



Centre for Diet and Activity Research
A UKCRC Public Health Research Centre of Excellence

Nutrition in Nurseries: Influence of National Guidelines and Regulations

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Nutrition in the Early Years

- Children <5 years represent critical window to prevent obesity
- Patterns and habits developed in early years influence dietary intake in later childhood
- Majority of children <5 years cared for outside of home and consume substantial proportion of calories in care
- Early care key setting for obesity prevention

Nutrition in the Early Years

- Nursery defined as organization that provides child care on non-domestic premises
- Ofsted responsible for regulating nurseries
- Nurseries must follow Early Years Foundation State (EYFS) regulations:
 1. Meals, snacks, beverages must be healthy, balanced, nutritious
 2. Food preparers and handlers must be competent
 3. Fresh drinking water must be available at all times
- In absence of specific regulations, voluntary guidance may encourage healthier foods in nurseries

Nutrition in Nurseries: Study Aims

1. Describe current nutrition environment in nurseries
2. Identify foods and beverages served to children 1-5 years
3. Compare nutrition practices to national guidance targeting early years settings



National Nutrition Guidance

**SCHOOL
FOOD TRUST**
Eat Better Do Better



Laying the Table

Recommendations for National Food and Nutrition
Guidance for Early Years Settings in England

Volume 1: Main report

Advisory Panel on Food and Nutrition in Early Years

5 November 2010

**Eat Better
Start Better**

**Voluntary Food and Drink
Guidelines for Early Years
Settings in England –
A Practical Guide**



**CHILDREN'S
FOOD TRUST**
Eat Better Do Better

National Nutrition Guidance

Nutrition – what to serve children

- Serve fruits and vegetables daily
- Serve oily fish and whole grains sometimes
- Limit high-fat meats, juice, sugary drinks, desserts

Behaviors – how to serve children

- Seat fussy eaters with good eaters
- Don't force children to clean their plates
- Ask children if hungry before serving seconds

Survey

- Based on existing instruments targeting child care in US and modified for use in England (Whitaker et al, 2009; Benjamin et al, 2007; Ward et al, 2008)
- Completed by manager in ~20 minutes
- Forty-one questions on the survey:
 - 19 questions on food practices and nutrition environment
 - 4 questions assessing carer behaviour
 - 16 questions on manager and nursery demographics
 - 2 questions evaluating burden of completing survey

**Survey of Nutrition Practices in Early Years
Childcare Settings**



The University of Cambridge and the Centre for Diet and Activity Research (www.cedar.iph.cam.ac.uk/) are conducting a study to learn about practices and environments in early years childcare settings related to children's nutrition. We would be grateful if you would consider taking part in this study. Please read the information below and contact us on **0800 731 0278** if you have any questions.

If you would prefer to complete this survey online please go to
www.survey.bris.ac.uk/cedar/nursery-survey

and enter your unique ID number and passcode below:

Survey ID number: ____

Survey passcode: ____

SECTION B: STAFF BEHAVIOUR

The questions in Section B ask about staff behaviours that could influence children's eating behaviour.

B1. In general, which of the following practices most closely describes how children and staff sit together during meals?

- 1 Staff sit with children during meals
2 Staff are in the room, but do not sit with children during meals
3 Other (*specify*) _____

B2. Which of the following describes how food is served during meals?

- 1 Children serve themselves most foods
2 Staff serve children most foods
3 This question does not apply, food arrives already portioned

B3. How much of a problem is obesity in your setting ...

	Not a Problem	Small Problem	Moderate Problem	Large Problem	Very Large Problem
a. Among children	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b. Among parents	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c. Among staff	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

B4. (a) Which of the following do you think are barriers among the staff to encouraging children's healthy eating during the school day?

