

**Caribbean Institute
for Health Research**

What's Driving Childhood Obesity in The Caribbean?

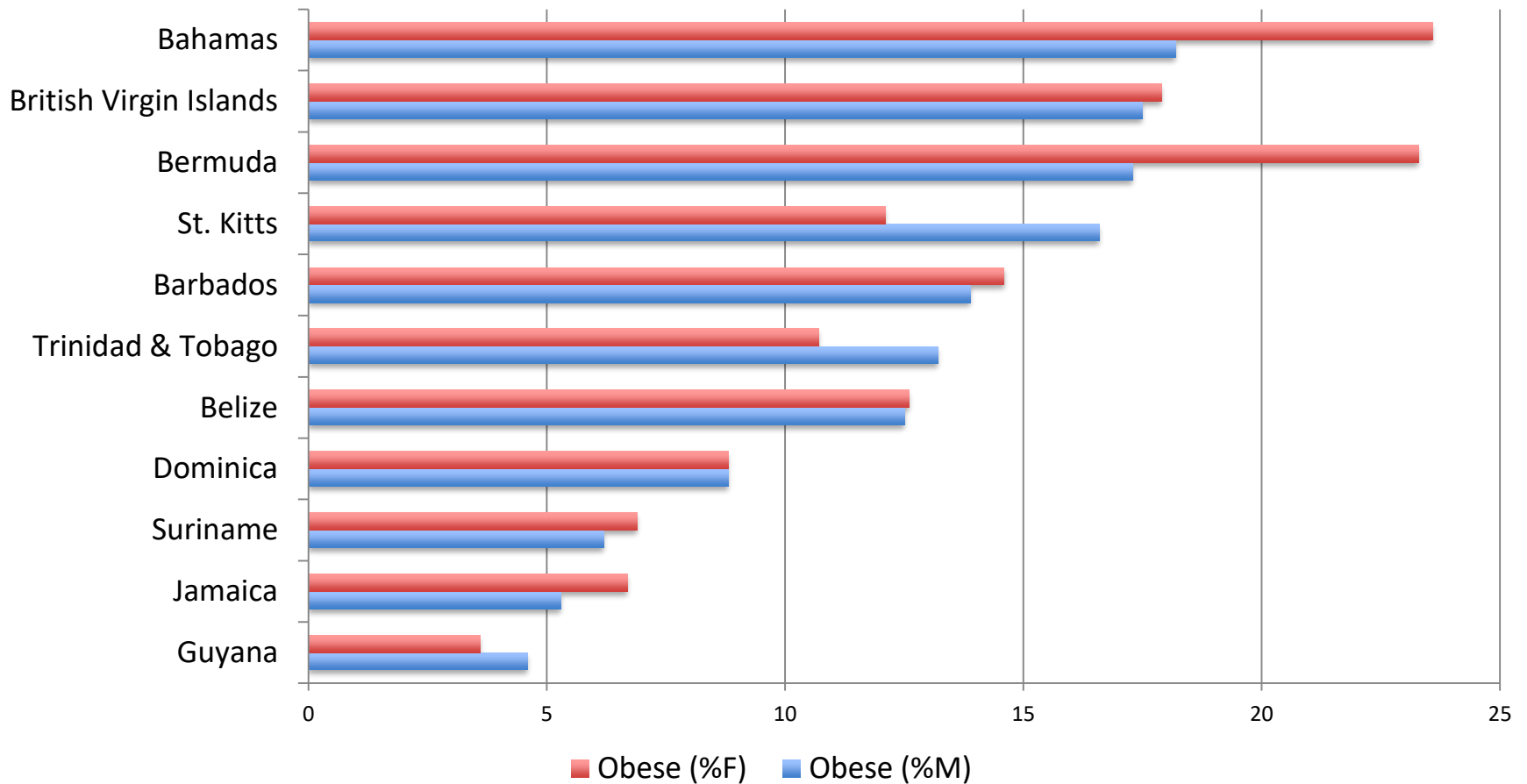
Professor T. Alafia Samuels

Director, George Alleyne Chronic Disease Research Centre

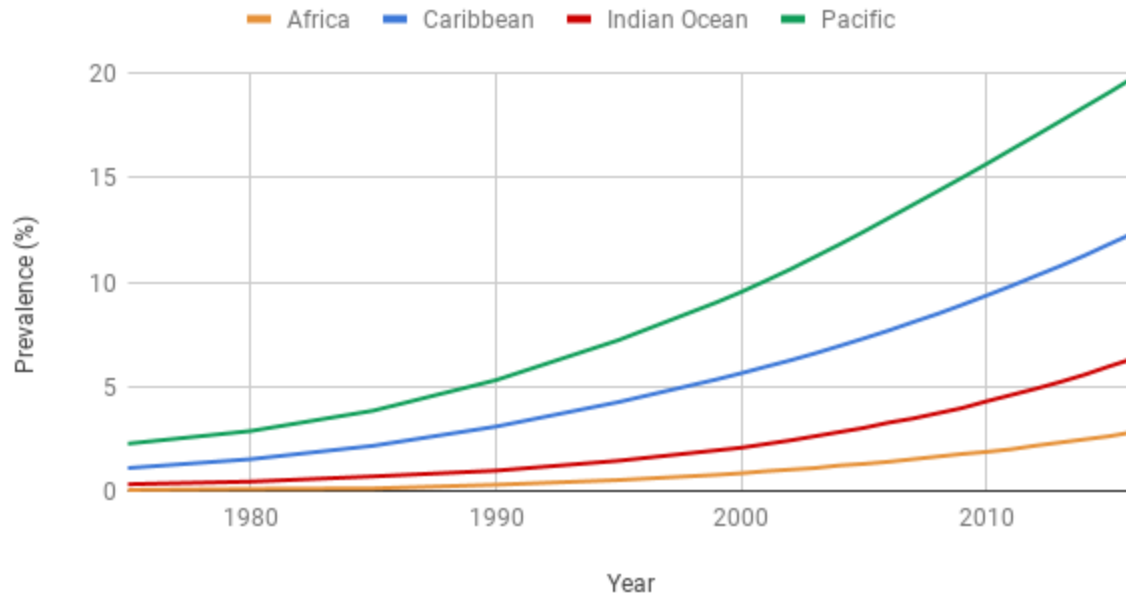
UNIVERSITY OF THE WEST INDIES, Cave Hill Campus

BURDEN OF CHILDHOOD OBESITY

% Childhood Obesity (> +2SD from median BMI) by gender: from Global School Health Survey (2009-2013)



