

Health Impacts of Eating in or out of School at Lunchtime

Research Findings

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St. Andrew's in the Square

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Presentation

- (Very) brief synopsis of previous research findings
- Follow-up research on stay-on-site policies
- Pilot study exploring nutritional quality of popular 'out of school' foods

Previous Research (2007)

- Healthy school food policy was a success story (particularly in primary schools)
- The physical and social environment were crucial
- Snacks, pack lunches, and eating out problematic
- Secondary schools were the real challenge



The Big Eat In

- One year pilot during 2009/2010 academic year
- First year pupils 'encouraged' to stay on the school premises at lunch-time in 8 secondary schools
- Evaluation of impacts - GCPH and ScotCen Social Research



School lunches 'reduce truancy', pilot project finds

Keeping children in school at lunchtime encourages them to eat more healthily and reduces accidents and truancy, according to the findings of a pilot project.

Pupils at eight Glasgow schools were kept in the grounds and offered activities alongside healthy food.

As a result, more children ate school meals and staff reported less truancy and improved safety.

The pilot has now been rolled out to a further seven schools.

The pilot scheme, organised by Glasgow City Council, the Scottish Centre for Social Research and the Glasgow Centre for Population Health, was carried out among S1 pupils between August 2009 and June last year.

It was also found that pupils enjoyed the lunchtime activities and said there was less pressure to go out even if they did not want to.

The study found there was also less bullying and teasing and staff reported reduced lateness for class.



Pupils were offered activities alongside healthy food

Related stories

School meals 'help fussy eaters'

School meals get 'deli' makeover

More pupils taking school dinners

Impacts

- Stay on site policies sustained and extended
- Commitment by GCC Leader to revisit primary school lunchtime policies
- Alternatives to school canteen food explored by Cordia
- More research to explore sustainability of stay on site policies and external commercial food environment

Big Eat In Follow Up Study

- Commissioned research during spring/summer 2011 (ScotCen Social Research)
- Focus groups and interviews in 4 schools
- Research explored...
 - Practical implementation of stay-on-site policies
 - Junior secondary pupils' views and their nutritional attitudes and behaviour
 - Staff views
 - Staff and pupil views regarding future stay-on-site policies

Findings

- School stay on site policies offer multiple benefits
- Staff, parents/carers and many pupils very supportive of continuation
- Encouragement rather than enforcement
- Managing pupil expectations and parental involvement
- Lunchtime activities
- External environment of great concern to staff and parents/carers

Food Outlet Study

How does the quality of food purchased by secondary pupils from outlets near Glasgow secondary schools compare with nutrient standards set for food and drinks provided by schools in Scotland?



Research Objectives

1. Description of numbers and type of commercial outlets near five Glasgow secondary schools
2. Identification of popular outlets and observation of purchases by pupils
3. Purchase and analysis of a sample of popular savoury foods items to compare nutritional quality against Scottish nutrient standards for school lunches

