Obesity Prevention Efforts in Mexico:
Efforts by the National Institute of Public Health (INSP)

Simón Barquera, MD, MS, PhD

Director, INVESTIGACIÓN EN POLÍTICAS NUTRICIONALES
CENTRO DE INVESTIGACIÓN EN NUTRICIÓN Y SALUD,
INSTITUTO NACIONAL DE SALUD PÚBLICA

@sbarquera
TAXING SODA, SAVING LIVES

MEXICO'S SURCHARGE ON SUGARY DRINKS IS THE REAL THING
Percentage of deaths attributable to cardiovascular disease and diabetes in mega-countries (2013)

Similar total mortality from CVD and Diabetes in Mexico and US, however Mexico is one of the countries with higher Diabetes Mellitus mortality.

Double-burden of malnutrition in mega-countries: coexistence of stunting\textsuperscript{a} and overweight/obesity\textsuperscript{b}

Mortalidad atribuible a la diabetes: Carga Global de la Enfermedad

9.34%
Increase in obesity prevalence in Mexico has occurred very rapidly in the last decades.


- 7% increase per year (1988-1999)
- 1.95% increase per year (1999-2006)
- 0.33% increase per year (2006-2012)
III. Efectos en salud
Increasing trends in consumption of SSB and refined carbohydrates. 
% Change in household food expenditure between 1986 y 1998

Children aged 1-4

- Sodas: 116 kcal
- Sweetened Juice Drinks: 37 kcal
- Whole Milk: 24 kcal
- Other: 2 kcal

Children aged 5-11

- Sodas: 190 kcal
- Sweetened Juice Drinks: 110 kcal
- Whole Milk: 38 kcal
- Other: 86 kcal

Note: Sweetened juice drinks include 100% fruit juice with sugar added and agua fresca (water, juice, sugar). Sodas include carbonated and noncarbonated sugar bottled beverages.

HEALTHY BEVERAGE RECOMMENDATIONS, 2009

SUPPORTED BY MEDICAL SOCIETIES

DISTRIBUTION BY MOH DISCONTINUED TO AVOID CONFLICT

FOOD INDUSTRY WAS AGAINST THIS INITIATIVE

COMPLAINTS AGAINST DISTRIBUTION
Estimated Effect of a 10% tax on soda price by income tertile in Mexico (2008)

10% increase in the price of soda

**Soda**
- Overall: 2.07
- Poor: -50.02
- Rich: -53.02
- Whole milk: 46.10

10% increase in the price of whole milk

**Whole milk**
- Poor: -10.31
- Rich: -11.34

**Soda**
- Poor: -12.0
- Rich: -11.38

Mexican Big Soda vs Soda Tax initiative:

“Soda hydrates and provides energy”

“empty calorie” unsubstantiated concept
LESSONS LEARNED FROM TAX APPROVAL IN MEXICO: rise and major role of NGOs employing evidence-based policy recommendations

alianzasalud.org.mx
LESSONS LEARNED FROM TAX APPROVAL IN MEXICO: International Support from Academia, Organizations and NGOs

Open letter from IOTF congratulating president Peña for presenting the soda tax initiative.

Recommendation to increase from 10 to 20%

Reforma (NEWSPAPER), Sept 24th 2013
SIDE BY SIDE:

SODA VS NGOs

Ability of NGOs to communicate effective messages to population and influence public opinion.
Evaluation of the Soda and Sugar-Sweetened Beverages (SSBs) Tax in Mexico

- 6% average reduction taxed beverages 2014 compared to previous trends adjusting for confounders
- Differences reached 12% at the end of the year
- 4% increase in non taxed beverages (water)

Colchero MA, et al. BMJ 2015;352:h6704; doi: 10.1136/bmj.h6704
CHALLENGES:
New alliances against soda-tax and information and major investment in communication campaigns by industry

www.hablemosdeazucar.com.mx
Modeled impact of the Mexican soda tax on CVD events and mortality *

<table>
<thead>
<tr>
<th></th>
<th>2013-2022</th>
<th>Baseline</th>
<th>10% with 39% cc</th>
<th>20% with 39% cc</th>
<th>40% with 39% cc</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-yr Cumulative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident CHD</td>
<td>3,145,499</td>
<td>-46,108</td>
<td>-90,489</td>
<td>-177,084</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.5%)</td>
<td>(-2.9%)</td>
<td>(-5.6%)</td>
<td></td>
</tr>
<tr>
<td>Incident Stroke</td>
<td>930,067</td>
<td>-6,462</td>
<td>-12,757</td>
<td>-24,920</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.7%)</td>
<td>(-1.4%)</td>
<td>(-2.7%)</td>
<td></td>
</tr>
<tr>
<td>Cumulative CVD</td>
<td>1,228,737</td>
<td>-11,682</td>
<td>-22,933</td>
<td>-44,808</td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td>(-1.0%)</td>
<td>(-1.9%)</td>
<td>(-3.7%)</td>
<td></td>
</tr>
</tbody>
</table>

**Estimated savings in direct health care costs for diabetes mellitus cases avoided with the Mexican soda tax***

<table>
<thead>
<tr>
<th>Age Group (years)</th>
<th>Baseline</th>
<th>10%</th>
<th>20%</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 35-94*</td>
<td>$67,193</td>
<td>-$530 (-0.8%)</td>
<td>-$1,034 (-1.6%)</td>
<td>-$1,896 (2.8%)</td>
</tr>
</tbody>
</table>

*S*millions 2012 USD

Government actions such as: regulation of advertisement, labeling and food composition as well as SSBs and junk food taxes are powerful necessary tools to support healthy lifestyles.

The Soda Tax in Mexico was possible thanks to participation and support from diverse sectors: Academia, NGOs, policy makers, political parties and the federal government and international groups.

Although the amount of taxation approved was small (10%), researchers are finding preliminary modest but positive effects.
Conclusion, Challenges, Next Steps…

4. The Soda Tax debate has a positive educational effect on consumers. Funding for NGOs to be able to face big soda ultimately win this public debate was crucial.

The Federal Government supported this alternative in its search for fiscal reforms increasing government revenue. Now it is important to follow-up on investments to improve access to water and promote its consumption.

5. Soda Tax is ONLY a component of a wider set of policy actions needed to support healthier life styles and reduce obesity and other non-communicable chronic diseases.
Instalation theory:

Proper environment neccessary to adopt healthy behaviors
Un sandwich con relleno cremoso y de fresa, con cobertura por chocolate adicionada con vitaminas y minerales.
Self-regulation / Pledges for ethical marketing not useful to control food and beverage marketing to children in Mexican open TV.
13,130 recorded ads during 2014 in open TV

**Food Ads 24.5%**  
(n 3,223)

**Other Ads 75.5%**  
(n 9,907)

**TV marketing directed to children in Mexico, 2014**

- **85.5%** Soda
- **11%** Sweet pastries
- **10.4%** Chocolate
- **9.8%** Sweetened beverages
- **9.7%** Ready made-food
- **8.9%** Savoury snacks
- **8.5%** Yoghurts and dairy
- **41.7%** *Others

*Others: milks, breakfast cereals, bread products, sauces and dressings

Even with school regulations to limit junk food availability, food vendors outside are prevalent particularly in low income public schools.
Publicidad de alimentos poco saludables asociados con deportes y promoción de actividad física
Aguafiel frutal

Price: $29.90
Thank you!

Simón Barquera, MD, MS, PhD

@Sbarquera

e-mail: sbarquera@insp.mx