

Risk Factors for Cardiovascular Diseases (CVDs)

Research Perspectives

IMELDA ANGELES-AGDEPPA, Ph.D.

Director IV and Scientist II

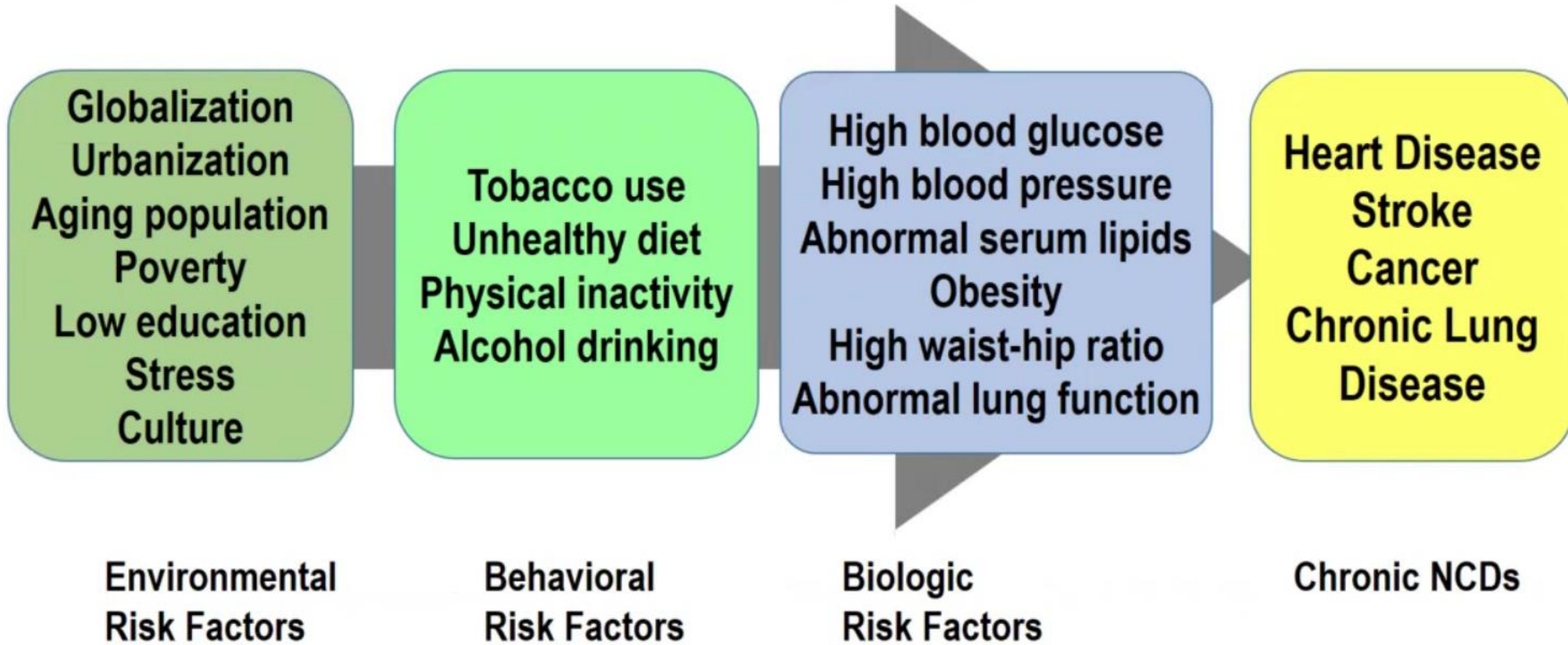
Department of Science and Technology – Food and Nutrition Research Institute

SCIENCE POLICY AND INFORMATION FORUM

National Academy of Science and Technology, Philippines (NAST PHL)

December 2, 2021 via  zoom

Causation Pathway for Chronic NCDs



[This figure is modified from Dans, Antonio et al. The rise of chronic non-communicable diseases in southeast Asia: time for action. *The Lancet* 2011; 377:680-689, and the report by the World Health Organization on Preventing chronic diseases—a vital investment. Geneva, Switzerland: World Health Organization, 2005.]