Methods

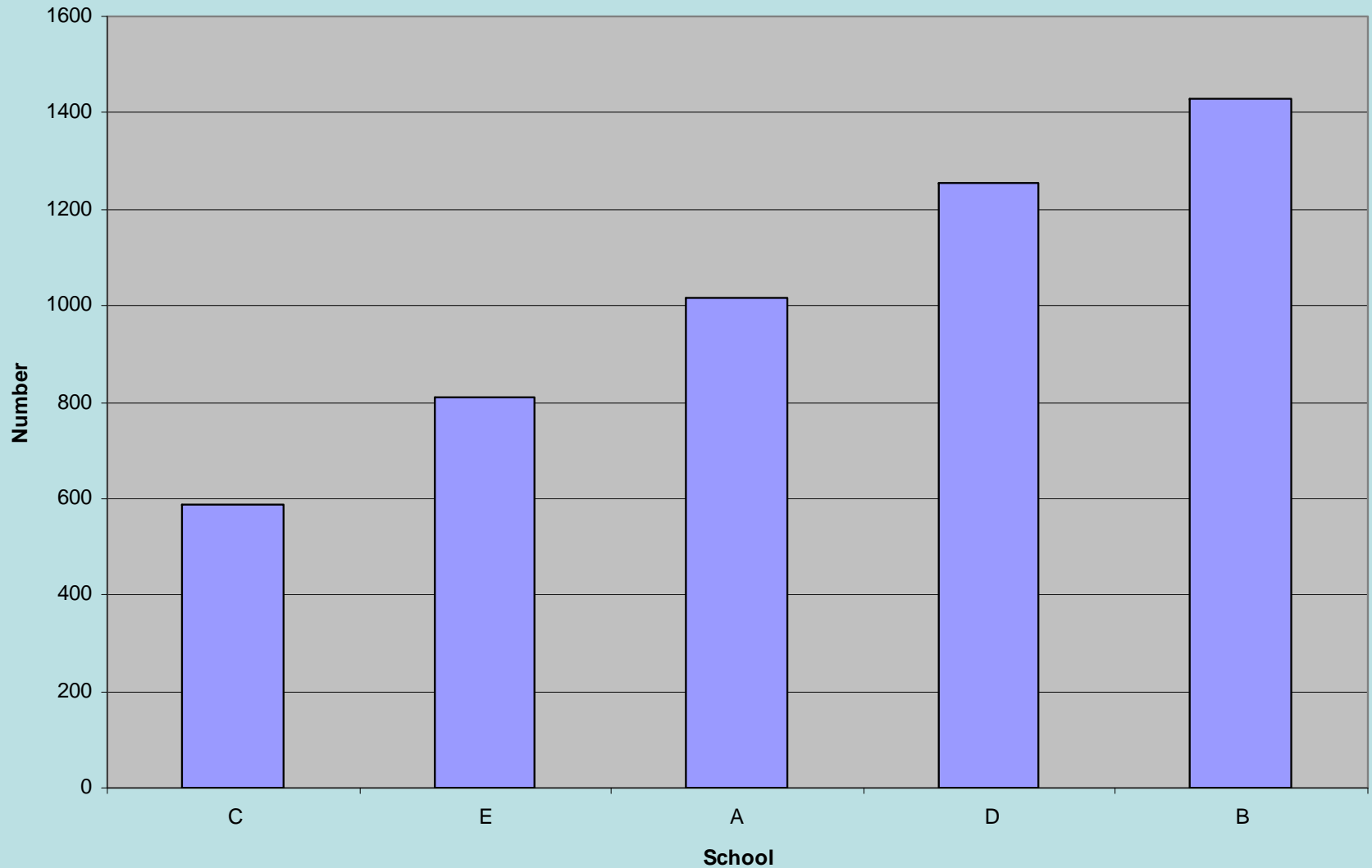
- GIS mapping of outlets in each study area
- Assessment of characteristics of outlets located near pilot schools
- Observational research to identify foods popular with secondary pupils
- Purchase of sample of popular foods and nutritional analysis to compare quality with national standards