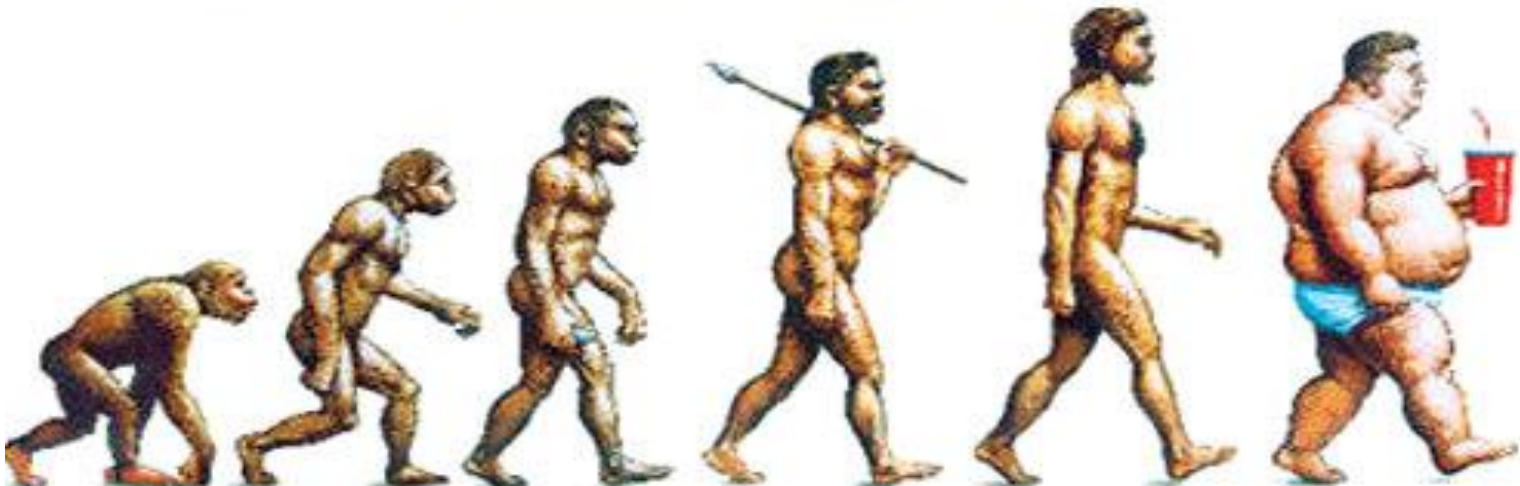
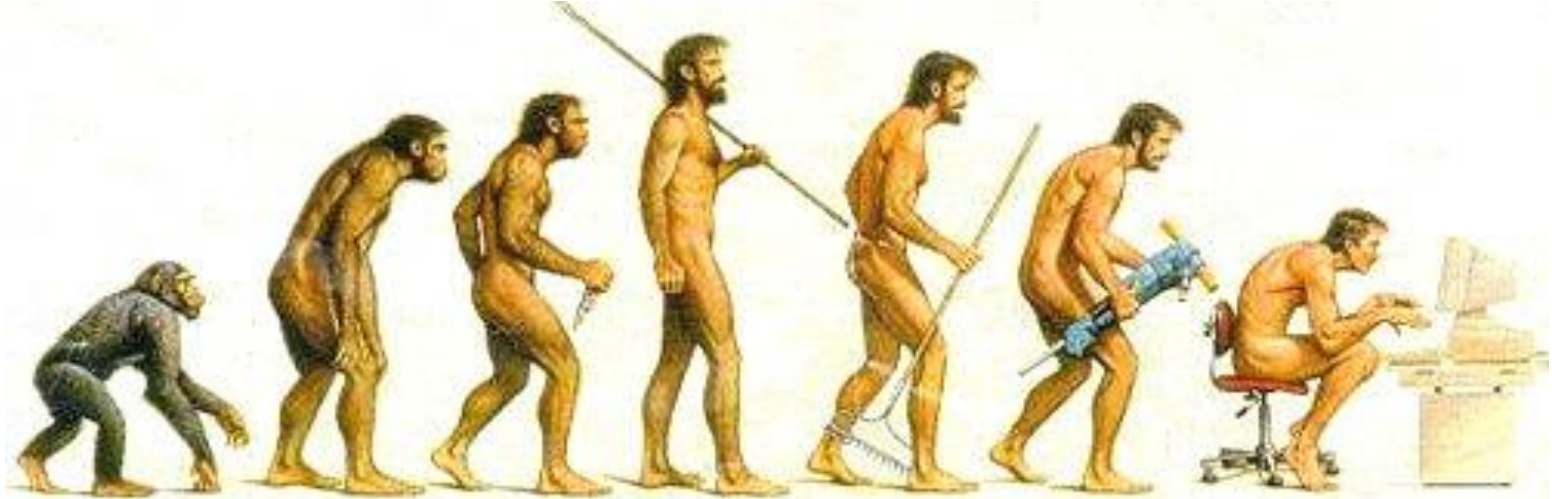
Trends in childhood obesity in small island states



