

INTERBIO-21st

The Functional Classification of Abnormal Fetal and Neonatal Growth Phenotypes



PREGNANCY AND DELIVERY FORM INSTRUCTIONS

February 2013
(version 1.4)



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Pregnancy and Delivery Form: General Guidelines

This form is to be completed upon delivery for:

1. All women in the Fetal Study (FS);
2. All women in the Neonatal Study (NS).

For women in the FS:

- To ensure that this information is captured for all women taking part in the FS, please instruct participants as they near their estimated date of delivery to inform staff upon arrival at the delivery hospital that they are part of this study. Provide all participants with the contact details of the local research coordinator. The staff at the delivery hospital should then make arrangements for the **Pregnancy and Delivery Form** to be completed upon delivery. One way to ensure that staff can identify a woman from the FS is to put a sticker on her medical notes.
- The local research coordinator should visit the delivery ward(s) every day to check if any women from the FS have delivered in the last 24 hours.
- Ensure that for all women taking part in the FS, their unique PTID labels are affixed to the front cover of the **Pregnancy and Delivery Form** before completion of the form.

For women in the NS:

During the time period of the NS, the local research coordinator should arrange for a member of staff to complete this form for every woman enrolled in the study who delivers in the unit, regardless of neonatal characteristics or delivery outcome. A **Pregnancy and Delivery Form** should be completed for all births enrolled as study cases or controls (see Neonatal Study Application Instructions). Stillbirths are included, as well as live births.

General points

Much of the information needed for this form can be collected from the medical records by a clinically qualified member of staff. The information that is not available in the records (including Questions 4 to 15) should be obtained by direct interview with the mother.


The anthropometric measurements of the infant (Section 13) need to be taken as soon as possible after birth (preferably within 12 hours, and absolutely no later than 24 hours after birth) by an INTERGROWTH/INTERBIO-21st trained anthropometrist, following the instructions in the Anthropometry Handbook and adhering to the advice given during training sessions.

General Instructions for Form Completion

1. Affix a patient identifier (PTID) label to the front cover of this booklet and any additional **Neonatal Study Ultrasound Forms** (where applicable).
2. A ballpoint pen should be used to complete the forms and the writing should be legible and in block capitals where appropriate.
3. Do not write on the forms except in the white data boxes. Where there is the option, place a 'X' in boxes that correspond to your answer. Where values need to be written, please write numbers clearly and fill all boxes, using leading zeros if required (e.g. if required to enter a diastolic blood pressure of '90' in the 3 boxes provided, a '0' should be added to the front of the number, writing the response as '090'). All dates should be written in the format dd-mm-yy, for example '20th May 2010' should be written '20-05-10'.
4. If there is an error made in writing, it must be crossed out, and the correct answer written outside the box and initialled. Correction fluids should not be used.
5. The person completing the form should fill in his/her name, signature and researcher code (provided by the Coordinating Unit) at the bottom of each form.
6. After completion, the form should be forwarded on to the Data Management Unit at regular intervals (to be decided locally) for data entry.
7. It is the responsibility of each institution to organise the local arrangements to facilitate this process.

Pregnancy and Delivery Form (DEV)

Form Header

	INTERBIO-21st Fetal Study and Neonatal Study Pregnancy and Delivery		DEV Page 1 of 6
	INTERBIO-21 st PTID Number	<input type="text" value="0"/> <input type="text" value="7"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Hospital/Clinic Code
AFFIX PTID LABEL HERE	Maternal Hospital Record No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
	Maternal Date of Birth	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	
	Is the woman part of the Fetal Study?	<input type="checkbox"/> yes <input type="checkbox"/> no	
Please answer all yes/no questions by placing a 'X' in the corresponding box			

INTERBIO-21st PTID Number: Affix one of the woman's assigned patient identifier (PTID) labels to the front of the booklet and to each page of the booklet. If the PTID labels are not available, write the PTID number in the boxes (the first two digits correspond to your country and will be pre-printed on every page). **It is essential that the PTID Number hand-written throughout the booklet that you are completing matches the number printed on the woman's assigned PTID labels.**

Hospital/Clinic Code: Enter the code that corresponds to your hospital or clinic.

