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Citation: Harvey-Golding, Louise and Defeyter, Margaret Anne (Greta) (2017) Universal free school breakfast: A socioecological perspective of breakfast behaviours in a deprived town within the North-East of England, UK. In: Blackpool Council Meeting, 2017, Blackpool.

URL:

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# Universal Free School Breakfast: a Socioecological perspective of breakfast behaviours in a deprived town within the North-East of England, UK.

Evaluation of Blackpool Universal Free School Breakfast Programme.

Louise Harvey-Golding PhD Researcher

# Objectives

- ▶ Research Context
- ▶ PhD Thesis Overview
- ▶ Research Findings
- ▶ Questions



# Breakfast - 'The Most Important Meal of the Day?'





# School Breakfast

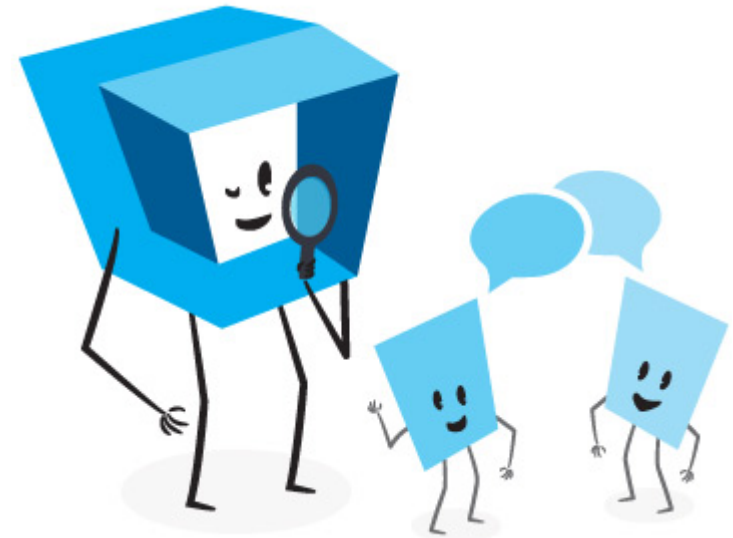


- Health and Wellbeing
- Cognition
- Behaviour
- Education



# Universal Free School Breakfast: a Socioecological perspective of breakfast behaviours in a deprived town within the North-East of England, UK.

- **Evaluation of Blackpool's USFB**
- **Mixed Methods Design**
- **4 Studies:**
  - 2 Qualitative
  - 2 Quantitative



# Study 1

## **Universal free school breakfast: a qualitative senior stakeholder evaluation.**

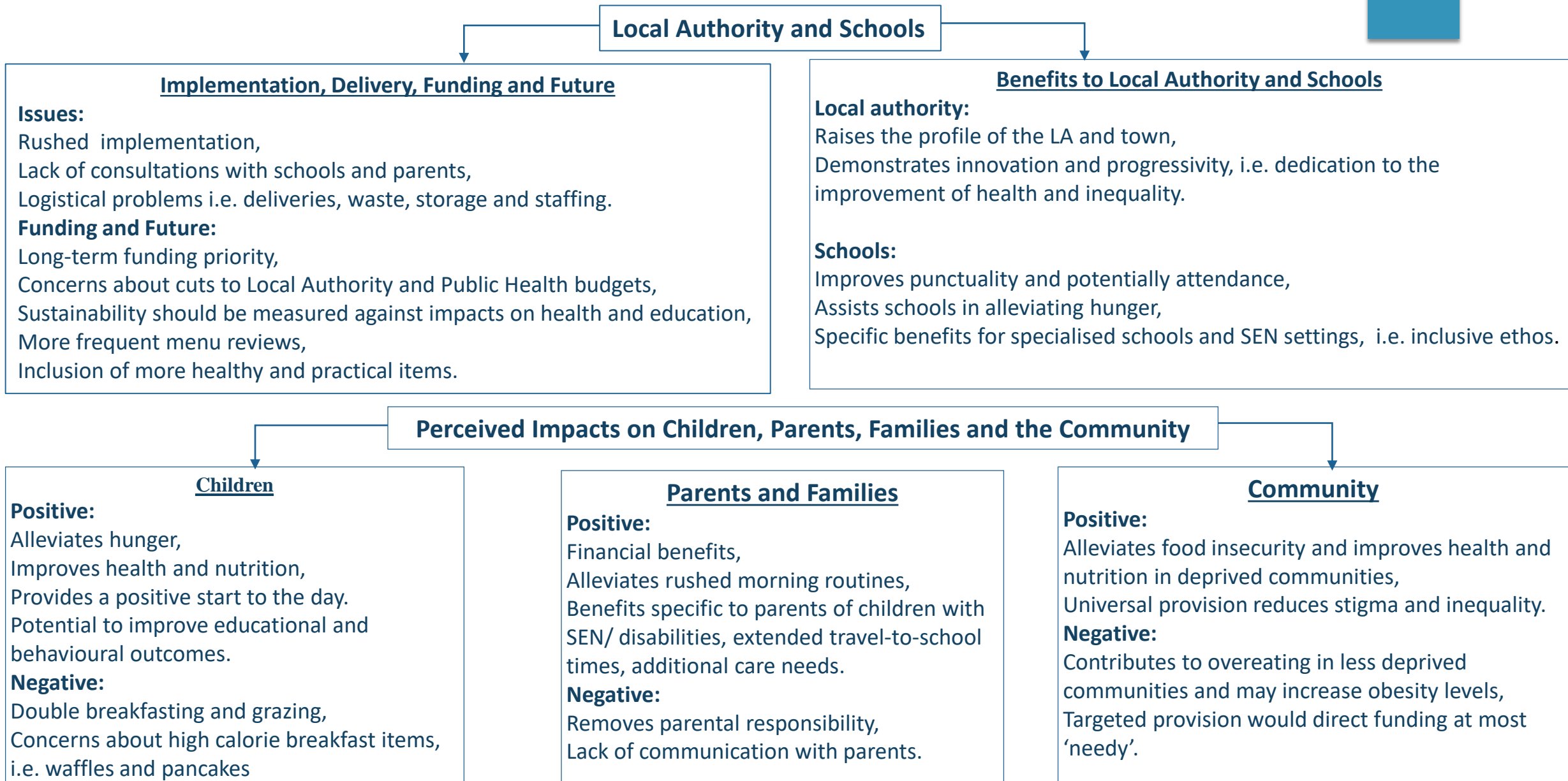
- ▶ What were the issues in the implementation and delivery of the UFSB scheme?
- ▶ What were the perceived impacts of the scheme on children, parents, families, communities and the town?

# Study 1 - Design

- ▶ **Qualitative Grounded Theory Design**
- ▶ **22 Senior Stakeholders**
  - Blackpool Local Authority and Public Health Executives and Elected Members
  - Senior School Staff
- ▶ **In-depth semi-structured interviews**



# Figure 1: 'Universal free school breakfast: a qualitative process evaluation according to the perspectives of senior stakeholders' - visual model of the findings



# Issues in the implementation and delivery

“It had been announced in the press and which school was going to say to parents, ‘your children are not going to have the free breakfast’”.

“We felt almost forced into implementing the scheme because it was said that every primary school will be serving this. We thought if we are the only school that says to our parents, we are not going to do it, that makes the school look bad.”

“We are the people who actually working in the schools delivering the programme. We know the sorts of things that they didn't think about.”

# Wider benefits to participating schools

“It's also helped with getting children into school. They want to be in now because they know that they are going to get their breakfast.”

“It doesn't make anybody feel different. Everybody is the same. It has got a very positive ethos in school.”

“Where the parents are not feeding them they know that they are going to be fed.”

“We have that as part of our life skills. It's as though you're working in a café. Obviously food hygiene, how you would present food and how you would communicate with people.”

# Alleviates hunger and provides a healthier breakfast

“Kids who were coming in having not eaten and teachers providing food.”

“Individual teachers, individual welfare assistants and learning support assistants, actually paying for some kind of food out of their own money.”

“The scheme is being more formally welcomed in the very deprived areas. They were the ones that had to deal with the kids that were arriving malnourished.”

“I know some of our young people are very hungry. The fact that the food is always there is reassuring for them.”

# Perceived educational benefits of the UFSB scheme

“We have poor levels of educational attainment. It's great that we can feed those kids properly, so that they are ready to learn.”

“We don't have hungry children who lose focus and attention.”

“It reduces their anxiety because they know that they are going to get something when they get to school. [...] It improves their behaviour because they are not hungry.”

“Kids now get to school earlier.”

“The fact the children sit down with their friends and have their breakfast. I do believe that it has a very calming influence.”



# Double-breakfasting and grazing across the morning

“For some children it's just a complimentary snack,”

“So they have breakfast at home, breakfast at breakfast club, and then they come into school and have bread product.”

“They just have it anyway because it's there, because children will eat if there is food there..”

“A lot of parents said to me privately that, ‘We don't need the scheme. I feed my child in the morning. I believe it's my responsibility to feed my children.’”

“If they are not particularly hungry, if they only want a piece of fruit in the morning that is all they will take. They don't cram it in.”

# High calorie school breakfast items

“I was looking at one of the waffles, and the, on the traffic light system s, it's red for fat, saturates and sugars. Each waffle contains 93 calories and, 5.2 g of fat.”

“Apart from leading to obesity there's the impact on the teeth as well, having very sweet items available every single morning.”

“You've got to go with something that is fairly easy to eat with your hands, that doesn't require a lot of clearing up afterwards.”

“You're not able to serve porridge or hot food very easily or toast.”

# Financial benefits for parents and families

“Parents that would otherwise struggle, hopefully it will just make things a little bit easier for them.”

“I've also got some parents who are just on the borderline, just slightly too much to be in receipt of pupil premium. A breakfast for their child every day is saving a little bit of money for them which they can then spend in different ways.”

“I think it's an amazing scheme if you have got one, two or three kids in particular.”

# Alleviates rushed morning routines for families

“It is a very difficult time of the day and we all get it wrong sometimes. We all run out of time to do hair, to sort out shoes, school bags, no matter how much you try the night before.”

