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Executive Summary
NCD Mobile Phone Survey

1. Overview

This report summarizes results from the Philippines Noncommunicable Diseases (NCD) Mobile Phone Survey conducted in 2021. NCDs are the leading cause of death worldwide and according to the World Health Organization country profiles in 2017, NCDs are estimated to account for 68% of all deaths in the Philippines [1]. It is estimated that the probability of Filipinos and Filipinas aged 30-70 years dying from one of the four main NCDs is 29% (cancer, cardiovascular diseases, diabetes and chronic respiratory disease) [1]. The high human costs due to NCDs contribute to rising health-care costs and social care and welfare resulting in reduced productivity. A 2019 report from the World Health Organization estimated that the economic costs of NCDS to the Philippine economy was PHP 756.5 billion per year or 4.8% of the country's annual gross domestic product [2]. Though NCDs result in high in human and economic costs the impact can be reversed by modification of population behavior including reducing tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity.

Efficient monitoring and surveillance efforts to track the progress of the NCD burden, related risk factors, and policy interventions are key to an effective response to combat NCDs. The systematic monitoring of risk factors to generate accurate and timely data is essential for Philippines' ability to prioritize crucial resources and make sound policy decisions to address the growing NCD burden.

Globally increasing access and use of mobile phones provide opportunities to use mobile phone technology as an interim method to collect data and supplement household surveys. The Philippines has one of the highest mobile phone penetration rates of 154.8 mobile cellular subscriptions (per 100 people) [3]. In 2018 the Philippines' Department of Health spear-headed one of the first national surveys on NCDs risk factors using mobile phone technology. Given the success of the 2018 data collection effort the Philippines is the first country to repeat the NCD mobile phone survey using a global standard protocol to further enhance the Department of Health's capacity to monitor NCDs.

The Philippines was the second country to implement the NCD Mobile Phone Survey in 2018. Given the success of implementation, the Philippines has been selected as the first sites to repeat the initiative and implement the NCD Mobile Phone Survey using a globally standard protocol, to further enhance the country's capacity to monitor NCDs.

In the 2021 NCD mobile phone survey, 3,087 individuals subscribed to the Globe, Smart, and Sun mobile phone networks participated in the survey using short message service (SMS) and mobile web modes.

The survey was the culmination of significant work by the Department of Health, including but not limited to telecommunications approval from the Philippines National Telecommunications Commission, agreements with mobile network aggregators, data hosting, and management at the Philippines Knowledge Management and Information Technology Service at the Department of Health. The Department of Health, Epidemiology Bureau led questionnaire development, sampling, the mass media campaign, data collection, and analysis. Technical assistance was provided by the US Centers for

Disease Control and Prevention, RTI International, and InSTEDD. Bloomberg Philanthropies Data for Health Initiative provided financial support through the CDC Foundation.

This report is structured as follows:

- Goals (Section 2)
- Design and Implementation (Section 3)
- Results (Section 4)
- Conclusions (Section 5)

2. Goals

The goal of the Philippines 2021 NCD mobile phone survey is to provide nationally representative estimates of indicators that can provide information on NCDs to help make programmatic recommendations to improve and enhance NCD prevention and response in the Philippines. In addition to providing data to inform NCD prevention and response strategies, findings from the 2021 survey will also be compared to the results of the 2018 survey to help assess the feasibility and reliability of mobile phone survey data. The results may be used to supplement results of key behavior risk factors assessed in the WHO Stepwise survey or other national surveillance systems.

The NCD Mobile Phone Survey included 18 core questions on the following topics:

- Demographics
- Tobacco Use
- Alcohol Use
- Diet (Fruit, Vegetable, and Salt Consumption)
- Diabetes
- Hypertension

In order to facilitate comparison between the 2021 and the 2018 NCD Mobile Phone Survey the same questionnaire was used.

3. Design and Implementation

3.1 Design

The design parameters used for the NCD Mobile Phone Survey are shown below in Table 1.

