The Non-Communicable Disease Agenda and Childhood Obesity

Jonathan D. Klein, MD, MPH
University of Illinois at Chicago
International Pediatric Association

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Sustainable Development Goals

Objetivos de Desarrollo Sustentable

17 new goals:

Objetivo 3: Salud y bienestar
Non-Communicable Diseases
Enfermades Non-Transmissible
(NCDs = ENTs)

• Affect all human and economic development and threaten progress towards global goals

• Now the leading cause of death in low- and middle-income countries – and rates are rising especially in sub-Saharan Africa and South Asia

• NCDs have been viewed as a problem of adults, but children and youth are affected
WHO Global Action Plan for Prevention and Control of NCDs

Risk Factors
- Tobacco
- Unhealthy diet
- Physical Inactivity
- Harmful Alcohol use
- Environment

Diseases
- Heart Disease and Stroke
- Diabetes
- Cancer
- Chronic Lung Disease
- Mental Health
Leading risk factors for global mortality

Source: WHO's report on "Global health risks"
Obesity and overweight in the world

• Overweight: >1.9 billion adults 18yo+ (39%)
• Obesity: >650 million (16%)
• Worldwide prevalence of obesity nearly tripled between 1975-2016

(WHO, 2018)
Adult Obesity and overweight, 2017

Overweight Prevalence for Children, 2016

In three sub-regions, at least one in every ten children under five is overweight.

Percentage of overweight children under 5, by United Nations sub-region, 2016

- Northern America: 7.8%
- Caribbean: 6.9%
- Central America: 6.0%
- Western Africa: 3.0%
- Southern Africa: 11.8%
- Eastern Africa: 4.7%
- Middle Africa: 4.7%
- Southern Asia: 4.4%
- South-Eastern Asia: 7.2%
- Eastern Asia: 5.3%
- Central Asia: 10.7%
- Northern Africa: 10.0%
- Mediterranean: 7.8%
- Oceanian: 9.6%

GLOBAL: 6.0%

Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand; ***Northern America regional average based on United States data. These maps are stylized and not to scale and do not reflect a position by UNICEF, WHO or World Bank Group on the legal status of any country or territory or the delimitation of any frontiers. The legend contains a category for >15 per cent (pink) but there is no sub-region with a rate this high.
Prevalence of Obesity Among U.S. Children Ages 2–19

National Health and Nutrition Examination Survey (NHANES)

- Age 2-5
- Age 6-11
- Age 12-19

Prev. of Obesity:
- 0%
- 5%
- 10%
- 15%
- 20%
- 25%

Time Periods:
- 1971-1974
- 1976-1980
- 1988-1994
- 1999-2000
- 2001-2002
- 2003-2004
- 2005-2006
- 2007-2008
- 2009-2010
- 2011-2012
Obesity harms children and young people

- Emotional and behavioural
  - Stigmatisation
  - Bullying
  - Low self-esteem

- School absence

- High cholesterol
- High blood pressure
- Pre-diabetes
- Bone & joint problems
- Breathing difficulties

- Increased risk of becoming overweight adults
- Risk of ill-health and premature mortality in adult life
Children are the target of food marketing
Percentage of adolescents who drink soft drinks daily

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Sources: Global School-based Student Health Survey; Health Behaviour in School-aged Children (HBSC) Study; International Report from the 2009/2010 Survey.

Map Production: Information Evidence and Research (IER) World Health Organization

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New, unsustainable and distorted food systems offer easy access to calorie-rich, nutrient-poor food.
Annual retail sales per capita of ultra-processed food and drink products in 13 Latin American countries, 2000–2013

(1st) Mexico
(2nd) Chile
(3rd) Argentina

(PAHO, 2015)
1. NCDs & Obesity in Mexico

Policy options to tackle obesity
Strategic objectives and solutions

END CHILDOOD OBESITY

REPORT OF THE COMMISSION ON

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
WHO “Best Buys” 1

Reduce salt intake

– reformulation of food products and setting target levels
– establishment of a supportive environment in public institutions
– behavior change communication and mass media campaigns
– implementation of front-of-pack labelling

Cost effectiveness analysis (CEA)
$\leq 100$ per DALY averted in LMICs
WHO “Best Buys” 2

• Eliminate industrial trans-fats use in food chain
• Reduce sugar consumption through effective taxation on beverages

Cost effectiveness analysis (CEA)
> $100 per DALY averted in LMICs
WHO “Best Buys” 3

“Other” recommended interventions:

- Promote exclusive breastfeeding for 6 months
- Subsidies to increase fruit and vegetable intake
- Replace trans and saturated fats with unsaturated fats
- Limit portion and package sizes
- Nutrition education & counselling
- Media campaigns for healthier diets

Cost effectiveness analysis (CEA)
Not Available
**VOLUNTARY GLOBAL TARGETS**

1. **A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.**

2. **At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.**

3. **A 10% relative reduction in prevalence of insufficient physical activity.**

4. **A 30% relative reduction in mean population intake of salt/sodium.**

5. **A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.**

6. **A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.**

**Halt the rise in diabetes and obesity.**

7. **At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.**

8. **An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.**

**ENDING CHILDHOOD OBESITY**
Preventing NCDs Starts Early

• Breastfeeding has long-term effects
  — Increases intelligence, school attainment
  — Reduces risk of obesity
  — Reduces risk of diabetes

NCDs start early with suboptimal infant and young child feeding practices, including use of breast-milk substitutes and poor complementary feeding.
Dual Burden of Malnutrition

• Obesity and under nutrition seen as separate, sometimes opposing entities

• These coexist globally, nationally, locally — even within families and individuals

Chopra, M. *HygieaInternationalis*, 2004
Health Care and Obesity

• Children with obesity represent unique challenge in hospital
  ◦ Scales/BP cuffs
  ◦ Airway management – intubation
  ◦ Mechanical ventilation
  ◦ Association with other comorbidities

• Emerging evidence for counseling with motivational interviewing to change family food behavior and progression of childhood obesity
Evidence shows that a tax of 20% on sugary drinks can lead to a reduction of consumption of around 20%.

World Health Organization

-20% price of sugary drinks
-20% consumption

Prefiera alimentos con menos sellos
Y SI NO TIENEN, MEJOR

LEY DE ALIMENTOS

+20% price of sugary drinks

NUTRI-SCORE

POLICY
fiscal, marketing, labelling
Front-labelling of foods & beverages

MEXICO

CHILE
How understandable is the front labelling? (INSP, 2016)

- **Very comprehensible**: 30.5%
- **Somewhat comprehensible**: 13.8%
- **Little comprehensible**: 28%
- **Not comprehensible**: 16.6%
- **Doesn't know/no answer**: 1%

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Influencia de los sellos en la elección de compra
(Submuestra: 467 casos, que comparan la cantidad de sellos en los productos)

- **It does influence, I choose products with less logos**: 67.8%
- **It does influence, I do not buy products with logos**: 9.7%
- **It does influence, I buy less of a product with logos**: 14.1%
- **It does not influence, I buy as much as before**: 8.4%

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CHILE

(INTA, 2017)

91.6%

MEXICO

(INSP, 2016)

75.1%
Pediatrician and pediatric organizations can intervene at individual, community, regional, and national levels.