“The number of families that do actually do a full sit down breakfast altogether is limited.”

“It's about households being very busy. If there are five children in the house, mum and dad both work shifts. Everyone's busy and everyone's hurrying about.”

“I have got lots of professional parents who in the morning don't have time to give their children breakfast. Full-time working parents need to be at work.”

# Removes parental responsibility

“The only potential negative really is on that dependency issue. There are a number of different elements of children's lives that unfortunately sometimes parents think I don't have to do that.”

“What you are doing is you are saving parents the hassle and deskilling them.”

“Neglect is our biggest issue. There are a lot of stresses and strains, drug and alcohol abuse, domestic violence. There may be lots of chaos, and we need to lift up some of these burdens.”

“It's that understanding of what life could be like for some of our children. It's not these kids' faults that they have not got parents who are able to provide breakfast.”



<http://journal.frontiersin.org/article/10.3389/fpubh.2016.00161/full>



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## Universal Free School Breakfast: A Qualitative Process Evaluation According to the Perspectives of Senior Stakeholders

Louise Harvey-Golding<sup>1\*</sup>, Lynn Margaret Donkin<sup>2</sup> and Margaret Anne Deyfeyer<sup>1\*</sup>

### OPEN ACCESS

Edited by:  
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Specialty section:  
This article was submitted to Child  
Health and Human Development,  
a section of the journal  
Frontiers in Public Health  
Received: 18 May 2016  
Accepted: 21 July 2016  
Published: 02 August 2016

Citation:  
Harvey-Golding L, Donkin LM and  
Deyfeyer MA (2016) Universal Free  
School Breakfast: A Qualitative  
Process Evaluation According to the  
Perspectives of Senior Stakeholders.  
Front. Public Health 4:161.  
doi: 10.3389/fpubh.2016.00161

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In the last decade, the provision of school breakfast has increased significantly in the UK. However, there is an absence of knowledge regarding senior stakeholder views on the processes and potential outcomes on different groups, within the communities served by school breakfast programs. The purpose of this study was to examine the views and experiences of senior level stakeholders and thereby provide an original qualitative contribution to the research. A sample of senior level stakeholders was recruited, including senior officers, directors, and elected members, from within a Local Authority (LA) involved in the leadership, implementation and delivery of a council-wide universal free school breakfast (UFSB) program, and from the senior staff body of mainstream primary and special schools, participating in the program. A grounded theory analysis of the data collected identified issues encountered in the implementation and delivery, and views on the funding and future of a UFSB program, in addition to perceived outcomes for children, parents, families, schools, and the wider community. The results refer to both positive and negative issues and implications associated with the program, according to the perspectives of senior level stakeholders. Perceived positive outcomes included benefits to children, families, schools, and the community. For instance, alleviating hunger, improving health outcomes, and conferring financial benefits, with the potential to cumulate in overall improvements in educational, social, and behavioral outcomes. Reported negative implications included the absence of an effective communication strategy in implementing the UFSB program; in addition to concerns about the impacts of "double-breakfasting" on obesity levels among children, particularly in less deprived communities. Findings were validated using theoretical sampling and saturation, triangulation methods, member checks, and inter-rater reliability measures. In presenting these findings, this paper provides a unique qualitative insight into the processes, issues and outcomes of a council-wide UFSB program within a socioeconomically deprived community, according to the perceptions of senior level stakeholders.

**Keywords:** school breakfast, school food, child nutrition, food insecurity

# Study 2

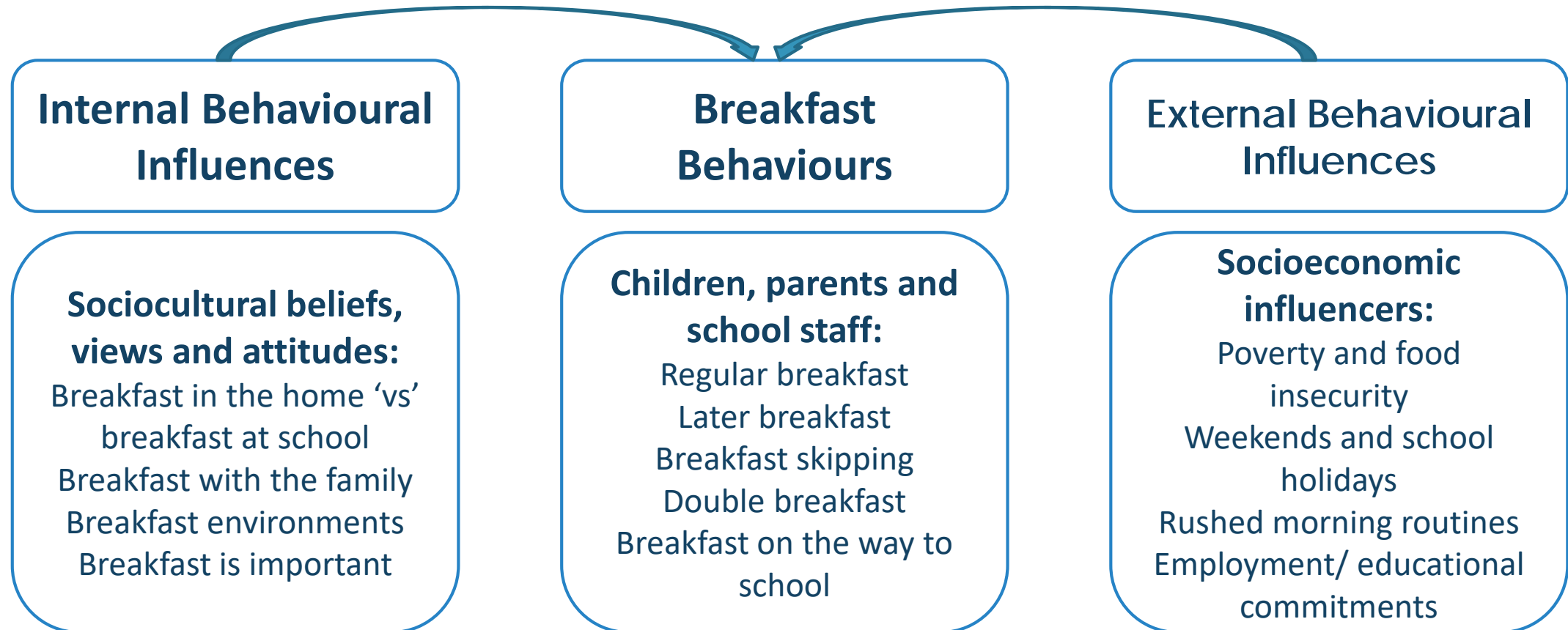
## **Universal free school breakfast (USFB): a qualitative model for breakfast behaviours.**

- ▶ What are the self-reported breakfast behaviours, and internal and external influences of breakfast consumption behaviours amongst children, parents and school staff?
- ▶ What are the views towards the USFB scheme among children, parents and school staff?

# Study 2 - Design

- ▶ **Qualitative Grounded Theory Design**
- ▶ **47 Stakeholders**
  - Children, parents and school staff affected by the USFB scheme.
- ▶ **In-depth semi-structured interviews and focus groups**

# Figure 2: A qualitative model for breakfast behaviours



# Breakfast Behaviours

## Habitual Breakfast

“I think it’s just in your routine, it’s just part of what you do, you get up, have a shower, get your breakfast”

## Skipping Breakfast

“I feel a bit yucky and dizzy [...] you’ve just got no energy, nothing”

“They can be more sluggish, [...] grumpiness and they’re lethargic”

## Double Breakfasting

“Other children who eat at home, go to early birds, have their breakfast there, come in school have their breakfast there and by then break might have a piece of fruit”



# Internal Factors

“I think it’s really important. You need a good breakfast before you go out. It is the most important meal of the day”



“It is brain food, they’re going to be more content going to the classroom and learning”



# Sociocultural Beliefs about Breakfast

## Home vs School

*“Once you stop actually giving them breakfast at home you’re starting on a lazy path there. Oh I won’t bother, let school do it”*

*“Knowing that their tummy’s full and then you’re not going to worry when they’re at school that they’re hungry - I know that she’s had enough”*

*“As long as the person’s getting a decent healthy, well fairly healthy anyway meal, it doesn’t really matter”*

## Breakfast with Family

*“You’re sat bonding with your kids sat having something to eat”*

*“You’re eating with your mum and dad at home so it makes you feel even more comfortable”*

*“This is what goes wrong in our days with people, they don’t sit at a table and eat their meals together”*

*“I know it’s hard for some parents”*

# External Factors: Poverty and Food Insecurity



*“It’s such a poor deprived area, and people just can’t afford food. There’s food banks in the area”*



*“We’re in a deprived area so for whatever reason a lot of children come to school without breakfast”*



*“You know certain children and you think what’s going to happen to them over the holidays. You’re worried, are they getting fed, and probably the answer is no, they’re not and it must be hard for children as well”*



# External Factors

## Additional Responsibilities

*“There’s a lot of chaos in my house in a morning. You know everyone is busy getting ready for work.”*

*“Yesterday I didn’t eat breakfast. I’ve got to go to work in the afternoon. I need to make sure that I’ve got everything done by lunch time get him ready for school.”*

*“If someone has a 9 to 5 job they’re going to struggle to get them up, ready and fed and brought to school.”*

## Family Structure

*“It could be a struggle you know three children and a baby”*

*“I’ve got my hands full. I’m up and I get everything ready. Usually I try to eat breakfast before her bottle, but if not then I’d quickly do theirs and I’d just leave mine and forget to have it”*

*“I think it helps them, a million percent, especially if they’ve got a few children”*



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<http://journal.frontiersin.org/article/10.3389/fpubh.2015.00154/full>

## Universal free school breakfast: a qualitative model for breakfast behaviors

Louise Harvey-Golding<sup>1\*</sup>, Lynn Margaret Donkin<sup>1</sup>, John Blackledge<sup>2</sup> and Margaret Anne Deleyter<sup>1\*</sup>

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In recent years, the provision of school breakfast has increased significantly in the UK. However, research examining the effectiveness of school breakfast is still within relative stages of infancy, and findings to date have been rather mixed. Moreover, previous evaluations of school breakfast schemes have been predominantly quantitative in their methodologies. Currently, there are few qualitative studies examining the subjective perceptions and experiences of stakeholders, and thereby an absence of knowledge regarding the sociocultural impacts of school breakfast. The purpose of this study was to investigate the beliefs, views and attitudes, and breakfast consumption behaviors, among key stakeholders, served by a council-wide universal free school breakfast initiative, within the North West of England, UK. A sample of children, parents, and school staff were recruited from three primary schools, participating in the universal free school breakfast scheme, to partake in semi-structured interviews and small focus groups. A Grounded Theory analysis of the data collected identified a theoretical model of breakfast behaviors, underpinned by the subjective perceptions and experiences of these key stakeholders. The model comprises of three domains relating to breakfast behaviors, and the internal and external factors that are perceived to influence breakfast behaviors, among children, parents, and school staff. Findings were validated using triangulation methods, member checks, and inter-rater reliability measures. In presenting this theoretically grounded model for breakfast behaviors, this paper provides a unique qualitative insight into the breakfast consumption behaviors and barriers to breakfast consumption, within a socioeconomically deprived community, participating in a universal free school breakfast intervention program.