Table 1. Mobile Phone Survey Design

Component	***Design***
Mode	SMS and mobile web
Mode Strategy	The primary mode of contact was SMS with mobile web as the fallback. The "fallback" mode initiated if the respondent did not complete the survey in the primary mode.

Sample	A two-phase sample of mobile phone numbers generated via random digit dialing (RDD), using the mobile phone prefixes for Globe, Smart, and Sun stratified by age and sex in the second phase.
Number of Interviews	3,087 interviews, allocated proportionally across strata to the general population distribution.
Strata	6 strata, created by crossing sex (male, female) with age (18-29, 30-44, 45+)
Questionnaire	The NCD Mobile Phone Survey questionnaire, which included 20 questions in 2 languages: Filipino and English.
Contact times	All 7 days of the week, between 8am and 8pm each day
Contact attempts	• Contact #1: SMS • Contact #2: SMS, 26 hours after Contact #1 • Contact #3: Mobile Web, 26 hours after Contact #2 • Contact #4: Mobile Web, 26 hours after Contact #3
Cost to Respondents	None. Incoming SMS messages are free. The channels were configured to not invoice any data charges to respondents.
Incentives	Every person who completed the survey were sent 50 Pesos load.
Tool and Hosting	Surveda, with data hosted at the Philippines Department of Health

3.2 Implementation

The Philippines NCD Mobile Phone Survey implementation process consisted of four stages: Planning and Pre-Test, Full-scale Data Collection, Data Management and Analysis, and Data Release and Use.

Data collection was conducted in a phased approach starting with Smart mobile subscribers, followed by Globe and Sun; data collection for SMART and Globe commenced on December 13th and 16th respectively. Data collection was paused on December 20th for the end/new year holidays. Data collection resumed on January 10th for SMART and Globe. Data collection for SUN subscribers commenced on January 13th. A total of 3,087 individuals completed or partially completed (defined as answering at least four NCD behavior or risk factor questions) the survey through the three major mobile network operators in 45 days.

4. Results

This section presents the following results:

- Demographics and Response Rates (section 4.1)
- Tobacco Use (section 4.2)
- Alcohol Use (section 4.3)
- Diet (section 4.4)
- Diabetes (section 4.5)
- Hypertension (section 4.6)
- 2021 vs. 2018 NCD MPS Survey Comparison (section 4.7)

4.1 Demographics and Response Rates

The Philippines Mobile Phone Survey included 3,087 interviews across six age by sex groups. Table 2 shows the Mobile Phone Demographic distribution compared to the 2020 Philippines Statistical Authority population national statistics for sex and age.

As designed the Mobile phone sample was drawn to match the six age by sex groups, with equal representation of men and women, and approximately a third of the 3,087 respondents represented in the each of the age categories.

Survey respondents were asked to provide their highest level of completed education; 7 in 10 respondents reported achieving a college degree or higher, 1 in 10 completed a Post-secondary level as well as a Secondary level (Table 2).

Table 2. Mobile Phone Survey Demographics

	Mobile Phone Sample		National*	
Sex	3,087		69,520,612	
Men	1,532	49.6%	50.0%	
Women	1,555	50.4%	50.0%	
Age				
18-29	1,071	34.7%	32.9%	
30-44	1,008	32.7%	31.8%	
45+	1,008	32.7%	35.2%	
Highest Educational Attainment	**Mobile Phone Sample**		**Mobile Phone Sample**	
			Men	**Women**
College or higher	73.9%		75.3%	72.5%
Post-secondary (Vocational)	10.7%		10.5%	10.9%
Secondary (Senior High School)	12.7%		11.4%	14.0%
Elementary	1.5%		1.2%	1.8%
No formal education	1.1%		1.5%	0.8%

*July 2020 population data provided by Philippines Statistical Authority

To achieve the 3,087 interviews, we sent invitations to 154,551 mobile phone numbers. Due to the nature of the RDD (random digit dialing) sampling, it was expected that many of these mobile phone numbers were invalid or non-working. Out of these, 9,677 provided some sort of response but only 5,703 consented and provided the age and sex information necessary to be eligible to participate: 3,341 females and 2,362 males. Of these, 296 were ineligible due to age, and 1,837 respondents of eligible age were rejected due to stratum sample size being full. The result was 3,570 eligible respondents, of which 3,087 provided interviews (completed or partial) with known sex. Completed interviews were defined as answering all survey questions. Partial interviews were defined as answering at least four NCD questions and not finishing the survey. The interview rate was 86.5% and the overall response rate was 3.2%, which is described in detail below.

