

APPENDIX 4.0

PREPARATION, HANDLING AND STORAGE OF POWDERED INFANT FORMULA IN UK DAY NURSERIES.

Cover Letter

Day Nursery Nurse Questionnaire

Day Nursery Manager Questionnaire

2nd Mailing reminder letter

3rd Mailing reminder letter

Cover letter

Mrs xxx xxxxx,
Manager,
Toadhall Nursery,
Etc Cardiff,
CF14 567

Xx, xxxxxx, 2009

Dear ...xxxxxxxxx.....

UK Powdered Infant Formula Day Nursery Research, 2009.

Procedures used to prepare, handle and store powdered infant formula fed to young infants in the home and in day nurseries are of considerable importance. The Food Research and Consultancy Unit in Cardiff has recently been commissioned to explore attitudes, practices and information sources of Day Nursery Managers and Day Nursery Nurses in the UK related to preparation and storage of powdered infant formula milk. This study is being funded by the UK Food Standards Agency and findings will provide a valuable contribution to the development of guidelines that address powdered infant formula feeding and use in Day Nurseries the UK.

Your name and address has been randomly selected to participate in this important and highly influential study from the '<http://www.daynurseries.co.uk>' website; 10% of all Day Nurseries who are registered to care for infants aged less than 6months in the UK will be contacted concerning this study.

I have enclosed two questionnaires (each with prepaid return envelopes) for you / your staff to complete. One questionnaire is for Day Nursery Managers and the other questionnaire is for Day Nursery Nurses working with young infants (particularly aged less than 6months), fed using powdered infant formula in your Nursery. I would be extremely grateful if you could complete the 'Day Nursery Manager questionnaire' and ask one of your Day Nursery Nurses to complete the other questionnaires. Please can both of the questionnaires be returned to me in the attached prepaid envelopes before xxxxxxxxx, 2009. Your co-operation in this study will be very beneficial for informed strategy development in the future.

This project has been reviewed by, and received ethics approval by the University of Wales Institute Cardiff (UWIC) School of Health Sciences Research Ethics Committee (Date 21st March, 2009). **Please be assured that all questionnaire responses will be ANONYMOUS and all data collected during the course of the study will be treated with COMPLETE CONFIDENTIALITY.** If you have any queries regarding the questionnaire, please do not hesitate to contact me on Cardiff (029) 20416452.

Yours Sincerely,

Elizabeth Redmond

Dr. Elizabeth Redmond
Researcher

Email: eredmond@uwic.ac.uk

Day Nursery Nurse Questionnaire

CONFIDENTIAL



**POWDERED INFANT FORMULA
RESEARCH, 2009**



FOR DAY NURSERY NURSES

**WHO SOMETIMES OR ALWAYS WORK WITH BABIES, AGED 6 MONTHS
(OR LESS), FED WITH POWDERED INFANT FORMULA**

This questionnaire aims to explore attitudes and practices of Day Nursery Nurses in the UK related to preparation and storage of powdered infant formula milk. This study is being funded by the UK Food Standards Agency and data will be used to help to identify information sources and develop guidelines that address powdered infant formula feeding and use.

This project has been reviewed by, and received ethics clearance through the University of Wales Institute Cardiff (UWIC) School of Health Sciences Research Ethics Committee (Date 21st March, 2009).

All responses to this questionnaire will be confidential and recorded anonymously. There will be no association of your responses to your Nursery. Completion of the questionnaire is voluntary and return of the questionnaire implies consent to participate in the study. All of your answers will be treated in the strictest of confidence and will be stored securely in the Rood Research and Consultancy Unit, UWIC until the end of the study and then destroyed. If you have any further questions about participation in this study please contact Dr. Elizabeth Redmond, Food Research and Consultancy Unit, Cardiff School of Health Sciences, UWIC, Western Avenue, Cardiff, CF52YB; Telephone 02920 416452; Email: eredmond@uwic.ac.uk

The survey has 5 sections. Please answer as many of the questions in each section as possible. The questionnaire should take approximately 15 minutes to complete. Please return the fully completed questionnaire to Dr. E. Redmond at UWIC in the enclosed prepaid envelope **as soon as possible**.

Terms and their meanings.