**Keywords:** school breakfast, breakfast behaviors, food insecurity, food poverty, families

### Introduction

The prevalence of school breakfast has increased considerably in the UK, with a 45% rise in provision since 2008, and current estimates that 85% of schools offer breakfast schemes (1). The UK government recently announced an investment of £3.15 million over 2 years to establish sustainable breakfast clubs in primary and secondary schools (2). From a policy perspective, a fundamental factor is the prevention of hunger in children at the start of the school day (2). With recent reports that almost a third of the UK population experience significant poverty-related difficulties and a quarter of

### OPEN ACCESS

Edited by:  
Frederic Robert Comby,  
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Specialty section:  
This article was submitted to Child  
Health and Human Development, a  
section of the journal  
Frontiers in Public Health

Received: 30 March 2015  
Accepted: 20 May 2015  
Published: 11 June 2015

Citation:  
Harvey-Golding L, Donkin LM,  
Blackledge J and Deleyter MA (2015)  
Universal free school breakfast: a  
qualitative model for breakfast  
behaviors. *Front. Public Health* 3:154.  
doi: 10.3389/fpubh.2015.00154



# Study 3

## **A Cross-Sectional Study Examining Child and Parental Breakfast Consumption Behaviours, Food Intake and Attitudes towards Breakfast:**

- ▶ Identify children's and parents breakfast consumption behaviours, breakfast food intake and attitudes towards breakfast;
- ▶ Investigate for potential correlations between healthy breakfast food intake at home for children and parents;
- ▶ Investigate for potential correlations between children's and parents' attitudes towards breakfast, and parents' attitudes and children's healthy food intake at home.

# Study 3 - Design

- ▶ Quantitative Cross Sectional Design
- ▶ Children aged 9-11 and Parents from 5 Schools Participating in USFB

- 37 Children and 32 Parents

## - Measures:

- Breakfast Attitudes Questionnaire (Tapper et al. 2008)
- Day in The Life Questionnaire (Refs)
- Data gathered on breakfast consumption over 2 school week

## ▶ Analysis:

- Breakfast Consumption Behaviours
- Breakfast Food Intake
- Attitudes Towards Breakfast

Remember to put a tick in ONE space for each question: ☑

	Agree a lot	Agree a bit	Don't agree or disagree	Disagree a bit	Disagree a lot
1. I usually eat healthy foods for breakfast					
2. I often miss breakfast					
3. It's okay for me to miss breakfast					
4. I hardly eat anything for breakfast					
5. I hate eating breakfast					
6. I usually eat unhealthy foods for breakfast					
7. I can concentrate in class even when I've missed breakfast					
8. I usually have a snack at morning break instead of breakfast					
9. I feel okay in the mornings even if I haven't eaten breakfast					
10. Eating breakfast is boring					
11. I'd rather have a snack in the morning than breakfast					
12. If I miss breakfast I feel more tired in the morning					
13. I usually eat a good breakfast					

Keep going on the next page.


### Start of Part 2!

#### What did you do this morning?

1. Did you watch television at home this morning?

Please tick YES or NO

Yes  No



2. Did you have anything to eat or drink at home this morning?

Please tick YES or NO. If you ticked 'yes' please write everything you had to eat or drink in the box provided:

Yes  No

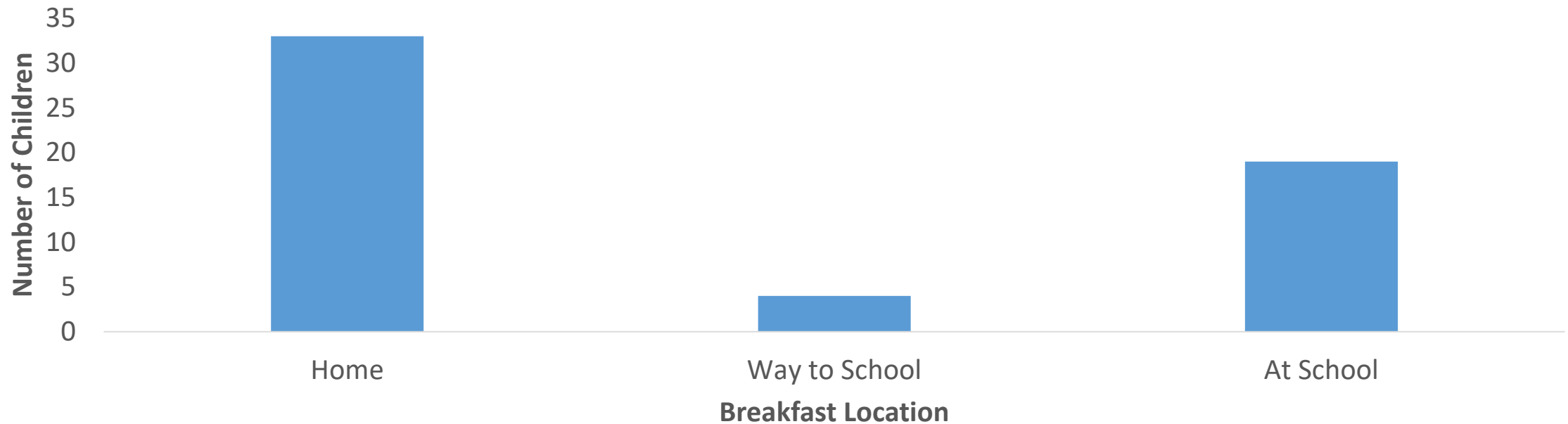
What did you have to eat or drink this morning at home?  
Please record everything

If you answered **yes**, please tell us **what time** you had something to eat or drink **at home** this morning: (circle or cross **one** answer)

Between 6:00am & 6:30am	Between 6:30am & 7:00am	Between 7:00am & 7:30am
Between 7:30am & 8:00am	Between 8:00am & 8:30am	Between 8:30am & 9:00am

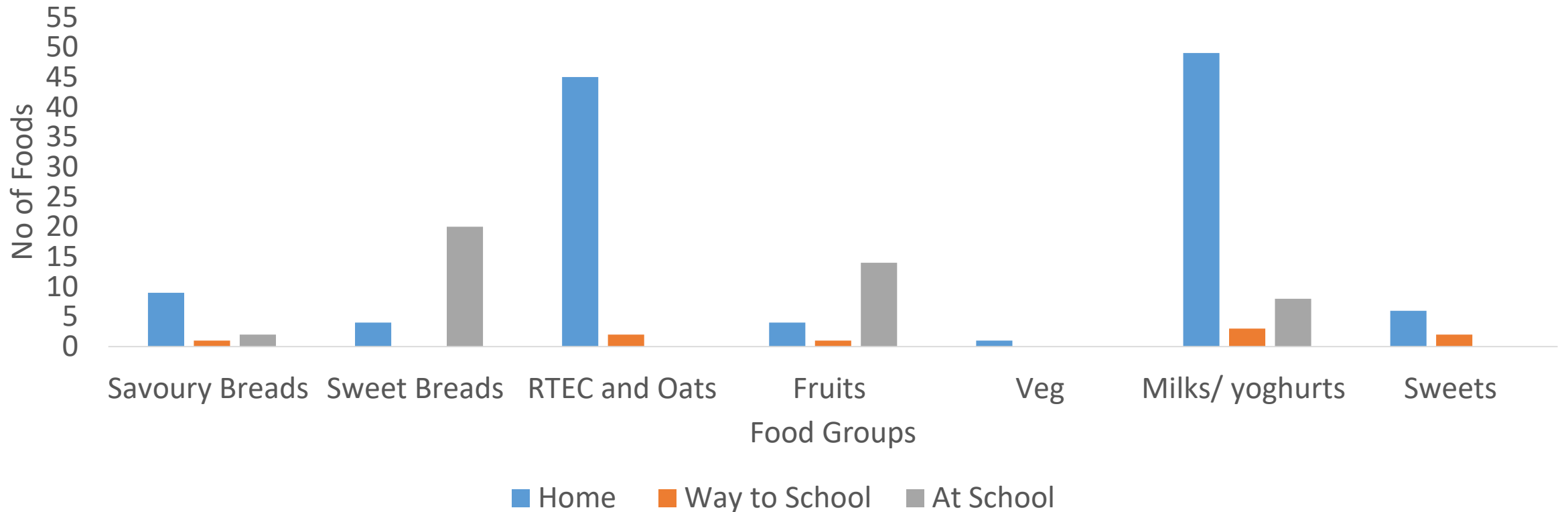
# Children's Breakfast Consumption Patterns