The final disposition codes for this sample are shown in Table 3.

Table 3. Final disposition codes for all dialed mobile phone numbers

Disposition	Definition	n	Percent
1. Complete (I)	Answered all survey questions	2,816	1.8%

2. Partial (P)	Answered at least four NCD question but did not finish the survey	271	0.2%
3. Breakoff: Eligible (O)	Answered age and sex questions but did not answer any NCD questions	483	0.3%
4. Ineligible: Age	Under age 18	296	0.2%
5. Ineligible: Quotas	Answered age and sex questions but quotas were full	1,837	1.2%
6. Refused	Refused consent	3,047	2.0%
7. Breakoff: unknown eligibility	Answered some questions but stopped before age or sex	927	0.6%
8. No answer	No answer, possibly nonworking number	144,874	93.7%
Total		**154,551**	

In this project, the sampling design involved two Phases. Each phase had a response rate. The final response rate was the product of Phase I and Phase II response rates.

$$Phase\ I\ Response\ Rate = \frac{Number\ MPNs\ screened}{Number\ MPNs\ dialed}$$

Or,

$$Phase\ I\ Response\ Rate = \frac{5{,}703}{154{,}551} = 0.0369$$

$Phase\ II\ Response\ Rate\ RR6_s = \frac{IP_s}{IP_s + O_s}$, for stratum *s*.

RR_6 was derived from the 2016 Standard Definitions of the American Association for Public Opinion Research (AAPOR). Phase II stratum-specific response rates (RR #6) are in Table 4:

Table 4. Phase II response rates for stratum *s*

Age	**Males**	**Females**
18-29	$RR6_1 = 0.8729$	$RR6_2 = 0.8813$
30-44	$RR6_3 = 0.8468$	$RR6_4 = 0.8430$
45+	$RR6_5 = 0.8717$	$RR6_6 = 0.8650$

The overall response rate is the product of Phase I and Phase II response rates, resulting in an overall response rate for the entire NCD Mobile Phone Survey in Philippines:

$$RR6_{overall} = \frac{IP_{overall}}{IP_{overall} + O_{overall}} * RR_{Phase\ I} = \frac{3{,}087}{3{,}087 + 483} * 0.0369 = 3.19\%$$

4.2 Tobacco Use

Overall, 16.1% of adults (aged 18 years and older) reported current tobacco use in the form of smoked or smokeless tobacco products (23.4% among men and 8.9% among women). The prevalence of current tobacco smokers among all adults was 15.5%, and the prevalence of current smokeless tobacco users was 3.9% for all adults. Men reported higher rates of current tobacco smoking compared to women (22.6% among men and 8.5% among women), as well as for current smokeless tobacco use (6.2% among men and 1.6% among women.) Men also reported higher rates of daily tobacco smoking compared to women (13.4% vs. 4.4% respectively).

Table 5 shows key outcomes from the 2021 NCD Mobile Phone Survey on tobacco use.

Table 5. Tobacco Use Overall and by Sex

Tobacco Use	Overall		Males		Females	
Tobacco Smokers	**%**	**(95% CI)**	**%**	**(95% CI)**	**%**	**(95% CI)**
Current tobacco smokers	15.5	(14.2 - 16.8)	22.6	(20.4 - 24.7)	8.5	(7.1 - 9.9)
Daily tobacco smokers	8.9	(7.9 - 9.9)	13.4	(11.7 - 15.1)	4.4	(3.4 - 5.5)
Smokeless Tobacco Users						
Current smokeless tobacco users	3.9	(3.2 - 4.6)	6.2	(5 - 7.5)	1.6	(1 - 2.2)
Daily smokeless tobacco users	1.9	(1.4 - 2.4)	3.2	(2.3 - 4.1)	0.6	(0.2 - 1)
Tobacco Users (any use)						
Current tobacco users	16.1	(14.9 - 17.4)	23.4	(21.2 - 25.5)	8.9	(7.5 - 10.4)

