# Current issues in childhood overweight and obesity: a clinical and public health perspective.



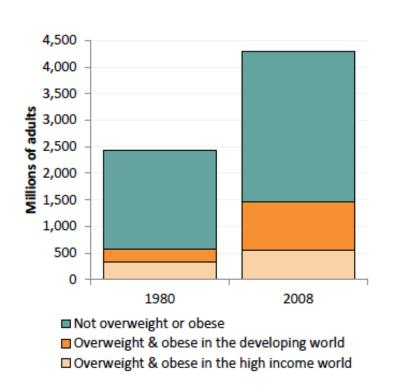


#### **Future diets**

Implications for agriculture and food prices

Sharada Keats and Steve Wiggins

January 2014



#### Many factors influence a person's diet.

- Human biology and physiological needs
- Costs of food and level of income
- Preferences formed by culture, religion, information and advertising
- Social changes in work patterns and gender roles
- Globalization and its influences through trade, investment and information
- Public policy

Policies to improve diets have been rather timid, with some significant exceptions, such as the PDS of India or rationing in wartime UK.

- Double burden biology
- Eating habits fast food out or home
- FDI in food retail
- SSB
- Fat tax
- Junk food debate
- Migration
- What don't we know?

# Fast foods- problem or marker?

Fast food is certainly higher in caloric density

But is it the only dietary cause of obesity?

The association of fast food consumption with poor dietary outcomes and obesity among children: is it the fast food or the remainder of the diet?<sup>1–3</sup>

Jennifer M Poti, Kiyah J Duffey, and Barry M Popkin

	Intake excluding fast food <sup>2</sup>		
	Fast food nonconsumers (n = 2299; 49.9%)	Fast food low-consumers (n = 1683; 39.5%)	Fast food high-consumers (n = 484; 10.5%)
Food groups (% of energy)4			
Milk	$10.3 \pm 0.3$	$10.3 \pm 0.4$	$8.0 \pm 0.5*$
Dairy	$2.4 \pm 0.2$	$2.2 \pm 0.2$	$1.4 \pm 0.3**$
Mixed dishes, low-fat6	$7.7 \pm 0.4$	$6.1 \pm 0.4*$	$4.9 \pm 0.7*$
Fruit	$3.4 \pm 0.2$	$3.3 \pm 0.2$	$2.8 \pm 0.4$
Vegetables <sup>7</sup>	$0.7 \pm 0.1$	$0.6 \pm 0.1$	$0.4 \pm 0.1*$
$SSBs^{S}$	$5.6 \pm 0.2$	$7.0 \pm 0.3*$	$11.1 \pm 0.9*$
French fries	$0.9 \pm 0.1$	$1.1 \pm 0.1$	$1.1 \pm 0.2$
Total energy (kcal/d)	$1770 \pm 18$	1672 ± 25*	1132 ± 24***
Total fat (% of energy)	$32.2 \pm 0.2$	$31.6 \pm 0.4$	$30.3 \pm 0.5*$

### So what do we do?

Ban fast food in schools?

 Educate children about what is good for them?





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# SCIENTIFIC METHOD / SCIENCE & EXPLORATION

# Kids really do avoid food that's good for them

But only if you tell them it's good for them.



by John Timmer - July 24 2014, 9:54pm IST



76

The takeaway is that having a message about food for your children isn't a good idea. Just tell them it tastes good and hope for the best.

Journal of Consumer Research, 2014. DOI: 10.1086/677224 (About DOIs).

# **FDI**

# U.S. exports obesity epidemic to Mexico, says new study

Declining public health linked to NAFTA, and influx of low quality, processed foods

By Andrew Ranallo

Published April 5, 2012

Food and Health Agriculture Food Globalization NAFTA: North

American Free Trade Agreement





The study notes that the increase of obesity and overweight in Mexico coincides with the implementation of the North American Free Trade Agreement (NAFTA).

The resulting increased consumption of snack foods, soft drinks, processed dairy and meat products, combined with increased foreign direct investment (FDI) of U.S. corporations all along the food supply chain—from production and processing to restaurants and retail—has changed the Mexican food environment and contributed to rising obesity rates nationwide.

http://civileats.com/2013/07/17/mexico-public-health-rising-obesity-and-the-nafta-effect/ http://www.iatp.org/documents/us-exports-obesity-epidemic-to-mexico-says-newstudy#sthash.6yfQgmMq.dpuf

#### THE WALL STREET JOURNAL. | INDIA



**News Digest Politics** Economy & Business South Asia Tech **Bollywood Books** Film Reviews Delhi Mumbai

August 30, 2012, 1:47 PM

#### Spending in Rural Areas Outpaces Cities

Article

K@W Today

Comments (1)

