NATIONAL INSTITUE OF PUBLIC HEALTH - MEXICO



UNITED NATIONS EXPERT GROUP MEETING ON POPULATION, FOOD SECURITY, NUTRITION AND SUSTAINABLE DEVELOPMENT

PANEL: Session IV: Nutrition and population health



PUBLIC HEALTH NUTRITION POLICIES IN MEXICO: LESSONS LEARNED AND ENDURING CHALLENGES

Simón Barquera, MD, MS, PhD.

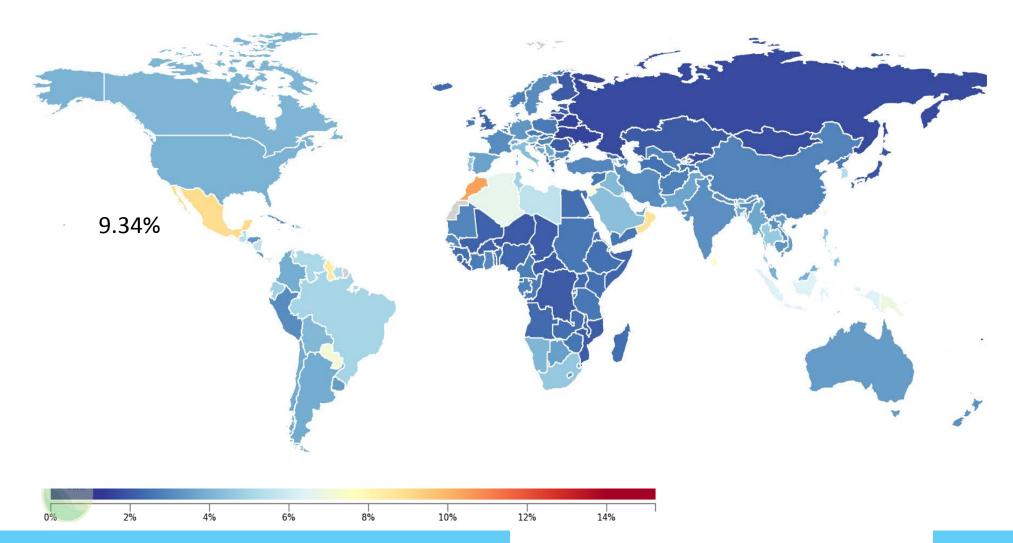
Director. Nutrition and Health Research Center,
National Institute of Public Health, Mexico.

Collaborators: Cecilia Oviedo, PhDc, Norma Buenrostro, BS, Mariel White BS.

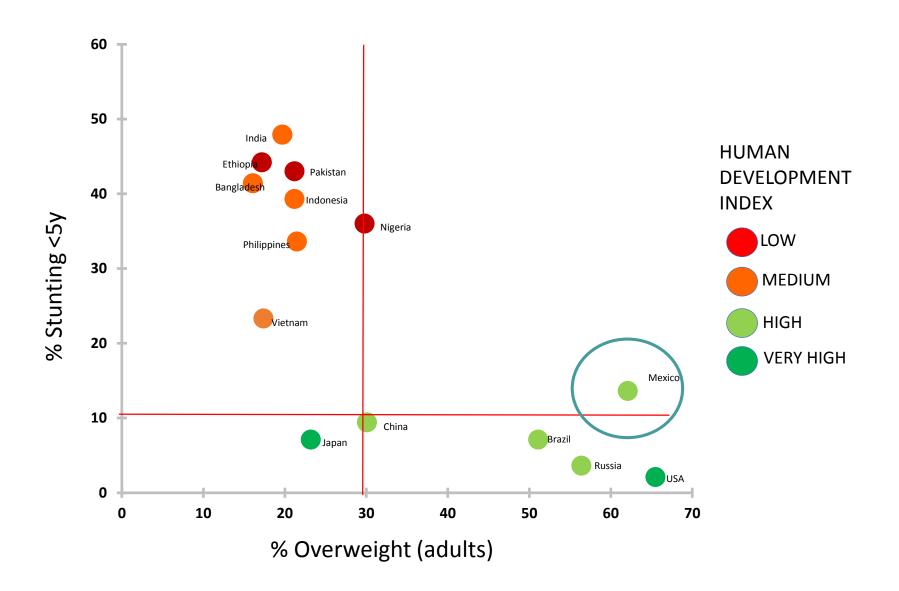


Mortality attributable to DIABETES:

