

DATA CLEANING GUIDANCE FOR THE NHS MATERNITY SURVEY 2007

THE ACUTE CO-ORDINATION CENTRE FOR THE
NHS ACUTE PATIENT SURVEY PROGRAMME

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1 Maternity Survey 2007 – data cleaning

1.1 Introduction

Once fieldwork for the 2007 maternity survey has been completed, participating trusts and contractors will be required to submit data to the Acute Coordination Centre in a **raw (uncleaned)** format. Following this, data for all trusts in the survey will be collated and the full dataset will be cleaned together to ensure that cleaning taking place on data pertaining to different trusts is comparable.

This document provides a description and specification of the processes that will be used by the Acute Coordination Centre to clean and standardise data submitted by contractors and trusts as part of the 2007 maternity survey. By following the guidance contained in this document, it should be possible to recreate this cleaning process.

If you have any comments or queries regarding this document please contact the Acute Coordination Centre on **01865 208 127**, or e-mail us at maternity.data@pickereurope.ac.uk.

1.2 Definitions

Raw/uncleaned data – ‘Raw’ or ‘uncleaned’ data is data that has been entered verbatim from completed questionnaires without any editing taking place to remove contradictory or inappropriate responses; thus, all responses ticked on the questionnaire should be included in the data entry spreadsheet¹ (see [Section 2 below](#), for detailed guidance on submitting raw data). The requirement for raw/uncleaned data does **NOT**, however, preclude the checking of data for errors resulting from problems with data entry or similar. Ensuring high data quality is paramount and errors resulting from data entry problems can and should be corrected by checking against the appropriate completed questionnaire.

Data cleaning – The Acute Coordination Centre uses the term ‘data cleaning’ to refer to all editing processes undertaken upon survey data once the survey has been completed and the data has been entered and collated.

Routing questions – These are items on the questionnaire which instruct respondents to either continue on to the next question or to skip past irrelevant questions depending on their response to the routing question. For the 2007 maternity survey, the routing questions are **B9, B23, C2, C11, C12, C16, C22, C23, D3, E4, G1, H2, J1 and J8**.

Filtered questions – Items on the questionnaire that are not intended to be answered by all respondents are referred to as ‘filtered’ questions. Whether individual respondents are expected to answer filtered questions depends on their individual experiences and on their responses to preceding routing questions. For the 2007 maternity survey, the filtered questions are **B10-B14, B24, C1-C8, C12-C18, C23-C24, D2-D3, E1-E10, G2-G4, H3-H4, J2 and J9**.

¹ Except where:

- a) multiple responses have been ticked - set these to missing (The **exceptions** to this are for the ‘tick all that apply’ questions **C3, C7 and J5** where respondents may tick more than one response option)
- b) year of birth has been entered in incorrect format - if the patient’s *intended* response is unambiguous from the questionnaire, then enter this.

Non-filtered questions – These are items in the questionnaire which are not subject to any routing/filtering and which should therefore be answered by all respondents. For the 2007 maternity survey, the non-filtered questions are **A1-B9, B15-B23, B25, C9-C11, C19-C22, C25-D1, F1-G1, H1-H2, H5-J1, J3-J8, J10 and J11**.

Out-of-range data – This refers to instances where data within a variable has a value that is not permissible. For categorical data – as in the case of the majority of variables in this survey – this would mean a value not allowed in the data, for example, a value of ‘3’ being entered in a variable with only two response categories (1 or 2). For scalar data – eg year of birth – data is considered to be out-of-range if it specifies a value that is not possible (for instance, year of birth as 983 or 2983). Out-of-range responses entered into the dataset should not be *automatically* (eg, algorithmically) removed prior to submitting the data to the Acute Coordination Centre (see [Section 2 - Submitting raw \('uncleaned'\) data](#)).

Non-specific response – This is a loose term for response options that can be considered as not being applicable to the respondent in terms of directly answering the specific question to which they are linked. Most commonly, these are responses such as “don’t know/can’t remember”, which indicate a failure to recall the issue in question. Likewise, responses that indicate the question is not applicable to the respondent are considered ‘non-specific’ – for example, responses such as “I did not see a midwife” or “I did not use the toilets and bathrooms during labour and birth”. A full listing of such responses for the 2007 maternity survey can be found in [Appendix B – non-specific responses](#).