Wharton *Today* 

← Brand-building in China

Knowledge@Wharton

The Dangers of Blocking Medicaid Expansion →

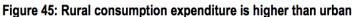
#### Rural Spending in India Outpaces Urban Consumption

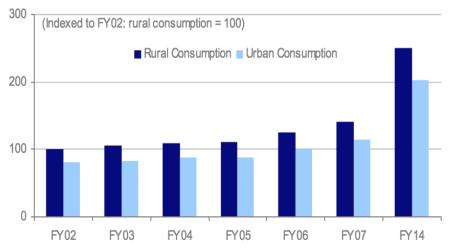
Posted on September 18, 2012





- 60% of FMCG's
- Less erosion of wealth
- Increased incomes; Guaranteed
- Lines of credit government
- Aspirations increasing tele-density
- **Mobility**
- Less saving, more spends





Source: NSSO, Census of India, IIFL Research

# Ban advertising?

# Children see, children do: Will Mexican kids slim down by watching less candy ads?

http://www.foodnavigator-usa.com/Regulation/Mexico-restricts-confectionery-and-chocolate-advertising-to-children

Just a week after Mexico banned commercials for soda, snacks and confectionery products during cinema showings of children's movies and during children's TV programming, Mexican authorities say ads for Nestlé, PepsiCo, Coca-Cola, Hershey's and Holanda products are already out of line with the new rules.

# Children see, children do: Will Mexican kids slim down by watching less candy ads?

By Vladimir Pekic , 28-Jul-2014
Last updated the 28-Jul-2014 at 14:32 GMT





Related tags: Movie theaters, Children's movies, Children's TV, Hershey's, Holanda, Mexico Federal Commission for the Protection against Sanitary Risk, COFEPRIS, Mexico, Ban, Commercials, Sodas, Snacks, Confectionery, Chocolates, Advertising to children, Nestlé, PepsiCo, Coca-Cola

Related topics: The obesity problem, Regulation, Manufacturers, Beverage, Snacks

# Ban attractive packaging?



#### Countering Industry Harm to Improve Public Health

#### The Dark Side of Marketing Healthy Food to Children

Posted on Monday, June 17th, 2013 by Michele Simon

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53

#### By Susan Linn and Michele Simon

In response to the public outcry over the negative impacts of junk food marketing to children, food companies have started using popular media characters to market "healthy" foods to children. These products include fruits and vegetables, as well as processed food. So we now have Campbell's Disney Princess "Healthy Kids" soup, Kellogg's Scooby-Doo! cereal (with less sugar), and others.

But is this really progress?

The developmental vulnerabilities of children, along with the legal, ethical, and political pitfalls of encouraging the food industry to target kids, make marketing food to children harmful regardless of nutritional content.



Researchers and advocates for children's health agree that advertising junk food to children is effective. One 30second commercial can influence the food preferences of children as young as age two. For young children, branding even trumps taste. Preschool children report that junk food in McDonald's packaging taste better than food in plain wrapping—even if it's the same food. Similar studies show the same results for food packaging featuring media characters.



# Sugary drinks – SSB's

There is a LOT of sugar in soda drinks

- WHO new guidelines on sugar limit to 10% energy or even 5%
- That is =1500/10+150
- $150/4 = ^40 \text{ g/day}$
- Or 20 g/day = 5 teaspoons

# So how much sugar in a SSB?



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Q&A > Food and Drink > Other Food and Drink

#### How much sugar is in Pepsi?

A 12-ounce serving of Pepsi contains 41 grams of sugar. The sugar and high fructose corn syrup found in Pepsi are responsible for the 150 calories delivered by each 12-ounce serving. A 20-ounce bottle of Pepsi contains 69 grams of sugar and 250 calories.

# No added sugar?

Fruit 'juice' with no added sugar: 13g/100 ml





#### **Draft Carbohydrates and Health report**

#### Scientific consultation: 26 June to 1 September 2014

#### Sugars-sweetened beverages and BMI

- Effect
- Limited evidence
- The direction of the effect demonstrates that greater consumption of sugarssweetened beverages is detrimental to health
- The effect is biologically relevant