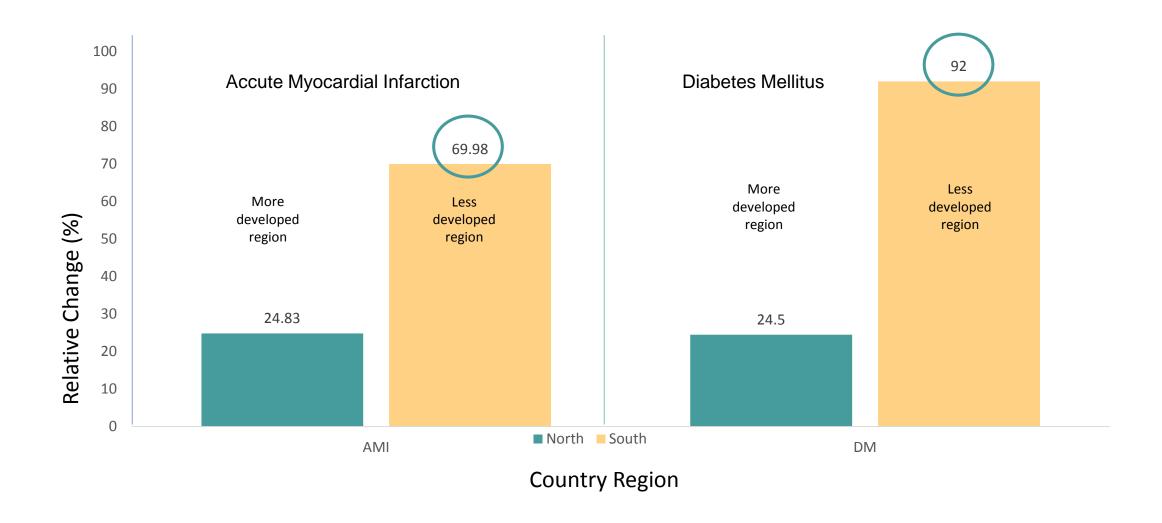
National epidemiologic NCD alert declared in 2016



Double-burden of malnutrition among the 14 most populated countries in the world

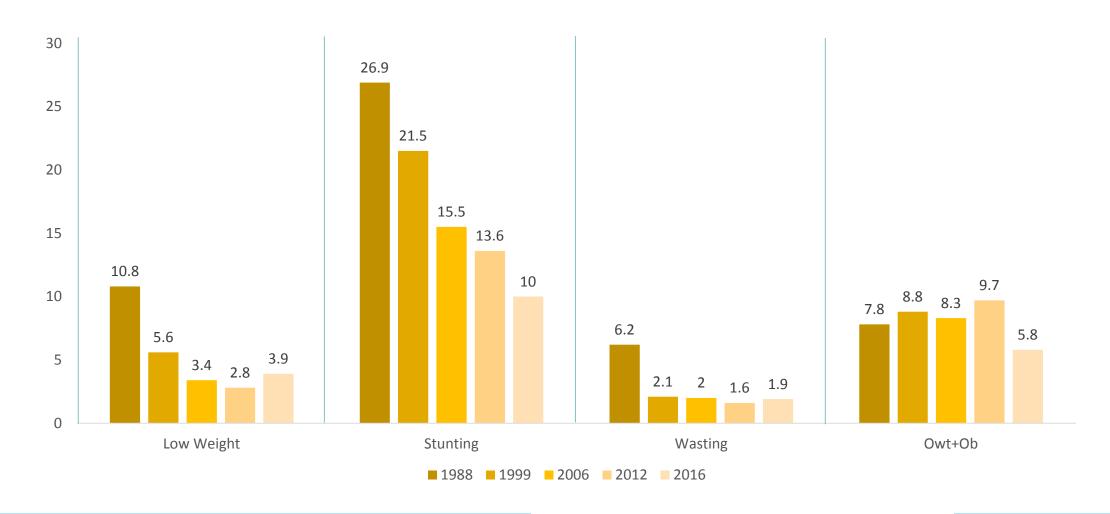


Higher relative increase of Acute Myocardial Infarction (AMI) and Diabetes (DM) mortality in less developed regions of Mexico (1980-2002)