Breakfast Consumption by Home, Way to School and at School



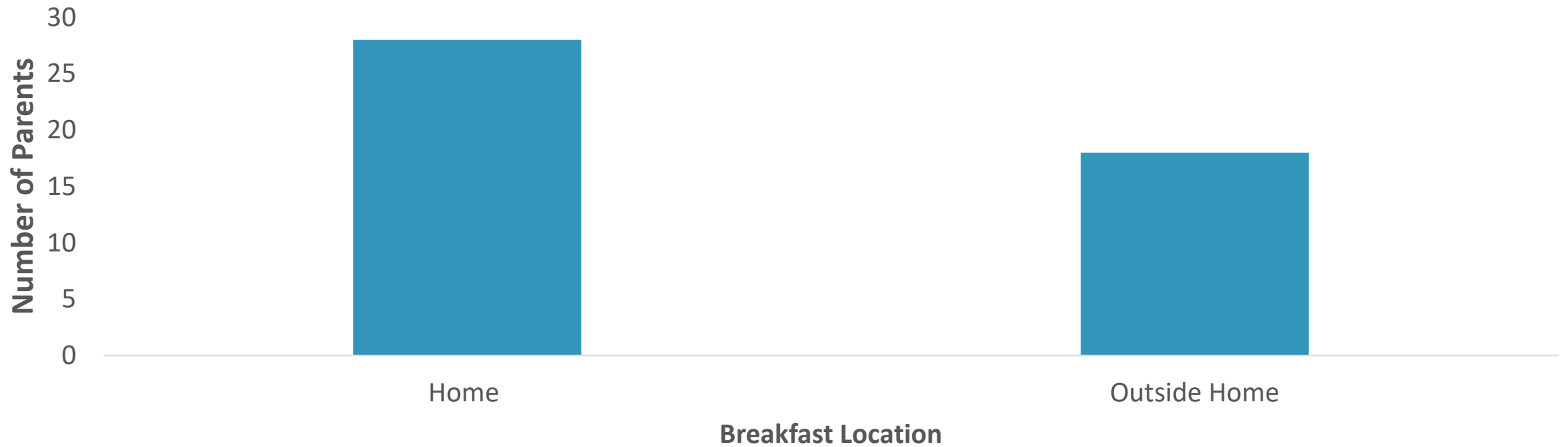
# Children's Breakfast Food Intake

Number of Breakfast Foods Consumed (2 days) at Home, Way to School and at School



# Parents' Breakfast Consumption Patterns

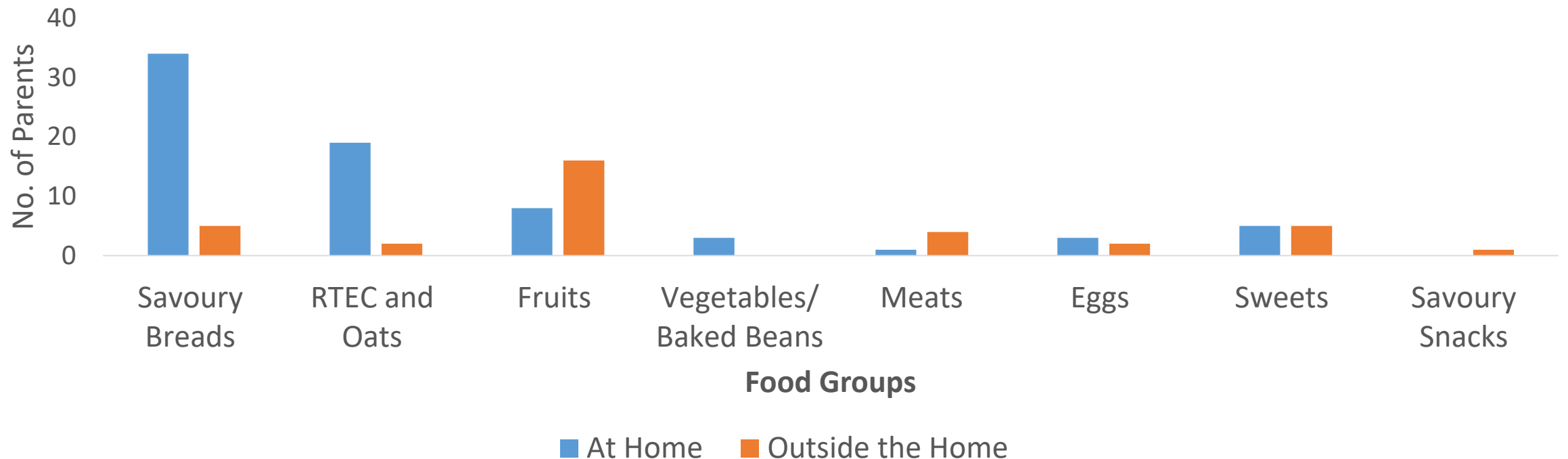
## Breakfast Consumption at Home and Outside the Home





# Parents Breakfast Food Intake

Number of Breakfast Foods Consumed (2 days) at Home and Outside the Home



# Children's Healthy and Unhealthy Foods at Home

Healthy and Unhealthy Foods Consumed at Home by Children



# Children's Breakfast Attitudes and Breakfast Consumption



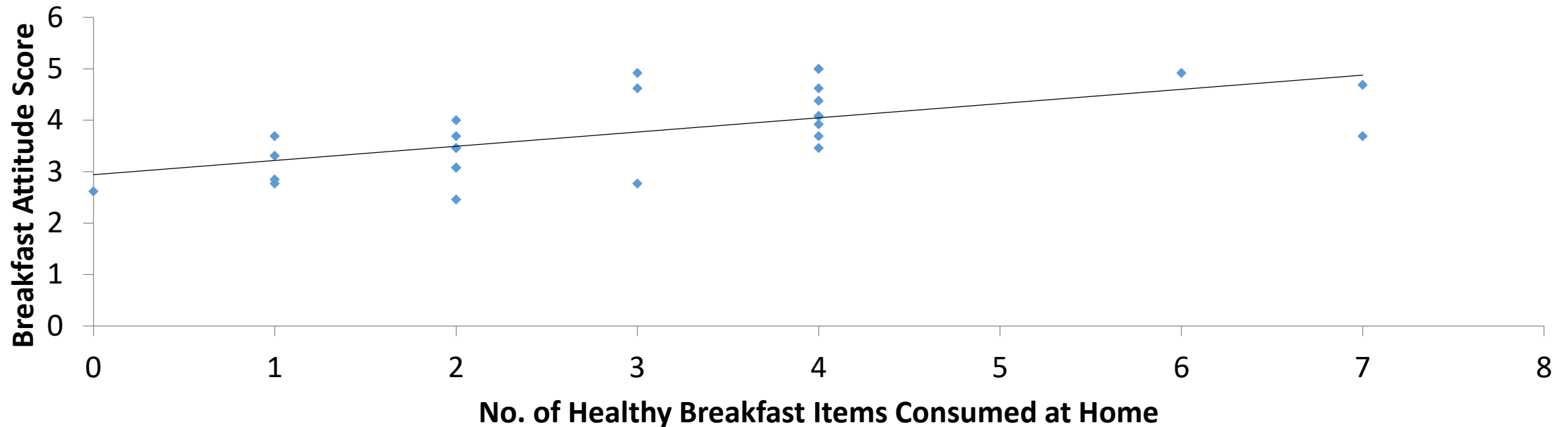
# Parents' Healthy and Unhealthy Foods at Home

Healthy and Unhealthy Foods Consumed at Home by Parents



# Parents' Breakfast Attitudes and Breakfast Consumption

Parents' Attitudes Towards Breakfast and Number of Healthy Items Consumed at Home





# Study 4

**A cross-sectional observational study of breakfast habits, and food, energy and macronutrient intake, amongst primary school children served by a universal free school breakfast scheme:**

- Investigate breakfast consumption behaviours in primary school children attending a school participating in a USFB scheme;
- Examine food and beverage type intake across the morning at home, on the way to school, and at school;
- Examine energy and macronutrient intake across the morning at home and at school, and during the school week and weekend;
- Investigate for differences in macronutrient intake between rare, frequent, and occasional double-breakfast consumers;
- Compare energy and macronutrient intake, with UK Dietary Reference Values for energy and macronutrient intakes for children.

# Study 4 - Design

- ▶ Quantitative Cross Sectional Design
- ▶ 112 Children aged 9-11 from 3 Schools Participating in USFB
- ▶ Measures:
  - Bespoke Food Diaries and Toolkit
  - School Catering Diaries
  - Observations of School Breakfast
- ▶ Analysis:
  - Food and Beverage Types
  - Energy and Macronutrients

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### Children's Breakfast Food and Drink Diary

For primary aged children 9-11

## Monday

Secret number: \_\_\_\_\_ Date: \_\_\_\_\_

1

DAY 1: MONDAY

Part 1 – At home this morning

1) What time did you get up out of bed this morning?  
\_\_\_\_\_

2) Did you watch television at home this morning?  
Please circle YES or NO Yes No

3) Did you have anything to eat or drink at home this morning?  
Please circle YES or NO Yes No

If 'No' please move onto **Part 2 – On your way to school**

If you ticked 'Yes' please tell us what you had to eat/drink at morning below: (See your diary booklet for help)

a) What time did you have something to eat or drink at home this morning?  
\_\_\_\_\_

b) Who were you with when you had something to eat or drink?  
\_\_\_\_\_

c) What else were you doing when you had something to eat or drink?  
e.g. watching TV, sitting at the kitchen table, playing homework.  
\_\_\_\_\_  
\_\_\_\_\_

d) What did you have to eat and drink at home this morning? (Including the **glass and brand** the **sweetener** you ate/drank (if with this), **cooking methods**, and if there were any **left overs**.)  
\_\_\_\_\_  
\_\_\_\_\_

2

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### Children's Breakfast Food and Drink Weekender

For primary children aged 9-11




## Weekend





Secret number: \_\_\_\_\_


1

Please tell us more about what you had to eat and drink this morning:

1) If you had **milk this morning**, was it whole milk (blue top), semi-skimmed milk (green top), skimmed milk (red top) or a milk alternative e.g. soya, oat, coconut?  
   Other milk: \_\_\_\_\_  
Whole Milk  Semi-skimmed Milk  Skimmed Milk

2) If you had **cereal this morning**, how much milk did you have on your cereal?  
     
