Addressing Overweight and Obesity in LMICs: Roles and Recommendations for NGOs and Program Implementers

May 4, 2022

Co-hosted by CORE Group’s Nutrition Working Group and NCD Interest Group
Addressing Obesity and Overweight in Low and Middle Income Countries

Jennie Davis
University of California, Davis

Fátima Ruiz
Children International

Rachel Nugent
RTI International

Alissa Pries
Helen Keller International

Arti Varanasi
Co-Chair, NCD Interest Group

Annie Toro
Co-Chair, NCD Interest Group

Charlotte Block
Co-Chair Nutrition Working Group

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Overview and Approach

Arti Varanasi, PhD, MPH, CPH
President & CEO, Advancing Synergy
Co-Chair, NCD Interest Group
May 4, 2022
CORE Group’s NCD Interest Group works to convene those working to treat and prevent NCDs at the community level, to share resources, events, and vital information to improve their work and impact.

Co-Chair: Annie Toro, What to Expect Project, President & Executive Director  
Co-Chair: Arti Varanasi, Advancing Synergy, President & CEO  
CORE Group Liaison: Lisa Hilmi, CORE Group, Executive Director
Integration of NCDs into Global Health Programs: A Roadmap to Achieving the Sustainable Development Goals in 2030

- NCDs responsible for 41 million deaths per year globally; 85% in LMICs
- 77% of ALL NCD deaths are in LMICs
- Understand progress since first UN HLM in 2011
- Identify sustainable opportunities and solutions for integrating NCD priorities into global health programs with long-term impact
OUR APPROACH: Collaborative and Purposeful

- Equity
- Workforce
- Technology
- Emergencies

NCDs
OUR HOPE: Leverage Collective Experiences
We invite you to join us for our Steering Committee meeting on the 2nd Tuesday of each month at 10 AM ET.

Interested? Email NCD Interest Group Co-Chairs,

Annie Toro, What to Expect Project, atoro@whattoexpectproject.org
Arti Varanasi, Advancing Synergy, avaranasi@advancingsynergy.com
The economic impact of obesity

• Product of partnership between World Obesity and RTI International

• Born out of need for improved economic evidence on overweight and obesity

• A catalyst for change in the delivery of joined up policies which recognise and address the underlying root causes of obesity
Headlines and coverage

La obesidad le costó a México un 2,1 % del PIB en 2019, según un estudio

Obesity impact on GDP set to double globally by 2060 without action

El impacto económico de la obesidad en España aumentará un 211 % hasta 2060

Socioeconomic impact of overweight and obesity: 8% of the G8's GDP is at risk of being lost by 2030

Obesity costing Saudi Arabia $1 billion per year: Study
In 2019, the economic impacts of overweight and obesity per capita range from USD 3-4 (Burundi, Uganda, Malawi, Ethiopia) to more than USD 1,400 (Luxembourg, Switzerland, USA)
In 2019, the economic impacts of overweight and obesity range from 0.5% of national GDP (Guinea, Uganda, Ethiopia, Equatorial Guinea, Nigeria) to 3.8% of GDP (Bulgaria, Fiji).
## Current economic impact of overweight and obesity (2019)