- *Preparation or 'making up' or 'reconstitution' of powdered infant formula milk': the process of adding powder (image A) to the water and mixing.
- *Made up' or 'reconstituted' powdered infant formula milk': infant feed where powder and water are mixed (image B).
- *Formula feeding' = feeding with formula milk that has been made up using powdered formula (image A).
- *Handling powdered formula milk': refers to what you do with the made up powdered formula milk once powder and water have been mixed together.
- *Storage of powdered formula milk': when mixed powder and water is not fed to the infant immediately but kept for a feed at a later time.
- *Germs': harmful micro-organisms including some bacteria that may be found in foods and kitchens e.g. *Salmonella*.

**Powdered formula milk /
Powdered infant formula**



**Made-up / reconstituted
powdered formula milk feed /
formula feed**



Ready-to-use formula milk



SECTION 1: BACKGROUND INFORMATION

1.1 What ages of infants do you care for in your nursery?
(✓as many as applicable)

- 0-3 months 1
- 4-6 months 2
- 7-12 months 3
- 12 months and over 4

1.2 How many infants aged 6 months or less do you have in your nursery at the moment? (state number)

.....

1.3 How long during the day do infants aged 6 months or less usually stay in nursery? (✓as many as applicable)

- Up to 2 hours per day 1
- 3 - 6 hours per day 2
- 7-10 hours per day 3
- More than 10 hours per day 4

1.4 What is the usual ratio of staff caring for infants aged less than 6months: (e.g. 1 member of staff for 4 infants)
(insert numbers)

..... member(s) of staff forinfant(s)

1.5 Do you have a kitchen / kitchen type area in your day nursery for preparing, handling or storing powdered infant formula feeds? (✓one only)

- No 0
- Yes 1
- Don't Know 2

If Yes go to Q1.6; If No or Don't know, go to Section 2.0

1.6 Which of the following do you think best describes the size of your kitchen in the day nursery where powdered infant formula feeds are prepared, handled or stored?
(✓one only)

- Extremely small – very small work surface space 1
- Small – limited work surface space 2
- Medium – enough work surface space 3
- Large – more than enough work surface space 4

1.7 What is the kitchen used for (✓as many as applicable)

- Preparing powdered infant formula feeds 1
- Cleaning used feeding bottles / teats etc 2
- Sterilising used feeding bottles / teats etc 3
- Storing powdered infant formula feeds 4
- Preparing infant foods 5
- Preparing staff food / coffees 6
- As a storage area 7
- Laundry 8
- Other (please state) 9

1.8 Which of the following are in your nursery kitchen / area (where infant feeds are prepared, handled or stored)
(✓as many as applicable)

- Microwave 1
- Kettle 2
- Sink / draining board 3
- Dishwasher 4
- Steam steriliser 5
- Cold water sterilising unit 6
- Microwave steriliser 7
- Fridge (if ✓ go to Q1.9; otherwise go to Section 2.0) 8
- Other (please state) 9

1.9 How often is the temperature of the fridge in your nursery checked? (✓one only)

- 2 or more times a day 1
- At least once a day 2
- Once or twice a week 3
- Once a week or more 4
- Once a month or more 5
- Less than monthly 6
- Never 7
- Don't know 8
- Other (please state) 9

1.10 As far as you know, what is the maximum temperature that your fridge should operate to ensure food safety?

- Please state temperature°C
- Don't know

1.11 How is the temperature of the fridge in your nursery checked? (✓one only)

- Use of a plastic, traditional fridge thermometer 1
- Use of a digital fridge thermometer 2
- Ensure the dial is on the correct number 3
- Don't know 4
- Other (please state) 5

1.12 Is the temperature ever written down and recorded?
(✓one only)

- No 0
- Yes 1
- Don't Know 2

1.13 How often fridge in the nursery cleaned? (✓one only)

- Every day 1
- Once or twice a week 2
- Once a week or more 3
- Once a month or more 4
- Less than monthly 5
- Don't know 6
- Other (please state) 7

SECTION 2: PREPARATION, STORAGE & FEEDING OF POWDERED FORMULA

2.1 How often do YOU prepare powdered infant formula in your nursery? (*✓one only*)

- Every day 1
 2-3 days a week 2
 4-5 days a week 3
 Once a week or more 4
 Once a month or more 5
 Never 6