Maternal Hospital Record No.: This number is the hospital/clinic's own internal reference number for the woman; it can be used to help identify the woman and link the information on this form with her medical records.

Maternal Date of Birth: Enter the woman's date of birth in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'. Make every effort to obtain her date of birth in full. If, however, she knows only the year or month-and-year of her birth, enter this known information and replace the unknown details with 'xx'.

Is the woman part of the Fetal Study? Place a 'X' in the box marked 'YES' if the woman is part of the Fetal Study; place a 'X' in the box marked 'NO' if the woman is part of the Neonatal Study. *NB This question is not present on the Kilifi, Kenya version of this form.*

[Women cannot participate in both the Fetal Study and the Neonatal Study.]

Please answer all yes/no questions by placing a 'X' in the corresponding box.

Section 1: Demographic, socio-economic and nutritional characteristics

NB Information required for this section must be obtained from direct interview with the woman or from her medical records. For Question 2, measurements should be taken using the equipment provided for this study. Questions 7-10 require the use of the supplementary flip-chart as a visual aid.

Section 1: Demographic, socio-economic and nutritional characteristics			
1. Age: (years)	<input type="text"/> <input type="text"/> yrs	2. Maternal height: (cm)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> cm
		3. 1 st trimester or pre-pregnancy weight: (kg)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg

1. Age (years)

Write the age of the woman in years. Obtain her age in completed years; that is, her age at the time of her last birthday. If you are working from medical records, you may have to calculate the age from her date of birth.

2. Maternal height (cm)

Take the woman's height using the Adult Stadiometer (Seca 242 Digital Display). Follow the instructions in the Anthropometry Handbook, and adhere to the advice given during training sessions.

Write the woman's height in centimetres (cm) to 1 decimal place. Example: A height of 152.9cm should be written as '152.9cm' – do not round up to 153cm.

3. 1st trimester or pre-pregnancy weight (kg)

Take the woman's first trimester weight from her medical records.

Write the woman's weight in kilograms (kg) to 1 decimal place. Example: A weight of 60.4kg should be written as '060.4kg' – do not round down to 60kg or up to 60.5kg.

During this pregnancy:			
4. Has she smoked?	<input type="checkbox"/> yes <input type="checkbox"/> no	If yes, how many cigarettes/cigars per day?	<input type="text"/> <input type="text"/>
5. Has she sniffed/chewed tobacco?	<input type="checkbox"/> yes <input type="checkbox"/> no	If yes, how many times per day?	<input type="text"/> <input type="text"/>
6. Has she chewed betelnut?	<input type="checkbox"/> yes <input type="checkbox"/> no	If yes, how many nuts per day?	<input type="text"/> <input type="text"/>
7. On average, how many units of alcohol per week has she had? (1 unit = small glass (125ml) of wine or one bottle/can (330ml) of beer; see table)			<input type="text"/> <input type="text"/>
8. Has she used any of the following recreational drugs? (cross all that apply; see table)			
Heroin	<input type="checkbox"/>	Amphetamines	<input type="checkbox"/>
Methadone	<input type="checkbox"/>	Hallucinogens	<input type="checkbox"/>
Crack/Cocaine	<input type="checkbox"/>	Cannabis	<input type="checkbox"/>
		Benzodiazepines	<input type="checkbox"/>
		Inhalants/Solvents	<input type="checkbox"/>
		Other recreational drugs	<input type="checkbox"/>
9. Has she been involved in any of the following high-risk occupations or activities? (cross all that apply; see table)			
Frequent exposure to chemical/toxic substances	<input type="checkbox"/>		
Frequent physically demanding work	<input type="checkbox"/>		
Frequent high-risk sports/vigorous exercise	<input type="checkbox"/>		
10. Has she followed any of the following special diets? (cross all that apply; see table)			
Vegetarian with no animal products	<input type="checkbox"/>	Gluten-free	<input type="checkbox"/>
Weight loss programme	<input type="checkbox"/>	Malabsorption treatment	<input type="checkbox"/>

Questions 4-10 refer to **during this pregnancy only**.