2 Submitting raw ('uncleaned') data

For the 2007 maternity survey, trusts and contractors are required to submit raw ('uncleaned') data to the Acute Coordination Centre. For clarification, raw data is created by the following:

- i All responses should be entered into the dataset, regardless of whether or not the respondent was meant to respond to the question (eg, where women answer questions that they have been directed to skip past, these responses should still be entered).
- ii Where a respondent has ticked more than one response category on a question, this should be set to missing in the data. The **exceptions** to this are for the 'multiple response' questions **C3**, **C7** and **J5** where respondents may tick more than one response option (ie. 'tick all that apply').
- iii Where a respondent has crossed out a response, this should not be entered in the data. Where a respondent has crossed out a response and instead ticked a second response option, this second choice should be entered into the data.
- iv Where a respondent has given their response inconsistently with the formatting of the questionnaire but where their intended response is nonetheless unambiguous on inspection of the completed questionnaire, then the respondent's intended response should be entered. For example, where a respondent has written their date of birth in the boxes for **J3**, but written their year of birth in at the side of this, then the respondent's year of birth should be entered.
- v For the year of birth question, unrealistic responses should still be entered except following rule iv above). For example, if a respondent enters '2007' in the year of birth box, this should still be entered unless the respondent has unambiguously indicated their actual year of birth to the side.
- vi Once the data has been entered, no responses should be removed or changed in any way except where responses are known to have been entered incorrectly or where inspection of the questionnaire indicates that the respondent's intended response has not been captured. This includes 'out-of-range' responses, which must **NOT** be automatically removed from the dataset. Responses in the dataset should only be changed before submission to the Acute Coordination Centre where they are found to have been entered inconsistently with the respondent's intended response.

3 Editing/cleaning data after submission

3.1 Approach and rationale

The purpose of the Acute Coordination Centre in cleaning the data submitted to us is to ensure an optimal balance of data quality and completeness. Thus, we seek to remove responses that are known to be erroneous or inappropriate but do this in a relatively permissive way so as to enable as many responses as possible to contribute to the overall survey results.

3.2 Filters

Some of the questions included in the survey are only relevant to a subset of respondents, and in these cases filter instructions on the questionnaire are used to route respondents past questions that are not applicable to them. For example, people who tick “None” to **B9** (“Roughly how many antenatal check-ups did you have in total?”) are instructed to skip all further questions on antenatal check-ups (e.g. **B10-B14**).

It is necessary to clean the data to remove inappropriate responses where filter instructions have been incorrectly followed. In such cases, participants’ responses to questions that were not relevant to them are deleted from the dataset. Responses are **only** deleted where respondents have answered ‘filtered’ questions despite ticking an earlier response on a routing question instructing them to skip these questions (eg a respondent ticking “None” to **B9** but then answering the questions B10-B14 about antenatal check-ups as in the example above). Responses to ‘filtered’ questions are **NOT** removed where the response to the routing question is missing. For example, **B10-B14** are filtered by the response to **B9** (e.g. if B9=1), but if a respondent does not answer **B9**, or if the **B9** response is missing for any reason, then responses to **B10-B14** should **NOT** be removed.

[Figure 1](#) (below) shows a summary of all routing questions, and the filtered questions they relate to, that are included on the 2007 maternity survey. Please note that these instructions should be followed sequentially in order to be consistent with the procedures applied by the Acute Coordination Centre. In addition, please note that for the maternity survey two sets of questions (C1-C8 and D2-D3) will be filtered by the ACC during the data cleaning process even though no routing questions explicitly instruct respondents to skip past them. Rather, general instructions on the questionnaire instruct respondents to skip the questions if they are not relevant to them, and the cleaning process is designed to mimic this (see the footnotes on p5 for details).

FIGURE 1: LIST OF ROUTING/FILTERING INSTRUCTIONS FOR DATA CLEANING

ROUTING QUESTION	RESPONSE VALUES	FILTERED QUESTIONS
<i>if</i> B9 = 1	<i>then delete responses to:</i>	B10 – B14
<i>if</i> B11a = 2	<i>then delete responses to:</i>	B13 (except for responses to option 5 'I did not see a midwife'.)
<i>if</i> B11c = 2	<i>then delete responses to:</i>	B14 (except for responses to option 5 'I did not see a hospital doctor')
<i>if</i> B23 = 2,3,4,5 OR 6	<i>then delete responses to:</i>	B24
<i>if</i> C2 = 1	<i>then delete responses to:</i>	C3-C4
<i>if</i> C9 ² = 1,2 OR 4	<i>then delete responses to:</i>	D2-D3
<i>if</i> C11 = 1, 2 OR 3	<i>then delete responses to:</i>	C12
<i>if</i> C11 = 4	<i>then delete responses to:</i>	C13-C18
<i>&/or</i> C12 = 1,2 OR 3	<i>then delete responses to:</i>	C13-C18
<i>if</i> C12 ³ = 1	<i>then delete responses to:</i>	C1-C8
<i>if</i> C16 = 2	<i>then delete responses to:</i>	C17
<i>if</i> C22 = 4	<i>then delete responses to:</i>	C23-C24
<i>if</i> C23 = 1	<i>then delete responses to:</i>	C24
<i>if</i> D3 = 1 OR 4	<i>then delete responses to:</i>	E1-E10
<i>if</i> E4 = 2 OR 3	<i>then delete responses to:</i>	E5
<i>if</i> G1 = 2	<i>then delete responses to:</i>	G2-G4
<i>if</i> H2 = 3,4,5,6, OR 7	<i>then delete responses to:</i>	H3-H4
<i>if</i> J1 = 2	<i>then delete responses to:</i>	J2
<i>if</i> J8 = 2 OR 3	<i>then delete responses to:</i>	J9

Please note that these instructions should be followed sequentially in the order shown above.