2.2 Which of the following best describes how feeding infants in your nursery occurs? (*✓as many as applicable*)

- Made-up bottles of powdered formula milk are brought from home to the nursery to be used throughout the day (*if ✓ go to Q2.3*) 1
 Cartons of ready-to-use formula and sterilised bottles are brought to the nursery to be used throughout the day (*if ✓ go to Q2.4*) 2
 Measured amounts of powdered formula and empty sterilised bottles are brought to the nursery for nursery staff to make up (*if ✓ go to Q2.4*) 3
 Measured amounts of powdered formula and sterilised bottles with quantities of water are brought to the nursery for nursery staff to make up (*if ✓ go to Q2.4*) 4
 Parents provide tins of powdered formula to the nursery and replace when necessary. The formula is made up by nursery staff (*if ✓ go to Q2.4*) 5
 Powdered formula is provided by the nursery and made up by the nursery staff (*if ✓ go to Q2.4*) 6
 Feeding bottles are provided and sterilised by the nursery (*if ✓ go to Q2.4*) 7
 Don't know (*if ✓ go to Section 3*) 8

2.3 MADE-UP BOTTLES OF POWDERED FORMULA BROUGHT TO NURSERY

2.3.1 From what you see working in a day nursery, how do parents usually carry the bottles of made-up formula in to your nursery? (*✓as many as applicable*)

- In insulated bag / part of baby bag to keep bottle warm 1
 In a cool bag / part of baby bag with frozen cool packs 2
 In a cool bag / part of baby bag (no frozen cool packs) 3
 In the bottle holder on a pushchair / pram 4
 In a carrier bag / other general bag / handbag / rucksack / general compartment of baby bag 5
 Don't know 6
 Other (*please state*).....

2.3.2 When parents arrive at the nursery with bottles of made-up powdered formula feeds, do the feeds feel.... (*✓as many as applicable*)

- ...cold 1
 ...room temperature 2
 ...luke warm 3
 ...very warm 4
 Don't know 5

2.3.3 Approximately how many made-up powdered formula feeds are brought to the nursery every day? (*state number*)

2.3.4 When made-up feeds are brought into the nursery how long is it before they are refrigerated (*✓as many as applicable for hot/warm AND cold feeds*)

- | | Hot/Warm feeds | Cold feeds |
|---------------------|----------------------------|-----------------------------|
| Less than 15minutes | <input type="checkbox"/> 1 | <input type="checkbox"/> 7 |
| 16-30 minutes | <input type="checkbox"/> 2 | <input type="checkbox"/> 8 |
| 31 minutes – 1hour | <input type="checkbox"/> 3 | <input type="checkbox"/> 9 |
| 1-2 hours | <input type="checkbox"/> 4 | <input type="checkbox"/> 10 |
| More than 2 hours | <input type="checkbox"/> 5 | <input type="checkbox"/> 11 |
| Don't know | <input type="checkbox"/> 6 | <input type="checkbox"/> 12 |

2.4 PREPARATION OF FORMULA IN THE NURSERY

2.4.1 Approximately how many powdered formula feeds are made-up in your nursery during one day? (*state number*)

2.4.2 Where are powdered formula feeds prepared in your day nursery? (*✓as many as applicable*)

- In the nursery 1
 In a nursery kitchen 2
 Other (*please state*).....3

2.4.3 In your nursery, who is responsible for making powdered formula feeds up? (*✓as many as applicable*)

- One specific person in the nursery 1
 Whoever is available 2
 Individual nursery staff make formulas up for their assigned 'key' infant(s) 3
 Other (*please state*).....4

2.4.4 When are powdered formula infant formula feeds made up? (*✓one only*)

- All together at the beginning of the day 1
 Made-up in batches throughout the day 2
 Made-up one up a time, as required 3
 Other (*please state*).....4

2.4.5 When preparing a bottle of powdered infant formula you usually..... (*✓as many as applicable*)

- ... boil the kettle, cool boiled water in the kettle and then pour into a feeding bottle (*if ✓ go to Q2.4.6*) 1
 ... boil the kettle and pour hot water into feeding bottle(s) straight away (*if ✓ go to Q2.4.8*) 2
 ... use water in sterilised bottle prepared by infants parents (*if ✓ go to Q2.4.8*) 3
 ... use tap water (not boiled) (*if ✓ go to Q2.4.8*) 4
 ... use bottled water (*if ✓ go to Q2.4.8*) 5
 Other (*please state*).....6

2.4.6 When you boil the kettle (for making up powdered formula feeds) is it usually closest to... (*✓one only*)

- ...maximum level of water 1
 ...half full of water 2
 ...minimum level of water 3
 Don't know 4

2.4.7 How long do you usually allow the water to cool in the kettle? (*✓one only*)

- Less than 15 minutes 1
 Between 16-30minutes 2
 31minutes – 1 hour 3
 More than 1 hour 4
 Don't know 5

