

Understating school children's knowledge and perception of beverage consumption patterns in Dhaka, Bangladesh

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Introduction

- WHO Global Action Plan for the NCDP (2013-20) recognizes obesogenic food environments are the drivers of obesity epidemic
- “Big-Soda”: corporate disease vectors successful in blocking governmental and social efforts to implement food policies for obesity (i.e., % of BMI) prevention
- WHO (2013) considers childhood obesity as “one of the most serious public health challenges of 21st century”-accounts for a wide range of psychosocial and medical consequences- Lower self-esteem, social isolation, poor academic achievement and peer problems
- Current discussion is going on children’s restricted access to sugar-sweetened beverages (SSBs) like tobacco and alcohol to protect children’s right to an open future

Bangladesh Context:

- **Malnutrition and obesity coexist** in Bangladesh- First voiced in 2006 at the eighth Commonwealth Congress on Diarrhoea and Malnutrition
- **40% of children younger than 5 years** of age suffer from stunting or chronic undernutrition (Bangladesh)
- **Emerging urban child health problem in Bangladesh** : Unpublished data from a recent **nationally representative survey** (by icddr,b) revealed that, of the children (**age 6-15 years***) in **urban areas** of Bangladesh, 1 in 10 children is overweight (*Naheed et al., icddr,b*).
- 9.7% were overweight and 3.5% children are obese (≥ 6 years) (**Dhaka**)
- Dhaka is presently undergoing rapid demographic, economic (5%/yr.), epidemiological, nutritional transition (i.e., imbalanced diet, sedentary lifestyle, savory drinks etc.)

**school-age children*

Literature Survey: Child Obesity in Bangladesh

- Research is limited in Bangladesh and has yet not been examined in a comprehensive manner

(Scopus, Web of Science, EBSCOhost, ProQuest for theses & Google Scholar-limited to English-written papers since 1985)

Authors	Title	Year	Type and Journal name
Bulbul T., Hoque M.	Prevalence of childhood obesity and overweight in Bangladesh: Findings from a countrywide epidemiological study	2014	BMC Pediatrics
Rahman S., Islam M.T., Alam D.S.	Obesity and overweight in Bangladeshi children and adolescents: A scoping review	2014	BMC Public Health
Bhuiyan M.U., Zaman S., Ahmed T.	Risk factors associated with overweight and obesity among urban school children and adolescents in Bangladesh: A case-control study	2013	BMC Pediatrics
Sultana, S.	prevalence and risk factor of childhood overweight and obesity in primary school children of Dhaka city	2010	Thesis (Univ. of Oslo)

