Comprehensive strategies to address the 2025 Global Targets for Maternal, Infant and Young Child Nutrition

Prevention of childhood overweight

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Scope of the problem and consequences

- Globally 42 million children < 5y (7%) are overweight*
- Between 2000 and 2013 number of overweight children increased from 32 to 42 million (31% in 13 y!)
- 2/3 of overweight children < 5 y resided in low and middle income countries (in 2011)
- Childhood overweight increases the risk of obesity, NCD’s, premature death and disability in adulthood
- The number of overweight children is on the rise in all regions
- The Goal By 2025: no increase in childhood overweight

* Data from 2013
Recognize the collective responsibility in obesity prevention; therefore, **the role of government intervention**

Knowledge → The Individual → Motivation → Healthy Behaviors

**Strong Environmental Factors interfere with healthy behaviors**

- Social Norms
- Environmental Factors
  - Availability, prices, opportunities for healthy diet and PA
- Knowledge + Motivation → Healthy behaviors become optimal default → Healthy Behaviors

Recognize the collective responsibility in obesity prevention; therefore, the role of government intervention

Conceptual behavioral change model that led to developing current policies

The Individual

Healthy Behaviors

Knowledge

Motivation

Strong Environmental Factors interfere with healthy behaviors

Environmental Factors

Social Norms

Availability, prices, opportunities for healthy diet and PA

Macro Policies

Regulation, Legislation

Healthy behaviors become optimal default

Knowledge

Motivation

Healthy Behaviors

**Recommended Actions**

- **Support Healthy diets**
  - Enhance policies to ensure healthy diets throughout the life-course creating enabling environments

- **Dietary Guidelines**
  - Develop **food based national dietary guidelines** which can underpin actions to improve nutrition in the population

- **Address Early life exposures**
  - Social norms related to appropriate child growth, regulation of the marketing of Foods and beverages (F&B) to children and NCD’s prevention in antenatal care

- **Physical Activity**
  - Create **enabling environments** that promote **physical activity** from the early stages of life
WHO Commission on Ending Childhood Obesity

1. Promote intake of healthy foods
2. Promote physical activity
3. Preconception and pregnancy care
4. Early childhood diet and physical activity
5. Health, nutrition, and physical activity for school-age children
6. Weight management

Ending childhood obesity
Summary of recommendations

Regulations and legislation to create supportive environments for the intake of healthy diets and physical activity

- Taxing Sugar sweetened beverages (SSB’s)
- Regulating marketing of F&B to children
- Nutrition standards for meals and F&B in schools and child care settings
- Front of Pack Labeling that leads to healthy choices and reformulation
- Adequate facilities for PA in schools
- Friendly environments for PA in communities
- Breast feeding protection

Guidance and communication strategies to promote the adoption of healthy diets and an active life

- National nutrition Guidelines throughout the life-course
  - Primary health care
  - School curricula
- Guidance on sleep time, screen-time, and physical activity
- Mass media Communication strategies
Double burden of malnutrition in children < 5 years in Mexico (1988-2012)

Mexico has a national strategy for the prevention of obesity:
- Regulating marketing to children
- Regulations of F & B in schools
- FOP labeling system
- Nutrition Guidelines
- SSB and junk food taxes
- Nutrition Strategy for young children (EsIAN)

Nutrition Strategy for young children

- **Prospera** (formerly Progresa and Oportunidades) is the Mexican CCT Program covering ~ 6 million households
- **EsIAN** is a national strategy to strengthen the nutrition component of *Prospera* to address the nutritional transition
- Involves four sectors: health, education, social development and finances and includes community participation
- Focus on the initial 1,000 days as well as 2-4 years
- Addresses **undernutrition and obesity** in children < 5 y
- Objective is to prevent or reduce:
  - Stunting <5y, anemia and micronutrient deficiencies
  - Overweight and obesity (promote healthy growth*)
  - Risk of future NCD´s

*Linear growth without excessive weight gain*
### Key Interventions

**Counseling at Primary Care**

#### Pregnancy
- Promotion of healthy eating and physical activity
- Appropriate weight gain
- Anemia prevention (Supplements)
- Promotion of breastfeeding

#### 0-6 m
- Exclusive breastfeeding
- Nutrition assessment with emphasis on healthy growth

#### 7-23 m
- Complementary feeding practices
- Nutrition assessment (healthy growth)
- Use of MNP and other supplements

#### 24-59 m
- Healthy eating and physical activity
- Nutrition assessment (healthy growth)
- Use of MNPs

*Linear growth without excessive weight gain*
*Oportunidades* now Prospera has shown program effects on linear growth without increasing overweight...