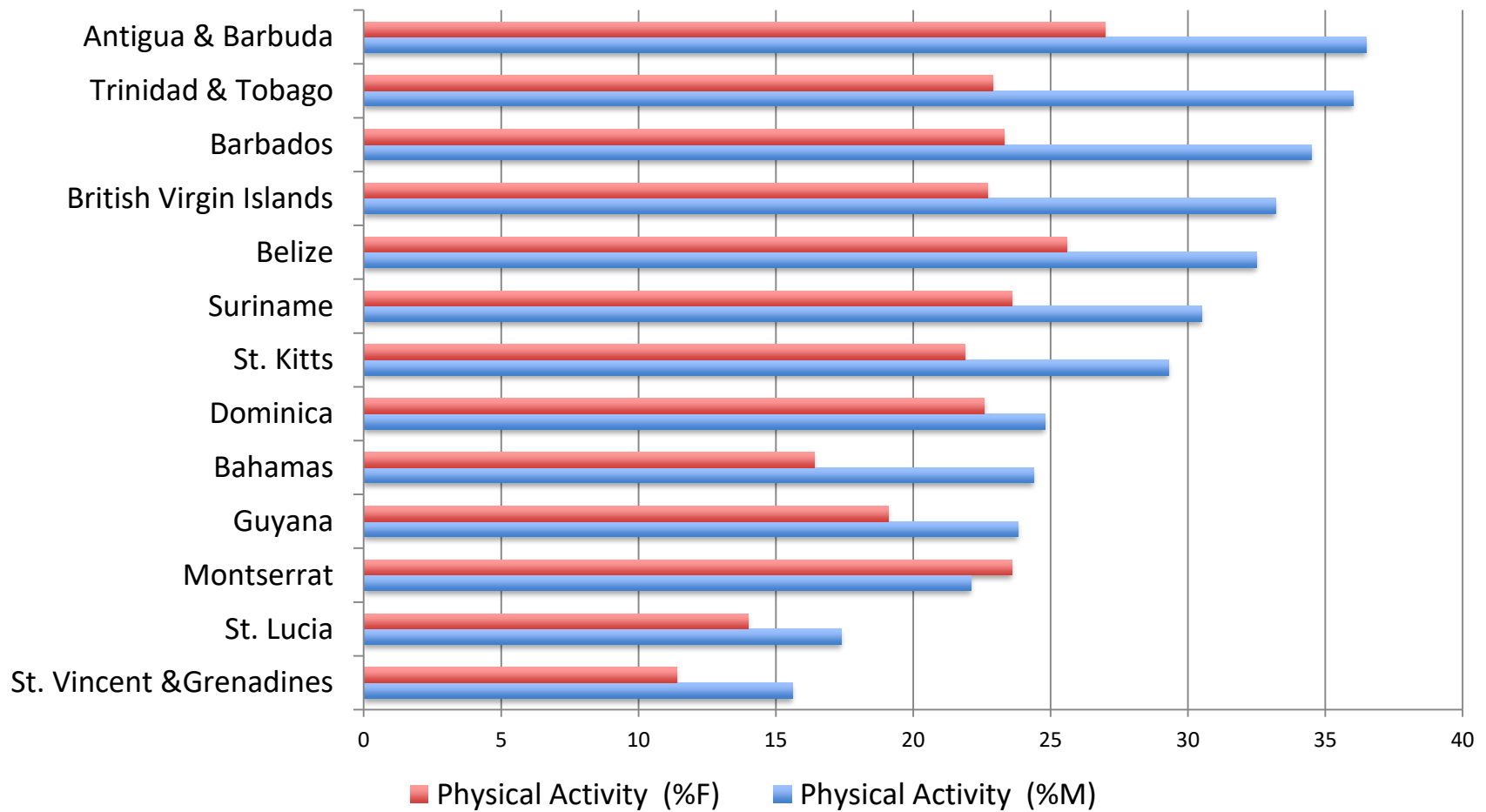
Obesity in children has dramatically increased in the last decades in Small Island States

DRIVERS OF CHILDHOOD OBESITY

Evolution of the Problem



% Physical activity for 60 minutes/day during last 5/7 days from GSHS (2007-2013)



Myth v. Truth

- **Myth:** just exercise more and eat what you want.
- **Truth:** exercise alone generally won't work (it takes 2 hours of brisk walking to burn off 500 calories – small chocolate and small pack of chips).

TRANSITION TO PROCESSED FOODS



Commercial determinants of health

- Multinational food and beverage companies promote overconsumption of **highly processed, unhealthy food and sugary drinks** for profit
- Like tobacco, **marketing is shifting** from high income countries to developing countries, including in the Caribbean