A worked example of the cleaning process for removing unexpected responses to a filtered question is included in Appendix 1 – example.

3.3 Dealing with demographics

Basic demographic information, including age and ethnicity of women are included in the sample section of the data, but the 'You and your household' section at the end of the questionnaire also asks respondents to provide this information. In a minority of cases, the information provided from the sample frame and by the respondents does not correspond – for example, the sample may identify an individual as being born in 1970 only for them to report being born in 1975.

Because of this, and because questions about demographics tend to produce relatively high item non-response rates, it is not appropriate to rely on either source of data alone.

² C9 is not an opaque 'routing' question, but women who did not have their baby at home should not answer questions D2 and D3.

³ Women should skip questions C1-C8 if they did not have a labour. Responses to C1-C8 should be removed for women who said they had a planned caesarean before going into labour (ie C12=1).

Where responses to demographic questions are present, it is assumed these are more likely to be accurate than sample frame information (since it is assumed that respondents are best placed to know their own age, and ethnic group)⁴. Where responses to demographic questions are missing, however, sample data are used in their place.

For demographic analysis on groups of cases, then, it is necessary to use some combination of the information supplied in the sample frame and by the respondents. To do this, we first copy all valid responses to survey demographic questions into a new variable. Where responses are missing we then copy in the relevant sample information (note that for a very small number of women demographic information may be missing in both the sample and response sections; in such cases data must necessarily be left missing in the new variable).

Certain demographic variables require special consideration during data cleaning:

Age (J3)

A common error when completing year of birth questions on forms is for respondents to accidentally write in the *current* year – thus responses to **J3** of '2007' will be set to missing during cleaning. Out-of-range responses will also be set to missing⁵. For the 2007 maternity survey, out-of range responses are defined as **J3 ≤1940 OR J3 ≥1992**

Ethnic group (J7)

When merging sample and response data the ethnic group variables ('**Ethnic**' and '**J7**' respectively) present a particular problem as different categories are used in these variables. In order to combine data from these two variables, then, it is necessary to reduce the 16 categories from **J7** into 6 broader categories as used in the sample section. [Figure 2](#) (below) shows how values should be recoded to be consistent with the mapping used by the Acute Coordination Centre.

Also note that it is generally not appropriate to merge ethnicity values for response rate analysis because of the systematic 'migration' of ethnic group categorisations⁶ between sample and response. Put another way; because the categories used in the sample section are relatively broad, and because people tend to have highly specific conceptions of their own ethnic group, there is a tendency for respondents from certain backgrounds to report an apparently different ethnicity to that which is recorded on the sample frame. A particular issue is patients coded as 'any other ethnic group'. Although in the context of the six categories used in the sample frame this may often be considered an appropriate categorisation, it is seldom one people choose for themselves – respondents are more likely, if their ethnic group is not closely matched by an

⁴ Please note though that respondents will *not* be considered ineligible for the survey solely on the basis of their response to the year of birth question indicating that they are under the age of sixteen. This is because of the difficulty of inferring the source of errors when year of birth from sample and response are mismatched – in other words, because we cannot be *certain* whether this mismatch occurs due to an error in the sample file, an error in the respondent's completion of the questionnaire form, or an error in data entry.

⁵ The majority of out-of range responses present in data relating to year of birth questions result from errors in data entry (for example, not keying one of the digits – so '1983' may become 983, 183, 193, or 198). In such cases it is important that the responses be checked against the completed questionnaire forms, and data corrected if necessary, **prior** to submission of data to the Co-ordination Centre.

⁶ This refers to the instability between categorisations of ethnic group given in sample and response data – the term 'migration' is used to emphasise the perceived shift in the ethnic composition of the achieved sample when looking at response compared to sample data.

available response options, to choose one of the ‘any other White/Mixed/Asian/Black background’ options positioned earlier in the questionnaire structure than to select the 16th option, ‘any other ethnic group’. If data from the sample and response sections are merged, then, this can have the effect of giving an unrealistically low response rate for patients coded on the sample frame as ‘any other ethnic group’ – this happens because the majority of such patients who do respond would be ‘moved out’ of this sub-group by virtue of their response to **J7**, whilst for non-responders the initial coding must by definition be preserved. Thus, **any reporting of response rates by ethnic group should be based on sample information only**. For sub-group analysis of responses, though, it is generally more appropriate to base categories on patients’ responses to **J7**.