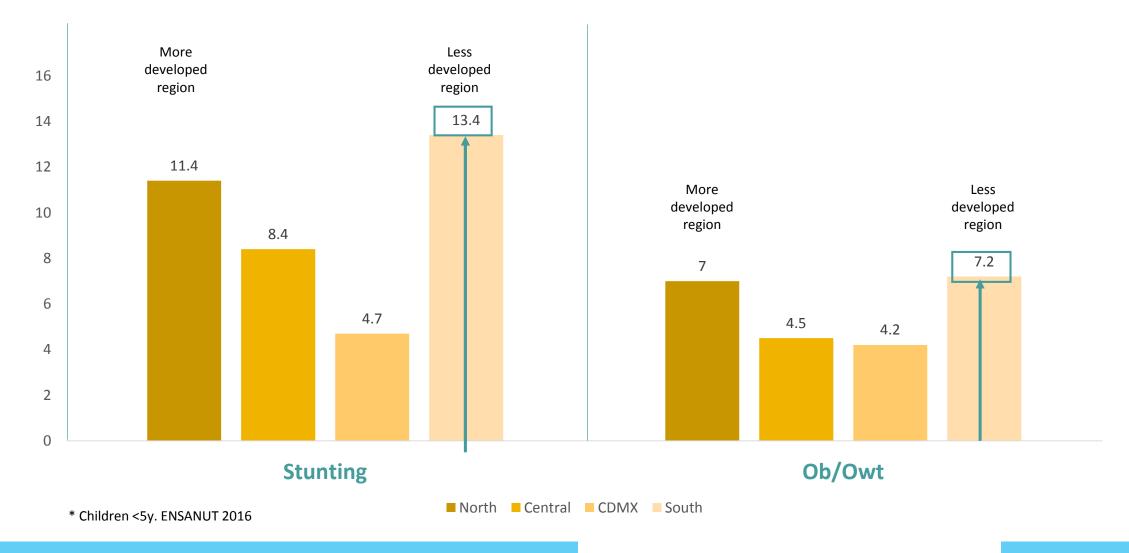


Trends in prevalence of malnutrition in children <5y in Mexico:

Steady decrease in undernutrition during the last 30 years



Higher stunting and obesity in children from the less developed region*



The Double-burden of malnutrition is decreasing in Latin America

A recent study estimated Double-burden of malnutrition in 6 countries of Latin America finding a lower than expected risk of concurrent child stunting and maternal overweight ¹



In Mexico²; at the household level:

- Stunting <5y and Obt/ob in mother: 8.4%
- Individual level
 - (<5y): 1% stunting plus owt
 - Women: 7.6% anemia plus owt

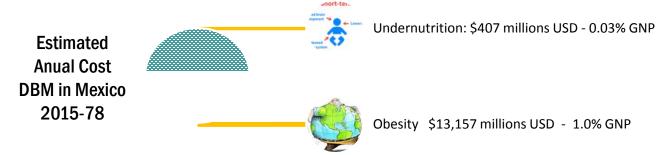
Prevalences lower than expected

^{1.} Rivera JA, et al, AJCN, 100, (6) 2014

... however, the economic costs in Mexico are significant

Estimated Cost of Double-Burden of Malnutrition in 3 Latin American Countries*

Costs	Chile	Ecuador	México
Health	385	1,666	7,338
Education	-	27	151
Productivity	108	2,651	21,341
Total	493	4,344	28,830
% of GNP	0.20%	4.30%	2.30%



^{*} USD millions

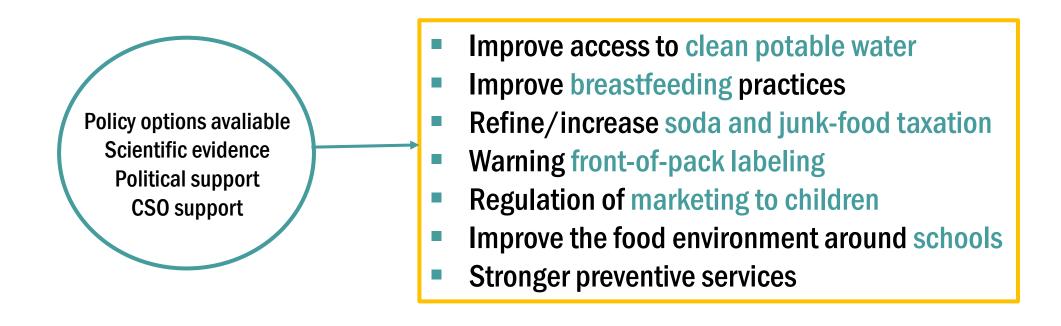
Government reductions in expenditure for NCDs in Mexico (2012-2018)*