<table>
<thead>
<tr>
<th>Country income group</th>
<th>Total direct costs (billions)</th>
<th>Total indirect costs (billions)</th>
<th>Total costs (billions)</th>
<th>Total costs per capita (USD)</th>
<th>Total costs as percent of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income</td>
<td>0.5</td>
<td>2.5</td>
<td>3.0</td>
<td>5.8</td>
<td>0.8%</td>
</tr>
<tr>
<td>Lower-middle income</td>
<td>9.4</td>
<td>56.6</td>
<td>66.0</td>
<td>22.7</td>
<td>1.0%</td>
</tr>
<tr>
<td>Upper-middle income</td>
<td>78.4</td>
<td>291.7</td>
<td>370.1</td>
<td>129.7</td>
<td>1.5%</td>
</tr>
<tr>
<td>High-income</td>
<td>514.9</td>
<td>771.6</td>
<td>1,286.4</td>
<td>1,074.9</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>Total direct costs (billions)</th>
<th>Total indirect costs (billions)</th>
<th>Total costs (billions)</th>
<th>Total costs per capita (USD)</th>
<th>Total costs as percent of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>4.27</td>
<td>14.25</td>
<td>18.53</td>
<td>17.28</td>
<td>0.98%</td>
</tr>
<tr>
<td>EMR</td>
<td>12.60</td>
<td>48.56</td>
<td>61.16</td>
<td>99.97</td>
<td>2.02%</td>
</tr>
<tr>
<td>EUR</td>
<td>155.01</td>
<td>331.98</td>
<td>486.99</td>
<td>523.64</td>
<td>2.10%</td>
</tr>
<tr>
<td>AMR</td>
<td>352.24</td>
<td>467.53</td>
<td>819.76</td>
<td>846.08</td>
<td>2.90%</td>
</tr>
<tr>
<td>SEAR</td>
<td>4.99</td>
<td>39.67</td>
<td>44.66</td>
<td>22.60</td>
<td>0.89%</td>
</tr>
<tr>
<td>WPR</td>
<td>74.08</td>
<td>220.40</td>
<td>294.47</td>
<td>153.93</td>
<td>1.21%</td>
</tr>
</tbody>
</table>
By 2060, the economic impacts of overweight and obesity substantially increase across all income groups.
By 2060, the economic impacts of overweight and obesity substantially increase across all regions.
By 2060, the largest percentage increase in total costs occur in LMICs and in the Western Pacific and Southeast Asia regions.
Thank you
@rachelnugent
rnugent@rti.org
weight related stigma among adolescents in three low- and middle-income countries
Objective

To undertake formative research to provide initial insight into the prevalence and experience of weight-related stigma among adolescents in three low and middle-income countries [LMICs]

- Brazil
- Indonesia
- South Africa
“That comment, ‘Wow! you are different’, ‘you are a little bit fat, or fatter’, these comments never offended me, but the comments.. ‘Soon you will no longer fit into clothes, you will have to make clothes’, ‘You will no longer pass through the ratchet of a bus’.. These comments, sometimes I ended up not answering, but I didn't like it.. These kinds of offending comments, many I answered, others I didn't care about and let it go.”

- [Brazil, Female, 18 years, affected by overweight]
FELT OR INTERNALIZED WEIGHT STIGMA

SOUTH AFRICA

Both males and females affected by overweight had received negative comments about their weight.

- Feeling: Unhappy listening to negative comments about their weight
- Location: Most reported by urban based YP
- Source: Males
  - Schoolmates: 48.0%
  - Family member: 48.0%
- Source: Females
  - Schoolmates: 48.0%
  - Family member: 48.0%
- Source: Urban
  - Schoolmates: 48.0%
  - Family member: 48.0%
- Source: Rural
  - Schoolmates: 48.0%
  - Family member: 48.0%

64.7% Males    73.3% Females
FELT OR INTERNALIZED WEIGHT STIGMA

BRAZIL

Both males and females affected by overweight had received negative comments about their weight.

Feeling: Unhappy listening to negative comments about their weight

Location: Mostly reported by urban YP

Source: Males

Source: Females

Source: Urban

Source: Rural

Friend 73.0%

Family member 48.0%

Schoolmates 71.0%

Family member 82.0%
FELT OR INTERNALIZED WEIGHT STIGMA

INDONESIA

More than half of males affected by overweight had received negative comments about their weight, whereas females had not.

Feeling: Not bothered by negative comments on their weight

Location: Mostly commented in rural areas

Source: Males

53.8%

Source: Females

Schoolmates 68.0%

Schoolmates 61.0%

Source: Urban

Friend 68.0%

Schoolmates 69.0%

Source: Rural
What do young people want to happen?

Support to achieve & maintain healthy weight
- Promote inclusive model of health & body image
- Stop the pressure
- Create supportive environments
- Recognize & address COVID impacts
- Address unequal opportunities and access

Tackle weight stigma
- Stop weight related bullying in schools
- Promote inclusive model of health & body image
Acknowledgements & More Information

With Thanks to: **UNICEF**

**Project Research Team**

- Dr Ishu Kataria  
  ikataria@rti.org

- Dr Angie Jackson-Morris  
  ajackson-morris@rti.org
The Case for Investment in Interventions to Prevent and Reduce Overweight and Obesity among Children and Adolescents in Mexico