4.3 Alcohol Use

Four in ten adult Filipinos consumed alcohol in the past 30 days (40.1%), with males reporting higher rates of alcohol consumption than females (51.4% vs. 28.9% respectively). One in three adult Filipinos (33.1%) reported drinking six or more drinks in a single drinking occasion. Men reported higher rates of heavy drinking occasions than females (43.2% vs. 22.9%.)

Table 6 shows reported alcohol use overall and by sex from the NCD Mobile Phone Survey.

Table 6. Alcohol Use overall and by Sex

Alcohol Use	Overall		Males		Females	
	%	**(95% CI)**	**%**	**(95% CI)**	**%**	**(95% CI)**
Current alcohol users (past 30 days)	40.1	(38.4 - 41.8)	51.4	(48.9 - 53.9)	28.9	(26.6 - 31.1)
Heavy episodic drinkers (percentage of drinkers had 6+ drinks)	33.1	(31.4 - 34.7)	43.2	(40.7 - 45.8)	22.9	(20.8 - 25)

4.4 Diet

Regarding salt consumption, two out of five (39.5%) of adult Filipinos always or often added salt or salty sauces to their food before eating. Three out of five (60.2%) adults reported always or often added salt in some form to food when cooking or preparing foods. Approximately one third (31.4%) of adult Filipinos reported always or often eating processed foods high in salt.

For fruit and vegetable consumption, 90.1% of all adult Filipinos consumed less than five servings of fruit or vegetables per day with an average of 1.3 servings of vegetables and 1.2 servings of fruits per day. Less than 1% reported consuming no fruits or vegetables per day.

Table 7 presents salt, fruit, and vegetable consumption overall and by sex.

Table 7. Diet Overall and by Sex

Diet	Overall		Males		Females	
Salt Consumption	**%**	**(95% CI)**	**%**	**(95% CI)**	**%**	**(95% CI)**
Always or often add salt or salty sauce to food before eating or as they're eating	39.5	(37.8 - 41.3)	38.0	(35.6 - 40.5)	41.0	(38.5 - 43.5)
Always or often add salt or salty seasoning when cooking or preparing foods	60.2	(58.5 - 62)	57.7	(55.2 - 60.3)	62.7	(60.2 - 65.2)
Always or often eat processed foods high in salt	31.4	(29.7 - 33)	30.4	(28 - 32.7)	32.4	(30 - 34.8)
Fruit Consumption	**Mean**	**(95% CI)**	**Mean**	**(95% CI)**	**Mean**	**(95% CI)**
Average number of days per week fruits are consumed	3.4	(3.3 - 3.4)	3.4	(3.3 - 3.5)	3.3	(3.2 - 3.4)
Average number of servings of fruit consumed per day	1.2	(1.1 - 1.2)	1.2	(1.1 - 1.3)	1.1	(1.1 - 1.2)
Vegetable Consumption	**Mean**	**(95% CI)**	**Mean**	**(95% CI)**	**Mean**	**(95% CI)**
Average number of days per week vegetables are consumed	4.1	(4.1 - 4.2)	4.1	(4 - 4.2)	4.1	(4 - 4.2)
Average number of servings of vegetables consumed per day	1.3	(1.3 - 1.4)	1.4	(1.3 - 1.4)	1.3	(1.3 - 1.4)
Fruit and Vegetable Consumption	**%**	**(95% CI)**	**%**	**(95% CI)**	**%**	**(95% CI)**
Consume less than five servings of fruits OR vegetables per day	90.1	(89 - 91.2)	90.0	(88.4 - 91.5)	90.3	(88.8 - 91.8)
Consume no fruits and vegetables per day	0.4	(0.2 - 0.6)	0.3	(0 - 0.5)	0.5	(0.2 - 0.8)

4.5 Raised Blood Glucose or Diabetes

Overall, 12.7% of adult Filipinos indicated they were ever told they had raised blood glucose or diabetes (14.1% among men and 11.3% among women). Of those, 49.2% reported that they were currently on medication for raised blood glucose or diabetes.