2.4.8 When you have mixed the powdered formula with the water, which of the following usually describes what you do then? (*✓as many as applicable*)

- Feed the made-up formula to the infant immediately 1
 Cool the made up formula to a suitable temperature and feed to the baby immediately 2
 Warm the made up formula to a suitable temperature and feed to the baby immediately 3
 Place the made up formula in the fridge and store until required for feeding 4
 Leave the made up formula at room temperature until required for feeding 5
 Don't know 6
 Other (*please state*).....7

2.4.9 If a made-up feed is too hot to feed an infant straight away, which of the following methods best describes how you usually cool it down? (*✓as many as applicable*)

- Leave it at room temperature until sufficiently cool 1
 Hold it under running tap of cold water 2
 Place it in a bowl of cold water 3
 Place it in the fridge to cool 4
 Don't know 5
 Not applicable 6
 Other (*please state*).....7

2.4.10 If you need to heat up the made-up feed before giving it to an infant, which method do you usually use? (*✓as many as applicable*)

- In a jug/bowl of hot water 1
 Running it under a hot tap 2
 In an electric bottle warmer 3
 In a microwave 4
 Leave it at room temperature 5
 Don't know 6
 Not applicable 7
 Other (*please state*).....8

2.5 HANDLING AND STORAGE OF FEEDS

2.5.1 Where are made-up powdered formula feeds stored before feeding? (*✓as many as applicable*)

- In the fridge door 1
 Wherever there is room in the fridge 2
 On a shelf near the back of the fridge 3
 On a work surface 4
 In a cupboard / infants box 5
 Don't know 6
 Other(*please state*).....7

2.5.2 Are made-up formula feeds in your nursery labelled? (*✓one only*)

- No (*if ✓ go to Q2.5.5*) 0
 Yes (*if ✓ go to Q2.5.3*) 1
 Don't know (*if ✓ go to Q2.5.5*) 2

2.5.3 Who is responsible for attaching and writing information on the label? (*✓as many as applicable*)

- Parents 1
 Nursery staff 2
 Other (*please state*).....3

2.5.4 What information is written on the label? (*✓as many as applicable*)

- Infants name 1
 Date 2
 Time feed made-up 3
 Brand of formula 4
 Other (*please state*).....5

2.5.5 Do you ever keep powdered infant formula that infants have not drunk to show to parents? (*✓one only*)

- No (*if ✓ go to Section 3*) 0
 Yes (*if ✓ go to Q2.5.6*) 1
 Don't know (*if ✓ go to Section 3*) 2

2.5.6 Where are bottles of (undrunk) left over powdered formula feeds stored? (*✓as many as applicable*)

- In the fridge 1
 On a work surface 2
 In a cupboard / infants box 3
 Other(*please state*).....4

2.5.7 Do parents ever take the leftover formula milk home when the infant is collected? (*✓one only*)

- No 0
 Yes 1
 Don't know 2

2.5.8 Are you happy for parents to take leftover formula home with them when the infant is collected? (*✓one only*)

- No 0
 Yes 1
 Don't know 2

SECTION 4: PERCEPTIONS OF RISK, CONTROL & RESPONSIBILITY

4.1 Circle a number on each line below to show how much control you think each caregiver has when preparing powdered formula feeds. Using a scale of 1 – 10, where 1 is no control at all and 10 is full control, how much control do you think.....

	No control at all										Full control	Don't Know
..You have over hygiene and safety when preparing your baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
....Other nursery nurses have over hygiene and safety when preparing their baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
....Parents have over hygiene and safety when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...Hospital staff have over hygiene & safety when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>

4.2 Circle a number on each line below to show the risk (or likelihood) of illness that you think may exist when different caregivers prepare powdered formula feeds. Using a scale of 1 – 10, where 1 is very high risk and 10 is very low risk what do you consider the risk (or likelihood) of illness to a baby/other babies from drinking made up powdered infant formula.....

	Very high risk										Very low risk	Don't Know
...that you have prepared	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...that other nursery nurses have prepared	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...that has been prepared by parents	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...that has been prepared by hospital staff	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>

4.3 Circle a number on each line below to show how conscious of hygiene you think each caregiver is when preparing powdered formula feeds. Using a scale of 1 – 10, where 1 is not at all conscious and 10 is very conscious how conscious of hygiene do you think.....