Preliminary Findings Presentation
Intervention selection

1) Fiscal interventions
2) Strengthening the ban on marketing of unhealthy foods to children
3) Social marketing campaign
4) Breastfeeding promotion
5) Strengthening school-based interventions
Target population in 2025

- Fiscal interventions; Marketing of unhealthy foods; & Social marketing campaign
  - 0-19 years old

- Breastfeeding promotion
  - 0-12 months old

- School-based intervention
  - 6-17 years old
Findings from the Nutrition Working Group Position Paper

Jennie Davis
and CORE Group NWG Co-Chairs:
Adriane Siebert
Charlotte Block
Shelley Walton

Addressing Overweight and Obesity in Low- And Middle-Income Countries: Roles and Recommendations for Non-Governmental Organizations and Program Implementers
A position paper by
The CORE Group Nutrition Working Group
March 2022
Consultive Inquiry

• Semi-structured interviews with 29 nutrition, health, policy, economic experts from around the globe.
• 1-hr interviews conducted over Zoom March – June 2020
• Interview guide:
  1. Successful and unsuccessful interventions and preventions
  2. Gaps in policies and programs;
  3. Stakeholders to engage;
  4. Roles of NGOs in addressing ow/ob.
• Qualitative analysis of interview data using NVivo software
Interviews of Experts

- LMIC represents experts with expertise in multiple LMICs
- USA includes Hawaii and American Samoa, and 2 policy experts
- Missing North African/Eastern Mediterranean Region
Roles for Local, National, & International NGOs and Program Implementers

1. Nutrition programming strategies and policies
2. Advocacy and stakeholder engagement
3. Research partnerships and implementation
4. Technical support
Roles for Local, National, & International NGOs and Program Implementers

Local, National & International Partnerships

- Program development and implementation
- Food and agriculture industries
- Donor and funding agencies
- Government entities
- Non-governmental organizations
- Research organizations
- Food and agriculture industries
- Donor and funding agencies
- Government entities
- Non-governmental organizations
- Research organizations
Role 1. Nutrition programming strategies and policies

• Update current Infant & Young Child Feeding (IYCF) programs to address overnutrition
  • Growth monitoring programs
  • Prenatal visit counseling
  • Responsive feeding practices

• Prioritize schools

• Develop youth-led nutrition programming and include adolescents
Role 1. (cont.) Nutrition programming strategies and policies

• Prioritize and promote physical activity
  • Street safety in urban settings and schools

• Integrate cross-cutting nutrition education
  • Community nutrition education

• Prioritize the food environment
  • Accessible, affordable, and nutritious food

• Develop and strengthen nutrition policies and financing
Role 2. Advocacy and stakeholder engagement

“NGOs have the latitude to advocate, lobby, and demand accountability. They must leverage their resources.”

• Advocacy
  • Form and maintain partnerships
  • Be a voice for communities who don’t have a seat at the table

• Stakeholder engagement
  • Generate interest and address stigma
  • Increase access to funding

“We need to show donors how programs focused on undernutrition and food insecurity are also beneficial for obesity prevention.”
Role 3. Research partnerships and implementation

- Data needed to support and develop ow/ob programs and policies
- Integrate data collection into existing programs
- Plan for monitoring and evaluation in program and policy development
- Consider sustainability and scalability
Role 4. Technical support

• Leverage experience and expertise of NGOs and program implementers to:
  • Implement national health strategies
  • Legislation to address ow/ob

• Support governments and national and local entities to be aware, understand, and become interested in addressing ow/ob.
Recommendations

1. Generate data on ow/ob in LMICs
2. Collect biological, behavioral, and environmental indicators associated with ow/ob
3. Apply implementation science to ow/ob programming and policies to determine success
4. Consider ow/ob awareness and prevention in nutrition programs and policies
5. Actively challenge the stigma associated with ow/ob
6. Form communities of practice for ow/ob prevention
It is the position of the Nutrition Working Group of CORE Group that prevention of overweight and obesity among adults, adolescents, and children be incorporated into nutrition programming in low- and middle-income countries (LMICs), complementing the current focus on undernutrition programming.

