

# **NCD MOBILE PHONE SURVEY IN THE PHILIPPINES**

by

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# Introduction

- NCDs are the leading cause of death worldwide.
- NCDs contribute to 34% of all deaths in the Philippines (WHO 2014 profiles)
- Efficient monitoring and surveillance are cornerstones to track the progress of
  - NCD burden
  - related risk factors, and
  - policy interventions
- The systematic monitoring of risk factors to generate accurate and timely data is essential

# Goal of the Survey

- To provide a nationally representative estimates of indicators that can provide information on NCDs
- To help make programmatic recommendation to improve and enhance NCD prevention and response

# Scope of the survey

- Included 18 core questions with the following topics
  - Demographics
  - Tobacco Use
  - Alcohol use
  - Diet (Fruit, Vegetable, and Salt Consumption)
  - Diabetes
  - Hypertension

# Design

## 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	3,679 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+)

# Design

**Table 1. Mobile Phone Survey Design**

<b>Component</b>	<b>Design</b>
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	<ul style="list-style-type: none"><li>• Contact #1: SMS</li><li>• Contact #2: SMS, 50 hours after Contact#1</li><li>• Contact #3: Mobile Web, 50 hours after Contact #2</li><li>• Contact #4: Mobile Web, 50 hours after Contact #3</li></ul>
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

# Implementation

- Consisted of five stages:
  - Engagement
  - Planning
  - Pre-test
  - Full-scale data collection
  - Data management analysis
  - Data Release and Use

# Demographics

Table 2. Mobile Phone Survey Demographics		
	Mobile Phone Sample	National
<b>Sex</b>	3,679	63,197,960
Male	43.2%	49.9%
Female	56.8%	50.1%
<b>Age</b>		
18 -19	43.4%	34.9%
30 -44	35.8%	31.6%
45+	20.7%	33.6%



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

<b>Disposition</b>	<b>Definition</b>	<b>N</b>	<b>Percent</b>
1. Complete (I)	Answered all survey questions	2,886	0.30%
2. Partial (P)	Answered at least once NCD question but did not finish the survey	793	0.08%
3. Breakoff: Eligible (O)	Answered age and sex questions but did not answer any NCD questions	110	0.01%

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

Disposition	Definition	N	Percent
4. Ineligible: Age	Under age 18	1,463	0.15%
5. Ineligible: Quotas	Answered age and sex questions but quotas were full	2,303	0.24%
6. Refused	Refused consent	542	0.06%
7. Breakoff: unknown eligibility	Answered some questions but stopped before age or sex	3,111	0.32%
8. No answer	No answer, possibly nonworking number	966,749	98.85%

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

<b>Age</b>	<b>Males</b>	<b>Females</b>
18-29	$RR6_1 = 0.98$	$RR6_2 = 0.9854722$
30-44	$RR6_3 = 0.9682779$	$RR6_4 = 0.9616477$
45+	$RR6_5 = 0.9618528$	$RR6_6 = 0.9534884$

<b>Tobacco Use</b>	<b>Overall</b>		<b>Males</b>		<b>Females</b>	
<b><i>Tobacco Smokers</i></b>	% (95% CI)		% (95% CI)		% (95% CI)	
Current tobacco smokers	18.4	(16.9 ,20.0)	29.0	(26.4 ,31.7)	7.9	(6.6 ,9.5)
Daily tobacco smokers	11.5	(10.2 ,12.9)	18.7	(16.4 ,21.3)	4.3	(3.3 ,5.4)
<b><i>Smokeless Tobacco Users</i></b>						
Current smokeless tobacco users	5.2	(4.4 ,6.1)	8.1	(6.6 ,9.8)	2.3	(1.6 ,3.2)
Daily smokeless tobacco users	2.4	(1.8 ,3.1)	3.5	(2.6 ,4.8)	1.2	(0.8 ,1.9)
<b><i>Tobacco Users (any use)</i></b>						
Current tobacco users	19.4	(17.9 ,21.0)	30.1	(27.4 ,32.8)	8.8	(7.4 ,10.4)

## Table 6: Overall Alcohol Use, by Sex

<b>Alcohol Use</b>	<b>Overall</b>		<b>Males</b>		<b>Females</b>	
	%(95% CI)		%(95% CI)		%(95% CI)	
Current alcohol users (past 30 days)	36.3	(34.4 ,38.3)	51.9	(48.9 ,54.9)	20.8	(18.7 ,23.1)
Heavy episodic drinkers (percentage of drinkers had 6+ drinks)	33.5	(31.6 ,35.4)	48.7	(45.7 ,51.7)	18.5	(16.4 ,20.7)