	Not at all conscious										Very conscious	Don't Know
...you are when preparing your baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
....other nursery nurses are when preparing their baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...parents are when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...hospital staff are when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>

4.4 Circle a number on each line below to show how much responsibility you think each caregiver has when preparing powdered formula feeds. Using a scale of 1 – 10, where 1 is no responsibility at all and 10 is total responsibility, how much responsibility do you think

	No responsibility										Total responsibility	Don't Know
...you have for the safety of your baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...other nursery nurses have for the safety of their baby's feeds	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...parents have for the safety of the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>
...hospital staff have for the safety of the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>

SECTION 5: PREPARATION PRACTICES, POLICY & TRAINING

5.1 Please indicate (✓) how important you think each of the actions listed below are, when preparing bottles or preparing or storing made up powdered formula milk feeds.

	Very Important	Fairly Important	Neither	Not important	Not at all important
• Wash and dry hands every time a bottle of powdered formula milk feed is prepared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Wash feeding bottles and components with detergent and hot water before sterilising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Rinse washed feeding bottles and components with running water before sterilising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Sterilise feeding bottles and components before use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Use boiled water (fresh from the tap before boiling) to make up powdered infant formula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Ensure the temperature of boiled water has cooled, but is higher than 70°C when mixed with the milk powder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Mix milk powder with boiled water that has cooled for less than 30 minutes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Feed the made-up powdered formula immediately after preparation (once at a suitable temperature).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Prepare (i.e. add powder and water together) one feed at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.2 Have you received training about the microbiological risks (e.g. bacteria) associated with powdered infant formula.....

(tick one only)ever?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't know <input type="checkbox"/>
(tick one only)in the past 3 years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't know <input type="checkbox"/>

5.3 As a Nursery Nurse, please ✓ previous training (✓as many as applicable)

State the approximate year of training

In-nursery training from nursery staff	<input type="checkbox"/>	1
Basic Food Hygiene Certificate	<input type="checkbox"/>	2
Intermediate or Advanced Food Hygiene Certificate	<input type="checkbox"/>	3
Previous Nursery experience	<input type="checkbox"/>	4

Please state your professional qualification(s) below (including year)

.....

Thank you for completing this questionnaire

Day Nursery Manager Questionnaire

CONFIDENTIAL



**POWDERED INFANT FORMULA
RESEARCH, 2009**



FOR MANAGERS OF DAY NURSERIES

This questionnaire aims to explore issues, attitudes, policies and procedures related to the preparation and storage of powdered infant formula milk from the perspectives of Day Nursery Managers. This study is being funded by the UK Food Standards Agency and data will be used to help to identify information sources and develop guidelines that address powdered infant formula feeding and use.

This project has been reviewed by, and received ethics approval through the University of Wales Institute Cardiff (UWIC) Research Ethics Service (Date 21st March, 2009).

All responses to this questionnaire will be recorded anonymously and there will be no association of your responses to your Nursery. Completion of the questionnaire is voluntary and return of the questionnaire implies consent to participate in the study. All of your answers will be treated in the strictest of confidence and will be stored securely in the Food Research and Consultancy Unit, UWIC until the end of the study and then destroyed. If you have any further questions about participation in this study please contact Dr. Elizabeth Redmond, Food Research and Consultancy Unit, Cardiff School of Health Sciences, University of Wales Institute Cardiff, Western Avenue, Cardiff, CF52YB; Telephone 02920 416452; Email: eredmond@uwic.ac.uk

The questionnaire has 6 sections. Please answer as many of the questions in each section as possible. The questionnaire should take approximately 15 minutes to complete. Please return the fully completed questionnaire to Dr. E. Redmond at UWIC in the enclosed prepaid envelope **as soon as possible**.

Terms and their meanings.

'Preparation' or 'making up' or 'reconstitution' of powdered infant formula milk': the process of adding powder (image A) to the water and mixing.

'Made up' or 'reconstituted' powdered infant formula milk': infant feed where powder and water are mixed (image B).

'Formula feeding' = feeding with formula milk that has been made up using powdered formula (image A).

'Handling powdered formula milk': refers to what you do with the made up powdered formula milk once powder and water have been mixed together.

'Storage of powdered formula milk': when mixed powder and water is not fed to the infant immediately but kept for a feed at a later time.

'Germs': harmful micro-organisms including some bacteria that may be found in foods and kitchens e.g. *Salmonella*.