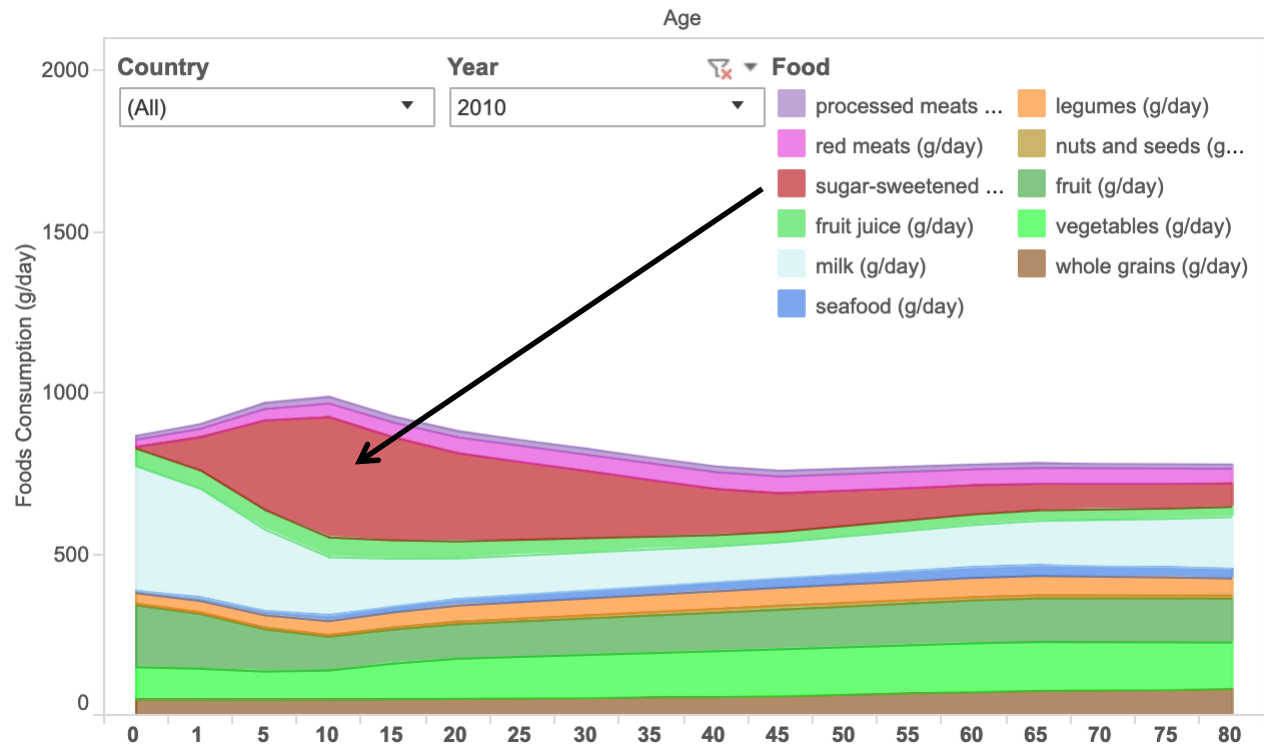
Moodie R., Stuckler, D., Monteiro, C., Sheron, N., Nea, I B., Thamarangsi, T., et al. (2013). Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *Lancet*, 381(9867), 670-679.

Stuckler D, McKee M, Ebrahim S, Basu S. Manufacturing epidemics: the role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. *PLoS medicine*. 2012;9(6):e1001235.

