside any enclosed public place[1,2]	62.8 (58.1 - 67.3)	64.8 (57.5 - 71.4)	60.5 (52.3 - 68.2)	55.4 (50.1 - 60.5)	55.9 (49.7 - 61.9)	54.4 (47.6 - 61.0)

[1]During the past 7 days

[2]Before 2012: Public places

No statistically significant changes in students buying cigarettes from retail sources occurred in 2017 compared to 2007. However, the percentage remains notable and consistent with the rise of unlicensed tobacco sales noted in previous sections.

Table 24: Access &Availability Among Students Age 13-15, 2007-2017 GYTS, Samoa.

Access and Availability	Samoa 2007 Overall	 Boys	 Girls	Samoa 2017 Overall	 Boys	 Girls
			Percentage (CI 95%)			
Buying them from a store[1]	36.3 (20.9 - 55.0)	26.6 (15.2 - 42.4)	41.5 (14.2 - 75.3)	44.2 (32.6 - 56.6)	45.7 (32.0 - 60.0)	-

[1]2017: Bought cigarettes from a store, shop, street vendor, or stall, -Estimates based on unweighted cases less than 35 are not presented

Overall, exposure to tobacco industry advertisements on media has declined in the past 10 years among students age 13-15. However, current exposure remains significantly high in 2017 with 75.4% of

students noticing tobacco use in film media, however this has significantly decreased since 2007The tobacco industry is still reaching out to youth with roughly 1 out of 10 students being offered free cigarettes by a tobacco company, and roughly 1 in 10 students owning items with tobacco branding. Both of these findings have not significantly changed from 2007-2017.

Table 25: Exposure to Tobacco Industry Advertizing Among Students Age 13-15, 2007-2017 GYTS, Samoa.

	Samoa 2007			Samoa 2017		
Tobacco Industry Advertizing	Overall	Boys	Girls	Overall	Boys	Girls
	Percentage (CI 95%)					
Noticed anyone using tobacco on television, videos, or movies	90.9 (87.2 - 93.6)	90.7 (83.9 - 94.8)	91.4 (87.6 - 94.1)	75.4 (71.3 - 79.1)	77.5 (73.5 - 81.1)	73.1 (65.8 - 79.2)
Ever offered a free tobacco product from a tobacco company[1]	14.8 (11.9 - 18.4)	20.3 (15.2 - 26.7)	10.5 (7.6 - 14.3)	10.6 (7.9 - 14.1)	14.7 (10.7 - 20.0)	6.5 (4.3 - 9.9)
Owned something with a tobacco brand logo on it	21.5 (17.1 - 26.7)	26.0 (21.4 - 31.2)	16.9 (10.9 - 25.4)	13.3 (9.8 - 17.6)	18.7 (12.8 - 26.6)	7.8 (5.5 - 11.0)

[1]Before 2012: Offered free cigarettes from a cigarette representative

Conversely, students 13-15 noticing anti-tobacco messages in the media have not significantly changed from 81% in 2007 to 72.4% in 2017. However, significantly less girls report noticing tobacco use in the media. Students notice significantly less anti-tobacco messages at sporting or community events as well, declining from 77.6% in 2007 to 64.9% in 2017, significantly more so with girls. More students reported being taught about the dangers of tobacco in school, 44.9% in 2007 to 59.4% in 2017 (though this is not statistically significant increase at the a=0.05 level).

Table 26. Exposure to Anti-Tobacco Advertizing Among Students Age 13-15, 2007-2017 GYTS, Samoa.

	Samoa 2007			Samoa 2017		
Anti-Tobacco Advertizing	Overall	Boys	Girls	Overall	Boys	Girls
	Percentage (CI 95%)					
Anti-tobacco messages in the media	81.0 (74.7 - 86.0)	79.5 (70.9 - 86.0)	82.7 (76.6 - 87.5)	72.4 (69.3 - 75.3)	72.7 (67.1 - 77.7)	72.2 (68.6 - 75.4)
Anti-tobacco messages at sporting or community events	77.6 (72.6 - 81.9)	76.6 (70.3 - 82.0)	79.1 (72.5 - 84.4)	64.9 (58.7 - 70.6)	66.6 (59.1 - 73.3)	63.0 (55.5 - 70.0)
Taught in school about the dangers of tobacco use	44.9 (35.7 - 54.4)	45.8 (33.2 - 59.1)	45.1 (36.2 - 54.4)	59.4 (53.6 - 64.9)	58.5 (51.1 - 65.5)	60.7 (55.5 - 65.6)