Table 8 shows the rates of self-reported raised blood sugar or diabetes.

Table 8. Raised Blood Glucose/Diabetes Overall and by Sex

Raised Blood Glucose/Diabetes	Overall		Males		Females	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Diagnosed by doctor or health care professional with raised blood glucose/diabetes	12.7	(11.5 - 13.9)	14.1	(12.4 - 15.8)	11.3	(9.7 - 12.9)
Currently taking medication for raised blood glucose/diabetes	49.2	(44.1 - 54.3)	48.9	(42 - 55.8)	49.6	(42 - 57.3)

4.6 Raised Blood Pressure or Hypertension

One quarter of adult Filipinos, 25.8%, reported that they had ever been diagnosed by a doctor or health care professional with raised blood pressure or hypertension (29.8% among men and 21.8% among women). Among those who reported they were diagnosed with raised blood pressure or hypertension 54.5% were currently on medication for the said condition.

Table 9 shows the rates of self-reported raised blood pressure or hypertension.

Table 9. Raised Blood Pressure/Hypertension Overall and by Sex

Raised Blood Pressure/Hypertension	Overall		Males		Females	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Diagnosed by doctor or health care professional with raised blood pressure/hypertension	25.8	(24.3 - 27.3)	29.8	(27.6 - 32)	21.8	(19.9 - 23.8)
Currently taking medication for raised blood pressure/hypertension	54.5	(51.0 - 58.0)	51.1	(46.5 - 55.7)	59.1	(53.7 - 64.5)

4.7 2021 vs 2018 NCD MPS Comparison

The 2021 NCD MPS used the same process and implementation protocol that was used in the first Philippines NCD MPS conducted in June 2018. As mentioned the same questionnaire was used to collect NCD risk factor data for adults aged 18 years and older. To determine differences between the first and second survey, p-values based on the t-statistic were calculated using SUDAAN.

Tobacco use prevalence significantly decreased among adults from 19.3% in 2018 to 16.1% in 2021, (from 30.1% to 23.4% among men). This represents a 15.8% relative decline in current tobacco use in the form of smoked and smokeless tobacco (22.2% decline for men). The prevalence of current tobacco smoking among adults significantly decreased from 18.4% in 2018 to 15.5% in 2021, (from 29.0% to 22.6% among men). Likewise, the prevalence of current smokeless tobacco smoking among adults also significantly declined from 5.2% in 2018 to 3.9% in 2021.

Current alcohol use among adult Filipinos significantly increased from 36.3% in 2018 to 40.1% in 2021 (from 20.8% to 28.9% among women). The prevalence of heavy episodic drinking among men declined from 48.7% in 2018 to 43.2% in 2021, but women who reported that they had six or more drinks in a single drinking occasion increased from 18.5% in 2018 to 22.9% in 2021.

When comparing dietary salt consumption, there was an increase among adult Filipinos who always or often ate processed foods high in salt 27.0% in 2018 to 31.4% in 2021 (from 26.1% to 32.4% among women). There was a significant decline in the average number of servings of fruit consumed per day from 1.3% in 2018 to 1.2% in 2021.

Self-reported diagnosis of raised blood pressure or hypertension by a doctor or health care professional decreased from 31.1% in 2018 to 25.8 in 2021% (from 29.8% to 21.8% among women). The prevalence of self-reported diagnosis of diabetes by a doctor or healthcare professional also decreased from 15.7% in 2018 to 12.7% in 2021 (from 17.9% to 14.1% among men).

Tables 10 and 11 present the estimates for the 2021 and 2108 NCD mobile phones survey along with corresponding p-values.