4. Has she smoked?

Place a 'X' in the box marked 'YES' if the woman reports smoking cigarettes, cigars (including cheroots) or shisha any time during her pregnancy.

Place a 'X' in the box marked 'NO' if the woman has not smoked cigarettes, cigars (including cheroots) or shisha any time during her pregnancy.

If the woman smoked/chewed before this pregnancy but no longer smokes/chews (i.e. she has not smoked/chewed during this pregnancy), place a 'X' in the box marked 'NO'.

If yes, how many cigarettes/cigars per day?

If she has smoked cigarettes or cigars (including cheroots), write the average number of cigarettes or cigars that she smoked on a typical day. If her smoking habits changed during the course of her pregnancy, write the maximum that she was smoking at any time point. For example, if she was smoking 20 per day for the first 5 months but then cut down to 10, write '20'.

For shisha, one puff = ½ cigarette. A whole pipe = 15.

and/or how many times tobacco/betelnut chewed per day?

If she has chewed tobacco/betelnut, write how many times per day.

5. Has she sniffed/chewed tobacco?

Place a 'X' in the box marked 'YES' if the woman reports sniffing or chewing tobacco any time during her pregnancy.

Place a 'X' in the box marked 'NO' if the woman has not sniffed or chewed tobacco any time during her pregnancy.

If yes, how many times per day?

If she has sniffed or chewed tobacco, write the average number of times that she sniffed or chewed it on a typical day. If her habits changed during the course of her pregnancy, write the maximum that she was sniffing/chewing at any time point. For example, if she was chewing tobacco 20 times per day for the first 5 months but then cut down to 10, write '20'.

6. Has she chewed betelnut?

Place a 'X' in the box marked 'YES' if the woman reports chewing betelnut any time during her pregnancy.

Place a 'X' in the box marked 'NO' if the woman has not chewed betelnut any time during her pregnancy.

If yes, how many nuts per day?

If she has chewed betelnut, write the average number of nuts that she chewed on a typical day. If her habits changed during the course of her pregnancy, write the maximum that she was chewing at any time point. For example, if she was chewing 20 nuts per day for the first 5 months but then cut down to 10, write '20'.

7. On average, how many units of alcohol per week has she had?

Show the woman the relevant page on the flip-chart (see [Appendix 1](#)) and write the number of units of alcohol she has consumed in a typical week (to the nearest whole number).

1 unit is approximately equivalent to a small 125ml glass of wine, a 330ml bottle of beer, or a 25ml measure of spirit.

8. Has she used any of the following recreational drugs?

Show the woman the relevant page on the flip-chart (see [Appendix 1](#)). Place a 'X' in the corresponding box if during her pregnancy she has used heroin, methadone, crack/cocaine, amphetamines (including ya ba and khat), hallucinogens, cannabis (in South Africa, also called 'dugga'), benzodiazepines (including diazepam), inhalants/solvents, or any other recreational drugs.

If the woman is unsure but thinks she may have used one or more of these recreational drugs, still place a 'X' in the corresponding box(es).

Cross all that apply.

9. Has she been involved in any of the following high-risk occupations or activities?

Show the woman the relevant page on the flip-chart (see [Appendix 1](#)) and place a 'X' in the corresponding box if during her pregnancy she has been involved in one or more of the high-risk occupations or activities shown in the table on a frequent basis.

If she is unsure but thinks she may have been involved in one or more of these activities, still place a 'X' in the corresponding box(es).

NB If she frequently walked for several hours per day (i.e. more than 4 times per week in the 2nd half of pregnancy), this could be considered 'vigorous exercise' and the third option 'Frequent high-risk sports/vigorous exercise' should be crossed. Do not include in this category the occasional long walk (e.g. to the hospital for an appointment once a month).

Cross all that apply.

10. Has she followed any of the following special diets?

Show the woman the relevant page on the flip-chart (see [Appendix 1](#)) and place a 'X' in the corresponding box if she has followed one or more of these special diets during this pregnancy.

Special diets include: vegetarian with no animal products (sometimes known as 'vegan', meaning that the woman eats no meat, fish, milk, cheese, yoghurt, eggs or gelatin); gluten-free diets (the woman eats no wheat, oats, barley or rye products – bread, pasta, breakfast cereals, etc.); weight-loss programmes; and malabsorption treatments.