Findings

Pilot Schools

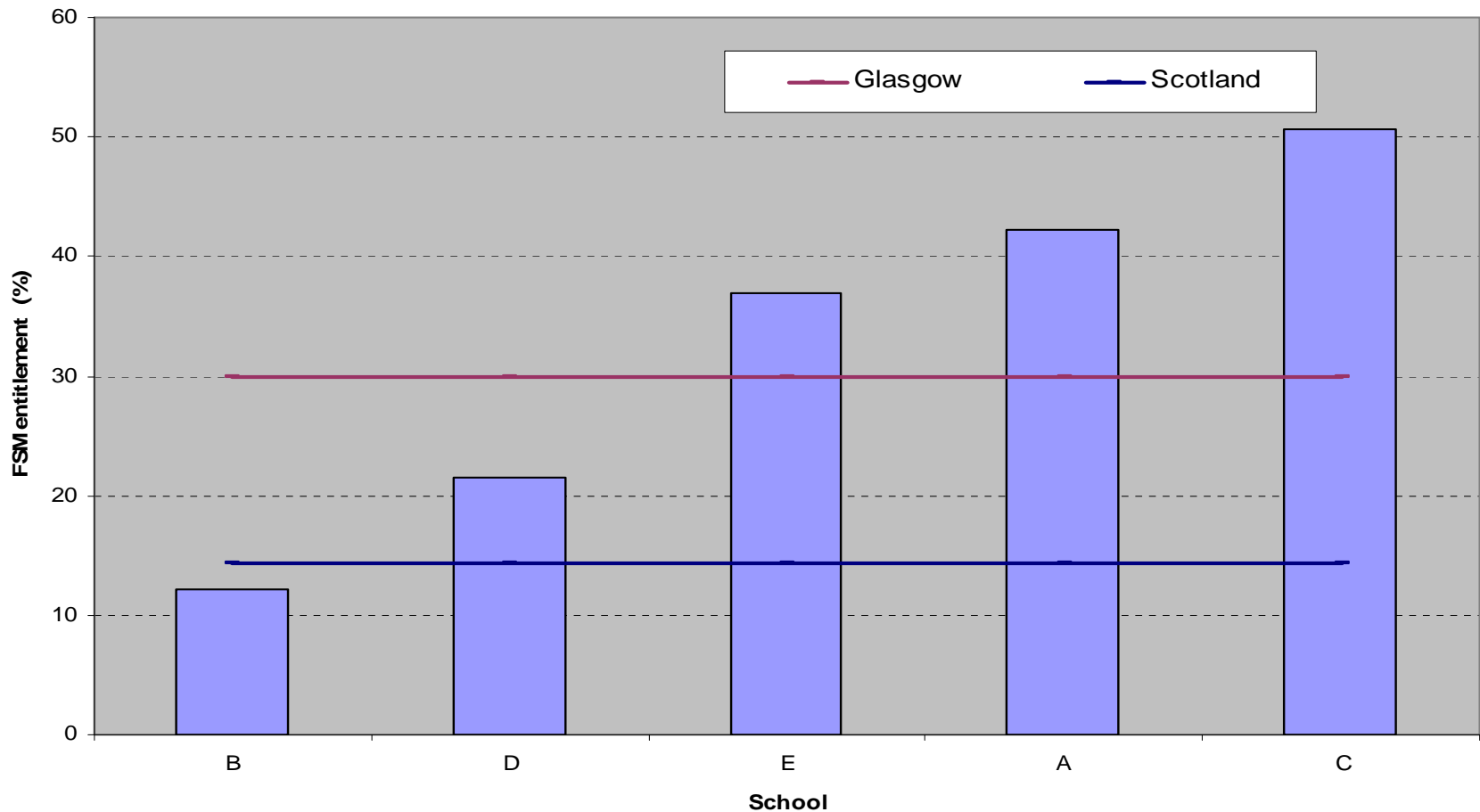
School Roll

Source: Glasgow City Council, 2010



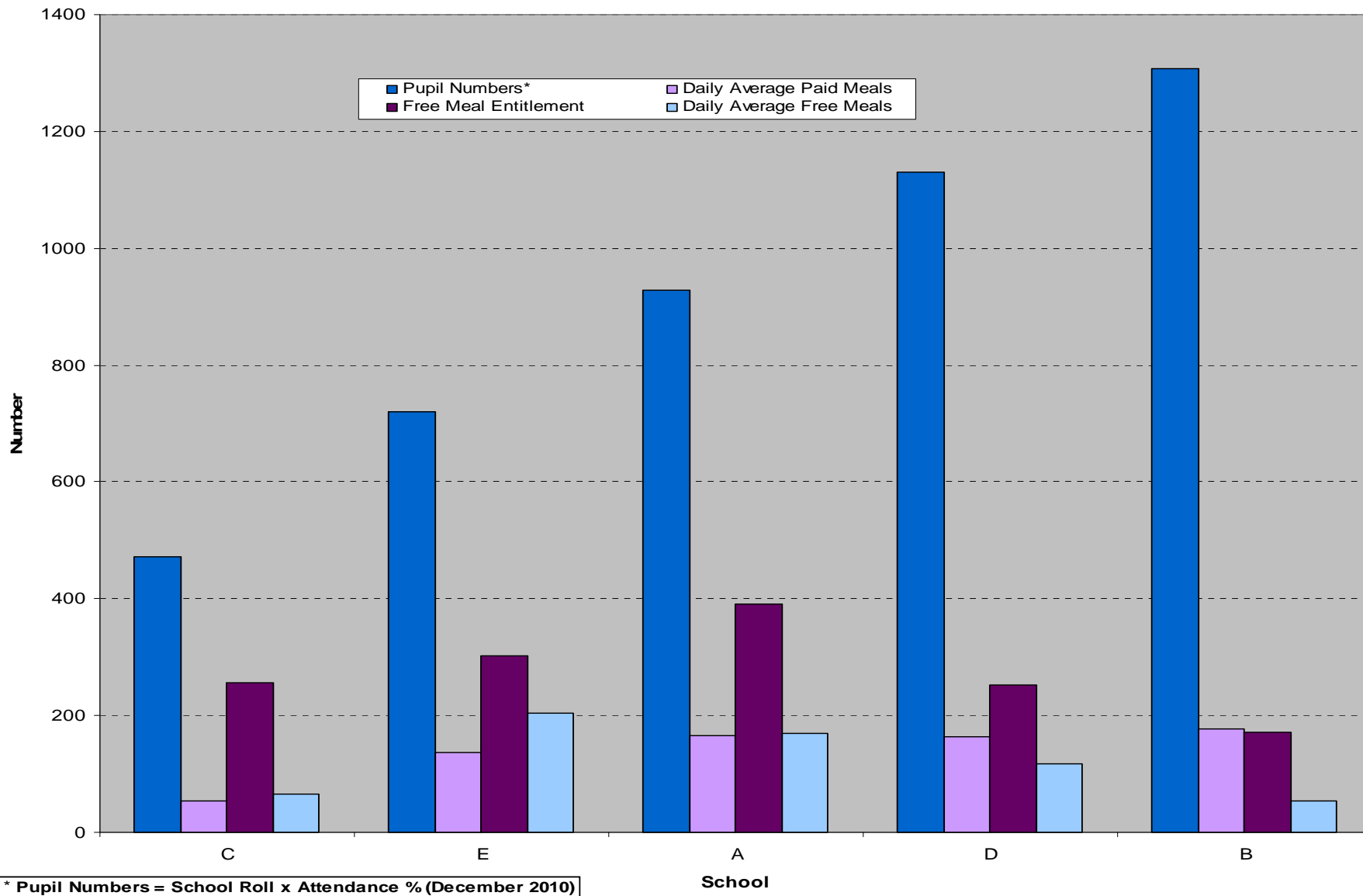
Free School Meal Entitlement

Source: School Meals in Scotland, 2010



School Meal Uptake

Source: Cordia, October 2011



Characteristics of Outlets

- Clusters near schools often on busy roads
- Marked heterogeneity
- Chip shops, convenience stores, bakeries, vans, cafés, pizzerias, sandwich shops and supermarkets
- Diversity of internal environments and items on sale
- Lunchtime offers, meal deals, price promotions etc.