Approaches to address overweight and obesity should prioritize consideration and evaluation of the varying LMIC contexts, including differing settings, population characteristics, age groups, and nutrition status.
Diets in transition: Consumption of commercial foods among infants and young children in LMIC

Alissa Pries, PhD
Senior Research Advisor
Assessment & Research on Child Feeding Project
May 4, 2022
Food systems are changing...

**FINANCIAL TIMES**

Nestlé document says majority of its food portfolio is unhealthy

Internal company presentation acknowledges more than 60% of products do not meet ‘recognised definition of health’

Diets are changing…

• And not just among adults and adolescents…

WHAT DOES THIS MEAN FOR DIETS...

OF INFANTS AND YOUNG CHILDREN?
BUT HOW MUCH OF THESE FOODS ARE YOUNG CHILDREN CONSUMING?

<table>
<thead>
<tr>
<th>FOOD CATEGORIES</th>
<th>% TEI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNHEALTHY SNACK FOOD/BEVERAGE FOODS</strong></td>
<td></td>
</tr>
<tr>
<td>Biscuits</td>
<td>10.8 ± 0.5</td>
</tr>
<tr>
<td>Candy/chocolates</td>
<td>3.5 ± 0.2</td>
</tr>
<tr>
<td>Savory snacks</td>
<td>3.4 ± 0.3</td>
</tr>
<tr>
<td>Instant noodles</td>
<td>2.2 ± 0.2</td>
</tr>
<tr>
<td>Sweet bread/bakery</td>
<td>2.0 ± 0.2</td>
</tr>
<tr>
<td>Traditional savory snacks</td>
<td>0.2 ± 0.04</td>
</tr>
<tr>
<td>Processed dairy</td>
<td>0.2 ± 0.09</td>
</tr>
<tr>
<td>Sugary breakfast cereal</td>
<td>0.1 ± 0.03</td>
</tr>
<tr>
<td>Traditional sweet snacks</td>
<td>0.1 ± 0.04</td>
</tr>
<tr>
<td><strong>BEVERAGES</strong></td>
<td></td>
</tr>
<tr>
<td>Sweetened tea/water</td>
<td>0.8 ± 0.08</td>
</tr>
<tr>
<td>Fruit juice drinks</td>
<td>1.0 ± 0.1</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>0.1 ± 0.04</td>
</tr>
<tr>
<td>Chocolate-powder drinks</td>
<td>0.1 ± 0.04</td>
</tr>
</tbody>
</table>

### HOW MUCH OF THESE FOODS ARE YOUNG CHILDREN CONSUMING?

<table>
<thead>
<tr>
<th>Authors</th>
<th>Setting</th>
<th>Age (months)</th>
<th>%TEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson et al. (2008)</td>
<td>Cambodia (urban)</td>
<td>12-23</td>
<td>38.2%</td>
</tr>
<tr>
<td>Denney et al. (2017)</td>
<td>Mexico (national)</td>
<td>6-23</td>
<td>16.1%</td>
</tr>
<tr>
<td>Jeharsae et al. (2011)</td>
<td>Thailand (conflict setting)</td>
<td>12-23</td>
<td>19.3%</td>
</tr>
<tr>
<td>Karnopp et al. (2017)</td>
<td>Brazil (urban)</td>
<td>0-23</td>
<td>19.7%</td>
</tr>
<tr>
<td>Kavle et al. (2015)</td>
<td>Egypt (peri-urban/rural)</td>
<td>6-23</td>
<td>14.1%</td>
</tr>
<tr>
<td>Lander et al. (2010)</td>
<td>Mongolia (urban)</td>
<td>6-23</td>
<td>36.2%</td>
</tr>
<tr>
<td>Pries et al. (2019)</td>
<td>Nepal (urban)</td>
<td>12-23</td>
<td>24.5%</td>
</tr>
<tr>
<td>Roche et al. (2011)</td>
<td>Peru (rural)</td>
<td>0-23</td>
<td>13.1%</td>
</tr>
<tr>
<td>Rodríguez- Ramírez et al. (2016)</td>
<td>Mexico (national)</td>
<td>6-23</td>
<td>~20%</td>
</tr>
<tr>
<td>Valmórbida and Vitolo (2014)</td>
<td>Brazil (urban)</td>
<td>12-16</td>
<td>13.6%</td>
</tr>
<tr>
<td>Webb et al. (2006)</td>
<td>Australia (national)</td>
<td>16-24</td>
<td>26.5%</td>
</tr>
</tbody>
</table>

# NUTRITIONAL QUALITY OF COMMERCIAL FOODS IN SE ASIA

## Growing up milks in Indonesia (n=92)

<table>
<thead>
<tr>
<th>Sugar Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low sugar (green flag)</td>
<td>4%</td>
</tr>
<tr>
<td>Medium sugar (orange flag)</td>
<td>25%</td>
</tr>
<tr>
<td>High sugar (red flag)</td>
<td>71%</td>
</tr>
</tbody>
</table>

WHAT DOES THIS MEAN FOR CHILD NUTRITION?