Set of 9 voluntary global NCD targets for 2025



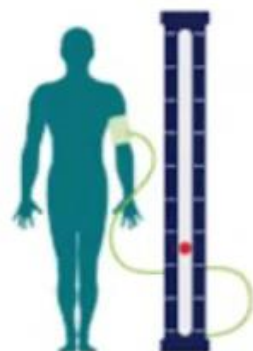
NCD risk factors among Adults

2018 – 2019 ENNS



1 in 3
(36.6%)
adults were
overweight/obese

prevalence increased significantly



18.3%
had **elevated BP**
rate significantly declined
in 2018-2019

8.7%

had
**high fasting
blood sugar**



*impaired fasting sugar also increased
significantly across surveys*



20.3%
were **current
smokers**

*proportion of current smokers
continuously decline since 2003*



25.9%
were **current alcohol
drinkers** in the
past 30 days



12.5%
were engaged in
binge drinking

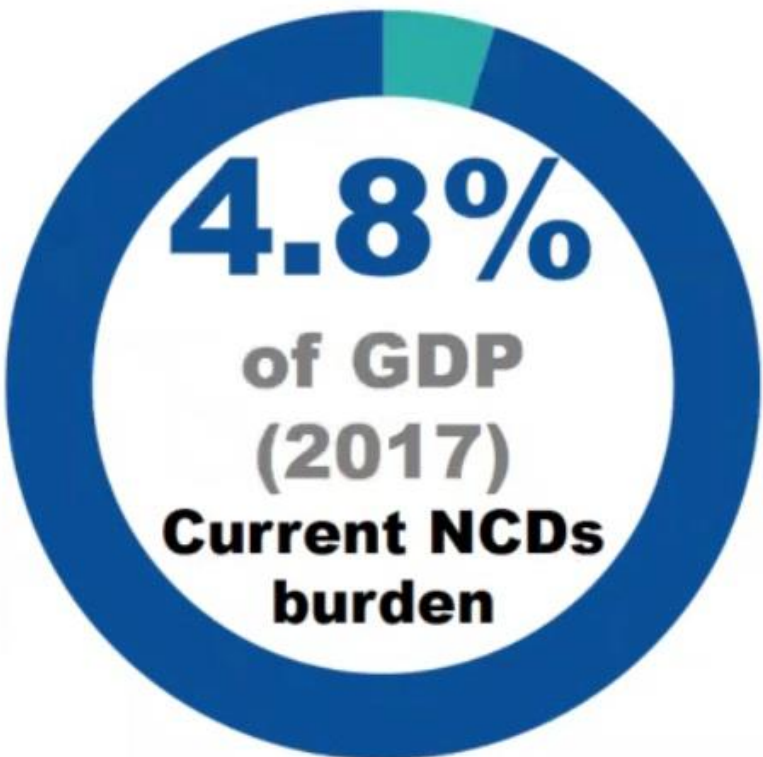
40.5%
were **insufficiently
physically active**





GOAL 3. ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Goals/Targets/Indicators	Baseline	Updates	Data Source Agency
	2015	2018-2019	
target 3.a	Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate		
3.a.s1	Prevalence of current tobacco use		
	22.9		Updating of Nutritional Status of Filipino Children and Other Population Groups, DOST-FNRI
<i>Age-standardized prevalence of current tobacco use among 15 years old and above</i>		20.1	Expanded National Nutrition Survey, DOST-FNRI
	5.8		Updating of Nutritional Status of Filipino Children and Other Population Groups, DOST-FNRI
Prevalence of current tobacco use among 10-19.9 years old		4.1	Expanded National Nutrition Survey, DOST-FNRI
	24.9		Updating of Nutritional Status of Filipino Children and Other Population Groups, DOST-FNRI
Prevalence of current tobacco use among 20 years old and over		22.0	Expanded National Nutrition Survey, DOST-FNRI



lost per year



indirect cost due to loss
of workforce and reduces
productivity



of dying prematurely from
one of the four main NCDs

Source: Prevention and control of Noncommunicable Diseases in the Philippines. The Case for Investment, Philippines, 2019. Geneva: World Health Organization; 2019 (WHO/UHC/CDS-NCD/19.90). License: CC BY-NC-SA 3.0 IGO.