There have also been major shifts in the knowledge and attitudes of youth between 2007 and 2017. In 2007, only 38% of students age 13-15 definitely thought that other peoples' smoking harmed them. However, in 2017, this significantly increased to 84.3%, with significant increases for boys and girls from 2007. Secondly, in 2007 only 41% of students favored a ban of smoking inside enclosed public places, which significantly increased to over 90.3% in 2017, with significant increases for both genders.

This is a massive change in the perceptions of youth, and represents an opportunity for tobacco control to mobilize and engage youth in prevention.

Table 27: Knowledge and Attitudes of Tobacco Use Among Students Age 13-15, 2007-2017 GYTS, Samoa.

	Samoa 2007			Samoa 2017		
Knowledge and Attitudes	Overall	Boys	Girls	Overall	Boys	Girls
	Percentage (CI 95%)					
Definitely thought other people's tobacco smoking is harmful to them	38.0% (30.8 - 45.8)	35.8% (27.4 - 45.3)	40.9% (31.1 - 51.4)	84.3% (79.4 - 88.2)	81.1% (74.4 - 86.3)	87.7% (83.8 - 90.8)
Favored banning smoking inside enclosed public places[4]	41.2% (34.9 - 47.8)	49.0% (38.9 - 59.1)	35.0% (29.2 - 41.3)	90.3% (87.1 - 92.7)	88.1% (84.0 - 91.2)	92.4% (89.0 - 94.8)

[1]Before 2012: Public places

4.3 Relevance to the WHO Framework Convention on Tobacco Control (FCTC)

GYTS methodology provides an excellent framework for monitoring and guiding the implementation of school tobacco control programs while making it compliant with the requirements of FCTC. Samoa's participation in GYTS addresses the first element of MPOWER (Monitor tobacco use and prevention policies) for youth, and GYTS asks students a range of questions that spans many of the remaining elements of MPOWER. The resulting data are critical for gauging Samoa's progress toward fully implementing the elements of MPOWER among its youth. The information provided by GYTS can address several provisions of the FCTC that relate to the role of school personnel and the comprehensive school tobacco control policy.As part of Samoa's commitment to the FCTC-2030 and MPOWER, the results of this survey will be disseminated broadly, and ideally, used to adopt and implement effective legislative measures for preventing and reducing tobacco consumption, nicotine addiction, and exposure to tobacco smoke.

In this section, we will highlight key data points within the context of the MPOWER elements. These elements are;

- *Protect people from tobacco smoke*
- *Offer help to quit tobacco use*
- *Warn about the dangers of tobacco*
- *Enforce bans on tobacco advertizing, promotion and sponsorship*
- *Raise taxes on tobacco products*

Protect people from tobacco smoke:

The GYTS data show that 44.8% of students are around others who smoke in outdoor public places, 42.3% in enclosed public places, and 19.2% live in homes where others smoke in their presence. Additionally 66.2% witnessed tobacco use occurring within their school grounds. In terms of social factors that increase exposure to second hand smoke, 37.1% had a least 1 parent that smoked and 26.9% had at least one close friend that smoked tobacco.

These data indicate that, despite current smoking regulations in Samoa, public places and schools remain significant environments where youth age 13-17 are exposed to second hand smoke. The Samoan government has committed to the creation of smoke-free environments, as evidence by the Apia Waterfront Development Project and preparations for the South Pacific Games 2019. These developments should also be tailored to youth and implemented in other settings in order to protect students from tobacco smoke.

Offer help to quit tobacco use:

Results from GYTS show overwhelmingly that students who currently smoke are interested in quitting. Of students who currently smoke:

- *48.3% want to stop smoking.*
- *48.2% tried to stop smoking in the past year.*
- *52.9% have ever received help to stop smoking.*

Currently there are no national cessation mechanisms or programme in place. These results highlight the need for such programming, with special strategies for engaging youth.