Sugar is a major contributor

Intake of Major Foods by Age
All, 2010

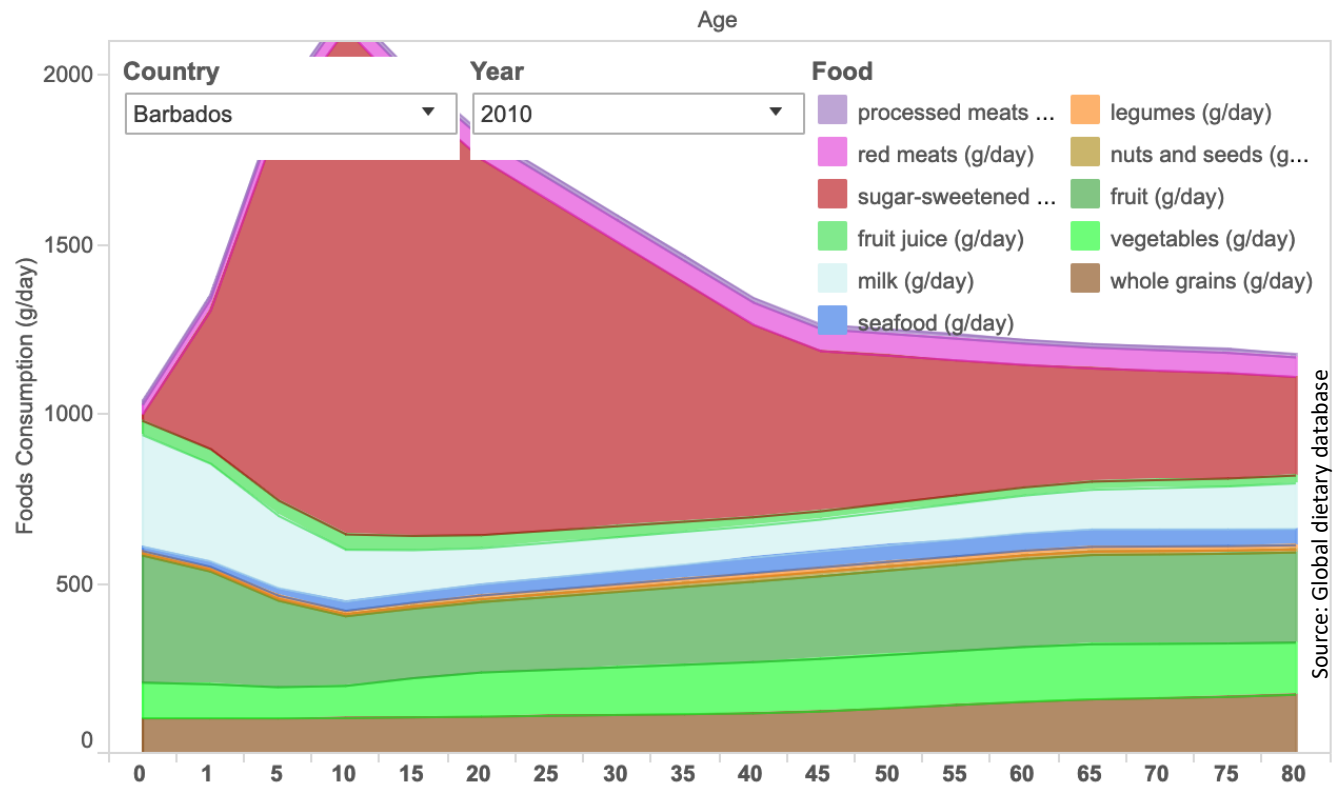
**Diet is a major driver. Too many kids
are drinking sugary drinks.**