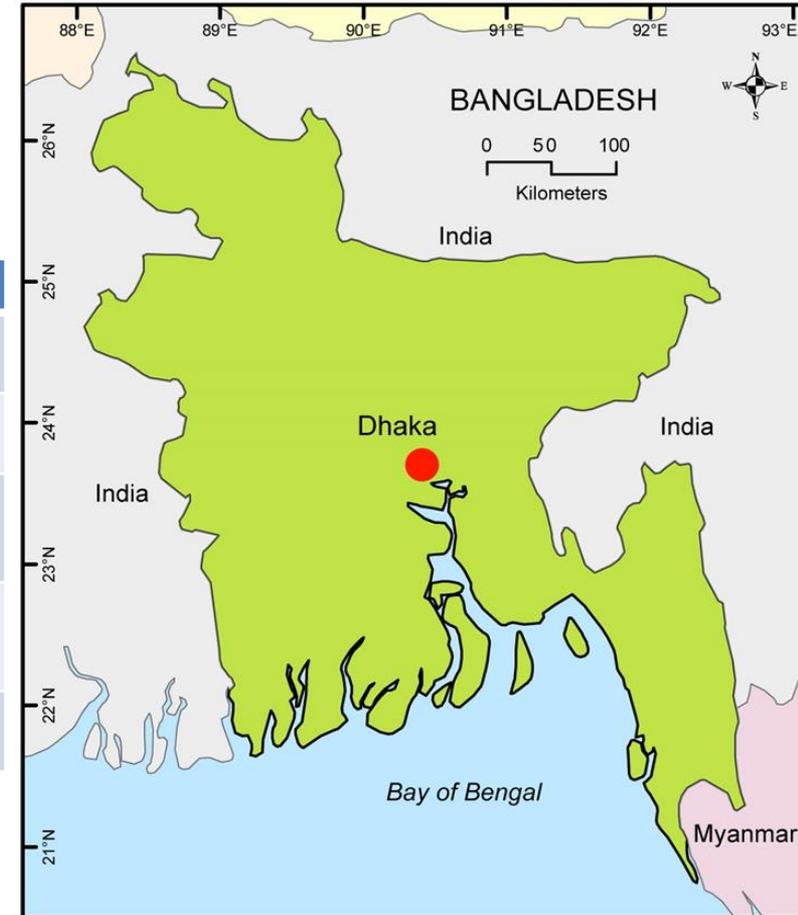
Background and Rationale

- No study/research on sugary drink and child obesity

- Bangladesh National Policy:

Food and NCDs Policy in BD	Year
National Food Policy Plan of Action	2008-2015
National Food Policy	2006
Action Plan for the NCD Control and Prevention	2016-2021
Strategic Plan for Surveillance and Prevention of NCDs	2007-2010
National Plan of Action for Nutrition	1997

- no govt. regulations/attention on sugary drink



Map Credit: Univ. of Manitoba, Canada

My Research in Food System

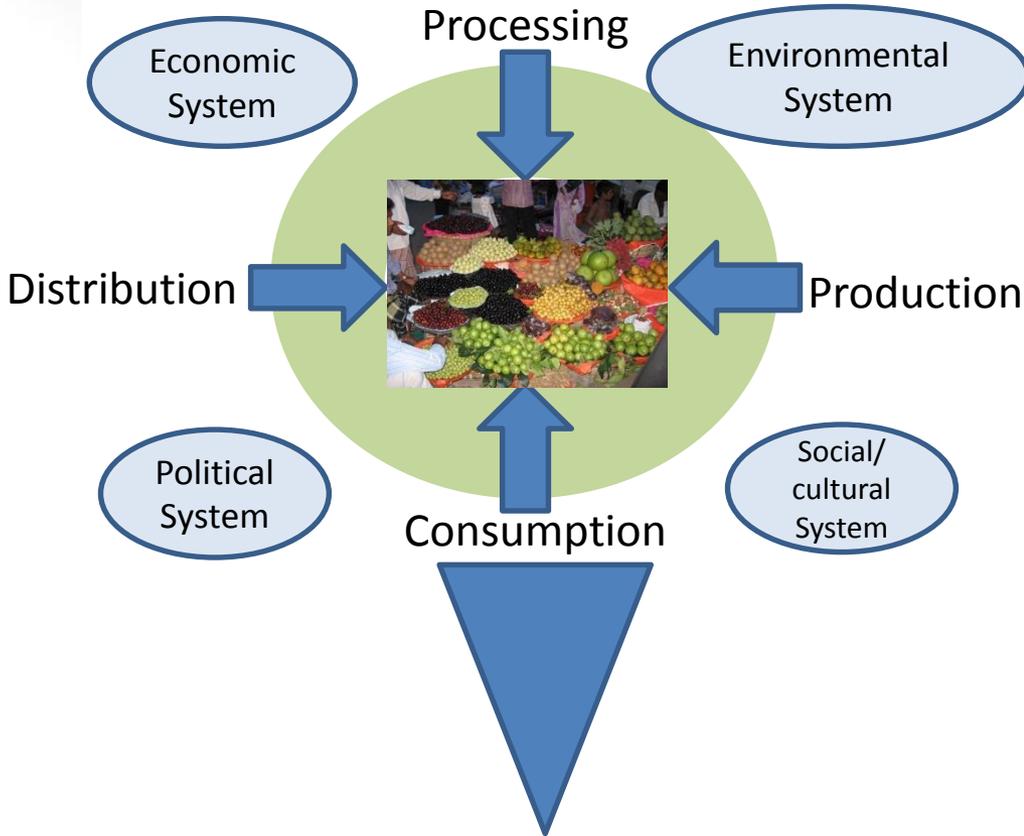
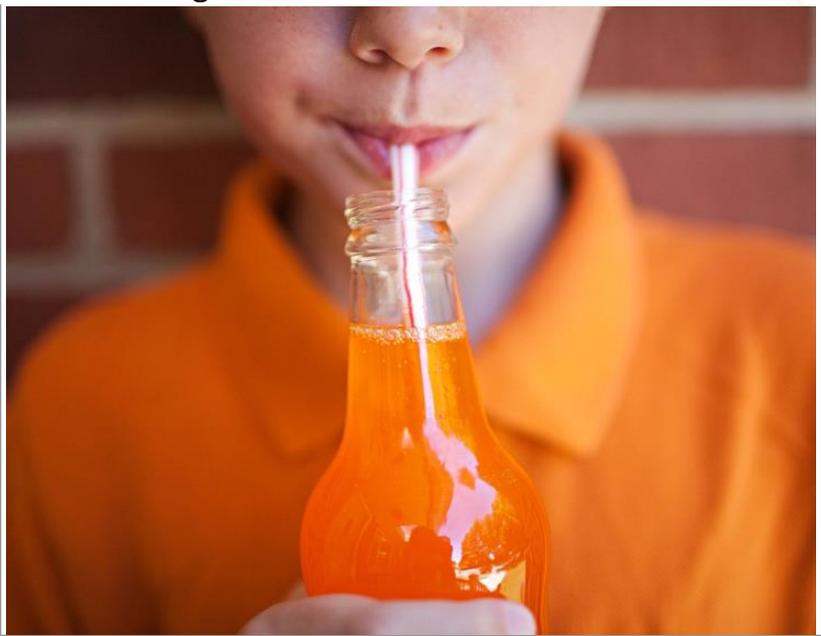
Often

