JAMBAR KIDS
A school environment study

Suzanne Soares-Wynter, PhD
Clinical Nutritionist
Caribbean Institute for Health Research

Virtual Caribbean Healthy Food Policy Research Symposium
April 5-6, 2022
Foundation for School Policies

• High rates of population obesity & risk across the lifespan
  • Double burden of disease, pockets of undernutrition remain

• Between 2010 - 2017, obesity among Jamaican children aged 13-15 increased by 68%

• Complementary initiatives (Jamaica Moves, Plastics Ban, Food label regulations/standards)

• Interim beverage guidelines (2019); school nutrition policy remains in draft

• Diets dominated by imported processed and ultra-processed pre-packaged foods with excess added sugars, sodium, saturated fats, and refined carbohydrates

• Scant information on primary school age nutrition or school environments
Why School Environments?

• Children spend a lot of time at school
• Healthy eating in early ages is critical to ensuring proper growth and development
• Can address food security to ensure no child goes hungry
• Schools:
  • controlled environment for implementation
  • place of influence

.....but they are complex systems with multiple influences
Policy Goals

- Protect children’s right to safe, nutritious foods & beverages
- Improve access & promotion of healthy alternatives,
- Create healthier food environments
- Public education to encourage healthier eating behaviours
Research Objectives

• To examine the association between unhealthy dietary habits* and physical activity with overweight and risk of disease
  • *SSB, non-essential foods, fruits & vegetables, water

• Socioeconomic, demographic and environmental exposures
  • Vendors, marketing, sponsorships (sports), school events, etc
  • School regulations/policies

• Identify barriers &/or facilitators to healthy child development
  • KAP – children, school meal coordinator
  • Peer-groups, parents
  • Environmental – marketing, street vendors,
JAMBAR Kids
School Environment Audit
Phase I - Nov 2018-April 2019
Phase II – March 2022

Cross-sectional study to assess the impact on children’s nutritional status
• School environment
• Decision making processes
• Influencers
School Environments
- Regulation of food & activity environments in schools

1. **Environment Audit (Foods & Physical Activity)**
   - Physical space accessible by children
   - Foods & beverages
   - Physical activity opportunities
   - Marketing elements
   - Food preparation & service facilities (canteen, tuck shop)
   - Farm gardens
   - Water access
   - Surrounding neighbourhood – street vendors
   - Green spaces
   - Safety
   - Sanitation
### Beverage Types at each source (inside schools)

<table>
<thead>
<tr>
<th>Beverage Type</th>
<th>School Vendor</th>
<th>TuckShop</th>
<th>Canteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain Milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diet soda</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flavoured water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bag drink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Legend: School Vendor, TuckShop, Canteen*
School Environments

- Regulation of food & activity environments in schools

2. **Influencers**
   - Principals/Senior Administrators
   - Canteen/School Meal Managers
   - Street Vendors
   - Parents

**Objectives**
- Barriers or facilitators to implementation of sweetened beverage restrictions
- Identify & characterize successful schools/initiatives/facilitators
Child Study

$n \approx 870$, 7-12 years, grades 3 to 5

- Modified 24-hour recall (Fruits, vegetables & beverages)
- KAP – healthy vs unhealthy foods & beverages
  - Sweetened beverages
  - TV/screen time, physical activity
- Anthropometry, body composition
- Blood pressures
- Dental health
- Parent feedback, family medical history, home lifestyle & diet
Direct Advertising, Fundraising, Donations in Schools

• Marketing material:
  Equipment (74%), Posters (65%), Apparel (60%)
  • Posters most frequently observed overall

  ‣ Total of 65 F&B brands
  • Over 50% SSB brands
  • Others: bakeries, snack, candy, fast food, alcohol, frozen treats
  • Over 335 separate instances of advertising

• Promotions/sales by parent/teacher may encourage and ‘validate’ unhealthy foods
  • Potential Conflict with statements that teachers are “role models” of healthy eating.

Donation guidelines?
Street Vendor Study

- Largely unregulated component of informal food & beverage sector
- Autonomy to determine the types and quality of the foods sold
- Some specially geared towards children as consumers

**Objectives**

1. Describe their role & contribution to child nutrition
2. KAP, especially towards the Interim beverage guidelines
Street Vendor Offering

<table>
<thead>
<tr>
<th></th>
<th>Fruits</th>
<th>Water*</th>
<th>SSB**</th>
<th>Bag SSB**</th>
<th>Snacks</th>
<th>Candy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N (%)</strong></td>
<td>12 (27%)</td>
<td>42 (95%)</td>
<td>44 (100%)</td>
<td>43 (98%)</td>
<td>42 (95%)</td>
<td>39 (89%)</td>
</tr>
<tr>
<td><strong>Max. # of Selections</strong></td>
<td>8</td>
<td>12</td>
<td>41</td>
<td>21</td>
<td>81</td>
<td>84</td>
</tr>
<tr>
<td><strong>Min. Price JM$</strong></td>
<td>10</td>
<td>10</td>
<td>50</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td><strong>Max. Price JM$</strong></td>
<td>150</td>
<td>100</td>
<td>160</td>
<td>30</td>
<td>140</td>
<td>150</td>
</tr>
</tbody>
</table>
JAMBAR Kids Phase II
March 2022

EVALUATION & FOLLOW-UP Environment Audit
• Repeat Phase I

EXPERIENCES WITH INTERIM BEVERAGE GUIDELINES
COVID-19 PANDEMIC DISRUPTIONS
MARKETING OF UNHEALTHY PRODUCTS
HEALTH PROMOTIONS
EXPANDED AUDIT OF FOODS
Next steps in School Nutrition Policies

• Create a framework to scale up successful cases,
• Public education and elimination of unwanted commodities
• Form a sustained, comprehensive policy
• Covid setback to sugary drink ban?
• School meals to focus on providing nutrition vs revenue generation?
• Marketing, industry influence?
Challenges

- Research competing in the school space (saturation)
  - Academia & Government
  - Food Industry
  - Non-disruptive engagement

- Food industry
  - Policy push-back
  - Corporate social responsibility, interference
  - Conflicts of interest

- COVID-19
  - School closures

COVID-19
Public Engagement
-Advocacy, Communications & Public Education

• Fact Sheets
• Expert Forums
• Public Education/Mass Media Campaigns
• Training workshops (Journalism, vendors, NGOs)
• Professional/Advisory/Technical Committees
Research Team

Principal Investigator
*Suzanne Soares-Wynter*

Project Coordinator
*Cherie-Ann Small*

Co-Principal Investigator
*Shu Wen Ng*

Program & Grant Lead
*Barry Popkin*

**Collaborators**
- Bridget Hollingsworth
- Khristopher Nicholas (UNC)
- Kevon Kerr (UHWI)
- Natasha Sobers (CAIHR-GA-CDRC)
- Annalee Gray Brown (Research Assistant)
- Stacey Aiken-Hemming (Research Assistant)

**Data Collectors**
- 2022