Year	Total health budget (billion USD)	NCD Prevention & control (million USD)	% NCD Prevention & control of total health budget
2012	8.6	19.7	0.23
2013	11.6	25.7	0.22
2014	11.5	27.5	0.24
2015	9.6	23.0	0.24
2016	7.8	20.0	0.26
2017	6.9	19.1	0.28
2018	6.5	21.1	0.32

^{*} USD (adjusted for inflation)

Priority interventions to tackle the double-burden of malnutrition in Mexico:





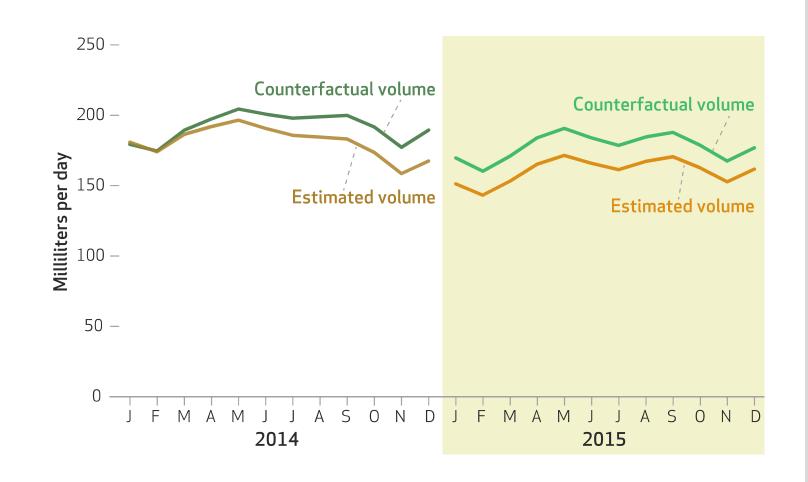
Evaluation of soda tax policy in Mexico: Sustained reduction in SSBs purchases



- 2014: purchases **4** 5.5%
- 2015: reductions reached 9.7%
- 2014-2015: average **4** 7.6%
 - -5.1 Liters/capita/year

By M. Arantxa Cochero, Juan Rivera-Dommarco, Barry M. Popkin, and Shu Wen Ng

In Mexico, Evidence Of Sustained Consumer Response Two Years After Implementing A Sugar-Sweetened Beverage Tax



Projected impact of the 10% soda-tax in the next 10 years



- **▶** 190,000 diabetes cases
- ◆20,000 strokes and AMI
- **↓** 19,000 deaths

Considering only the effect on diabetes, this policy will decrease health expenditures by \$983 thousand USD





RESEARCH ARTICLE

Projected Impact of Mexico's Sugar-Sweetened Beverage Tax Policy on Diabetes and Cardiovascular Disease: A Modeling Study

Luz Maria Sánchez-Romero^{1,2}, Joanne Penko^{3,4}, Pamela G. Coxson^{3,4}, Alicia Fernández^{3,4}, Antoinette Mason^{3,4}, Andrew E. Moran⁵, Leticia Ávila-Burgos⁶, Michelle Odden⁷, Simón Barquera¹, Kirsten Bibbins-Domingo^{3,4,5,8}*

1 Center for Nutrition and Health Research, National Institute of Public Health, Cuernavaca, Morelos, Mexico, 2 Department of Epidemiology and Public Health, University College London, London, United Kingdom, 3 Department of Medicine, University of California, San Francisco, San Francisco, California, United States of America, 4 UCSF Center for Vulnerable Populations at San Francisco General Hospital, San Francisco, California, United States of America, 5 Division of General Internal Medicine, Columbia University Medical Center, New York, New York, United States of America, 6 Center for Health Systems Research, National Institute of Public Health, Cuernavaca, Morelos, Mexico, 7 Department of Epidemiology, Oregon State University, Corvalis, Oregon, United States of America, 8 Department of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, California, United States of America

Marketing targeted to children affects their preferences and their diet quality

"Children throughout the Americas are subject to pervasive and unrelenting publicity for foods of little or no nutritional value, high in fats, sugars, or salt. Constant advertising of such nutrient-poor, calorierich foods in diverse communications media influences children's food preferences and consumption patterns"