Sometimes

Seldom

Never

Source: theguradians.com



Current Research (multi-disciplinary)

What impacts/influence SSBs consumption behavior

Objectives:

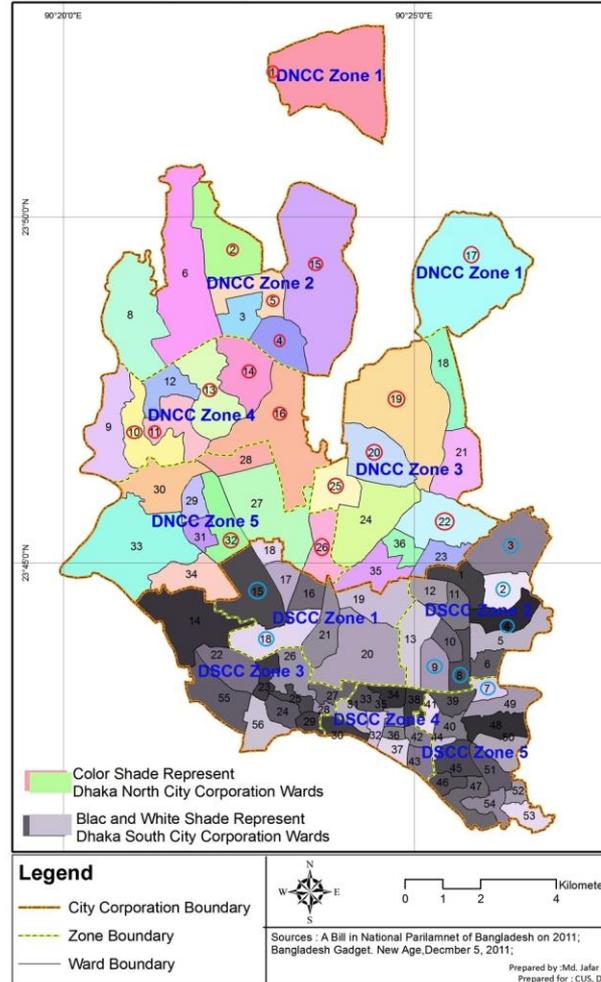
- To assess knowledge, attitudes and practices (KAP) of schoolchildren related to beverage consumption
- To identify influences from parents and teachers and their decision making in sugary drink consumption among children
- To examine the impacts of the local food environment* on beverage choices made by schoolchildren

* *Local food environment: School and family food (i.e., beverage) environment and neighborhood environment*