**Powdered formula milk /
Powdered infant formula**



**Made-up / reconstituted
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Ready-to-use formula milk



SECTION 1: BACKGROUND

1.1 What ages of infants do you care for in your nursery? (✓ as many as applicable)

- 0-3 months 1
- 4-6 months 2
- 7-12 months 3
- Over 12 months 4

1.2 How many infants aged 6 months or less do you have in your nursery at the moment?

(state number)

1.3 How long during the day do infants aged 6 months or less usually stay in nursery? (✓ as many as applicable)

- Up to 2 hours per day 1
- 3 - 6 hours per day 2
- 7-10 hours per day 3
- More than 10 hours per day 4

1.4 Which of the following best describes how feeding infants in your nursery occurs? (✓ as many as applicable)

- Made-up bottles of powdered formula milk are brought from home to the nursery to be used throughout the day 1
- Cartons of ready-to-use formula and sterilised bottles are brought to the nursery to be used throughout the day 2
- Measured amounts of powdered formula and empty sterilised bottles are brought to the nursery for nursery staff to make up 3
- Measured amounts of powdered formula and sterilised bottles with quantities of water are brought to the nursery for nursery staff to make up 4
- Parents provide tins of powdered formula to the nursery and replace when necessary. The formula is made up by nursery staff 5
- Powdered formula is provided by the nursery and made up by the nursery staff 6
- Feeding bottles are provided and sterilised by the nursery 7
- Don't know 8

SECTION 2: NURSERY POLICIES AND PROCEDURES

2.1 Does your day nursery have a policy with procedures that covers preparation, handling and storage of powdered infant formula? (✓ one only)

- No 0 Yes 1 Don't know 2
- If 'Yes', proceed to question 2.2; If 'No' or 'Don't know', proceed to 2.6*

2.2 Is your nursery powdered infant formula policy any of the following? (✓ as many as applicable)

- Unique to your nursery only 1
- Devised for your chain of nurseries 2
- A national policy 3
- Don't know 4
- Other (please state)5

2.3 Who was responsible for devising the powdered infant formula preparation, handling and storage policy / procedures for your nursery? (✓ one only)

- Manager of the nursery 1
- Don't know 2
- Other (please state)3

	Strongly Agree	Agree	Neither Agree or disagree	Disagree	Strongly Disagree	Don't know
• I always comply with parent requests about how formula is to be prepared and fed to an infant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• The cleanliness of the kitchen area in the day nursery should be tested to ensure there are no harmful germs / bacteria present.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• It is my responsibility to obtain and inform my nursery staff of changes to powdered infant formula preparation and storage recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Before opening a tin of powdered formula milk, the powdered milk is a sterile product (i.e. is free from all germs and bacteria).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I have no concerns about the safety of powdered infant formula feeds prepared in my nursery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I am confident that my nursery staff who make up bottles of powdered formula for infants know all of the up-to-date guidelines about minimising microbial risks associated with feeding with powdered formula milk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• It is acceptable to keep made-up powdered formula at room temperature for more than 2 hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Parents often ask me about issues associated with safe preparation and storage of powdered infant formula.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I have read the Food Standards Agency guidelines for safe preparation, handling and storage of powdered infant formula.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Parents sometimes bring made-up feeds / bottles, ready for feeding, to the day nursery that I consider to be unclean. <i>If NO bottles / made-up feeds ever brought to nursery</i> ✓ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I sometimes have to feed infants using bottles that parents bring from home that I consider to be unclean. <i>If NO bottles / made-up feeds ever brought to nursery</i> ✓ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I do not have time to read information about infant feeding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• My knowledge of powdered infant formula preparation, handling, storage and feeding is mainly from personal experience of having children. <i>If NO experience of having own children</i> ✓ here <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• It is acceptable to store made-up powdered formula in the fridge all day.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I think that unique policies and standards for individual day nurseries are better than national standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I would like to receive up-to-date information about powdered infant formula preparation and storage guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• <i>Enterobacter sakazakii</i> can be found in powdered infant formula.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• The nursery where I work has a policy and systems for safe preparation, handling and storage of powdered infant formula.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 4: PERCEPTIONS OF RISK, CONTROL & RESPONSIBILITY

4.1 Circle a number on each line below to show how much control you think each caregiver has when preparing powdered formula feeds Using a scale of 1 – 10, where 1 is no control at all and 10 is full control, how much control do you think.....

	No control at all										Full control	Don't Know
.... your nursery staff have over hygiene and safety when preparing their baby's feeds	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
.... Parents have over hygiene and safety when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
... Hospital staff have over hygiene & safety when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	

4.2 Circle a number on each line below to show the risk (or likelihood) of illness that you think may exist when different caregivers prepare powdered formula feeds. Using a scale of 1 – 10, where 1 is very high risk and 10 is very low risk what do you consider the risk (or likelihood) of illness to a baby/other babies from drinking made up powdered infant formula.....