A little  Some  A lot  Drowned

3) If you had **cereal this morning**, did you sweeten with sugar, honey or syrup?  
Yes, sugar  Yes, honey  Yes, syrup  None/ did not have   
If yes, how many teaspoons? \_\_\_\_\_

4) If you ate **bread this morning**, what type of bread was it?  
White  Granary  Wholemeal  Brown  50/50 bread   
Other Type: \_\_\_\_\_  
Large loaf or small loaf: Large  Small   
If the bread was shop bought, how was it sliced?  
Thick  Medium  Thin  Unsliced   
Name: e.g. Warburton's, Asda, Hovis.  
\_\_\_\_\_  


3

# Breakfast Skipping Frequency

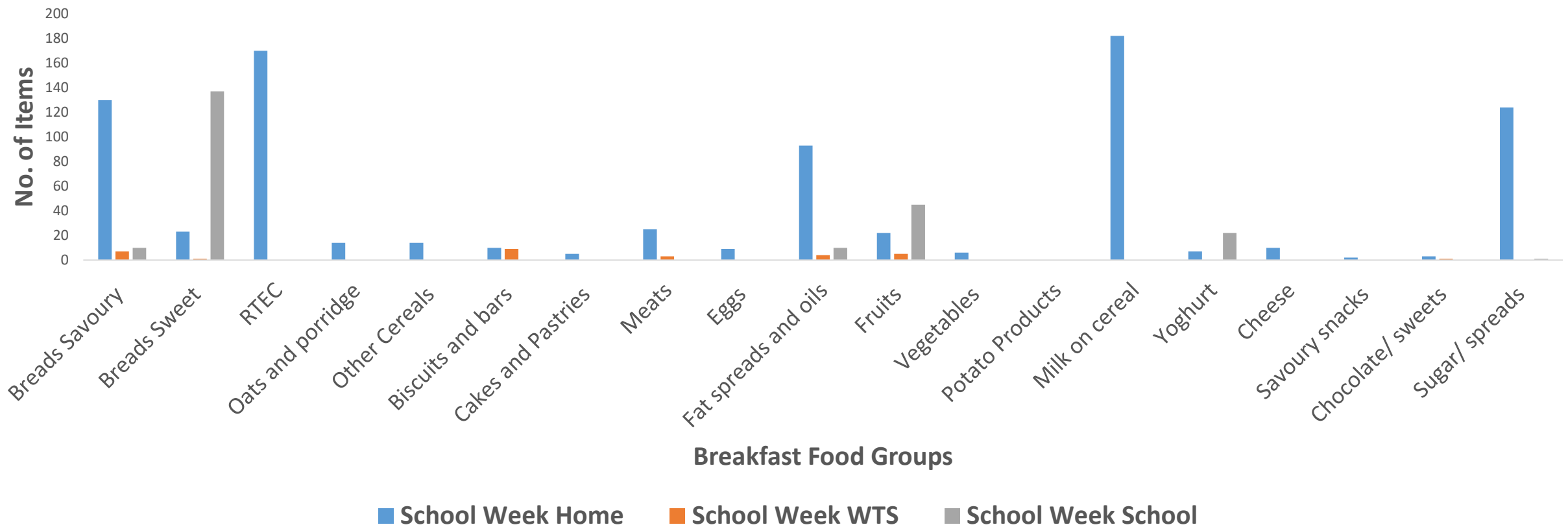
Breakfast Skipping Frequency (no. of days)	Total Week (7 days)		School Week (5 days school and home)		Weekend (2 days)	
	N	%	N	%	N	%
<b>0</b>	56	<b><u>50</u></b>	<b>66</b>	<b><u>58.93</u></b>	<b>81</b>	<b><u>72.32</u></b>
<b>1</b>	18	16.07	14	12.5	23	20.54
<b>2</b>	14	12.5	13	11.61	<b>8</b>	7.14
<b>3</b>	10	8.93	11	9.82	-	-
<b>4</b>	5	4.46	5	4.46	-	-
<b>5</b>	3	2.68	<b>3</b>	2.68	-	-
<b>6</b>	5	4.46	-	-	-	-
<b>7</b>	<b>1</b>	0.89	-	-	-	-

# Breakfast Consumption Frequency by Location

Frequency of Breakfast Intake	Home		Way to school		At school	
	Number of Days	N	%	N	%	N
0	9	8.04	98	87.5	44	<u>39.29</u>
1	13	11.61	10	8.93	23	20.54
2	18	16.07	3	2.68	20	17.86
3	13	11.61	1	0.89	12	10.71
4	9	8.04	-	-	4	3.57
5	50	<u>44.64</u>	-	-	9	<u>8.04</u>

# Foods Consumed at Home, Way to School and at School during the School Week

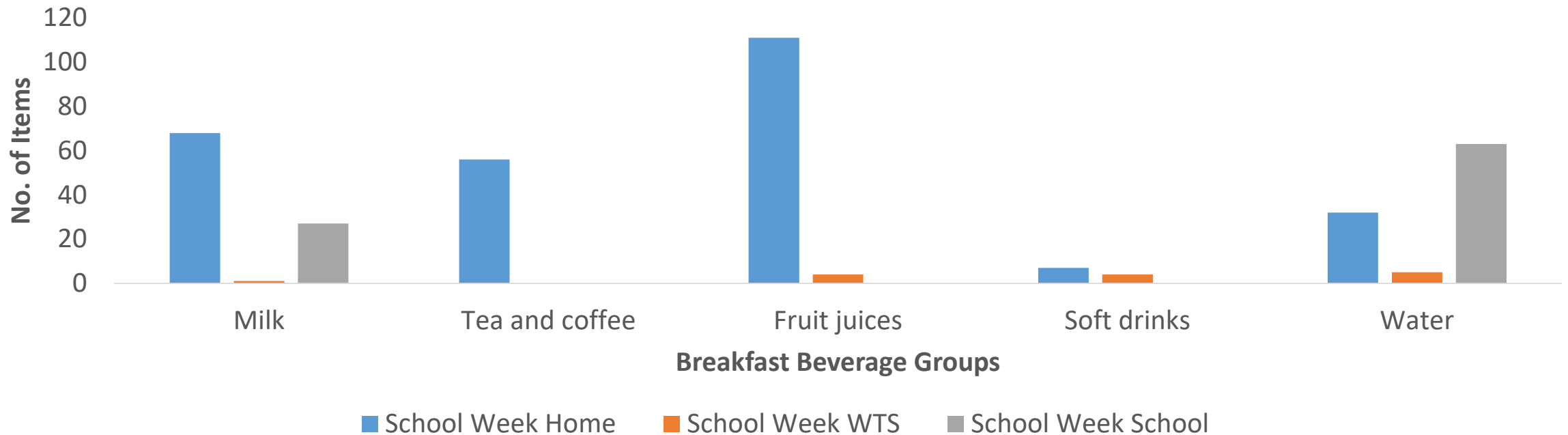
Number of Foods Consumed at Home, Way to School and at School for School Week (5 Days)





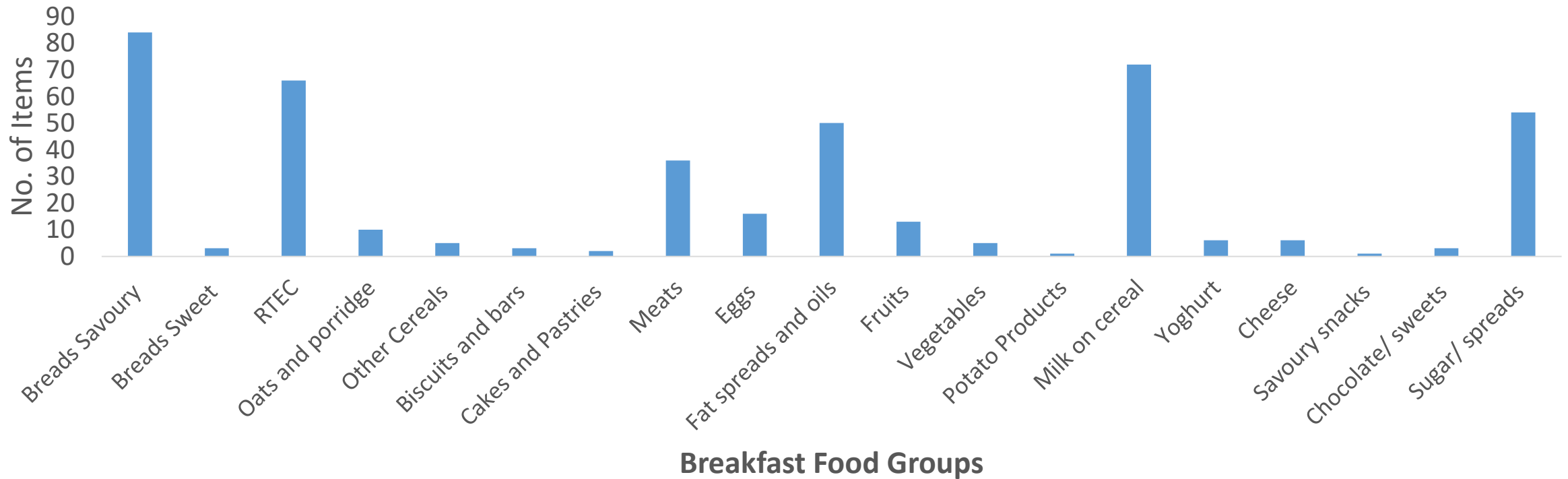
# Beverages Consumed at Home, Way to School and at School during the School Week

Number of Beverages Consumed at Home, Way to School and At School for the School Week (5 Days)