12:00 am to 2:00 pm

Chips£ 1.00

Chips & Cheese£ 1.50

Donner Chips£ 1.50

Chips Sauce£ 1.50

Donner Kebab£ 2.00

Pizza Chips£ 1.50

Chips Burger£ 2.00

Fish & Chips£ 2.50

Rice Cuury Sauce£ 2.00

Chips Curry Sauce£ 2.00

Cain£ 0.40

Donner£ 2.00

Starters

	Small	Medium	Large
Vegetable Pakora	£ 3.95	£ 4.95	£ 5.95
Chicken Pakora	£ 4.95	£ 5.95	£ 6.95
Mix Pakora	£ 4.95	£ 5.95	£ 6.95
Mushroom Pakora	£ 4.95	£ 5.95	£ 6.95
Fish Pakora	£ 4.95	£ 5.95	£ 6.95
Onion Rings	£ 3.95	£ 4.95	£ 5.95
Spiced Mushrooms	£ 3.95	£ 4.95	£ 5.95
Prawn Cocktail	£ 2.95	£ 3.95	£ 4.95
Garlic Mushroom	£ 2.95	£ 3.95	£ 4.95
Garlic Bread	£ 2.95	£ 3.95	£ 4.95
Garlic Bread with Cheese	£ 2.95	£ 3.95	£ 4.95
Onion Bhaji	£ 3.00	£ 3.95	£ 4.95
Vegetable Samosa	£ 2.95	£ 3.95	£ 4.95
12 pieces - served with salad & sauce	£ 2.95		
12 Mince Samosa	£ 2.95		
12 pieces - served with salad & sauce	£ 2.95		

Pooris

(A light thin pan fried chapatti)

13 Prawn Poori	£ 3.50
14 Chicken Poori	£ 3.50
15 Mushroom Poori	£ 3.50
16 Chick Peas Poori	£ 3.50

Tandoori Starters

17 Chicken Chaat (Tandoori BBQ sauce)	£ 3.95
18 Tandoori Chicken	£ 3.95
19 Tandoori Tikka	£ 3.95
20 Lamb Tikka	£ 3.95

Tandoori Dishes

All these dishes are served with rice, salad and curry sauce

21 Tandoori Chicken	£ 7.50
22 Tandoori Chicken Tikka	£ 10.50
23 Tandoori Chicken Tikka	£ 7.25
24 Tandoori Chicken Tikka	£ 7.25
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100 Tandoori Chicken Tikka	£ 7.95

Set Meal A for 1

2 Poppadoms & Spiced Onions
Vegetable Pakora
Choice of 1 Curry, Chicken
(Curry, Patta, Korma, Bhoona)
Nan or Rice

£7.45

Set Meal B for 2

2 Poppadoms & Spiced Onions
Vegetable Pakora
Choice of any 2 Popular Dishes
Nan & Fried Rice
(excludes king prawn & tikka meat)

£12.50

Set Meal C for 2

2 Poppadoms & Spiced Onions
2 Poppadoms & Spiced Onions
Choice of 1 Starter (Chicken Chaat, Onion Bhaji)
Chicken Chaat, Mix Pakora, Nan and Fried Rice
Choice of any 2 Special Dishes, Nan and Fried Rice
(excludes king prawn & tandoori min)

School Kids Special

(take away only)

Mon - Fri 12.00 - 4.00pm

Hot Dog & Chips £2.10

Sausage, Chips & Can £2.00

Battered $\frac{1}{4}$ Pizza, Chips & Can £2.00

Chips Curry or Gravy £1.40

Chips £1.00



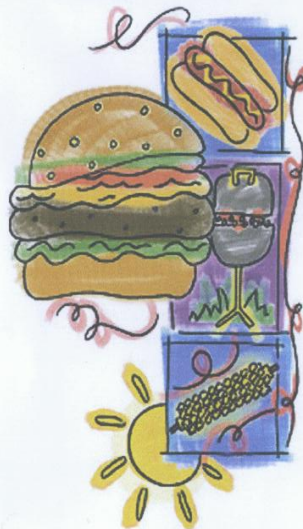
The Canteen

COME AND GET YOUR
LOYALTY CARD FOR
A FREE LUNCH.

DELICIOUS NEW MENU FOR
SCHOOLKIDS

BBQ Beef Burgers, Cajun Chicken
Burgers, Hot Dogs, Chicken Curry,
Filled Pitta Breads, Pizzas, Chips &
much more..... WE DO HALAL!