Vegetarianism alone (with dairy products) does not constitute a special diet.

Cross all that apply.

11. Marital status: (cross one box only)			
Single	<input type="checkbox"/>	Widowed	<input type="checkbox"/>
Married/Cohabiting	<input type="checkbox"/>	Separated/Divorced	<input type="checkbox"/>
12. Total number of years of formal education:			
	<input type="text"/>	<input type="text"/>	
13. Highest level of education attended: (cross one box only)			
No school attended	<input type="checkbox"/>	Primary	<input type="checkbox"/>
		Secondary	<input type="checkbox"/>
		Professional/technical training	<input type="checkbox"/>
		University	<input type="checkbox"/>
14. Which of the following best describes her occupational status? (cross one box only)			
Housework	<input type="checkbox"/>	Skilled manual work	<input type="checkbox"/>
Student	<input type="checkbox"/>	Unskilled manual work	<input type="checkbox"/>
Other	<input type="checkbox"/>	Managerial/professional/technical	<input type="checkbox"/>
		Clerical support, service or sales	<input type="checkbox"/>

11. Marital status

Cross only the one box that best applies to the woman.

- Place a 'X' next to **Single** if the woman has never been married and does not live with a partner;
- Place a 'X' next to **Married/Cohabiting** if the woman is married or living with a partner;
- Place a 'X' next to **Widowed** if the woman's partner has died;
- Place a 'X' next to **Separated/Divorced** if the woman has been married but is now separated or divorced and not living with another partner.

12. Total number of years of formal education

Enter the total number of years that the woman attended formal education (including primary school, secondary school, post-school (college and university level) and any other intermediate levels in the formal school system). This definition of school does not include Bible or Koranic school or short courses like typing or sewing. However, it does include technical or vocational training beyond primary school level, such as long-term courses in mechanics or secretarial work. One year of part-time education = 0.5 years. Round up the end total to the nearest whole year.

Example: If she attended primary school from age 5 to 11 (6 years) and then secondary school from age 11 to 16 (5 years) then her total number of years of formal education is 11.

13. Highest level of education attended

Cross only the one box that best applies to the woman.

- **No school attended;**
- **Primary school** (age 5-11 or similar);
- **Secondary school** (age 11-16 or 11-18 in some cases);
- **Professional/technical training** (vocational training or qualification e.g. teaching, nursing training);
- **University** (undergraduate or postgraduate degree e.g. BA/BSc/MA/MSc/MD/PhD).

14. Which of the following best describes her occupational status?

Cross only the one box that best applies to the woman.

See the occupational classification scheme in [Appendix 2](#) for clarification as to which occupations fall under each category.

15. *This question is country-specific and concerns socio-economic status*

See [Appendix 4](#) for details of the specific question included in your country's own version of the form.

Section 2: Medical history

Section 2: Medical history			
Before this pregnancy, was she diagnosed with, or treated for, any of the following conditions?			
16. Diabetes	<input type="checkbox"/>	<input type="checkbox"/>	
17. Thyroid disease	<input type="checkbox"/>	<input type="checkbox"/>	
18. Other endocrinological condition	<input type="checkbox"/>	<input type="checkbox"/>	
19. Any type of malignancy/cancer (including leukaemia or lymphoma)	<input type="checkbox"/>	<input type="checkbox"/>	
20. Cardiac disease	<input type="checkbox"/>	<input type="checkbox"/>	
21. Epilepsy	<input type="checkbox"/>	<input type="checkbox"/>	
22. Mental illness e.g. Clinical depression	<input type="checkbox"/>	<input type="checkbox"/>	
23. Hypertension/chronic hypertension with treatment	<input type="checkbox"/>	<input type="checkbox"/>	
24. A chronic respiratory disease (including chronic asthma)	<input type="checkbox"/>	<input type="checkbox"/>	
25. Proteinuria, kidney disease or chronic renal disease	<input type="checkbox"/>	<input type="checkbox"/>	
26. Crohn's disease, coeliac disease, ulcerative colitis or any severe malabsorption condition	<input type="checkbox"/>	<input type="checkbox"/>	
27. Lupus erythematosus	<input type="checkbox"/>	<input type="checkbox"/>	
28. HIV or AIDS	<input type="checkbox"/>	<input type="checkbox"/>	
29. Hepatitis B or C	<input type="checkbox"/>	<input type="checkbox"/>	
30. Malaria - <i>within past 5 years</i>	<input type="checkbox"/>	<input type="checkbox"/>	
31. Tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	
32. Thalassaemia	<input type="checkbox"/>	<input type="checkbox"/>	
33. Sickle-cell anaemia	<input type="checkbox"/>	<input type="checkbox"/>	
34. Thrombophilia	<input type="checkbox"/>	<input type="checkbox"/>	
35. Glucose-6-phosphate dehydrogenase deficiency	<input type="checkbox"/>	<input type="checkbox"/>	
36. Any congenital abnormality or genetic disease	<input type="checkbox"/>	<input type="checkbox"/>	
37. Any other clinically relevant condition	<input type="checkbox"/>	<input type="checkbox"/>	