OPS/PAHO, 2011



Marketing directed at children in the food environment













Progress in marketing to children regulation in Chile:



Product in Chile:

Use of cartoon characters is prohibited



Clear, visible warning labels



Misleading front of pack labeling system (GDAs)

GDA- sugar

based on 92g a

day







Use of cartoon characters

Endorsed by sports leagues

Marketing of unhealthy F&B associated with sports and active transportation



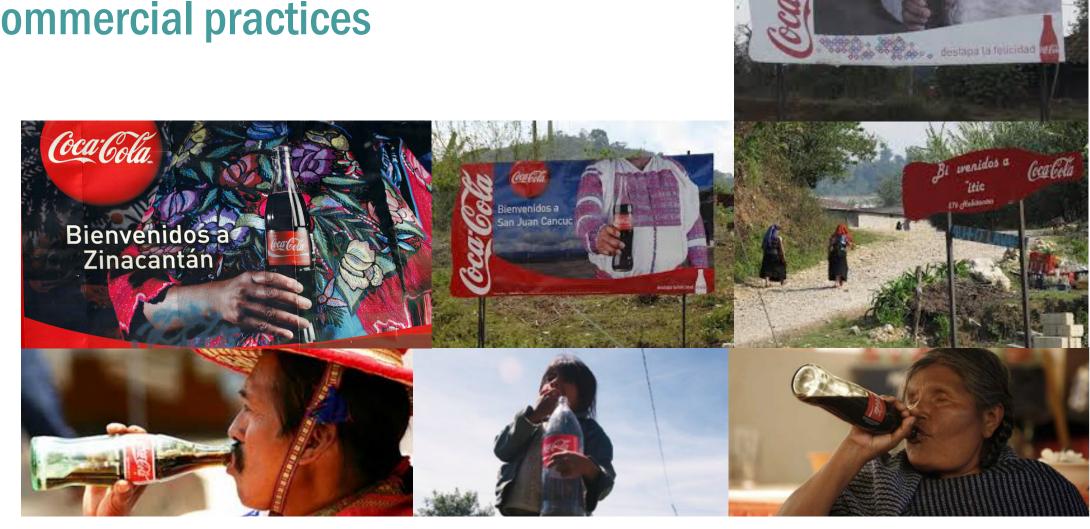




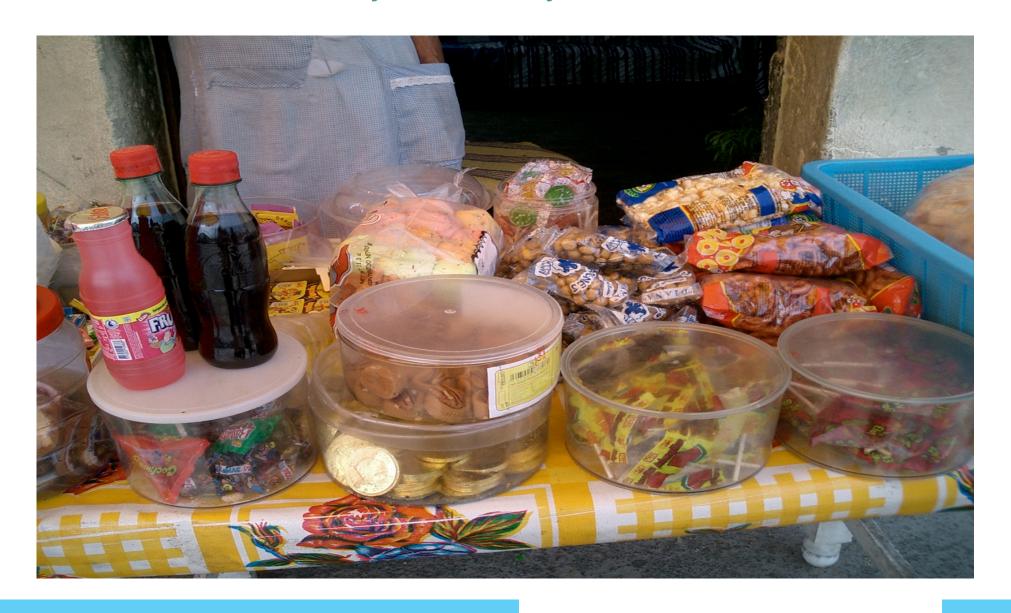




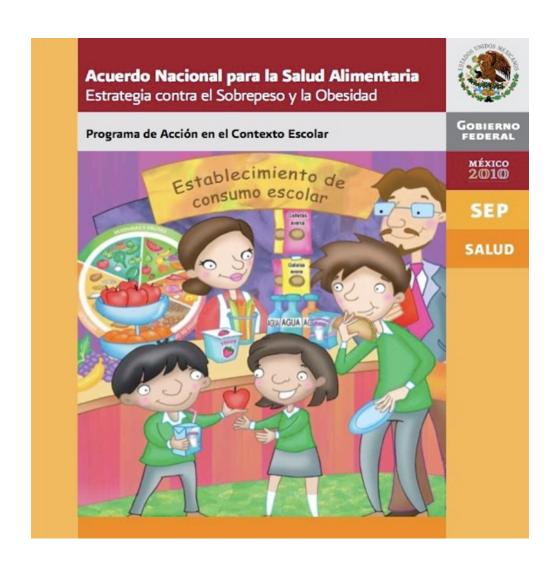
Vulnerable low-income population in Mexico exposed to misleading marketing and commercial practices



School environment: Accessibility of unhealthy food & lack of water fountains



Government actions in the school environment



- **↑** Water availability
- ↑ Physical activity
- **▶** Food marketing inside schools
- ↑ Quality of food inside schools