Table 10. 2021 % 2018 NCD Mobile Phone Survey Indicators and p-values - Overall

	2021		2018		p-value
Tobacco Use	**n**	**%**	**n**	**%**	
Tobacco Smokers					
Current tobacco smokers	3,014	15.5	3,631	18.4	0.0044
Daily tobacco smokers	3,014	8.9	3,631	11.5	0.0027
Smokeless Tobacco Users					
Current smokeless tobacco users	2,992	3.9	3,503	5.2	0.028
Daily smokeless tobacco users	2,992	1.9	3,503	2.4	0.246
Tobacco Users (any use)					
Current tobacco users	3,029	16.1	3,657	19.3	0.003
Alcohol Use					
Current alcohol users (past 30 days)	3,010	40.1	3,465	36.3	0.004
Heavy episodic drinkers (percentage of drinkers had 6+ drinks)	2,959	33.1	3,407	33.5	0.721
Raised Blood Pressure/Hypertension					
Diagnosed by doctor or health care professional with raised blood pressure/ hypertension	3,003	25.8	2,980	31.1	0.000
Currently taking medication for raised blood pressure/ hypertension	740	54.5	785	51.6	0.312
Raised Blood Glucose/Diabetes					
Diagnosed by doctor or health care professional with raised blood glucose/diabetes	2,988	12.7	2,932	15.7	0.005
Currently taking medication for raised blood glucose/ diabetes	363	49.2	383	46.1	0.454
Diet					
Salt Consumption					
Always or often add salt or salty sauce to food before eating or as they're eating	2,981	39.5	3,128	40.2	0.615
Always or often add salt or salty seasoning when cooking or preparing foods	2,927	60.2	3,030	62.8	0.072

Always or often eat processed foods high in salt	2,935	31.4	3,021	27.0	0.001
Fruit Consumption	**n**	**Mean**	**n**	**Mean**	
Average number of days per week fruits are consumed	2,937	3.4	3,306	3.4	0.720
Average number of servings of fruit consumed per day	2,850	1.2	3,137	1.3	0.000
Vegetable Consumption	**n**	**Mean**	**n**	**Mean**	
Average number of days per week vegetables are consumed	2,938	4.1	3,217	4.1	0.900
Average number of servings of vegetables consumed per day	2,813	1.3	3,047	1.4	0.860
Fruit and Vegetable Consumption	**n**	**%**	**n**	**%**	
Consume less than five servings of fruits OR vegetables per day	2,932	90.1	3,261	90.3	0.885
Consume no fruits and vegetables	2,994	0.4	3,361	0.4	0.854

Table 11. 2021 % 2018 NCD Mobile Phone Survey Indicators and p-values – Men & Women

	2021 Men		2018 Men		p-value	2021 Women		2018 Women		p-value
Tobacco Use	**n**	**%**	**n**	**%**		**n**	**%**	**n**	**%**	
Tobacco Smokers										
Current tobacco smokers	1,496	22.6	1,751	29.0	*0.0002*	1,518	8.5	1,880	7.9	*0.6017*
Daily tobacco smokers	1,496	13.4	1,751	18.7	*0.0004*	1,518	4.4	1,880	4.3	*0.8269*
Smokeless Tobacco Users										
Current smokeless tobacco users	1,479	6.2	1,691	8.1	*0.073*	1,513	1.6	1,812	2.3	*0.194*
Daily smokeless tobacco users	1,479	3.2	1,691	3.5	*0.680*	1,513	0.6	1,812	1.2	*0.078*
Tobacco Users (any use)										
Current tobacco users	1,502	23.4	1,763	30.1	*0.000*	1,527	8.9	1,894	8.8	*0.845*
Alcohol Use										
Current alcohol users (past 30 days)	1,495	51.4	1,673	51.9	*0.807*	1,515	28.9	1,792	20.8	*0.000*
Heavy episodic drinkers (percentage of drinkers had 6+ drinks)	1,467	43.2	1,641	48.7	*0.007*	1,492	22.9	1,766	18.5	*0.004*
Raised Blood Pressure/Hypertension										
Diagnosed by doctor or health care professional with raised blood pressure/ hypertension	1,485	29.8	1,426	32.5	*0.301*	1,518	21.8	1,554	29.8	*0.000*
Currently taking medication for raised blood pressure/ hypertension	430	51.1	405	49.7	*0.715*	310	59.1	380	53.7	*0.198*
Raised Blood Glucose/Diabetes										
Diagnosed by doctor or health care professional with raised blood glucose/diabetes	1,479	14.1	1,414	17.9	*0.018*	1,509	11.3	1,518	13.6	*0.109*
Currently taking medication for raised blood glucose/ diabetes	201	48.9	214	47.5	*0.800*	162	49.6	169	44.3	*0.384*
Diet										
Salt Consumption										