	Very high risk										Very low risk	Don't Know
...that your nursery staff have prepared	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
.....that has been prepared by parents	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
...that has been prepared by hospital staff	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	

4.3 Circle a number on each line below to show how conscious of hygiene you think each caregiver is when preparing powdered formula feeds. Using a scale of 1 – 10, where 1 is not at all conscious and 10 is very conscious how conscious of hygiene do you think.....

	Not at all conscious										Very conscious	Don't Know
... your nursery staff are when preparing their baby's feeds	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
... parents are when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
... hospital staff are when preparing the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	

4.4 Circle a number on each line below to show how much responsibility you think each caregiver has when preparing powdered formula feeds Using a scale of 1 – 10, where 1 is no responsibility at all and 10 is total responsibility, how much responsibility do you think

	No responsibility										Total responsibility	Don't Know
... your nursery staff have for the safety of their baby's feeds	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
... parents have for the safety of the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	
... hospital staff have for the safety of the feeds of babies in their care	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	

SECTION 5: PREPARATION PRACTICES

Please indicate (✓) how important you think each of the actions listed below are, when preparing bottles or preparing or storing made up powdered formula milk feeds.

	Very Important	Fairly Important	Neither	Not important	Not at all important
• Clean the preparation area every time a bottle of powdered formula milk feed is prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Wash and dry hands every time a bottle of powdered formula milk feed is prepared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Wash feeding bottles and components with detergent and hot water before sterilising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Rinse washed feeding bottles and components with running water before sterilising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Sterilise feeding bottles and components before use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Use boiled water (fresh from the tap before boiling) to make up powdered infant formula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Ensure the temperature of boiled water has cooled, but is higher than 70°C when mixed with the milk powder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Mix milk powder with boiled water that has cooled for less than 30 minutes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Feed the made-up powdered formula <u>immediately</u> after preparation (once at a suitable temperature).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Prepare (i.e. add powder and water together) one feed at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 6: INFORMATION ABOUT POWDERED INFANT FORMULA

6.1 How often do you receive information, updates and recommendations about powdered infant formula preparation, handling and storage? (✓ one only)

Every day	<input type="checkbox"/>	Once a year	<input type="checkbox"/>
At least once a week	<input type="checkbox"/>	Less than once a year	<input type="checkbox"/>
At least once a month	<input type="checkbox"/>	Never	<input type="checkbox"/>
Every 6 months	<input type="checkbox"/>	Don't know	<input type="checkbox"/>

6.2 Do you pass information, updates and recommendations about powdered infant formula onto your nursery nurses? (✓ one only)

Always (if ✓ please go to 6.3, if not, go to 6.4)	<input type="checkbox"/>
Sometimes (if ✓ please go to 6.3, if not, go to 6.4)	<input type="checkbox"/>
Never (if ✓ please go to 6.4)	<input type="checkbox"/>

6.3 How is information about powdered infant formula passed on / communicated to your nursery nurses? (✓ as many as applicable)

Verbally – one to one	<input type="checkbox"/>
Verbally – in a group meeting	<input type="checkbox"/>
Original information source displayed on a notice board	<input type="checkbox"/>
Information is summarised and displayed on a notice board	<input type="checkbox"/>
Each nursery nurse is given written information to read & as a reference	<input type="checkbox"/>
Other (please state).....	<input type="checkbox"/>

6.4 Have you received training about the microbiological risks (e.g. bacteria) associated with powdered infant formula.....

(tick one only)ever? No 0 Yes 1 Don't know 2
 (tick one only)in the past 3 years? No 0 Yes 1 Don't know 2

6.5 Have you seen 'Guidance for Healthcare Professionals about powdered infant formula preparation, storage and feeding from the UK Food Standards Agency (FSA)?

(tick one only) No 0 Yes 1 Don't know 2

6.6 Have you seen information about powdered infant formula preparation and storage from the World Health Organisation (WHO)?