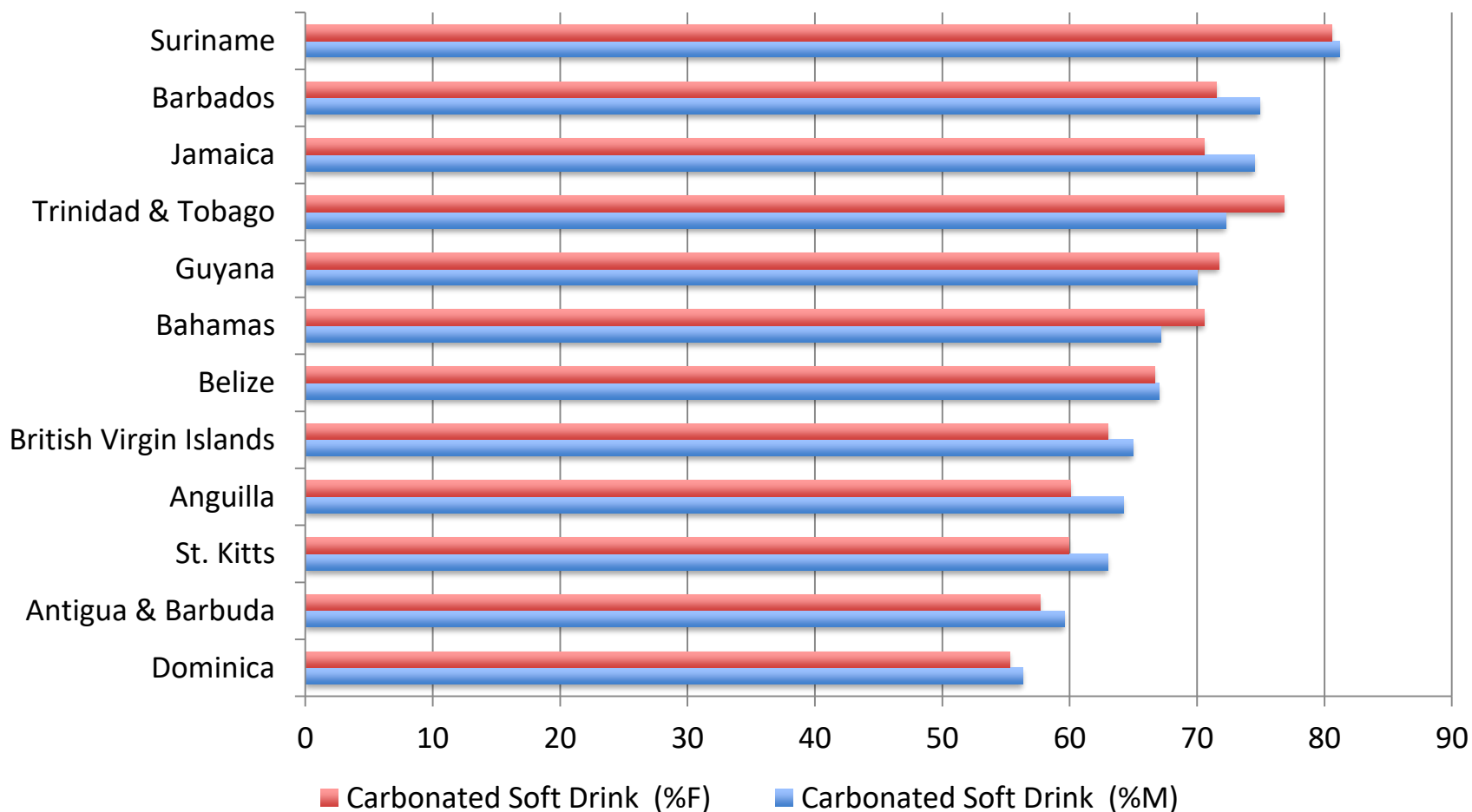
Source: Global dietary database

Barbados

Intake of Major Foods by Age
Barbados, 2010



% Drank carbonated soft drinks during the past 30 days from GSHS (2009-2013)





Swiss Miss Marshmallow
1 pack (1 serving)
= 17 g of sugar (4.25 tsp)
= 0.4175 g of salt



Turbo Plus (Fruit Punch)
1 pack (5 servings)
= 31.15g of sugar
= 0.29g of salt



Coca-Cola
1 bottle (1 serving)
= 53 g of sugar (13 tsp)



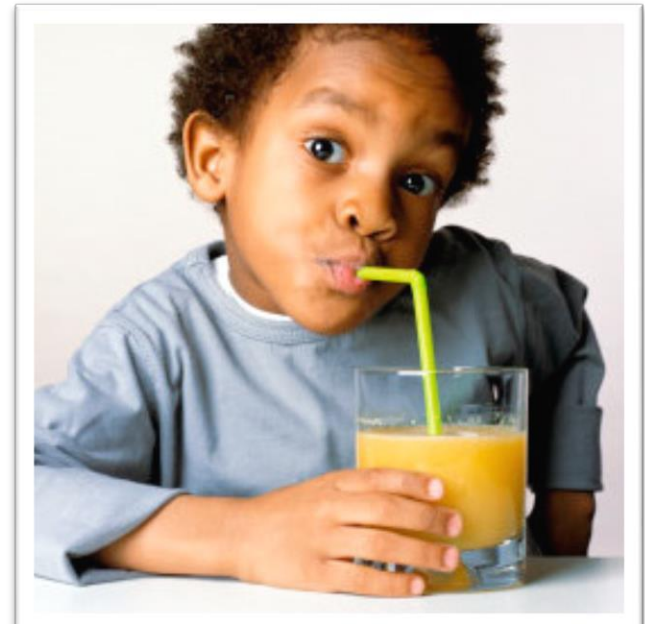
Pinehill Fruit Punch
1 juice box (1 serving)
= 40 g of sugar (10 tsp)



Sun Sweet Condensed Milk
1 can (10 servings)
= 220 g of sugar (55 tsp)
= 0.875 g of salt



Fruit drinks...just as much sugar as **soda**



Added sugar in drinks

- Calories from simple sugars added to drinks do not satisfy hunger, there is no feeling of fullness
 - ***Wasted calories***
- Sugar in SSBs contain no nutrients
 - ***Empty calories***
- Sugar in SSBs are absorbed extremely rapidly causing a spike in blood sugar and in insulin
 - ***Dangerous calories***

HIDDEN SUGARS IN LABELS & PRODUCTS

LABELS WITH SUGAR:

Lactose; brown rice syrup; molasses;
dextrose; cane sugar; corn sweetener;
fructose; glucose; maltose; organic raw
sugar; maltodextrin; etc..