## Table 7. Diet Overall and by Sex

Diet	Overall	Males	Females
<i>Salt Consumption</i>	% (95% CI)	% (95% CI)	% (95% CI)
Always or often add salt or salty sauce to food before eating or as they're eating	40.2 (38.1 ,42.4)	38.3 (35.3 ,41.4)	42.2 (39.2 ,45.2)
Always or often add salt or salty seasoning when cooking or preparing foods	61.9 (59.7 ,64.1)	60.9 (57.7 ,64.1)	62.9 (59.8 ,65.8)
Always or often eat processed foods high in salt	27.0 (25.1 ,29.0)	27.9 (25.1 ,30.9)	26.1 (23.6 ,28.8)

**Table 7. Diet Overall and by Sex**

<b>Diet</b>	<b>Overall</b>	<b>Males</b>	<b>Females</b>
<b><i>Fruit Consumption</i></b>	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)
Average number of days per week fruits are consumed	3.4 (3.3 ,3.5)	3.3 (3.2 ,3.4)	3.5 (3.4 ,3.6)
Average number of servings of fruit consumed per day	1.2 (1.2 ,1.3)	1.3 (1.2 ,1.3)	1.2 (1.2 ,1.3)

## Table 7. Diet Overall and by Sex

Diet	Overall	Males	Females
<b><i>Vegetable Consumption</i></b>	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)
Average number of days per week <i>vegetables</i> are consumed	4.1 (4.1 ,4.2)	4.1 (3.9 ,4.2)	4.2 (4.1 ,4.3)
Average number of servings of <i>vegetables</i> consumed per day	1.3 (1.3 ,1.4)	1.4 (1.3 ,1.5)	1.3 (1.2 ,1.4)



## Table 7. Diet Overall and by Sex

Diet	Overall	Males	Females
<b><i>Vegetable Consumption</i></b>	% (95% CI)	% (95% CI)	% (95% CI)
Consume less than five servings of fruits OR <i>vegetables</i> per day	91.6 (90.5 ,92.7)	90.1 (88.3 ,91.7)	93.1 (91.5 ,94.4)
Consume no fruits and <i>vegetables</i> per day	0.2 (0.1 ,0.4)	0.2 (0.1 ,0.5)	0.2 (0.1 ,0.6)

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

	Overall	Males	Females
<b><i>Raised Blood Glucose/Diabetes</i></b>	% (95% CI)	% (95% CI)	% (95% CI)
Diagnosed by doctor or health care professional with raised blood glucose/diabetes	15.7 (14.1 ,17.5)	17.9 (15.4 ,20.7)	13.6 (11.5 ,15.9)
Currently taking medication for raised blood glucose/diabetes	46.1 (40.0 ,52.3)	47.5 (39.2 ,55.9)	44.3 (35.5 ,53.5)

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

	<b>Overall</b>	<b>Males</b>	<b>Females</b>
<b><i>Raised Blood Pressure/Hypertension</i></b>	% (95% CI)	% (95% CI)	% (95% CI)
Diagnosed by doctor or health care professional with raised blood pressure/hypertension	31.1 (29.1 ,33.2)	32.5 (29.5 ,35.6)	29.8 (26.9 ,32.8)
Currently taking medication for raised blood pressure/hypertension	51.6 (47.5 ,55.8)	49.7 (43.9 ,55.6)	53.7 (47.8 ,59.5)

# CONCLUSIONS

- Almost a fifth reported being current tobacco users,
- Approximately one tenth, 11.5%, reported being daily tobacco users.
- Men were more likely to report current or daily tobacco smoking than women.
- Overall, 36.3% reported current alcohol consumption,
- A third reported heavy episodic drinking (33.5%).
- Men were more likely drink to alcohol in the past 30 days as well as report being heavy episodic drinkers than women.

- A large percentage (91.6%) reported consuming less than five servings of fruits or vegetables per day.
- Almost two thirds, 61.9%, reported always or often adding a form of salt as they prepared a meal.

# CONCLUSIONS

- Two fifths, 40.2%, reported always or often adding salt or salty sauces to food before or as they are eating it.
- Approximately one third, 31.3%, reported ever receiving a clinical diagnosis of raised blood glucose or diabetes.
- Half, 51.6%, of diabetics reported currently taking medication for diabetes.
- Overall, 15.7% indicated ever being told that they have raised blood pressure or were hypertensive by a doctor or health professional.
- Two fifths of whom reported that they that were taking medication for their raised blood pressure or hypertension.

# CONCLUSION

Results from this survey will:

- help provide a national baseline on select NCD risk factors for Filipinos adults aged 18 years and older.
- Inform the Department of Health in the Philippines as they advance efforts to improve and enhance NCD prevention and response strategies.
- The timely reporting of mobile phone survey results such as these will also facilitate cross-country comparisons.

# Limitation of the study

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.