FIGURE 2: MAPPING ETHNIC GROUP RESPONSES TO SAMPLE DATA

J7		Ethnic category			
To which of these ethnic groups would you say you belong? <i>Please tick one box only</i>		Ethnic category (N) 1=White; 2=Mixed; 3=Asian or Asian British; 4=Black or Black British; 5=Chinese; 6=Other ethnic group			
Value	Label	Value	Label		
1	White British	recodes to	1	White	
2	White Irish		2	Mixed	
3	Any other White background			3	Asian or Asian British
4	White & Black Caribbean				4	Black or Black British
5	White & Black African		5			Chinese
6	White & Asian			6		Other ethnic group
7	Any other Mixed background				
8	Indian				
9	Pakistani				
10	Bangladeshi				
11	Any other Asian background				
12	Caribbean				
13	African				
14	Any other Black background				
15	Chinese				
16	Any other ethnic group				

3.4 Usability and Eligibility

Sometimes questionnaires are returned with only a very small number of questions completed. For the 2007 maternity survey, questionnaires containing *fewer than five responses* are considered ‘unusable’ – we will delete all responses pertaining to such cases and outcome codes of 1 (‘returned useable questionnaire’) relating to these cases will be changed to 6 (‘questionnaire not returned’). Please note that the number of responses per questionnaire will be counted *after* all other cleaning, and that all responses remaining at this stage will be counted (including responses

to the demographic questions and so on). This should only affect a very limited number of cases, and so should not have a significant impact on response rates.

Outcome codes for respondents will also be changed if the respondents are believed to be under the age of sixteen when they had their baby and therefore ineligible for participation. Since the sample files for the survey are to be checked by the Acute Coordination Centre prior to mailing, this is unlikely to affect more than a handful of cases throughout the survey, as women coded as being aged under 16 will be identified and removed from the sample *before* the start of the survey. Sample members will *not*, however, be removed from the sample if data on their year of birth is missing from the sampling frame. If sample information on a respondent's year of birth is missing, though, and their response to **J3** indicates that they are under 16 (specifically, **if J3 ≥ 1992**) then the outcome code for that patient should be recoded from 1 ('returned completed questionnaire') to 5 ('ineligible for participation in the survey'). This should *only* be done where sample information is missing. If sample information indicates a patient is aged 16 or over, but this is contradicted by the patient's response, then the patient's survey outcome should remain as 1. This is to avoid removing legitimate responses because of an overly conservative approach to assessing eligibility; in other words, where the patient's age is uncertain (because sample and response information contradict each other, and in different instances either of these may be accurate or inaccurate) the benefit of the doubt is given in any assessment of eligibility.

3.5 Missing responses

It is useful to be able to see the numbers of respondents who have missed each question for whatever reason. Responses are considered to be missing when a respondent is *expected* to answer a question but no response is present. For non-filtered questions, responses are expected from all respondents – thus any instance of missing data constitutes a missing response. For filtered questions, only respondents who have answered a routing question⁷ instructing them to go on to that filtered question or set of filtered questions are expected to give answers. Where respondents to the survey have missed a routing question, they are not expected to answer related 'filtered' questions; thus only where respondents were explicitly instructed to answer filtered questions should such blank cells be coded as missing responses.

The Acute Coordination Centre codes missing responses in the data with the value 999⁸. For results to be consistent with those produced by the Acute Coordination Centre, missing responses should be presented but should not be included in the base number of respondents for percentages.

3.6 Non-specific responses

As well as excluding missing responses from results, the Acute Coordination Centre also removes non-specific responses from base numbers for percentages. The rationale for this is to facilitate easy comparison between institutions by presenting only results from those women who felt able to give an evaluative response to questions. For a full listing of 'non-specific' responses in the 2007 maternity survey, please see Appendix B.

⁷ For C1-C8 & D2-D3 indirect routing questions are used to define whether patients should have answered - in accordance with Figure 1 (p5).

⁸ This is an arbitrary value chosen because it is 'out-of-range' for all other questions on the survey.

4 Cleaning the ‘free-text’ numeric questions

Following a review of the data and subsequent discussions with the Healthcare Commission, these decisions were made for cleaning the free-text numeric questions:

A4 Roughly how many weeks pregnant were you when your baby was born?

Out-of-range responses⁹ are defined as 22 weeks or lower and 45 weeks and over.

The variable can be recoded in to a new variable where responses are grouped as:

1=Less than 37 weeks

2=37 weeks or more.

A5 How much did your baby weigh at birth?

The babies’ birth weight (questions A5_grams, A5_pounds & A5_ounces) has been recoded into one variable where the values are all converted into grams. The following steps were undertaken to create this variable:

1. A5_grams: out-of-range values were defined as less than 450g or over 8000g.
2. A5_grams: unusually low birth weight values (i.e. 450g-550g) were checked manually and responses were considered invalid if the mother gave birth at 35 weeks or later and/or if the baby had not been admitted to intensive care.
3. A5_grams: responses were recoded into a new variable ‘birth weight’ with 2 response categories:
1 ≤2500g
2 >2500g
4. A5_pounds and A5_ounces: out-of-range values were removed (i.e. 15 pounds or higher and 17 ounces or higher).
5. To convert pounds & ounces into grams a new variable was created (‘ounces’), whereby A5_pounds was multiplied by 16 and then added to the values at A5_ounces. A second variable was then created (‘grams’) by multiplying ‘ounces’ by 28.349523125.
6. If there was no response to A5_grams, then the ‘grams’ variable was recoded into ‘birth weight’. Therefore, the birth weight variable was created by taking the responses from A5_grams, otherwise from ‘grams’ (i.e. A5_pounds/A5_ounces) if response missing.