THE BEST VALUE FOR
MONEY IN



BUY 7 GET 1 FREE



Mortons Rolls

ANY FILLED ROLL **79_p**

ROAST PORK	• ROAST BEEF
ROAST TURKEY	• CHEDDAR CHEESE
LUNCH TONGUE	• STEAK LOAF
CHICKEN ROLL	• JELLIED VEAL
HONEY HAM	• CHOPPED PORK
CORNED BEEF	• BOILED GAMMON
GARLIC SAUSAGE	• TUNA MAYONNAISE
TURKEY SADDLE	• TUNA STEAK

FREE ✓ COLESLAW SALAD SAUCES MAYONNAISE

CANS BOTTLES WATER FROM **29_p** ✓

n - Own Make
Finest Beef

Pupils' Purchasing Behaviour

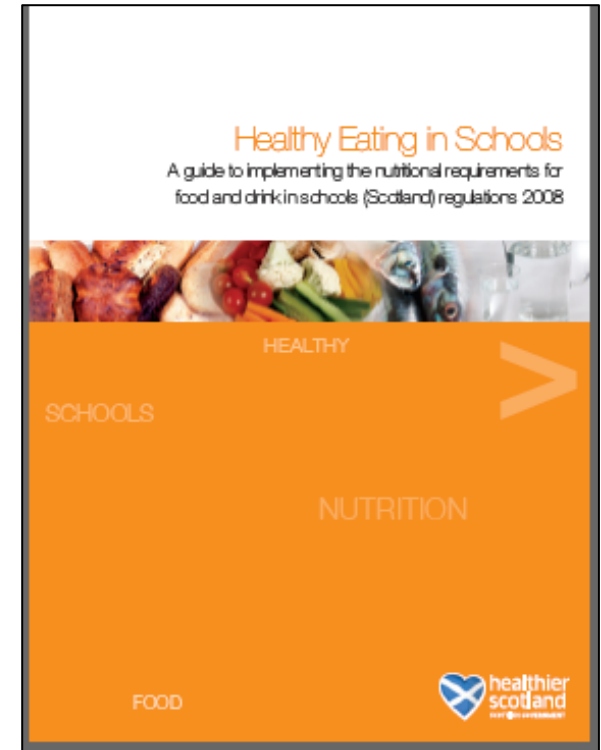
- Brisk exodus out of school (40 minute lunch break)
- Long queues at most popular outlets – some evidence of particular age groups/sex favouring certain outlets
- Rapid turnover
- Chips, chips and more chips (with rolls, curry sauce, gravy, cheese, fish etc) most popular....
- Followed closely by sausage rolls, pizza, pot noodles, beef burger/cheese burger, rolls and sausage, donner kebabs...
- Followed by sugary drinks, chocolate, crisps, sweets ...

Nutrient Analysis

- Key findings
- 45 savoury food items
- Main focus is energy, fat, saturated fat and salt
- Comparison with the Nutrient Standards for School