Before this pregnancy, was she diagnosed, with or treated for, any of the following conditions?

For each condition:

Place a 'X' in the box marked 'YES' if the woman had ever been diagnosed with or received any treatment for that condition, prior to this pregnancy.

Place a 'X' in the box marked 'NO' if the woman had never been diagnosed with or received any treatment for that condition, prior to this pregnancy.

If she is uncertain whether she has had one or more of the conditions listed, check her medical records. If there is no mention of the condition, assume that she did not have it and place a 'X' in the box marked 'NO'.

16. **Diabetes** (any type)

17. **Thyroid disease** (Examples: hypo- or hyper-thyroidism, parathyroidism (PTH)). Malignant thyroid nodules should be classed as a type of malignancy/cancer (Question 19).

18. **Other endocrinological condition** (Examples: Addison's disease, adrenal gland disorders, hypophysitis)

19. **Any type of malignancy/cancer (including leukaemia or lymphoma)**

20. **Cardiac disease** (Examples: arrhythmias, murmurs, valve diseases, atherosclerosis, atrial fibrillation, sarcoma, pericarditis, cardiomyopathy, etc.)

21. **Epilepsy** (any type)

22. **Mental illness e.g. Clinical depression** (excluding mild depression without treatment). Include all forms of mental illness requiring treatment. Examples: clinical depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder (OCD), generalised anxiety disorder.

23. **Hypertension/chronic hypertension with treatment.** Defined as 140/90 mmHg or greater. Include in this category any woman who has ever been treated for hypertension.
24. **A chronic respiratory disease** (including chronic asthma during adult life). Do not include childhood asthma that is no longer present or very mild cases/allergies. Other examples: chronic bronchitis, emphysema.
25. **Proteinuria, kidney disease or chronic renal disease.** Proteinuria is defined as the presence of excessive protein substance (chiefly albumin) in the urine.
26. **Crohn's disease, coeliac disease, ulcerative colitis or any severe malabsorption condition** (requiring special diet)
27. **Lupus erythematosus** (a chronic inflammatory collagen disease affecting connective tissue)
28. **HIV or AIDS**
29. **Hepatitis B or C**
30. **Malaria – *within past 5 years*** (any episode within the past five years)
31. **Tuberculosis**
32. **Thalassaemia** (a quantitative haematological disorder affecting the production of the globin chains that make up haemoglobin)
33. **Sickle-cell anaemia** (if a woman has been diagnosed as a carrier only, do not consider this as a diagnosis for having the condition itself – place a 'X' in the box marked 'NO').
34. **Thrombophilia** (an abnormality of blood coagulation that increases the risk of thrombosis)
35. **Glucose-6-phosphate dehydrogenase deficiency** (abnormally low levels of the G6PD enzyme especially important in red blood cell metabolism)
36. **Any congenital abnormality or genetic disease** (Examples: cystic fibrosis, congenital heart defects). Do not include very mild abnormalities such as extra digits, skin tags, hare lips, or colobomas.
37. **Any other clinically relevant condition** (any other significant medical or surgical problem judged by the attending staff as a serious condition requiring special care, that does not fall into one of the categories above)

Section 3: Gynaecological history

NB Information required for this section must be obtained from direct interview with the woman. Question 41 requires the use of a laminated calendar as a visual aid.