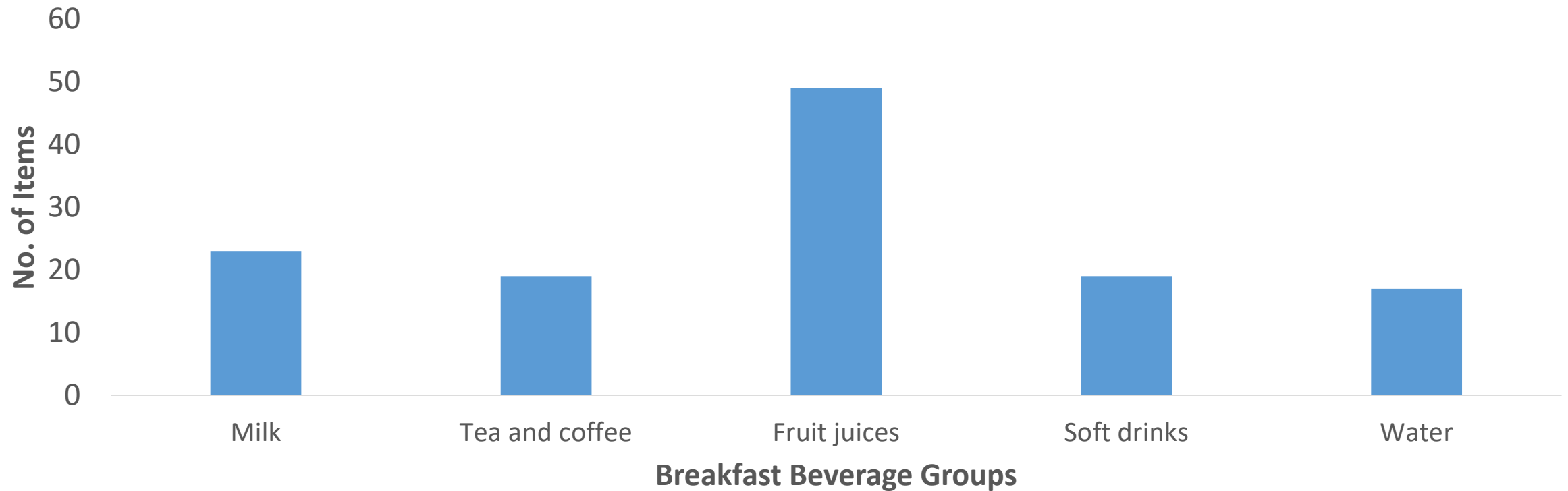
# Foods Consumed during the Weekend

Number of Foods Consumed for the Weekend (2 days)



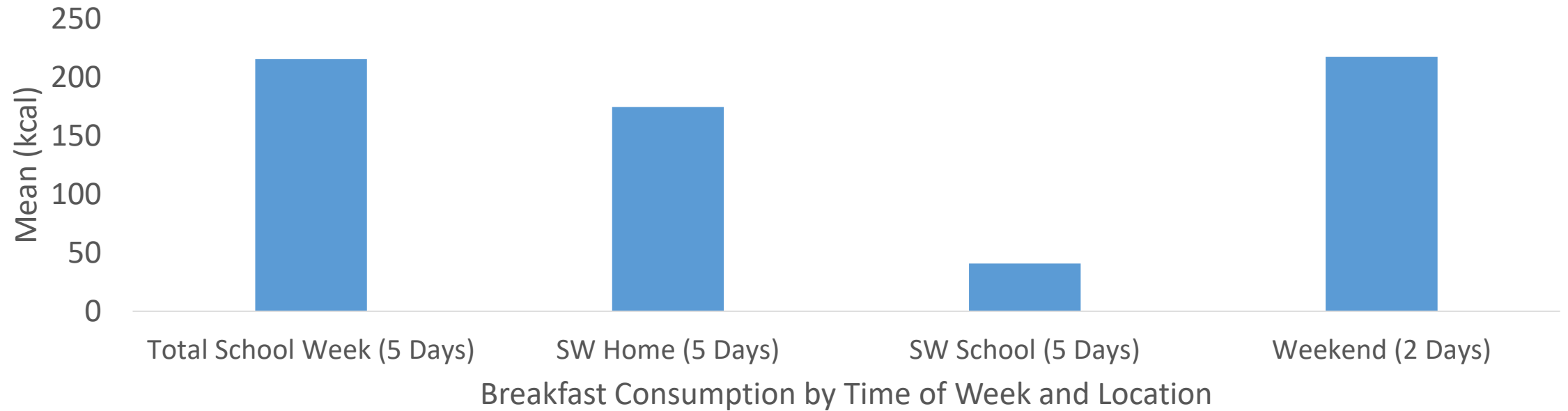
# Beverages Consumed during the Weekend

Number of Beverages Consumed during the Weekend (2 Days)



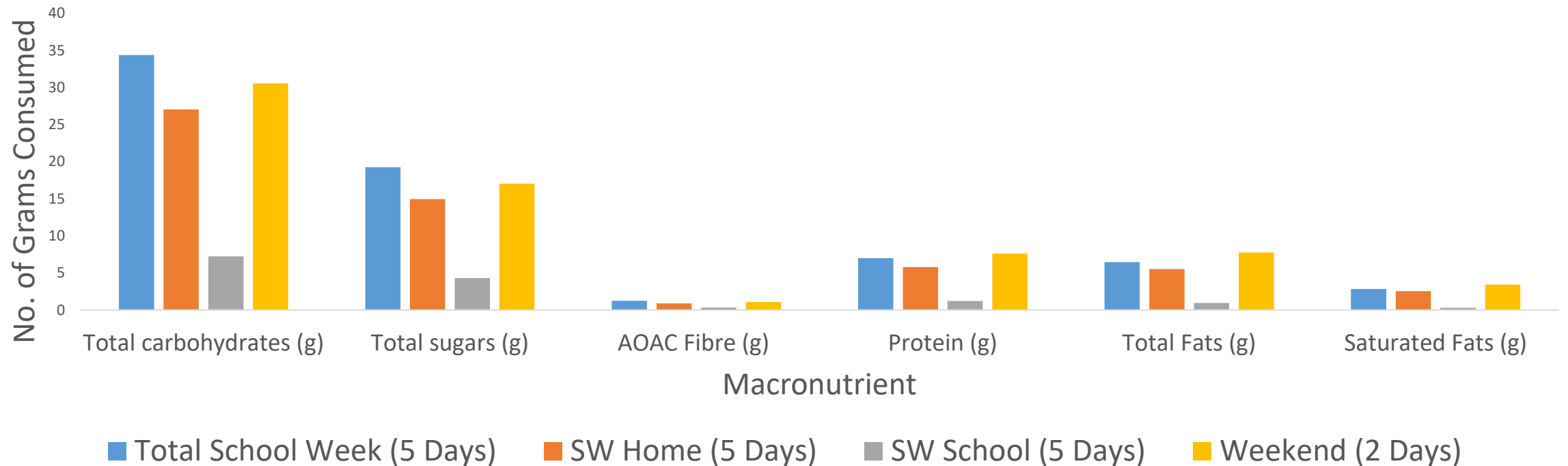
# Energy (kcal) Intakes

Mean Daily Average Energy (kcal) Intakes for Total School Week, School Week at Home, and School Week at School.



# Macronutrient Intakes

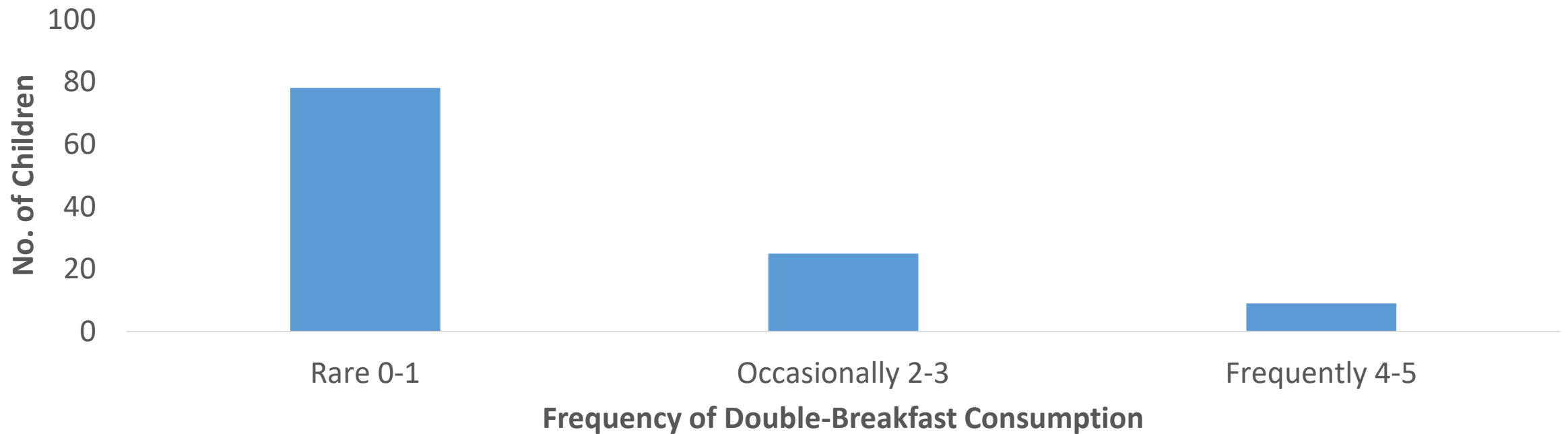
Mean Daily Average Macronutrient (g) Intakes for Total School Week, School Week at Home, and School Week at School.