PHP
28.9
billion



**Investment required
for selected best buy
intervention packages
over 15 years**

Billion PHP

10



**Tobacco control
package**

8.4



**Alcohol control
package**

5.0



**Salt-reduction
package**

3.5

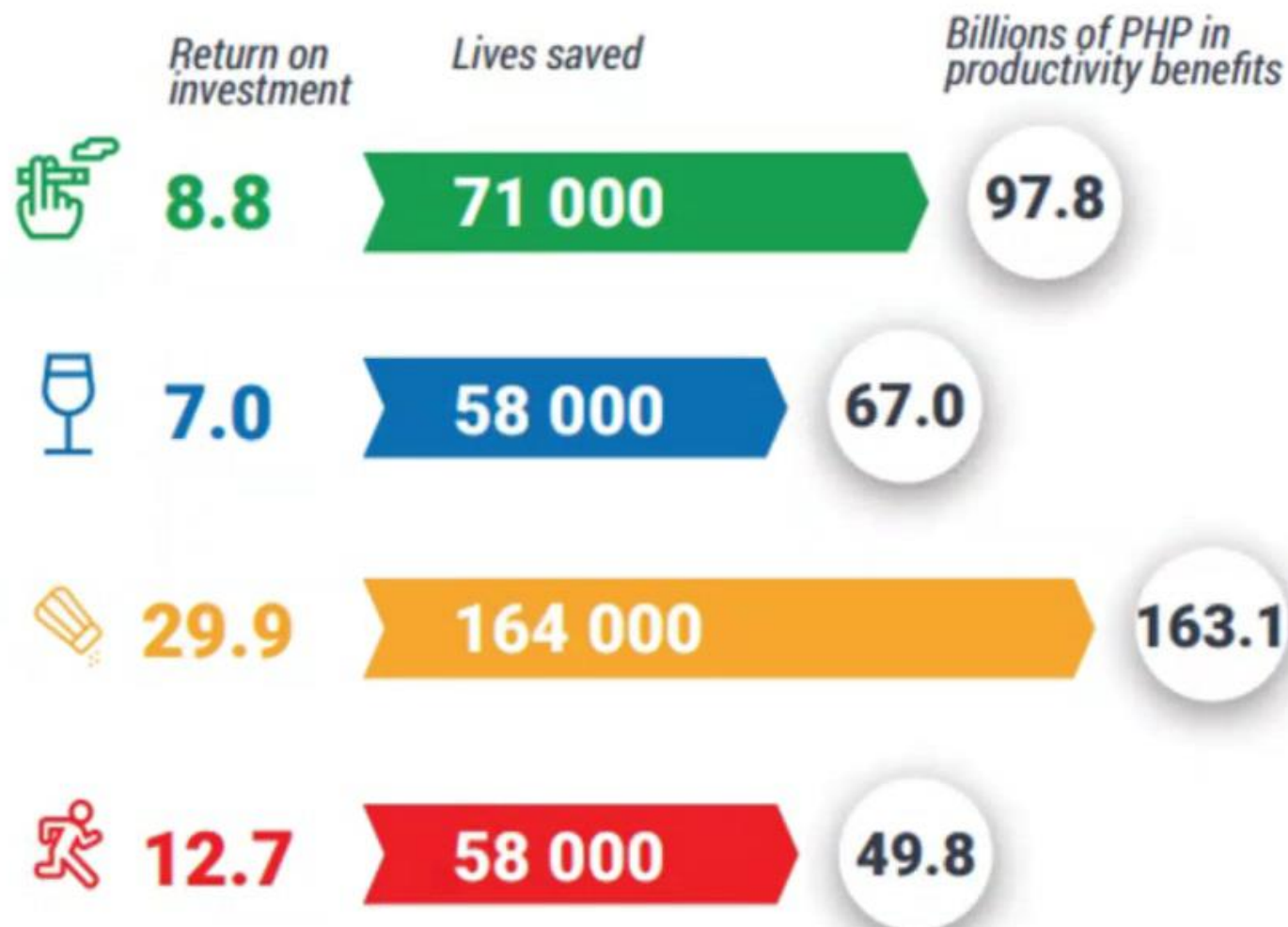


**Physical activity
awareness
package**

**PHP
377.7
billion**



**Return on
investment
over 15 years**



Research Perspectives

❖ PRODUCT LABELLING

- Front-of-pack (FOP) labels helps consumers make informed choices on the amount of calories or energy, sugar, sodium, and fats of processed food products
- The DOST-FNRI update standards for nutrition labelling to include mandatory front-of-pack nutrition labelling for all pre-packaged foods.
- Formative research conducted