Section 3: Gynaecological history		
38. Did she have regular (24-32 day) menstrual cycles in the 3 months prior to this pregnancy?	<input type="checkbox"/> yes	<input type="checkbox"/> no
39. What is the average length of her menstrual cycle?	<input type="text"/>	<input type="text"/> days
40. Had she used hormonal contraceptives or been breastfeeding in the 2 months prior to this pregnancy?	<input type="checkbox"/> yes	<input type="checkbox"/> no
41. Is the first day of the last menstrual period (LMP) known?	<input type="checkbox"/> yes	<input type="checkbox"/> no
42. If yes, date:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	43. Was she certain of the date of her LMP?
		<input type="checkbox"/> yes <input type="checkbox"/> no

38. Did she have regular (24-32 day) menstrual cycles in the 3 months prior to this pregnancy?

Regular menstrual cycles are defined as 24-32 days between the first day of bleeding during one menstrual period and the first day of bleeding during the next menstrual period.

Place a 'X' in the box marked 'YES' if she did have regular cycles in the 3 months before becoming pregnant.

Place a 'X' in the box marked 'NO' if she did not have regular cycles in the 3 months before becoming pregnant.

39. What is the average length of her menstrual cycle?

Enter the average length of her menstrual cycle, in days. Length is measured from the first day of bleeding during one cycle to the first day of bleeding during the next cycle.

If she gives a range of values, take the average of the top and bottom figures. Round up to the nearest whole number if necessary. Examples: (i) A range of '26 to 28' days should be entered as '27' days; (ii) A range of '27 to 28' days (which yields an average of 27.5 days) should be entered as '28' days.

40. Had she used hormonal contraceptives or been breastfeeding in the 2 months prior to this pregnancy?

Place a 'X' in the box marked 'YES' if she had used hormonal contraception or breastfed in the 2 months before becoming pregnant.

Place a 'X' in the box marked 'NO' if she had not used hormonal contraceptives and had not breastfed in the 2 months before becoming pregnant.

If she is unsure, place a 'X' in the box marked 'YES'.

41. Is the first day of the last menstrual period (LMP) known?

Use a laminated calendar as a memory aid to help the woman remember the day on which her LMP started (the first day of bleeding). If she cannot remember at first, tell her to take her time and to try to remember as accurately as possible.

Place a 'X' in the box marked 'YES' if she knows the date of her LMP.

Place a 'X' in the box marked 'NO' if the first day of LMP is unknown.

42. If yes, date

If the answer to Question 41 is 'YES', enter the date of the first day of her last menstrual period (LMP) in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

43. Was she certain of the date of her LMP?

Place a 'X' in the box marked 'YES' if the woman was certain of the first day of her last menstrual period.

Place a 'X' in the box marked 'NO' if she was not certain or expresses any doubt over this date.

Section 4: Obstetric history

NB Information required for this section can be obtained from direct interview with the woman or from her medical records. Please be aware that this section contains questions which some women may find distressing – you may prefer to extract information for miscarriage, termination or stillbirth-related questions from her medical records.

Section 4: Obstetric history	
44. Number of previous pregnancies, excluding this pregnancy (if 0, skip to Question 57):	<input type="text"/> <input type="text"/>
45. Date of last delivery, miscarriage or termination:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
46. Has she ever had a molar pregnancy or choriocarcinoma?	<input type="text"/> yes <input type="text"/> no
47. Has she ever had an extrauterine or ectopic pregnancy?	<input type="text"/> yes <input type="text"/> no
48. Number of previous miscarriages: <input type="text"/> <input type="text"/>	49. Number of previous terminations: <input type="text"/> <input type="text"/>
50. Number of previous births (if 0, skip to Question 57):	<input type="text"/> <input type="text"/>
51. Birthweight of the immediately previous newborn:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g
52. Gestational age at birth of the immediately previous newborn:	<input type="text"/> <input type="text"/> weeks <input type="text"/> <input type="text"/> days
53. Have ANY of her other babies weighed less than 2500g?	<input type="text"/> yes <input type="text"/> no
54. Have ANY of her other babies been born preterm (<37 ⁺⁰ weeks' gestation)?	<input type="text"/> yes <input type="text"/> no
55. Has she had ANY previous stillbirths? <input type="text"/> yes <input type="text"/> no	56. Has she had ANY previous neonatal deaths? <input type="text"/> yes <input type="text"/> no