(tick one only) No 0 Yes 1 Don't know 2

6.7 Have you ever communicated with formula manufacturer reps for advice about powdered infant formula?

(tick one only) No 0 Yes 1 Don't know 2
 If 'Yes', proceed to question 6.8; If 'No' or 'Don't know', proceed to 6.9

6.8 Did the formula rep(s) provide any of the following: (tick as many as applicable)

Useful information about the effect of consumption of powdered formula upon infants digestive system	<input type="checkbox"/>
Promote any of their products to you	<input type="checkbox"/>
Provide information about the microbiological safety of powdered formula (bacteria / germs)	<input type="checkbox"/>
Encourage you to promote any of their products	<input type="checkbox"/>
Give you up-to-date information about powdered infant formula preparation and storage guidelines	<input type="checkbox"/>
Other (please state).....	<input type="checkbox"/>

6.9 Are you aware of the change of powdered infant formula preparation, handling and storage recommendations in recent years? (✓ one only)

No 0 Yes 1 Don't know 2

6.10 Following are a list of organisations and professionals that can provide you with information about safe preparation, handling and storage of powdered infant formula.

- | | |
|-----------------------------------|---------------------------------------|
| a. The Food Standards Agency | g. NHS |
| b. Welsh Assembly | h. The National Childcare Trust (NCT) |
| c. Powdered formula manufacturers | i. The supermarkets |
| d. UNICEF (Baby Friendly) | j. Baby clinics / other baby groups |
| e. Health Visitors | k. Midwives |
| f. GP | l. National Day Nurseries Association |

Please rank the 3 organisations / professionals who you think provide the MOST CREDIBLE information:

1st..... 2nd..... 3rd

Please rank the 3 organisations / professionals who you would MOST LIKE TO GET INFORMATION FROM for the nursery about powdered infant formula preparation, handling and storage:

1st..... 2nd..... 3rd

Thank you for completing this questionnaire

2nd Mailing reminder letter

ADDRESS

Xx xxxxx, 2009

Dear

Reminder letter for UK Powdered Infant Formula Day Nursery Research, 2009.

Questionnaires to determine attitudes, practices and information sources of Day Nursery Managers and Day Nursery Nurses in the UK related to preparation and storage of powdered infant formula milk were recently sent to you from the Food Research and Consultancy Unit, UWIC in Cardiff. Currently, we have not received a response from you and it is important that we obtain as many responses to the survey as possible.

In case the original questionnaires have been mislaid, I have enclosed duplicate copies of the questionnaires for you to complete. I would be extremely grateful if you could return the completed survey in the enclosed prepaid envelope before **xx xxxx, 2009**. If you have already completed and returned the original questionnaires then please ignore this letter.

Your co-operation in this study will be very beneficial for informed powdered infant formula strategy development for day nurseries in the future. **Please be assured that all questionnaire responses will be treated with anonymity and all data collected during the course of the study will be treated with complete confidentiality.** If you have any queries regarding the survey, please do not hesitate to contact me on Cardiff (029) 20416452.

Yours Sincerely,

Elizabeth Redmond

Dr. Elizabeth Redmond
Researcher

Email: eredmond@uwic.ac.uk

3rd Mailing reminder letter

ADDRESS

Xx xxxx, 2009

Dear

FINAL REMINDER

UK Powdered Infant Formula Day Nursery Research, 2009.

During the past 6 weeks, 2 letters with questionnaires (with prepaid return envelopes) for the Nursery Manager and Day Nursery Nurses who care for young infants fed using powdered infant formula have been sent to your Nursery from the Food Research and Consultancy Unit, UWIC in Cardiff. The purpose of this survey has been to explore attitudes, practices and information sources of Day Nursery Managers and Day Nursery Nurses in the UK related to preparation and storage of powdered infant formula milk.

The nationwide response to this survey has been good and findings will provide a valuable contribution to the development of guidelines that address powdered infant formula feeding and use in Day Nurseries the UK. However, for an accurate representation of nurseries from all geographical regions of the UK, it is essential that as many Nurseries in all parts of the country to have responded. **Currently, we have not received your completed questionnaire(s) and this is your final opportunity to ensure that your day Nursery is represented in this important Food Standards Agency study.** If you did not receive the original surveys, or they have since been mislaid, please do not hesitate to contact me and I will post copies of the questionnaire to you immediately (with prepaid return envelopes).

Your co-operation in this study will be very beneficial in the development of future powdered infant formula strategies. Please be assured that all data collected during the course of the study will be anonymous and treated with **complete confidentiality**. If you have any queries regarding the survey, please do not hesitate to contact me on Cardiff (029) 20416452 or via email (see below).

Yours Sincerely,

Elizabeth Redmond

Dr. Elizabeth Redmond
Research Fellow

Email: eredmond@uwic.ac.uk