⁹ A definition of out-of-range data is explained in section 1.2 on page 2

B2 Roughly how many weeks pregnant were you when you first saw this health professional about your pregnancy care?

Out-of-range responses are defined as 45 weeks and over. Responses of 0 weeks were considered to be valid as some women may have received IVF treatment and so would not be pregnant when they first saw a health professional about their pregnancy care.

The variable can be recoded in to a new variable where responses are grouped as:

- 1 <= 6 weeks
- 2 7-12 weeks
- 3 13 weeks or more

(Please note any numbers entered as decimals have been rounded **down**, e.g. a value of 12.5 weeks will have been recoded into category 2)

B4 Roughly how many weeks pregnant were you when you had your 'booking' appointment?

Out-of-range responses are defined as 45 weeks and over.

The variable can be recoded in to a new variable where responses are grouped as:

- 1 Less than 8 weeks
- 2 8-9 weeks
- 3 10-11 weeks
- 4 12-18 weeks
- 5 19 weeks or more

(Please note any numbers entered as decimals have been rounded **down**, e.g. a value of 9.5 weeks will have been recoded into category 2)

B20 Roughly how many ultrasound scans did you have in total during this pregnancy?

There is not a maximum number of scans that a woman can receive during her pregnancy, and therefore all responses were considered to be valid and none were removed through cleaning.

The variable can be recoded in to a new variable where responses are grouped as:

- 1 0-1
- 2 2-3
- 3 4-6
- 4 7 or more

C1 Roughly how long did your labour last?

Out-of-range responses at C1a (hours) are defined as 100 hours or more.

Out-of-range responses at C1b (minutes) are defined as 61 minutes or higher. However, values of '60' minutes were only considered to be valid if there was no response at C1a (i.e. where a respondent might have entered 60 minutes at C1b, rather than entering 1 hour at C1a).

The variable can be recoded in to a new variable where responses are grouped as:

- 1 Less than 8 hours
- 2 8 hours or longer, but less than 12 hours
- 3 12 hours or longer, but less than 18 hours
- 4 18 hours or longer

E1 How long did you stay in hospital after your baby was born?

If respondents incorrectly answered both parts to this question (i.e. E1a – hours and 1 E1b - days), then their response to E1a (hours in hospital) **was** removed.

Responses to E1a (hours) and E b (days) were then recoded into a new variable E1 (i.e. number of days in hospital). The response options for this new variable are:

- 1 Less than 2 days
- 2 2-3 days
- 3 4-5 days
- 4 6 days or more

(Please note any numbers entered as decimals have been rounded **down**, e.g. a value of 3.5 days will have been recoded into category 2)

H3 How many times in total did you see a midwife after you went home?

Out-of-range responses are defined as values of 0 (or lower) and 51 or higher.

The variable can be recoded in to a new variable where responses are grouped as:

- 1 1-2 times
- 2 3-4 times
- 3 5-6 times
- 4 7 or more times

H4 How old was your baby when you had the last visit or contact with the midwife?

Out-of-range responses are defined as values of 0 days (or lower) and 100 days or higher.

The variable can be recoded in to a new variable where responses are grouped as:

- 1 <= 10 days
- 2 11-15 days
- 3 16-28 days
- 4 29 days or more

5 Appendix A – example

5.1 Incorrectly followed routing

FIGURE 3: EXAMPLE ‘RAW’/‘UNCLEANED’ DATA

Record	Outcome	C2	C3_1	C3_2	C3_3	C4	C5
Patient Record Number	Outcome of sending questionnaire (N)	How did your labour start?	If your labour was induced, were you given a vaginal gel or pessary?	If your labour was induced, were your waters broken by a doctor or a midwife (amniotomy)?	If your labour was induced, were you given a drip to induce (start off) your labour?	Do you feel you had any choice about whether your labour would be induced?	During your labour, were you able to move around and choose the position that made you feel most comfortable?
A	6						
B	1	2	1	0	0	1	2
C	1	1	.	.	.	.	1
D	1	1	0	1	0	.	1
E	4						
F	1	2	0	1	1	3	3
G	6						
H	1	1	1	0	1	2	2
I	1	.	0	1	1	2	3

Figure 3 shows hypothetical raw/uncleaned data for nine sample members, six of whom have responded to the survey. It can be seen from this data that some of the respondents have followed filter instructions from routing questions incorrectly:

- Respondents ‘D’ and ‘H’ reported that their labour started naturally (**C2=1**), but have both responded to the filtered questions **C3** and **C4** about induction. (‘D’ has answered **C3**, whilst ‘H’ has answered **C3** and **C4**).