Always or often add salt or salty sauce to food before eating or as they're eating	1,481	38.0	1,515	38.3	*0.894*	1,500	41.0	1,613	42.2	*0.556*
Always or often add salt or salty seasoning when cooking or preparing foods	1,449	57.7	1,456	62.2	*0.033*	1,478	62.7	1,574	63.4	*0.707*
Always or often eat processed foods high in salt	1,453	30.4	1,449	27.9	*0.201*	1,482	32.4	1,572	26.1	*0.000*
Fruit Consumption	**n**	**Mean**	**n**	**Mean**		**n**	**Mean**	**n**	**Mean**	
Average number of days per week fruits are consumed	1,462	3.4	1,587	3.3	*0.307*	1,475	3.3	1,719	3.5	*0.118*
Average number of servings of fruit consumed per day	1,415	1.2	1,512	1.3	*0.040*	1,435	1.1	1,625	1.3	*0.002*
Vegetable Consumption	**n**	**Mean**	**n**	**Mean**		**n**	**Mean**	**n**	**Mean**	
Average number of days per week vegetables are consumed	1,462	4.1	1,549	4.1	*0.485*	1,476	4.1	1,668	4.2	*0.388*
Average number of servings of vegetables consumed per day	1,405	1.4	1,468	1.4	*0.290*	1,408	1.3	1,579	1.3	*0.460*
Fruit and Vegetable Consumption	**n**	**%**	**n**	**%**		**n**	**%**	**n**	**%**	
Consume less than five servings of fruits OR vegetables per day	1,455	90.0	1,574	88.7	*0.286*	1,477	90.3	1,687	91.9	*0.164*
Consume no fruits and vegetables	1,488	0.3	1,617	0.4	*0.675*	1,506	0.5	1,744	0.4	*0.542*

5. Conclusions

Conclusions:

NCDs and their associated risk factors continue to have profound consequences on the individual and the Filipino society-at-large. The data presented in the 2021 Philippines NCD mobile survey will help the Department of Health as they improve and enhance NCD prevention and response efforts. The timely reporting of mobile phone survey results such as these will also facilitate comparisons over time. Some key outcomes included:

- Overall, 15.5% of adult Filipinos reported as current tobacco smokers, with 9% being daily tobacco smokers. Men were more likely to report current or daily tobacco smoking than women.
- Overall, two in five reported current alcohol consumption, of whom a third reported heavy episodic drinking (33.1%). Men compared to women were more likely to drink alcohol in the past 30 days as well as report being heavy episodic drinkers.
- Nine in ten adults (90.1%) reported consuming less than five servings of fruits or vegetables per day.
- Six in ten (60.2%) reported always or often adding a form of salt as they prepared a meal.
- Two fifths (39.5%) reported always or often adding salt or salty sauces to food before or as they are eating it, and three in ten reported always or often eating processed foods high in salt.
- One quarter (25.8%) reported ever receiving a clinical diagnosis of raised blood pressure or hypertension.
- Approximately one in 10 (12.7%) reported ever receiving a clinical diagnosis of raised blood glucose or diabetes.

Limitations:

The main limitation of any mobile phone survey includes the population's access to a mobile phone. Therefore, the population who do not have access to mobile phones was not represented in this survey. The results of the mobile phone survey were based on self-reports and may be influenced by recall or social desirability bias.

6. References

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