Development of Front-of-Pack Nutrition Label for Processed Foods and Beverages

General Objective

Develop a new front-of-pack (FOP) nutrition label for food and beverage products to promote healthy diet for Filipino children

Specific Objectives

- Conduct contextual analysis for the proposed development of a new FOP nutrition label for food and beverage products in the Philippines
- Design a simple, easy-to-understand FOP nutrition label following the Philippine Nutrient Profile Model
- Determine the feasibility and applicability of proposed FOP nutrition label in the Philippine setting

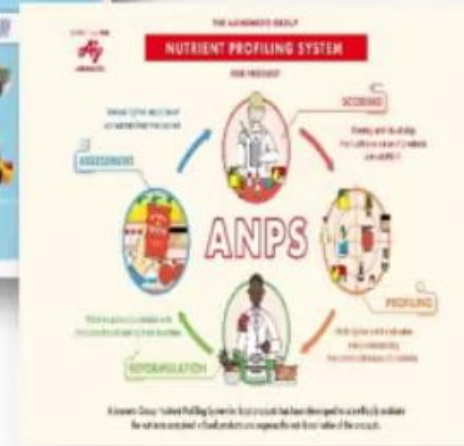
Research Perspectives

- ❖ Food Environment Survey
- ❖ Analysis of trans fat content of foods
- ❖ Effects of Planetary Diet
- ❖ Healthy Lifestyle among Adolescents and Adults
(Supporting Adolescent Growth in the Philippines, Happy Aging, etc)
- ❖ Glycemic index of different rice varieties

Research Perspectives

❖ Nutrient Profile

- ✓ Develop National Nutrient Profile Model for Children's Diets
- ✓ Nutrient Profile Model for Complementary Foods (recommended)



Nutrient profiling is the science of classifying foods based on their nutritional composition and can be a tool to help address all forms of malnutrition.

Research Perspectives

- ❖ **Develop Diet Optimization Software thru linear programming**
 - **The DOST-FNRI is currently developing a mathematical optimization software to compute the amounts of locally available foods that must be consumed by an individual or a family that would meet the recommended energy and nutrient intakes (RENI) at the least cost.**



WHAT CAN BE DONE?



LOCAL GOVERNMENT
UNIT

- ❖ *Strengthen the implementation of health and nutrition programs from the national to the local level*
- ❖ *To employ Registered Nutritionist-Dietitian at municipal or city level for the implementation of nutrition programs and to provide nutrition education to families and individuals*
- ❖ *Intensify promotion of good nutrition through the use of nutrition materials (e.g. Pinggang Pinoy, Nutritional Guidelines for Filipinos)*

Expected Actions to work - on together

- **Encourage** food manufacturers big or small , to provide more nutritious and healthier products through reformulation or new product development
- **Increase** the availability and accessibility of healthier food options
- **Stimulate** positive eating behavior and healthy eating environment for consumers
- **Contribute** to the reduction of the prevalence of diet-related NCDs in the country





Department of Science and Technology
FOOD AND NUTRITION RESEARCH INSTITUTE



e nutrition

The Philippines' Knowledge Center on Food and Nutrition

<http://enutrition.fnri.dost.gov.ph/site/home.php>



<https://www.fnri.dost.gov.ph/>



DOST-Food and Nutrition Research Institute

The DOST-FNRI is one of the research and development institutes of the DOST and the principal research

<https://www.facebook.com/DOST.FNRI>



Department of Science and Technology Food and Nutrition Research Institute



DOST Compound, Gen. Santos Ave., Bicutan, Taguig City, Metro Manila, Philippines

Tel Nos.: (632) 8837-2071 to 81 local 2296; 8839-1843; 8839-1846 | Telefax No.: (632) 8837-2934

E-mail: dostfnri47@gmail.com | Website: <http://www.fnri.dost.gov.ph>

E-nutrition: <http://enutrition.fnri.dost.gov.ph>