#### Sugars-sweetened beverages (g/day, energy/day and servings/day) and BMI

- No association
- Limited evidence

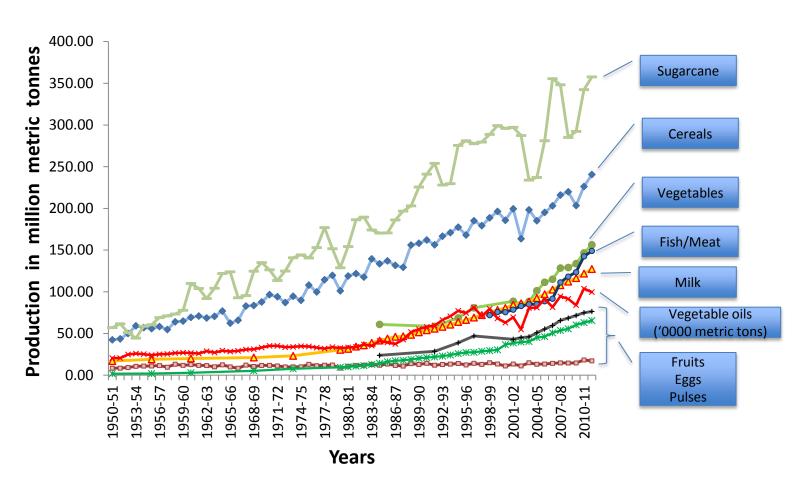
#### Sugars-sweetened beverages (g/day, energy/day and servings/day) and body fatness

- No association
- Limited evidence

Amount and frequency of sugars-containing beverages consumption (servings/day or ounces/day) and dental caries in deciduous dentition

- Association
- Adequate evidence
- The direction of the association indicates that greater consumption of sugarssweetened beverages is detrimental to oral health
- The association is biologically relevant

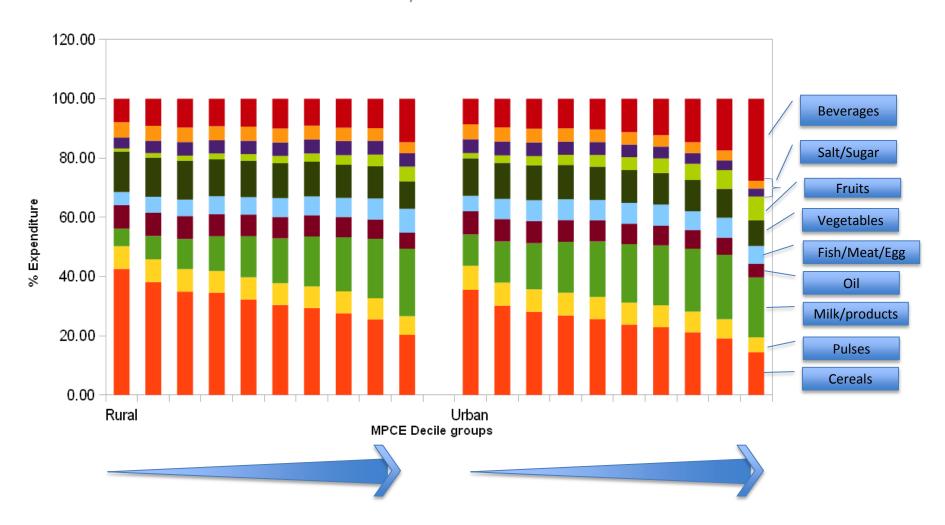
# Trends in production of food groups – India 1951 - 2010



Directorate of Economics and Statistics (2013). *Agricultural Statistics at a Glance 2012*. New Delhi: Ministry of Agriculture, Government of India.

DAHDF (2012). Basic Animal Husbandry statistics, 2012. AHS series 13. New Delhi: Ministry of Agriculture, Government of India.

Figure 3. Monthly expenditures on food groups by economic strata, NSSO 2009-10



### Tax fat? Fat tax?





WorldViews

# What the world can learn from Denmark's failed fat tax

Need a 20% tax for effectiveness

Danes simply went across the border- cookie runs

Food Prices and Obesity: Evidence and Policy Implications for Taxes and Subsidies

LISA M. POWELL and FRANK J. CHALOUPKA

Article first published online: 11 MAR 2009 DOI: 10.1111/j.1468-0009.2009.00554.x

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Based on the the findings of the studies we reviewed, we estimated that small taxes or subsidies were not likely to produce significant changes in [body mass index] or obesity prevalence

France- palm oil tax- the Nutella tax

### Junk food

- What is it?
- Fast food? Street food?
- Vendor food?
- Restaurant food?
- Banning 'fast food' in schools?
- What to ban?
- Junk eating behaviors

#### **Draft of the Rome Declaration on Nutrition**

#### Standards in public institutions and the workplace

Improve the school food environment by setting food-based or nutrient-based standards
for foods available in schools (meals, vending machines, etc.), setting standards for foods
available in the immediate vicinity of schools, making foods that can be part of a healthy
diet more readily available and ensuring free provision of safe drinking water.