Characterization of food/beverage promotion directed at children

Argentina, Brasil, Chile, Costa Rica, and Mexico*

General Objective:

- 1) Identify how marketing strategies for food and beverages targeted to children contribute to purchases of unhealthy food
- 2) Identify how children's parents may contribute to purchases of unhealthy food

obesity reviews

doi: 10.1111/obr.12080

Review

Monitoring the availability of healthy and unhealthy foods and non-alcoholic beverages in community and consumer retail food environments globally

C. Ni Mhurchu¹, S. Vandevijvere², W. Waterlander¹, L. E. Thornton³, B. Kelly⁴, A. J. Cameron³, W. Snowdon^{5,6} and B. Swinburn^{2,6} for INFORMAS[^]









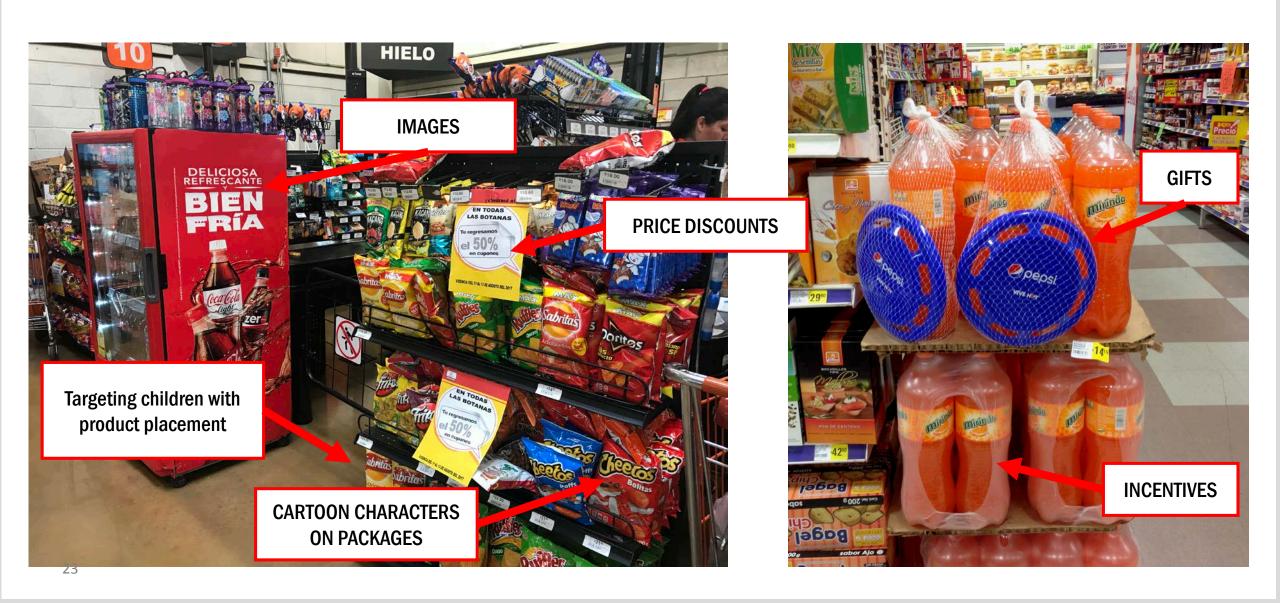


Funded by:



Retail Food Environments in Latin America

High availability of unhealthy food marketing to children at point-of-purchase



Healthy foods are not as expensive as perceived by consumers...