Following the cleaning instructions above will remove these inappropriate responses. The filter instructions specify that:

<i>if</i>	C2	= 1	<i>then delete responses to:</i>	C3-C4
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In accordance with this, all responses for **C3** and **C4** must be removed in cases where the respondent has ticked **C2=1** (‘labour started naturally’). Looking in column **C2** we can see that three respondents, ‘C’, ‘D’ and ‘H’, have ticked **C2=1**, so any responses they gave to questions **C3** and **C4** should be removed. This will lead to data from three cells (**C3_1**, **C3_2**, **C3_3**) being removed for respondent ‘D’, and data from four cells for respondent ‘H’ (**C3_1**, **C3_2**, **C3_3** and **C4**), who for whatever reason followed the routing instructions incorrectly and continued to answer the questions on induction.

- Respondent 'I' did not respond to the routing question **C2**, but has responded to the filtered questions about induction. Responses to 'the filtered' questions are **NOT** removed where the response to the routing question is missing.

Figure 4 (below) shows how the data would look following cleaning by the co-ordination centre to remove responses to filtered questions that should have been skipped – cells where responses have been removed are shaded.

FIGURE 4: DATA FROM FIGURE 3 FOLLOWING CLEANING

Record	Outcome	C2	C3_1	C3_2	C3_3	C4	C5
Patient Record Number	Outcome of sending questionnaire (N)	How did your labour start?	If your labour was induced, were you given a vaginal gel or pessary?	If your labour was induced, were your waters broken by a doctor or a midwife (amniotomy)?	If your labour was induced, were you given a drip to induce (start off) your labour?	Do you feel you had any choice about whether your labour would be induced?	During your labour, were you able to move around and choose the position that made you feel most comfortable?
A	6						
B	1	2	1	.	.	1	2
C	1	1	.	.	.	.	1
D	1	1	.	.	.	.	1
E	4						
F	1	2	.	1	1	3	3
G	6						
H	1	1	.	.	.	.	2
I	1	.	.	1	1	2	3

6 Appendix B – non-specific responses

The following table lists all 'non-specific responses' included in the 2007 maternity survey. Numbers in the final column indicate the response options that should be considered non-specific. Where the 'non-specific responses' column contains only a dash, the relevant question has no such response options.

	Question	Non-specific responses
A1_day	Day of completing survey	-
A1_month	Month of completing survey	-
A1_year	Year of completing survey	-
A2	Did you give birth to a single baby, twins or more in your most recent pregnancy?	-
A3_day	When was your baby born (day)?	-
A3_month	When was your baby born (month)?	-
A3_year	When was your baby born (year)?	-
A3_time	When was your baby born (time)?	-
A4	Roughly how many weeks pregnant were you when your baby was born?	-
A5_grams	How much did your baby weigh at birth (Grams)?	-
A5_pounds	How much did your baby weigh at birth (Pounds)?	-
A5_ounces	How much did your baby weigh at birth (Ounces)?	-
B1	Which health professional did you go to first about your pregnancy care?	-
B2	Roughly how many weeks pregnant were you when you first saw this health professional about your pregnancy care?	-
B3	Were you able to see this person as soon as you wanted?	-
B4	Roughly how many weeks pregnant were you when you had your 'booking' appointment?	-
B5	At the start of your pregnancy did you have a choice about where you could have your baby?	3, 4
B6	Were you given the choice of having your baby at home?	3, 4
B7	Did you get enough information from a midwife or doctor to help you decide where to have your baby?	4, 5, 6, 7
B8	Were you given a copy of The Pregnancy Book?	3, 4
B9	Roughly how many antenatal check-ups did you have in total?	-
B10	During your pregnancy were you given a choice about where your antenatal check-ups would take place?	3
B11a	Did you see a midwife for your antenatal check-ups?	-
B11b	Did you see a GP (family doctor) for your antenatal check-ups?	-
B11c	Did you see a hospital doctor for your antenatal check-ups?	-
B11d	Did you see any other health professional for your antenatal check-ups?	-
B12	Were you given a choice about who would carry out your antenatal check-ups?	3