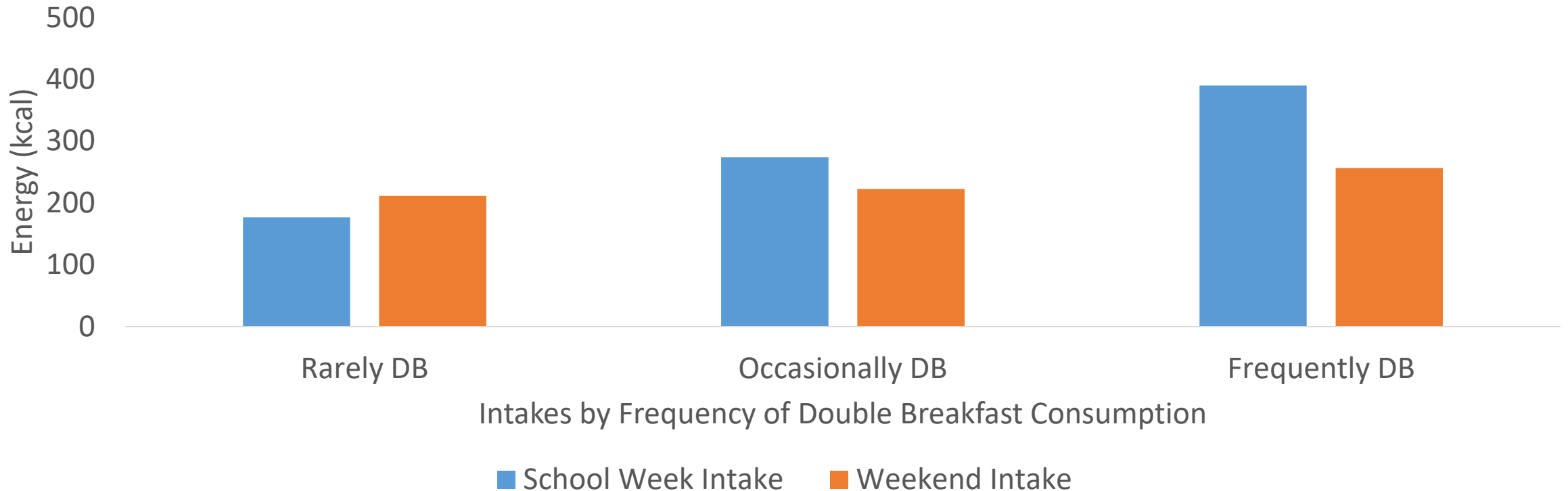
# Double-breakfasting Frequency

Number of Children Consuming a Double-Breakfast (Home and School) Rarely (0-1 Days), Occasionally (2-3 Days) and Frequently (3-4 Days)



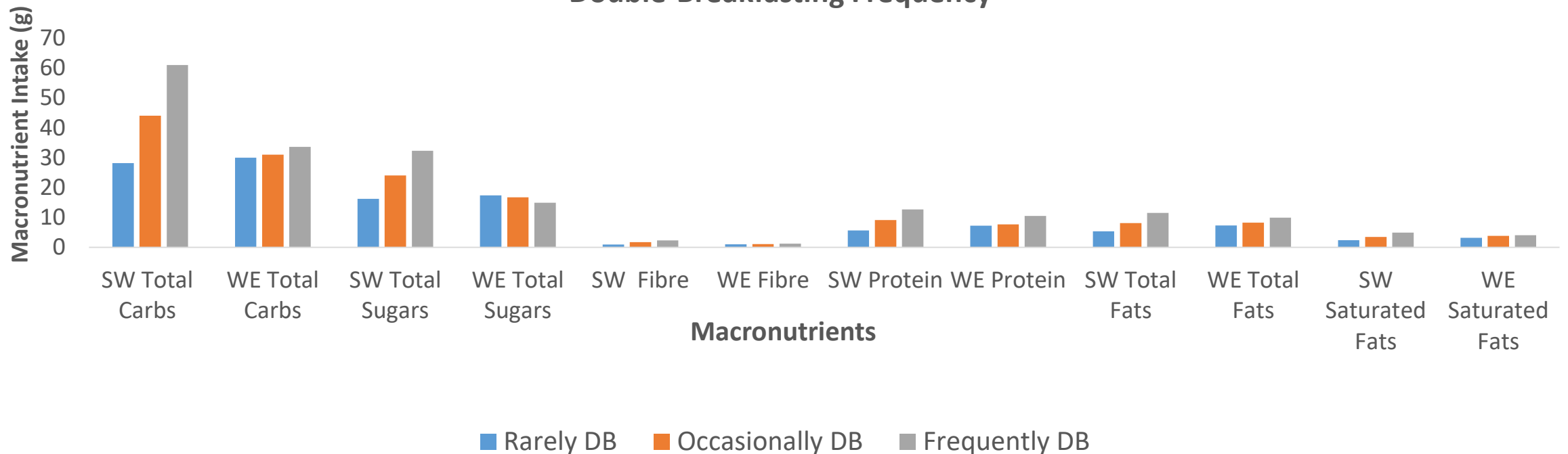
# Energy Intakes by Double-Breakfasting Frequency

Daily Average Intakes of Energy (kcal) for Total School Week and Weekend for Children who Consumed a Double Breakfast Rarely, Occasionally and Frequently



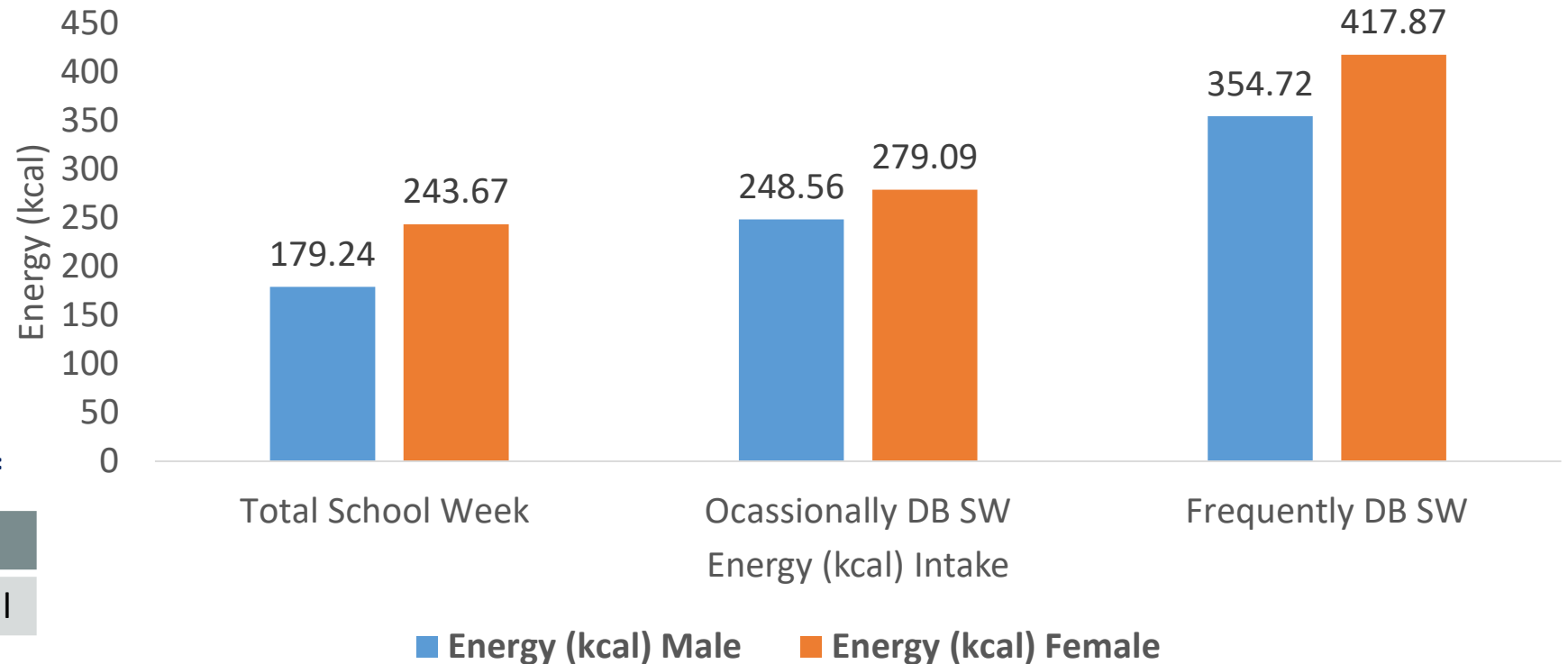
# Macronutrient Intake by Double-Breakfasting Frequency

Average Daily Macronutrient Intakes for Total School Week (Home & School) and Weekend by Double-Breakfasting Frequency



# Energy Intake and UK Dietary Reference Values – Energy (kcal)

Energy (kcal) for Male and Female Children, Presented for all Children for Total School Week, and Children who Double Breakfast Occasionally and Frequently



Range for 20% of daily Estimated Average Requirement (EAR)  
(British Nutrition Foundation, 2015) =

Males (9-11)	Females (9-11)
368 - 425.4 Kcal	344.2 - 406.4 Kcal

# Macronutrient Intake and UK Dietary Reference Values – Total Carbohydrates and AOAC Fibre

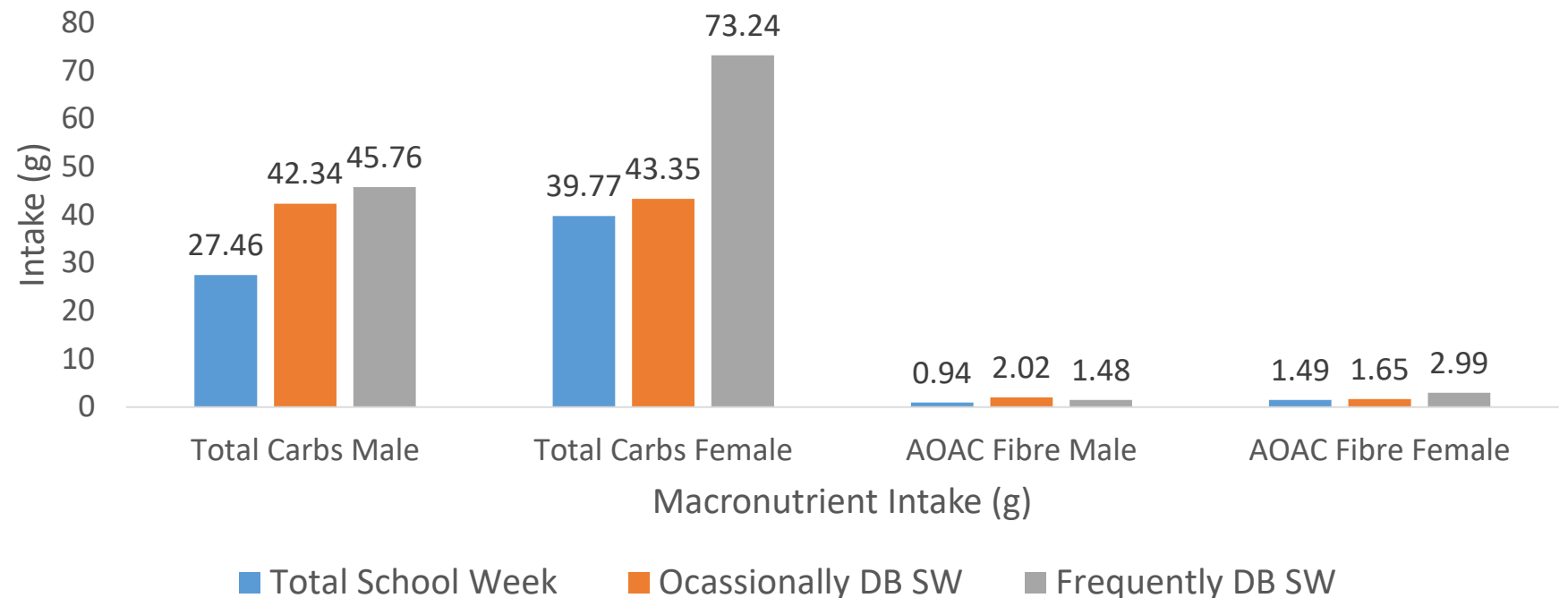
Range for 20% of daily DRV Total Carbohydrates,  
(Public Health England, 2016) =