Methodology

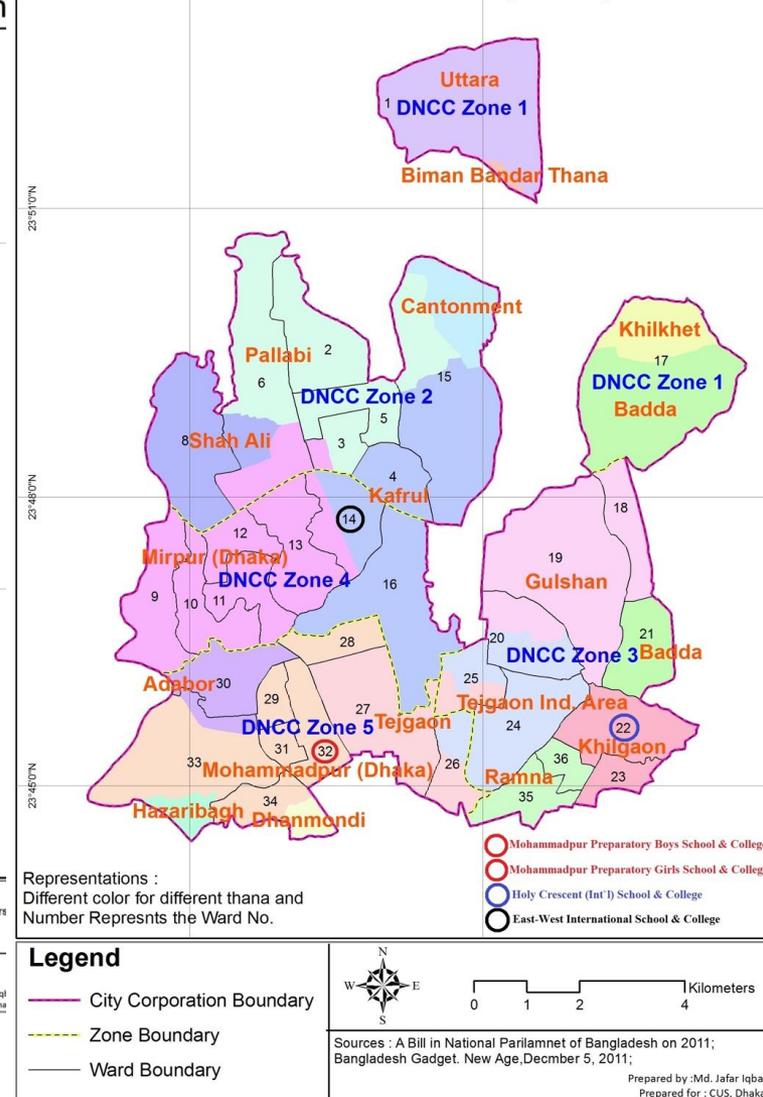
- 30 wards of DCC has examined by previous projects of icddr,b
- Result showed: Dhaka north zone schools are with more obese pupils; 13 schools approached
- Out of 13, only 4 schools approved to continue second survey
- Research Tools: FGDs, KIIs, socioeconomic questionnaire, and demographic questionnaire (context purpose)

Dhaka City Corporation: North and South



Map credit: icddr,b

Wards of Dhaka North City Corporation



Methodology

Survey Methods	Sample Size
Socioeconomic and KAP Questionnaires (SEQ)	<ul style="list-style-type: none">- 100 students from grade 5 and 6 (age: 11-12 years)- 100 parents of above mentioned schoolchildren (both mother and father for gender perspective)- 20-25 teachers
Beverage Intake Questionnaire (BIQ)	<ul style="list-style-type: none">- 100 students from grade v and vi (age group: 11-12 years)
Focus Group Discussion (FGD)	<ul style="list-style-type: none">- 10-12 schoolchildren- 10-12 parents- FGD with 10-12 persons encompassing school teachers, nutritionists, health professionals
Key Informant Interviews (KII)	<ul style="list-style-type: none">- 8-10 key informants including policy makers, nutritionists, school heads, local leaders etc.

Expected Outcomes

- Understanding the knowledge and consumption pattern of SSBs among schoolchildren among different SES in Dhaka
- **Increase awareness** among local school teachers, and parents about SSBs consumption behavior
- will have **influence to understand the need** for establishing rules and regulations that promote non-sugary healthy drinks consumption by schoolchildren

In Light of IDRC

- ❖ IDRC is helping countries design and test low-cost solutions to transform food systems and curb the chronic disease epidemic among poor populations
- ❖ New research is underway to test policy and market innovations with population-wide impacts
- ❖ IDRC's research has led to practical solutions –
 - In South Africa: testing how taxation can be used to reduce SSBs consumption and combat obesity and diabetes; policy researchers partnered with decision-makers to reduce salt intake in diets, leading to new legislation in 2013.
 - In Peru, impact of TV exposure on unhealthy eating leading to a new law to reduce food advertisements. Community Kitchens in Peru – which serve over 500,000 meals a day

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