	Question	Non-specific responses
B13	If you saw a midwife about your pregnancy, did you see the same one every time?	4, 5, 6
B14	If you saw a hospital doctor about your pregnancy, did you see the same one every time?	4, 5, 6
B15	Did you have any screening tests to check whether your baby might have Down's syndrome?	4, 6
B16	Do you feel that you had a choice about whether to have a screening test for Down's syndrome?	3
B17	Were the reasons for having a screening test for Down's syndrome clearly explained to you?	3
B18a	Did you have a 'dating scan'?	-
B18b	Was the reason for this scan clearly explained to you?	-
B18c	Do you feel you had a choice about having this scan?	-
B19a	Did you have a scan at around 20 weeks of pregnancy?	-
B19b	Was the reason for this scan clearly explained to you?	-
B19c	Do you feel you had a choice about having this scan?	-
B20	Roughly how many ultrasound scans did you have in total during this pregnancy?	-
B21	While you were pregnant, but before you went into labour, did you stay in hospital overnight?	-
B22	During your pregnancy did you have the name and telephone number of a midwife you could contact if you were worried?	3
B23	During your pregnancy did you attend any antenatal classes provided by the NHS?	4, 5, 6
B24a	If you did attend any antenatal classes provided by the NHS, were the classes at a convenient time of day?	-
B24b	If you did attend any antenatal classes provided by the NHS, were the classes at a convenient place?	-
B24c	If you did attend any antenatal classes provided by the NHS, was your partner or someone of your choice allowed to attend?	-
B24d	If you did attend any antenatal classes provided by the NHS, were there enough classes?	-
B24e	If you did attend any antenatal classes provided by the NHS, did the classes cover the topics you wanted?	-
B25a	Overall, thinking about your antenatal care, were you spoken to in a way you could understand?	4
B25b	Overall, thinking about your antenatal care, were you treated with respect and dignity?	4
B25c	Overall, thinking about your antenatal care, were you treated with kindness and understanding?	4
B25d	Overall thinking about your antenatal care, were you given the information or explanations you needed?	4
B25e	Overall, thinking about your antenatal care, were you involved enough in decisions about your care?	4
C1a	Roughly how long did your labour last (hours)?	-
C1b	Roughly how long did your labour last (minutes)?	-
C2	How did your labour start?	-

	Question	Non-specific responses
C3_1	If your labour was induced, were you given a vaginal gel or pessary?	-
C3_2	If your labour was induced, were your waters broken by a doctor or a midwife (amniotomy)?	-
C3_3	If your labour was induced, were you given a drip to induce (start off) your labour?	-
C4	Do you feel you had any choice about whether your labour would be induced?	3
C5	During your labour, were you able to move around and choose the position that made you feel most comfortable?	-
C6a	For your labour and birth in the hospital, how clean were the labour and delivery rooms you were in?	5
C6b	For your labour and birth in the hospital, how clean were the toilets and bathrooms you used at this time?	5
C7_1	During your labour and birth, did you use natural methods (eg breathing, massage) to help relieve the pain?	-
C7_2	During your labour and birth, did you use a water or birthing pool to help relieve the pain?	-
C7_3	During your labour and birth, did you use a TENS machine to help relieve the pain?	-
C7_4	During your labour and birth, did you use gas and air to help relieve the pain?	-
C7_5	During your labour and birth, did you have an injection of pethidine or a similar painkiller to help relieve the pain?	-
C7_6	During your labour and birth, did you have an epidural or similar to help relieve the pain?	-
C7_7	During your labour and birth, did you use any 'other' methods to help relieve the pain?	-
C7_8	During labour and birth, I did not use any pain relief	-
C8	During your labour and birth, did you feel you got the pain relief you wanted?	4, 5, 6
C9	Where was your baby born?	-
C9_name of hospital or unit	[Freetext - name of hospital or birth centre]	-
C10	Were you transferred just before your birth or during your labour for medical reasons or concerns?	-
C11	Thinking about the birth of your baby, what kind of delivery did you have?	-
C12	If your baby was born by caesarean was this?	-
C13	Where did you give birth?	-
C14	What position were you in when your baby was born?	-
C15	While your baby was being born were you given an episiotomy (cut)?	-
C16	While your baby was being born did you have a tear?	-
C17	Was this a serious tear which involved your back passage (third or fourth degree tear)?	-

	Question	Non-specific responses
C18	If you had an episiotomy (cut) or tear requiring stitches, how long after your baby was born were the stitches done?	4, 5, 6
C19	Altogether, how many different midwives looked after you during your labour and the birth of your baby?	-
C20	Had you met any of the staff who looked after you during your labour and the birth before you went into labour?	3
C21	Did you have confidence and trust in the staff caring for you during your labour and birth?	4
C22	Did you have your husband, partner or a companion with you during labour and at the birth of your baby?	-
C23	Was your husband, partner or companion with you for as much as you wanted?	-
C24	If your husband, partner or companion was not with you for as much as you wanted during labour and/or at the birth of your baby, what was the main reason for this?	4, 5
C25	Were you (and/or your husband, partner or companion) left alone by midwives or doctors at a time when it worried you?	-
C26a	Overall, thinking about the care you received during your labour and birth, were you spoken to in a way you could understand?	4
C26b	Overall, thinking about the care you received during your labour and birth, were you treated with respect and dignity?	4
C26c	Overall, thinking about the care you received during your labour and birth, were you treated with kindness and understanding?	4
C26d	Overall, thinking about the care you received during your labour and birth, were you given the information or explanations you needed?	4
C26e	Overall, thinking about the care you received during your labour and birth, were you involved enough in decisions about your care?	4
D1	Before your baby was born, did you plan to have your baby at home?	-
D2a	Were you given information about the sorts of pain relief that would be available at home?	4
D2b	Were you given information about the monitoring of the baby that would be available at home?	4
D2c	Were you given information about the distance and location of the nearest hospital?	4
D2d	Were you given information about the sorts of emergency back-up that would be available?	4
D3	After the birth, did you or your baby go to hospital?	-
E1a	How long did you stay in hospital after your baby was born (hours)?	-
E1b	How long did you stay in hospital after your baby was born (days)?	-
E2	Looking back, do you feel that the length of your stay in hospital was...?	4
E3	Were you given enough information about your own recovery after the birth?	4, 5
E4	Did your baby have a newborn examination or 'baby check' before you were discharged home?	3