• Excessive energy intakes and risk of over-nutrition among older children

• Studies indicating diet displacement of other nutritious foods
  - .... potential to contribute to undernutrition in early childhood, which also increases risk of overweight/obesity later in life
HOW CAN WE PROTECT CHILDREN’S DIETS

Food environment: **marketing and availability**
HOW CAN WE PROTECT CHILDREN’S DIETS
Food environment: claims and labelling

“G for Genius”

“Packed with fruit goodness”

“Enriched with vitamins + minerals”

“So healthy”

“Contains protein, calcium, vitamin D”
HOW CAN WE PROTECT CHILDREN’S DIETS

• Advertising restrictions

• Fiscal policy solutions

• Nutrient profiling & front-of-pack labelling
Conclusions

• The food system is changing – unhealthy ultra processed foods are becoming dominant

• Diets are also changing in response – among adults and children

• Increases in overweight & obesity, and contribution to both sides of the double burden

• Nutrition education is one approach, but policy solutions are also needed for population-level impact
THANK YOU!
Children International

Salud / Health
Educación / Education
Empoderamiento / Empowerment
Empleabilidad / Employment

Fátima Ruiz
Nutrióloga, Universidad de Guadalajara.
Coordinadora de Monitoreo, Evaluación y Aprendizaje.

Fátima Ruiz
Nutritionist, Universidad de Guadalajara.
Coordinator Monitoring, Evaluation and Learning.
La nutrición ha sido un componente clave en los programas.

Nutrition has been a key component in the programs

Históricamente, las estrategias se han centrado en la desnutrición.

Historically, these strategies have focused on malnourished.

Sin embargo, en México fue necesario hacer un ajuste:

However, in Mexico it was necessary to make an adjustment:

1 niño con desnutrición

1 acutely malnourished child

10 niños con sobrepeso u obesidad

10 children with overweight or obesity

Prevalencia de sobrepeso y obesidad en la población de 5 a 11 años en México

Prevalence of overweight and obesity in the population aged 5 to 11 years in México

ENSANUT

18.6% 1999

26% 2006

34.4% 2012

35.6% 2018

La desnutrición aguda deja de ser un problema de salud pública

Acute malnutrition is no longer a major public health issue

2016 -2019

4,379 niños/jóvenes y 1,077 cuidadores en temas de estilos de vida saludables para prevenir y controlar la obesidad.

4,379 children/youth and 1,077 caregivers reached on issues of healthy lifestyles to prevent and control obesity
Incrementos en conocimientos y comportamientos relacionados a dieta balanceada y actividad física

**Aprendizajes / Learning**

**Equipes Multidisciplinarios**
Multidisciplinary teams

**Involucramiento familiar**
Family involvement

**Actividad física**
Physical activity

**Énfasis en estilos de vida saludable**
Emphasis on Healthy lifestyles

**Estrategias prácticas**
Practical Strategies

**Sistemas y entornos alimentarios**
Environment and food systems

**Prevención**
Community prevention

Sesiones informativas
Information sessions

**Actividad física**
Physical activity

**Involucramiento familiar**
Family involvement

**Actividad física**
Physical activity

**Estrategias prácticas**
Practical Strategies

**Asesorías nutricionales personalizadas**
Personalized nutritional advice

**Estrategia dirigida**
Targeted approach

26% redujeron su IMC
reduced their BMI

50% mantuvieron su IMC
maintained their BMI

20% implementaron nuevas estrategias
implemented new strategies to support healthy lifestyles
A Call to Action

Annie Toro, JD, MPH
President & Executive Director, What to Expect Project
Co-Chair, NCD Interest Group
May 4, 2022