Superama MANDARINA de 11.50

Mango 1kg - \$1.35 USD

Mandarin 2kg - \$1 USD

Healthy foods are not as expensive as perceived by the consumers...



4 kilograms of watermelon costs \$1.04 USD









How can we help consumers make healthier food choices?

CHILE:



WARNING LABEL SYSTEM

- EASY TO UNDERSTAND
- DEVELOPED BY ACADEMIC EXPERTS









MEXICO:



GDA LABEL SYSTEM

- -MISLEADING
- -DEVELOPED BY FOOD INDUSTRY

este envase aporta:





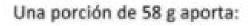


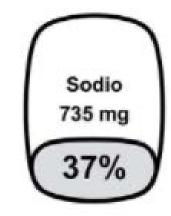




% de los nutrientes del diario.

How many consumers can interpret the GDA symbols?





Etiquetado actual de México



How many consumers can interpret the Chilean FOP symbol?

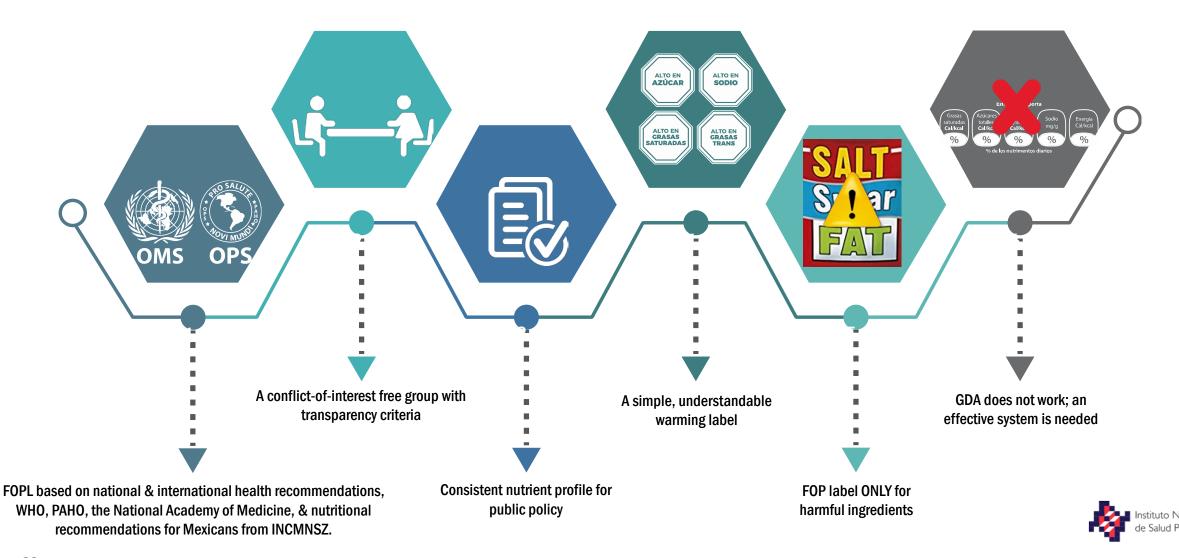






CHILE'S
WARNING
LABEL IS WELL
UNDERSTOOD
BY CHILDREN

Mexican expert group position on front-of-pack labeling



Conclusions

Mexico, like other countries in Latin America, has a relatively low prevalence of the double burden of malnutrition

However, being one of the most populated countries in the world, this condition generates an enormous burden

The solution is complex but there is consensus on the need of triple-duty policies helpful to tackle obesity, undernutrition and climate change such as:

Water sanitation, breast-feeding promotion, soda and junk food taxation, front of pack labeling, marketing regulation, healthy school regulations and active transportation.



Colaborators:

Cecilia Oviedo Norma Buenrostro Mariel White

Thank you!

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CENTRO DE INVESTIGACIÓN EN NUTRICIÓN Y SALUD, INSTITUTO NACIONAL DE SALUD PÚBLICA.