# THE TIMES OF INDIA India

# Maneka mulls ban on junk food in schools across the country



NEW DELHI: To improve nutrition among school-going children, women and child development minister Maneka Gandhi plans to propose a ban on unhealthy or 'junk' food in school canteens across the country.

The objective is to "make available good quality, safe food to students in school canteens", said officials from the WCD Ministry.

"The idea is also to specify what constitutes 'junk' food and making children aware why they are harmful," said an official.



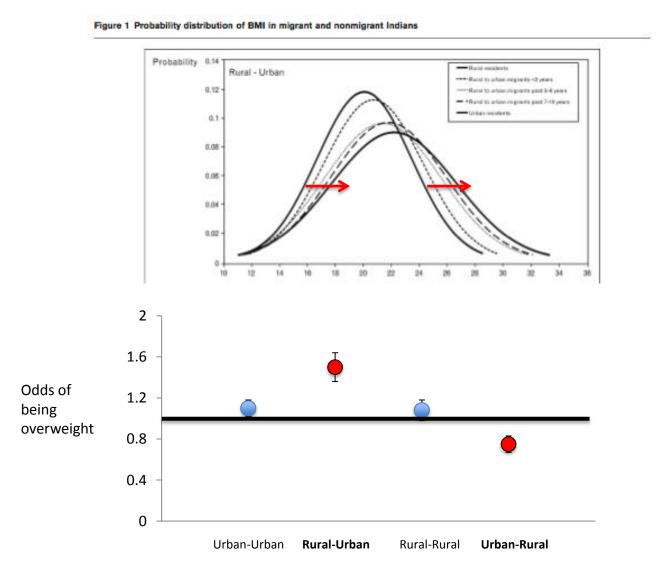
# Migration

A population in flux 100 million – Census 2001

### Migration (figures)

- Rural Urban (21%)
- Urban Urban (15%)
- Urban Rural
- Rural Rural (55%)

### The appearance of overweight with migration



### What do we NOT know?

- The Indian context
- Fast changing socio-economic scenario

- What are the drivers?
- How can we communicate?
- What can you do for the individual?

#### SPECIAL ARTICLE

# Myths, Presumptions, and Facts about Obesity

Krista Casazza, Ph.D., R.D., Kevin R. Fontaine, Ph.D., Arne Astrup, M.D., Ph.D., Leann L. Birch, Ph.D., Andrew W. Brown, Ph.D., Michelle M. Bohan Brown, Ph.D., Nefertiti Durant, M.D., M.P.H., Gareth Dutton, Ph.D., E. Michael Foster, Ph.D., Steven B. Heymsfield, M.D., Kerry McIver, M.S., Tapan Mehta, M.S., Nir Menachemi, Ph.D., P.K. Newby, Sc.D., M.P.H., Russell Pate, Ph.D., Barbara J. Rolls, Ph.D., Bisakha Sen, Ph.D., Daniel L. Smith, Jr., Ph.D., Diana M. Thomas, Ph.D., and David B. Allison, Ph.D.

Table 3. Facts about Obesity.*	
Fact	Implication
Although genetic factors play a large role, heritability is not destiny; calculations show that moderate environmental changes can promote as much weight loss as the most efficacious pharmaceutical agents available <sup>26</sup>	If we can identify key environmental factors and successfully influence them, we can achieve clinically significant reductions in obesity
Diets (i.e., reduced energy intake) very effectively reduce weight, but trying to go on a diet or recommending that someone go on a diet generally does not work well in the long-term <sup>27</sup>	This seemingly obvious distinction is often missed, leading to erroneous conceptions regarding possible treatments for obesity; recognizing this distinction helps our understanding that energy reduction is the ultimate dietary intervention required and approaches such as eating more vegetables or eating breakfast

Regardless of body weight or weight loss, an increased level of exer-Exercise offers a way to mitigate the health-damaging effects of obesity, cise increases health28 even without weight loss Physical activity or exercise in a sufficient dose aids in long-term Physical-activity programs are important, especially for children, but weight maintenance28,29 for physical activity to affect weight, there must be a substantial quantity of movement, not mere participation

maintenance of lower weight30

Continuation of conditions that promote weight loss promotes Obesity is best conceptualized as a chronic condition, requiring ongoing management to maintain long-term weight loss For overweight children, programs that involve the parents and the Programs provided only in schools or other out-of-home structured settings may be convenient or politically expedient, but programs home setting promote greater weight loss or maintenance31

at home are likely to yield better outcomes

reduction in energy intake

daily are likely to help only if they are accompanied by an overall

including interventions that involve the parents and are provided