Nutrient Standards for Schools

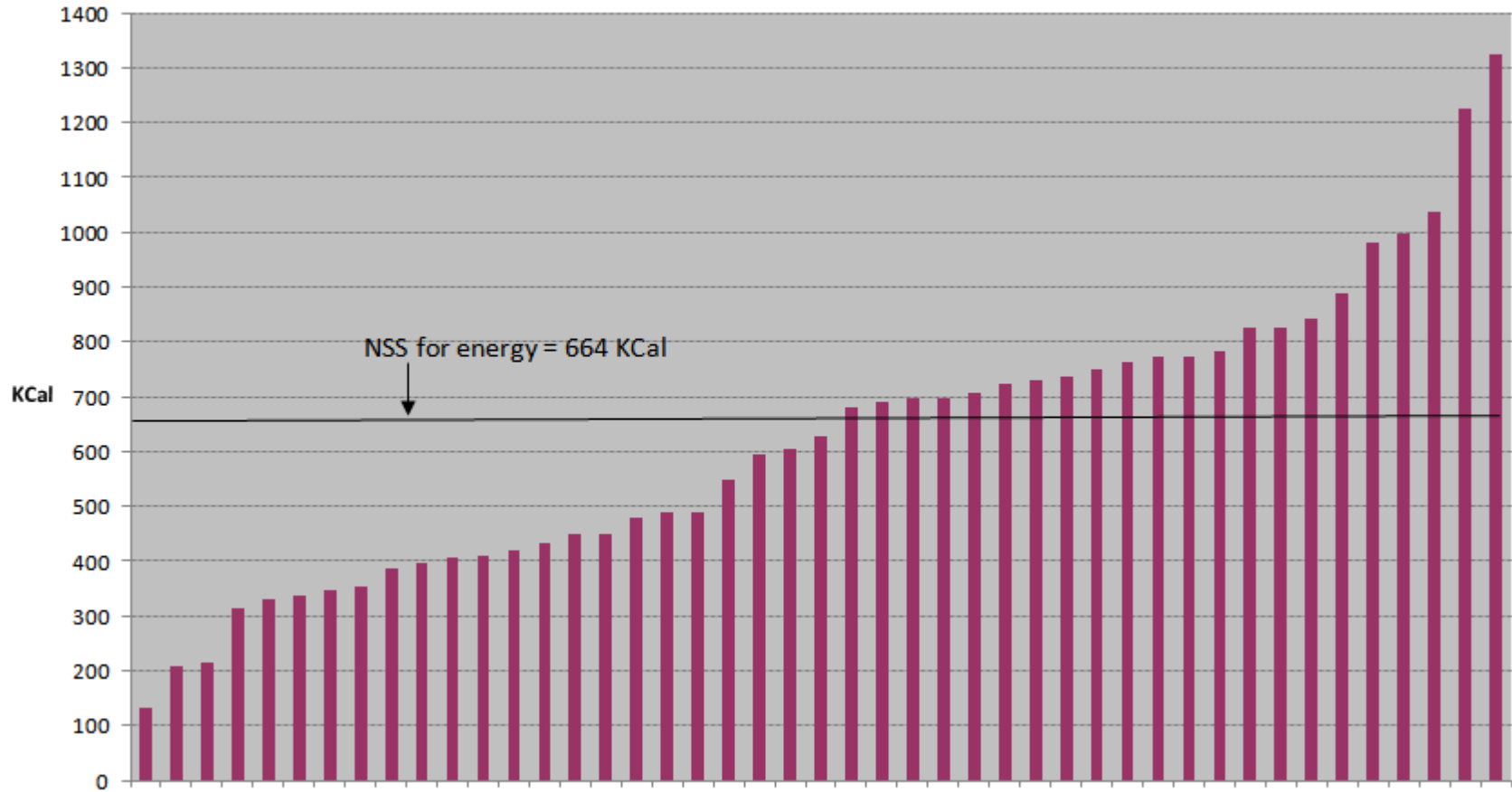
- Designed to ensure a third of daily nutritional requirements are provided by school meal
- Represent amount of energy and nutrients to be provided for an **average** day's school lunch