Males (7-14)	Females (7-14)
48.4g- 66.6g	45.4 g - 53.4g

Rangs for 20% of daily DRV AOAC Fibre,  
(Public Health England, 2016 & SACN, 2015) =

Males (7-14)	Females (7-14)
4 – 5g	4 – 5g

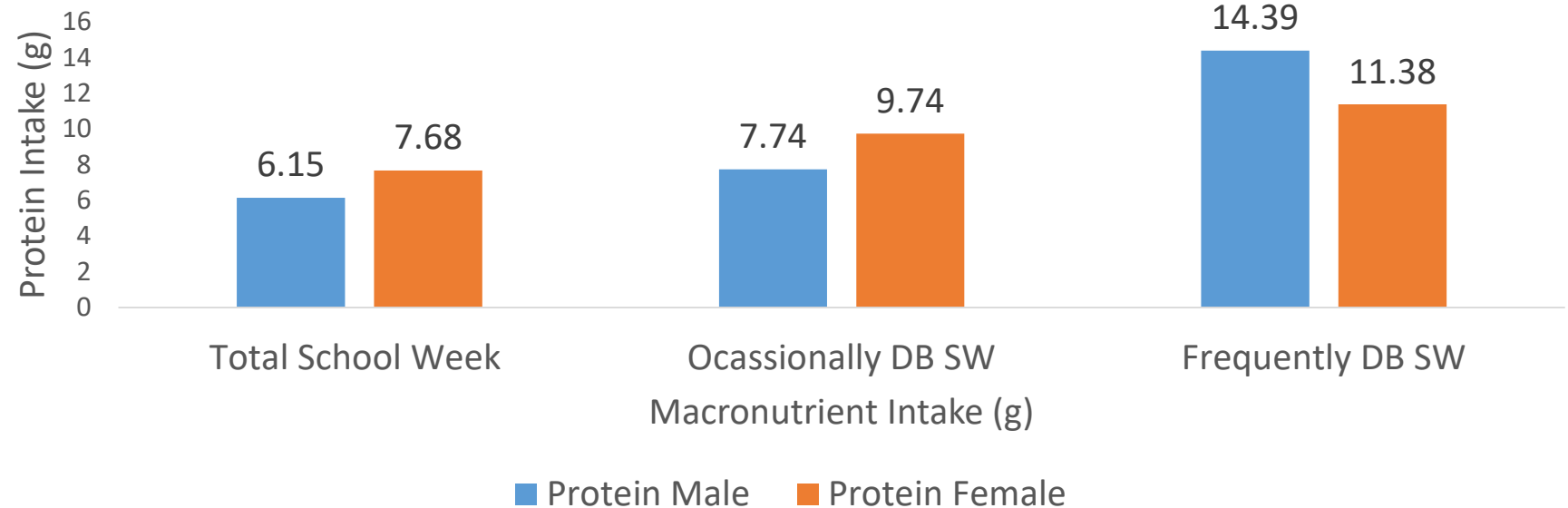
Total Carbohydrate and AOAC Fibre Intake for Male and Female Children; Presented for all Children for Total School Week, and Children who Double Breakfast Occasionally and Frequently





# Energy and Macronutrient Intake and UK Dietary Reference Values - Protein

Protein Intakes for Male and Female Children; Presented for all Children for Total School Week, and Children who Double Breakfast Occasionally and Frequently



Ranges for 20% of daily DRV Protein (Public Health England, 2016) =

Males (7-14)	Females (7-14)
5.66 - 8.42 g	5.66 - 8.42 g

# Macronutrient Intake and UK Dietary Reference Values – Total Fats and Saturated Fats

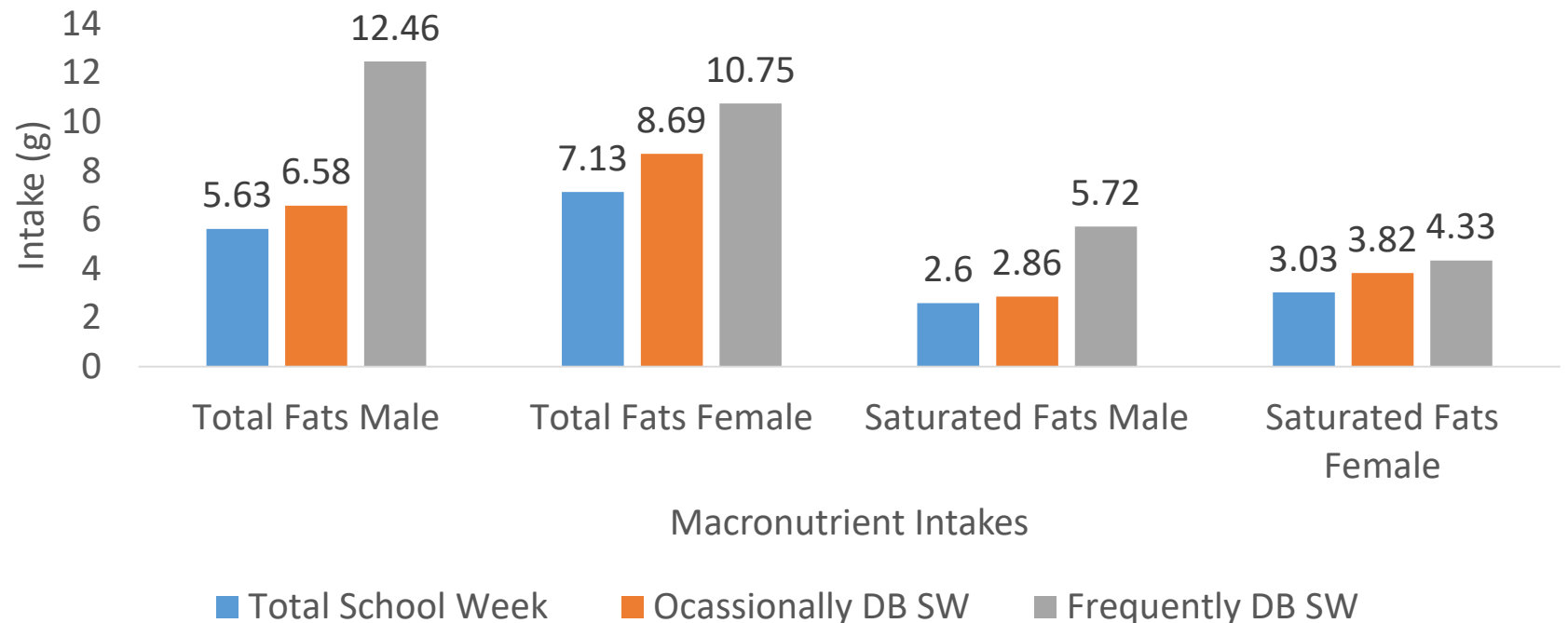
Ranges for 20% of daily DRV Total Fats (Public Health England, 2016) =

Males (7-14)	Females (7-14)
14.2 - 19.4 g	13.2 - 15.6 g

Ranges for 20% of daily DRV Total Saturated Fats (Public Health England, 2016) =

Males (7-14)	Females (7-14)
4.4 - 6.2 g	4.2 - 4.8 g

Total fats and Saturated Fats Intakes for Male and Female Children; Presented for all Children for Total School Week, and Children who Double Breakfast Occasionally and Frequently



# Conclusions

## Studies 1 and 2

- ▶ Benefits of USFB to children, families, schools and the community:
  - Alleviates hunger;
  - May improve health and nutrition;
  - Wider educational outcomes;
  - Financial assistance – poverty and food insecurity;
  - Alleviates rushed morning routines.
- ▶ Concerns:
  - Double-Breakfasting
  - High fat and sugar school breakfast items.

## Studies 3 and 4

- ▶ Breakfast Locations
  - Home, Way to School and at School.
- ▶ Food Intake:
  - Home: RTEC and Savoury Breads;
  - School: Sweetened Breads, Fruits, Milks, Yoghurts.
- ▶ Double Breakfasting:
  - Low numbers of frequent double-breakfasting;
  - Energy and macronutrient intakes increase with frequency of double-breakfasting;
  - Comparison with dietary reference values indicate intakes falling below reference values, especially fibre.

# Recommendations and Future Research

## Recommendations:

- ▶ Improved Communication Strategy with Schools and Parents;
- ▶ Review concerns about high fat and sugar school breakfast items.

## Future Research:

- ▶ Are children consuming adequate energy, macronutrients and micronutrients for breakfast?
- ▶ What are the longer-term impacts of double-breakfasting?

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