PROCESSED FOODS WITH SUGAR:

Barbecue sauce; bacon; bread; canned meats;
cereals ; crackers; gravy;
flavored coffee; creamers; fruit juice; ketchup;
mustard; pancake mix; pretzels;
salad dressing; soups; soy sauce;
wine; etc. etc.



BUT WE'RE SURROUNDED BY SUGAR! IT'S EVERYWHERE! AND IT'S SO TASTY!



Born to buy: How advertising targets young consumers

Dr Emma Boyland

Biopsychology Research Group
Liverpool Obesity Research
Network
University of Liverpool



ADVERTISING AVENUES

Television and film

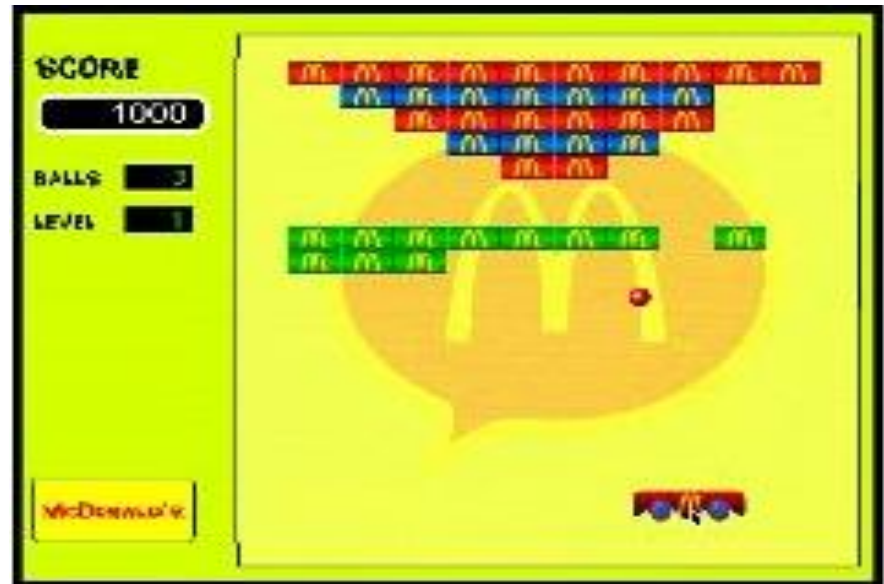


Programme
sponsorship

Product
Placement



Internet advergaming



Event sponsorship



Promotional Characters

Licensed characters



Premium offers/giveaways



Unhealthy food companies target children



EFFECTS OF FOOD ADVERTISING

Television and energy intake



- Television viewing has been associated with:
 - Increased meal frequency (Stroebele & Castro, 2004).
 - Fast food consumption (Taveras et al., 2006).
 - Snacking (Snoek et al., 2006; Thomson et al., 2006).
 - Increased intake of dietary fat (Epstein et al., 2005; Miller et al., 2008).
 - Lower intake of fruit and vegetables (Boynton-Jarrett et al., 2003).

Creating Brand Preference in Children (Consumer International, 2004)

- 6 months: Forming mental images of corporate logos and mascots.
- 2 years: Children may already have beliefs about specific brands.
- 3 years: Already making specific requests for brand name products.
Can identify brand names & logos especially with cartoon characters.
- Lifetime: A lifetime consumer in the US is worth an estimated \$100,000 to a retailer.

Children start to express self-care activities including food choice between ages of 3-8 and these are stable by 9-11 years (Kennedy, 2000).

Brand-building must therefore start in toddler-hood (Story & French, 2004).

Impact of Marketing to Children

- Nestle and others still **promoting breast milk substitutes** and depressing breast feeding rates
- Marketing **influences** childrens' preferences, requests, consumption
- Result: **30% childrens calories from sweets, drinks, salt snacks, fast food**



Caribbean Unity in Health
LOVE THAT BODY