Nutrient Standards for Schools

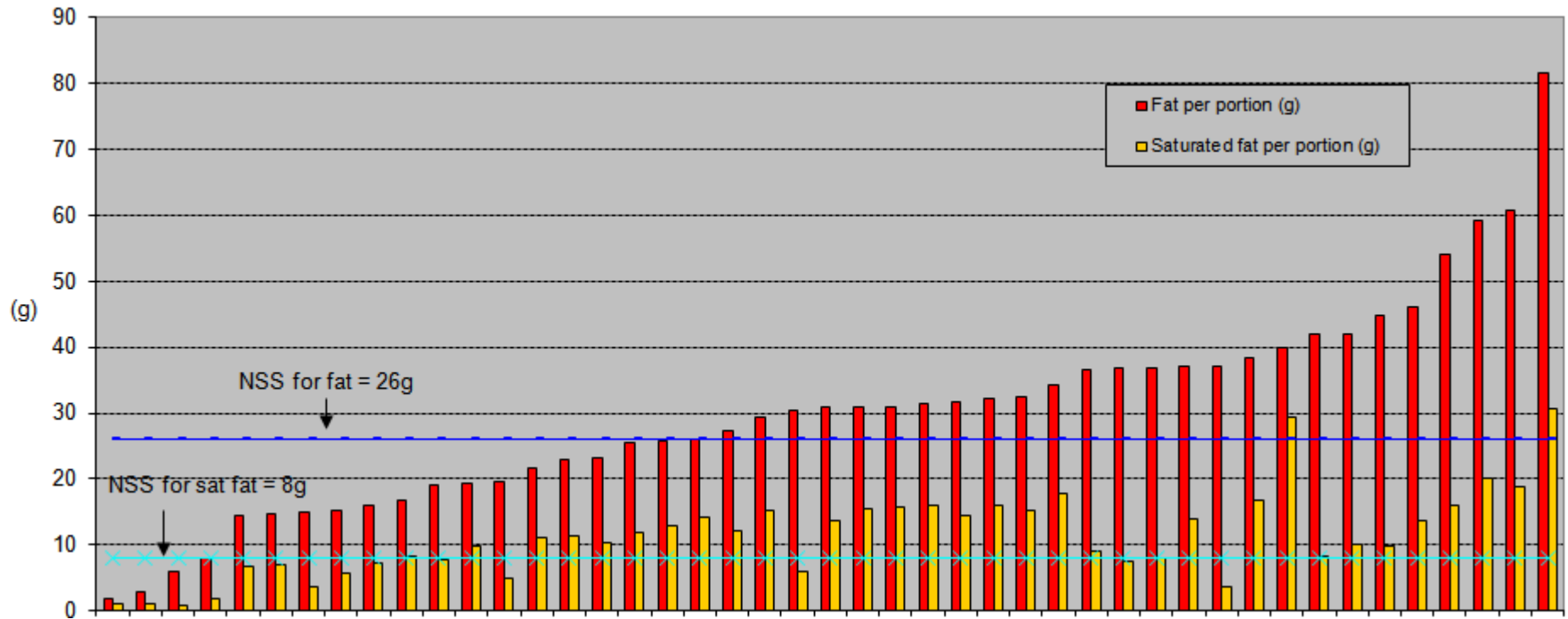
	An average day's primary school lunch	An average day's secondary school lunch
Energy (calories/kilojoules)	557 kcals 2328 kJ	664 kcals 2776 kJ
Total fat	Not more than 21.7 g	Not more than 25.8 g
Saturated fat	Not more than 6.8 g	Not more than 8.1 g
Total carbohydrate	Not less than 74.3 g	Not less than 88.5 g
Non-milk extrinsic sugars	Not more than 16.3 g	Not more than 19.5 g
Fibre (NSP*)	Not less than 4.5 g	Not less than 5.3 g
Protein	Not less than 8.5 g	Not less than 13.6 g
Iron	Not less than 3 mg	Not less than 4.4 mg
Calcium	Not less than 165 mg	Not less than 300 mg
Vitamin A	Not less than 150 µg	Not less than 187 µg
Vitamin C	Not less than 9 mg	Not less than 11 mg
Folate	Not less than 45 µg	Not less than 60 µg
Sodium†	Not more than 745 mg (not more than 686 mg by 2010)	Not more than 894 mg (not more than 824mg by 2010)
Zinc	Not less than 2.1 mg	Not less than 2.8 mg

Energy



- Variation in energy content across purchases
- Also seen the impact of portion size on the overall energy content of items purchased

Fat & Saturated Fat



- Variation in fat and saturated fat content
- Majority of samples exceeded the level of fat & saturated fat outlined in the NSS
 - Excluding other purchases!

Salt

- Ranged from 0.4 -4.5g “per portion” salt
- Analysis did not incorporate:
 - added table salt
 - salt included in condiments
 - additional items purchased



Summary

- With regards to the nutrient standards:
 - Half the samples exceeded recommended energy levels
 - Over half exceeded recommended fat and saturated fat levels
 - Over a third exceeded recommended salt levels
- Analysis presented excludes:
 - Other purchases
 - Any meal “add ons” or condiments

Overall Conclusions

- Primary and secondary school stay-on-site policies offer multiple benefits
- Eating out at lunchtime is very popular
- Nutritional quality of 'out of school' food is very poor
- School staff and parents/carer are right to be concerned about pupils leaving school at lunchtime