Warn about the dangers of tobacco:

During the past year, 62% of students had been taught in class about the dangers of smoking. This means that many important information on tobacco use, reasons for smoking initiation, and the addictive properties of tobacco are not being delivered in the current curriculum on an adequate basis.

Enforce bans on tobacco advertising, promotion, and sponsorship:

The GYTS data show that 76% of students saw anti-smoking media messages in the past 30 days on television, radio, or movies. In the past 30 days, 43% saw pro-cigarette ads online. Furthermore, 12.8% of students have an object with a cigarette brand logo and 9.7% were offered free cigarettes by a tobacco company representative. So while Tobacco Control Regulations were implemented in 2013, students receive considerable exposure to pro-tobacco marketing, which can be addressed through enforcement or additional policy measures to further restrict marketing.

Raise taxes on tobacco products:

All students age 13-17 (smokers and non-smokers) were asked to estimate the cost of a pack of 20 cigarettes. Roughly 51% estimated the cost of a pack of 20 to be between $11.00 and 13.99 Samoa Tala, or 0.55-0.70 cents per stick. Amongst all students, the majority of individuals had less than $30.00 Samoan Tala available to spend on whatever they wanted within an average week, and roughly 23% had no available money to spend on themselves on an average week. Additionally, the current minimum

wage is set at $2.50 as of 2019. Subsequently, cigarettes are the main unit of purchase among cigarette smokers age 13-17 (35.6%) which are shared amongst friends (41.8% of smokers get tobacco from non-retail sources), because a pack would cost nearly half of their weekly budget, and significant portion of their working wage as the minimum rate.

This is consistent practices of vendors and non-licensed individuals, where individual sticks are sold at around 0.80 cents. People often don't have enough income to purchase whole packs, and vendors therefore respond to demand by selling sticks. There is also a growing issue of people selling sticks without a license to supplement their household income. Youth have more access to these types of tobacco transactions. All of these factors contribute to tobacco sales to youth being highly under-regulated despite the existence of robust tobacco control legislation and regulations (2008 and 2013 respectively).

Therefore, further amendments to the current tobacco taxes will have to consider youth income and access when deciding the rate at which to increase tax. There is also no guarantee that increasing the tax will affect unlicensed sales, which predominantly occur to youth. Enforcement must therefore also be prioritized to ensure taxation policies result in impacts to youth consumption.

5. RECOMMENDATIONS

The GYTS identified numerous areas of public health response to the latest trends in tobacco use. This section will outline broad recommendations with corresponding GYTS findings as well as recommendations aligned with health sector priorities and commitments under the FCTC-2030.

1. **Strengthen enforcement of Tobacco Control Act and Regulations among vendors, schools, and public places covered by the current ban**

    a) *Ensure vendors comply to the age restrictions of tobacco sales-* Many students in 2017 are not being stopped from purchasing tobacco products at vendors due to their age (39.3%). This is a clear action for enforcement under the current laws and regulations

    b) *Strengthen enforcement of restrictions for the unit of sale-*The most common unit of cigarettes bought by students was individual sticks (55.9%) due to low access to income among students and the sharing of purchased cigarettes.

    c) *Amend legislation and strengthen enforcement of existing regulations to address the unlicensed sale of tobacco products. This will also require partnership with communities to reduce the sharing of individually purchased tobacco-* For students age 13-17, 49.9% obtained tobacco from a non-retail source.

    d) *Regulate tobacco advertizing at the point of sale-*The most common form of tobacco advertisement occurred at the point of sale with 40% of students age 13-17 who visited a vendor noticing advertisements in the past month.

    e) *Use existing regulation and legislation to reduce the distribution of tobacco branded promotional items-*A significant percentage of students age 13-17 reported currently owning a tobacco branded item (12.8%). Additionally, and even larger portion (40.7%) indicated that they either own something with tobacco branding or might use or wear a tobacco branded item. These students are considered highly receptive to tobacco marketing and therefore at risk for future tobacco use.

    f) *Strengthen monitoring, enforcement, and compliance of the ban of smoking on school grounds-* Overall, 66.2% of students observed tobacco use occurring on school grounds within the last month, despite this activity being illegal.