Adjusted* Z-scores for Ht/Age and Wt/Ht in children < 6 mo old at baseline (1998) before enrollment in the program and 2 years later (2000) when they were 24-30 mo of age**

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*Linear regression, controlling for sample design and initial height

**Children in the Oportunidades group were enrolled in the program 2 years (from 1998-2000) while the Control group remained without program benefits during the first year and were enrolled in the program during the second year.*
Intake of added sugars in Mexico

- **WHO recommendation:**
  - Free sugars should < 10% of total energy intake
  - Additional health benefits with a reduction < 5%
- **Added sugars contribute 12.5% of total energy intake in Mexican diet (60 gr)**
- **58%-85% of children and adolescents consume > 10% of total energy from added sugars**
- **Non-dairy SSBs consumed by***
  - 12% of infants < 6 mo
  - 36% of infants 6-11 mo
  - 65% of children 12-23 mo
- **Sugar-sweetened beverages (SSBs) contribute 70.3% of added sugars**
- **This led to the implementation of a tax to SSB (1peso/L) in 2014**

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Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study

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ABSTRACT

STUDY QUESTION
What has been the effect on purchases of beverages from stores in Mexico one year after implementation of the excise tax on sugar sweetened beverages?

METHODS
In this observational study the authors used data on the purchase of beverages in Mexico from January 2012 to December 2014 from an unbalanced panel of 6253 households providing 205 112 observations in 53 cities with more than 50 000 inhabitants. To test whether the post-tax trend in purchases was significantly different from the pretax trend, the authors used a difference in difference fixed effects model, which adjusts for both macroeconomic variables that can affect the purchase of beverages over time, and pre-existing trends. The variables used in the analysis included demographic information on household composition (age and sex of household members) and socioeconomic status (low, middle, and high). The authors compared the predicted volumes (mL/capita/day) of taxed and untaxed beverages purchased in 2014—the observed

WHAT THIS STUDY ADDS
The tax on sugar sweetened beverages was associated with reductions in purchases of taxed beverages and increases in purchases of untaxed beverages. Continued monitoring is needed to understand purchases longer term, potential substitutions, and health implications.

FUNDING, COMPETING INTERESTS, DATA SHARING
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Introduction
Myriad studies suggest that added sugar in beverages is linked with obesity and many cardiometabolic problems and have recommended that efforts to reduce consumption of sugar sweetened beverages to obtain meaningful improvement in health would require a tax that leads to price increases.17 Aside from industry
Reduction in Consumption of Taxed Beverages after the implementation of the Tax in Mexico

- A 6 percent average decline in purchases of taxed beverages over 2014 compared to pre-tax trends and adjusting for factors associated with purchases of beverages
- A 4 percent increase in purchases of untaxed beverages over 2014

Colchero MA, Popkin BM, Rivera JA, Ng SW. BMJ 2015;352:h6704; doi: 10.1136/bmj.h6704
Conclusions

• Overweight affects 42 million children < 5y and is increasing in all regions

• One of the Global Nutrition Targets 2025 is to ensure that there is no increase in childhood overweight

• To prevent childhood overweight, WHO recommends a comprehensive trans-sectoral approach involving key stakeholders and multiple relevant interventions:
  – Promoting healthy diets and physical activity
  – Creating food and physical activity environments in which healthy choices become the defaults
  – Provide Nutrition information and education to change social norms
  – A life course approach: preconception and pregnancy, early childhood, and school interventions
Conclusions

• Mexico is implementing actions to promote healthy growth in children < 5 y without excessive weight gain

• It is also implementing a comprehensive strategy with multiple interventions for obesity prevention in children and adults, including fiscal policies to reduce the intake of unhealthy food

• A published article in BMJ indicates that the SSB tax is working and has a place as a component of the kit of interventions for the prevention of obesity
Thank you
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