MARK ALL THAT APPLY

- 1 Staff do not have time to encourage children's healthy eating
2 Staff do not know how to encourage children's healthy eating
3 Staff do not like healthy foods
4 Staff are uncomfortable with their own body weight
5 Staff cultural traditions are not always consistent with healthy eating
6 None of the above. Staff do not generally have a problem encouraging children's healthy eating **GO TO SECTION C**
7 Other (*specify*) _____

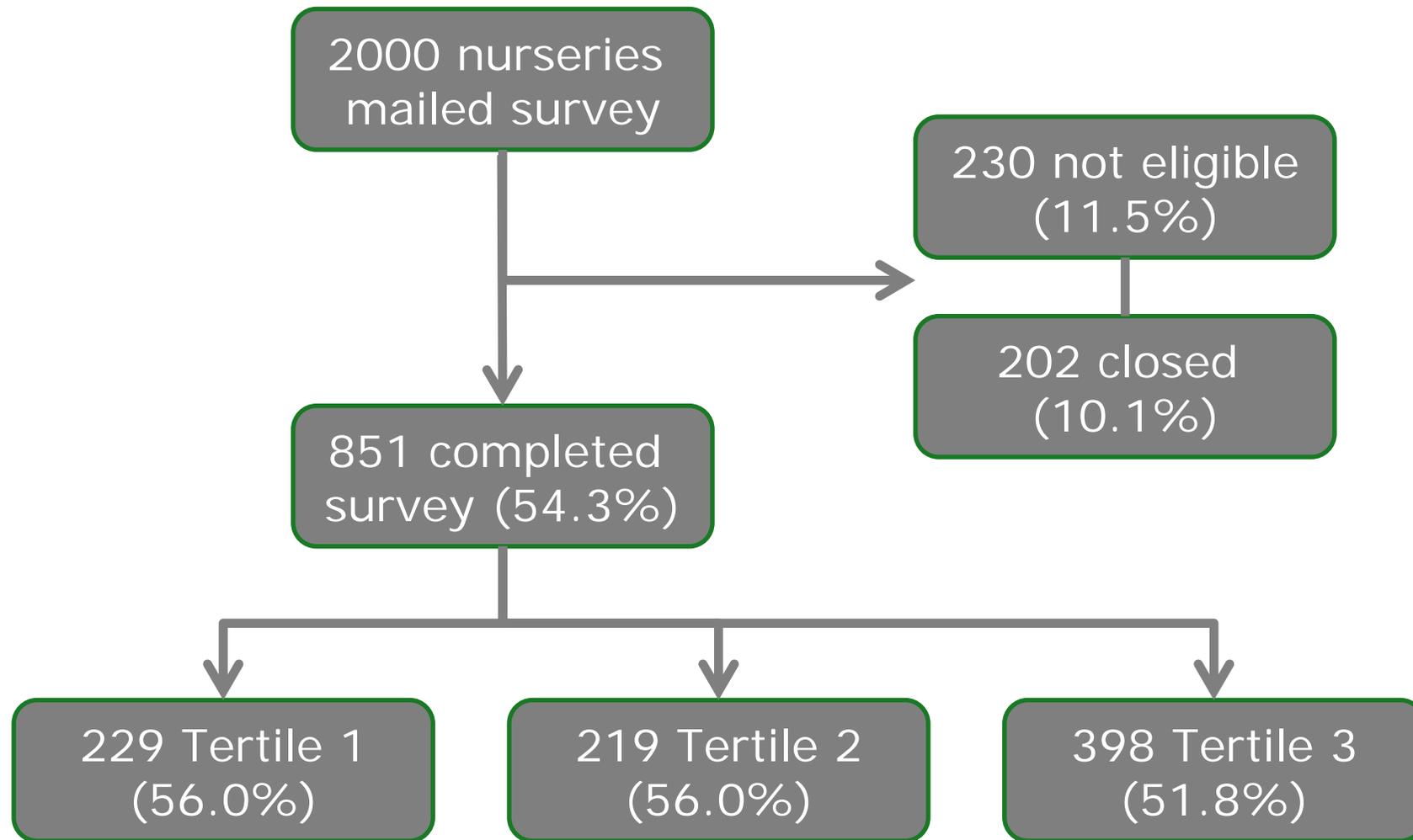
(b) Which one of the barriers above is currently the most important barrier to staff encouraging children's healthy eating?