2. ***Establish a national cessation programme-*** Youth ages 13-17 are both willing and ready to engage in cessation. More youth smokers have attempted to quit (82% in 2017 for age 13-15 than 2007). Additionally more youth smokers have the desire to stop smoking now (89% in 2017 compared to 66% in 2007) and believe they will be able to if they want to (85% in 2017 compared to 73% in 2007). These results indicate a clear population need, but also a great capacity to successfully implement a national cessation initiative. This is also a need of the general population, all age groups. A national cessation programme could use both schools and youth-focused civil society organizations as mechanism for reaching students age 13-17.

3. ***Ensure all interventions address gender disparities in tobacco use, which is more prevalent in boys (specifically cigarettes)-*** For gender, Tobacco use is higher in boys across all categories.

4. ***Expand multi-sectoral smoke-free environment initiatives with special design to reach youth age 13-17-***In public, 51.7% of students were exposed to tobacco smoke in enclosed public places and 58.5% in outdoor public places in the past week.

5. ***Integrate tobacco control and prevention with Non-communicable Disease programming to expand the scale of current health promotion regarding tobacco use***

6. ***Mobilize school youth in prevention and health advocacy-***With regards to public smoking,91% and 92% of students favored banning smoking in enclosed and outdoor public places respectively. Additionally, 86.4% of smokers age 13-17 want to quit now. These results indicate a strong capacity to engage in health advocacy.

7. ***Strengthen the delivery of tobacco and health curriculum within public schools-***Overall, 62% of students reported having been taught in school about the dangers of tobacco during the preceding school year.

8. ***Health promotion campaigns and interventions need to be scaled-up and expanded to other media platforms in order to counter tobacco promotion and reinvigorate stagnating progress in tobacco use prevalence-*** *The reduction in tobacco use prevalence (though significant) is small for a 10 year period for current cigarette smokers (15% in 2007 to about 11% in 2017), suggesting the need to intensify health promotion.*

    a) *Use elements of the impactful cigarette package health warningsin health communication on tobacco use-* Out of students age 13-17 that currently smoke, 86.3% noticed these health warnings on the package and 69% of those smokers thought about quitting because of those messages. As for the students who reported never smoking, 42.6% reported also noticing these health warnings, which made them think of never starting tobacco use.

    b) *Bring anti-tobacco health promotion to online platforms-* Online advertizing of tobacco use was quite common with 43.6% of students who accessed the internet in the past month noticing tobacco product ads.

    c) *Implement interventions that have a social network approach to prevention and cessation-*One in 10 students (10.3%) would use a tobacco product if their best friend offered it to them, more so with boys (15% compared to 5.8% of girls). Additionally 26.9% have at least one close friend that smokes, and 37.1% have a parent that smokes. Approximately 19.2% were exposed to smoke within their home by family members.

9. ***Encourage country participation in global health awareness initiatives to depict smoking as harmful within movies, videos, and television-*** Among students that used the internet in the past 30 days, 43.6% saw advertisements for tobacco products online, 29.7% of which saw videos that promoted tobacco smoking as fun or cool.

10. ***Strengthen Ministry of Health partnership with law enforcement to target tobacco companies in Samoa and their tobacco product promotions to youth-***Strengthening health sector enforcement capacity is a priority area for Samoa under the FCTC-2030. 54.8% of students who

visited a point of sale in the last 30 days noticed tobacco advertisements. Additionally, 9.7% (roughly 1 out of 10) were offered free cigarettes by a tobacco company representative.

11. Implement further tobacco use surveillance such as GYTS or research studies with youth age groups

a) *Implement the next GYTS 2027 as an interviewer-guided survey,* where field staff are trained to counsel respondents in order to reduce desirability-bias where girls are less likely to report smoking than boys, and youth are less likely to report smoking in general. This can improve data on female smokers.

b) *Solicit and prioritize tobacco research proposals that deal with youth and tobacco use risk factors or social determinants*

c) *Prioritize research on behaviors of youth smokers to design prevention and cessation programs*

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