	Question	Non-specific responses
E5	Who carried out this examination or 'baby check'?	4
E6	During your postnatal stay were you offered a choice of food?	-
E7	How much food were you given?	4
E8	Overall how would you rate the hospital food during your postnatal stay?	5
E9a	For your postnatal stay in the hospital, how clean was the hospital room or ward you were in?	5
E9b	For your postnatal stay in the hospital, how clean were the toilets and bathrooms that you used?	5
E10a	Overall, thinking about the postnatal care you received in hospital after the birth of your baby, were you spoken to in a way you could understand?	4
E10b	Overall, thinking about the postnatal care you received in hospital after the birth of your baby, were you treated with respect and dignity?	4
E10c	Overall, thinking about the postnatal care you received in hospital after the birth of your baby, were you treated with kindness and understanding?	4
E10d	Overall, thinking about the postnatal care you received in hospital after the birth of your baby, were you given the information or explanations you needed?	4
F1	During your pregnancy did your midwife discuss infant feeding with you?	3
F2	Did you ever put your baby to the breast?	-
F3	In the first few days after the birth how was your baby fed?	4
F4a	Thinking about feeding your baby, breast or bottle, did you feel that midwives and other carers gave you consistent advice?	4, 5
F4b	Thinking about feeding your baby, breast or bottle, did you feel that midwives and other carers gave you practical help?	4, 5
F4c	Thinking about feeding your baby, breast or bottle, did you feel that midwives and other carers gave you active support and encouragement?	4, 5
G1	Was your baby cared for in a neonatal unit at all?	-
G2	How long was your baby in neonatal care for in total?	-
G3	Were you and/or your partner given enough information about why your baby was admitted for neonatal care?	4, 5
G4	Is your baby still in a neonatal unit now?	-
H1	When you were at home after the birth of your baby did you have the name and telephone number of a midwife or health visitor you could contact if you were worried?	3
H2	Since your baby's birth have you been visited at home by a midwife?	4, 5, 6, 7
H3	How many times in total did you see a midwife after you went home?	-
H4	How old was your baby when you had the last visit or contact with the midwife?	-
H5	Would you have liked to have seen a midwife...?	-

	Question	Non-specific responses
H6a	In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's crying?	4
H6b	In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's sleeping position?	4
H6c	In the six weeks after the birth of your baby did you receive help and advice from health professionals about feeding your baby?	4
H6d	In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's skin care?	4
H6e	In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's health and progress?	4
H7	Did you have a postnatal check-up of your own health?	-
H8	Were you given information or offered advice from a health professional about contraception?	3
H9a	Overall, how would you rate the care received during your pregnancy?	-
H9b	Overall, how would you rate the care received during your labour and birth?	-
H9c	Overall, how would you rate the care received during your care after the birth?	-
J1	Have you had a previous pregnancy?	-
J2	How many babies have you given birth to before this pregnancy?	-
J3	In what year were you born?	-
J4	How old were you when left full-time education?	-
J5_1	Which of the following people live with you (Your baby/children)?	-
J5_2	Which of the following people live with you (Husband or partner)?	-
J5_3	Which of the following people live with you (other family members)?	-
J5_4	Which of the following people live with you (other people in your household)?	-
J6	What language do you speak most often at home?	-
J7	To which of these ethnic groups would you say you belong?	-
J8	Do you have a long-standing physical or mental health problem or disability?	3
J9	Does this problem or disability affect your day to day activities?	-
J10	Overall, how would you rate your health over the past 4 weeks?	-

7 Contact us

Submitting data

Data may be submitted to the Acute Coordination Centre either by e-mail or by post (with the data on a CD or floppy disk). There is no requirement for the anonymised dataset to be password protected. Data should be submitted to the following address:

By e-mail – Maternity.Data@PickerEurope.ac.uk

or

By post:

Acute Coordination Centre – Maternity Survey 2007 Picker Institute Europe King's Mead House, Oxpens Road, Oxford. OX1 1RX
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Questions/comments

If you have any questions or concerns regarding this document, or if you have any specific queries regarding the submission of data, please contact the Acute Coordination Centre:

By e-mail – Maternity.Data@PickerEurope.ac.uk

By phone – 01865 208127