|____| NUMBER OF THE MOST IMPORTANT BARRIER

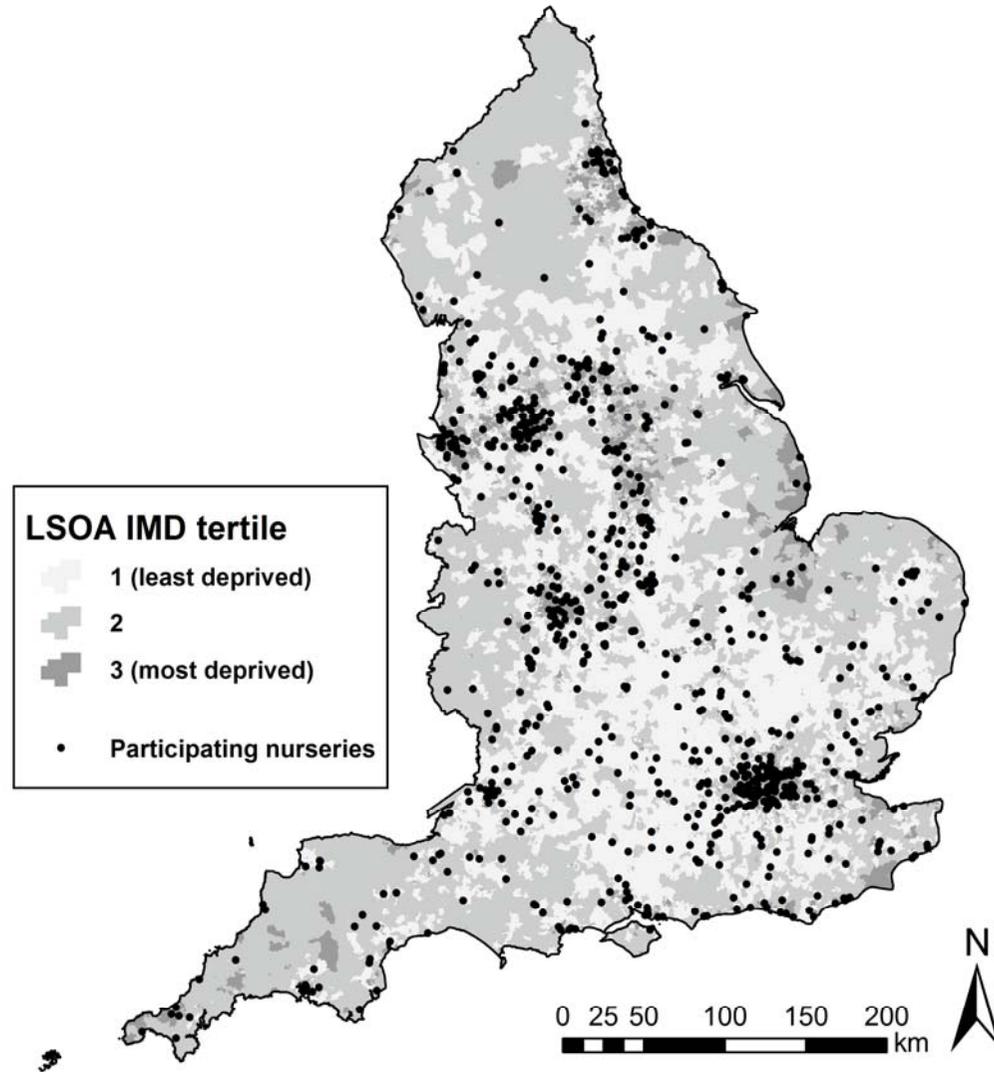
Methods

- Geocoded all 28,091 nursery addresses obtained from Ofsted
- Classified within a Super Output Area
- Stratified by tertile of low, middle, high Indices of Multiple Deprivation (measure of poverty)
- Mailed surveys to 2000 nurseries:
 - 500 surveys to low IMD
 - 500 surveys to middle IMD
 - 1000 surveys to high IMD

Nutrition in Nurseries: Results



Distribution of Nurseries



Demographic Characteristics

	Sample (n=851)	Tertile 1 (n=229)	Tertile 2 (n=219)	Tertile 3 (n=398)	p value
Mean (SD)					
Number of children	60.1 (43.7)	58.1 (45.5)	54.3 (40.9)	64.9 (42.1)	0.09
Number of classrooms	2.5 (1.8)	2.3 (1.6)	2.6 (1.9)	2.7 (1.8)	0.01
Manager female	802 (96.5)	219 (96.9)	205 (96.2)	373 (96.4)	0.92
Number (%)					
Manager age in yrs	43.0 (11.2)	43.3 (10.8)	42.9 (11.6)	42.9 (11.1)	0.91
Manager yrs at nursery	9.9 (7.3)	9.4 (7.3)	10.3 (7.3)	9.9 (7.4)	0.49

Less Healthy Foods



Less Healthy Foods

	Sample (n=851)	Tertile 1 (n=229)	Tertile 2 (n=219)	Tertile 3 (n=398)	
	Number (%)				
Sugary drinks	143 (17.8)	30 (13.7)	41 (20.1)	69 (18.4)	0.19
Flavoured milk	187 (23.3)	43 (19.6)	47 (22.8)	97 (26.0)	0.20
Juice	273 (35.1)	62 (30.4)	66 (32.0)	143 (39.5)	0.05
Fried meats or fish	233 (29.2)	50 (23.8)	55 (26.7)	128 (34.0)	0.02
High-fat meats	373 (46.9)	91 (43.3)	90 (44.1)	191 (50.7)	0.15
Desserts	508 (64.1)	121 (59.0)	127 (62.0)	259 (68.5)	0.05

Healthy Foods



Healthy Foods

	Sample (n=851)	Tertile 1 (n=229)	Tertile 2 (n=219)	Tertile 3 (n=398)	p value
	Number (%)				
Fruit daily	779 (94.2)	207 (94.1)	199 (93.0)	369 (95.1)	0.56
Vegetables daily	594 (76.7)	160 (78.1)	146 (74.1)	288 (78.3)	0.50
Whole grains sometimes	663 (84.0)	163 (79.9)	166 (80.2)	332 (89.0)	0.002
Oily fish sometimes	355 (45.2)	77 (37.4)	83 (40.3)	196 (52.6)	0.0005
Pulses or legumes often	396 (50.2)	87 (42.7)	102 (49.5)	206 (55.1)	0.02

Carer Beliefs and Behaviours

	Sample (n=851)	Tertile 1 (n=229)	Tertile 2 (n=219)	Tertile 3 (n=398)	p value
	Number (%)				
Encourage children to clean their plates	538 (63.2)	135 (59.0)	127 (58.0)	272 (68.3)	0.09
Assess hunger before serving children seconds	516 (60.6)	128 (55.9)	124 (56.6)	263 (66.1)	0.35
Seat fussy eaters with good eaters	633 (74.4)	160 (69.9)	154 (70.3)	316 (79.4)	0.16
Some children don't get enough food at home	387 (45.5)	66 (28.8)	78 (35.6)	240 (60.3)	<0.001

Managers believe obesity is a problem in nursery:

	Sample (n=851)	Tertile 1 (n=229)	Tertile 2 (n=219)	Tertile 3 (n=398)	p value
	Number (%)				
Among children	233 (27.8)	37 (16.3)	45 (20.8)	150 (38.5)	<0.001
Among staff	489 (60.6)	100 (45.1)	119 (56.4)	265 (71.8)	<0.001
Among parents	418 (50.9)	88 (39.3)	103 (47.9)	224 (59.3)	<0.001

Nutrition in Nurseries: Conclusions

- Nurseries in deprived areas report serving more unhealthy foods but also more healthy foods
- Food insecurity among children more of concern among nurseries in deprived areas
- Obesity perceived as problem among nurseries in deprived areas
- Future research should explore actual practice within nurseries to confirm manager reports and explore obesity and food insecurity among children

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Thank you