44. Number of previous pregnancies, excluding this pregnancy (if 0, skip to Question 57)

Enter the number of previous pregnancies in the box (IMPORTANT: Do not include the pregnancy for which she has just been admitted for delivery i.e. this pregnancy). If this is her first pregnancy, enter '00' and skip to Question 57 at the beginning of Section 5: 'Vaccination history'. If she has had one previous pregnancy, enter '01'; if two, '02', etc.

Include all known pregnancies, including those that were non-viable, or ended in miscarriage or termination.

Example: If a woman has had one previous miscarriage, one previous termination and one previous term pregnancy, enter a value of '03' in the corresponding box.

45. Date of last delivery, miscarriage or termination

Enter the date on which her last pregnancy ended, regardless of whether it resulted in delivery, miscarriage or termination, in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

Make every effort to obtain this date in full. Where possible extract this information from the medical records. If it is not at all possible to do so, ask the question directly bearing in mind that the date of miscarriage or termination may be a sensitive subject for some women. If the woman knows only the year or month-and-year for this event, enter this known information and replace the unknown details with 'xx'.

46. Has she ever had a molar pregnancy or choriocarcinoma?

Place a 'X' in the box marked 'YES' if she has ever had a molar pregnancy or choriocarcinoma.

Place a 'X' in the box marked 'NO' if she has never had a molar pregnancy or choriocarcinoma.

47. Has she ever had an extrauterine or ectopic pregnancy?

Place a 'X' in the box marked 'YES' if she has ever had an extrauterine or ectopic pregnancy.

Place a 'X' in the box marked 'NO' if she has never had an extrauterine or ectopic pregnancy.

48. Number of previous miscarriages

Enter the number of previous miscarriages in the box. For 0, enter '00'; for 1, enter '01', etc.

49. Number of previous terminations

Enter the number of previous terminations in the box. For 0, enter '00'; for 1, enter '01', etc.

50. Number of previous births (if 0, skip to Question 57)

A birth is defined as a delivery *after 24 weeks' gestation*, regardless of outcome. Thus, include any still-born infants in the value.

Enter the number of previous births in the box (IMPORTANT: Do not include the pregnancy for which she has just been admitted for delivery i.e. this birth). For 0, enter '00'; for 1, enter '01', etc. If she has had any multiple births, count each baby as 1.

If the woman has had no previous births, do not complete Questions 51 to 56. Skip to Question 57.

51. Birthweight of the immediately previous newborn

Enter the birthweight (in grams, without any decimal places) of the last baby she delivered, prior to this one. If not known, consult the medical records. If still not available, leave blank.

52. Gestational age at birth of the immediately previous newborn

Enter the gestational age at birth (in completed weeks and days) of the last baby she delivered, prior to this one.

53. Have ANY of her other babies weighed less than 2500g?

2500g is approximately the equivalent of 5.5lb (5lb 8oz).

Place a 'X' in the box marked 'YES' if she has had a low birthweight (<2500g) baby.

Place a 'X' in the box marked 'NO' if she has never had a low birth weight (<2500g) baby.

If she is unsure, check her medical records or those of her children. If the birthweights are not available on the medical records, place a 'X' in the box marked 'NO'.

54. Have ANY of her other babies been born preterm (<37⁺⁰ weeks' gestation)?

<37⁺⁰ weeks' gestation equates to at least 259 days since the first day of the LMP.

Place a 'X' in the box marked 'YES' if she has previously had a preterm baby.

Place a 'X' in the box marked 'NO' if she has never previously had a preterm baby.

If she is unsure, check her medical records or those of her children. If the gestational ages are not available on the medical records, place a 'X' in the box marked 'NO'.

55. Has she had ANY previous stillbirths?

A stillbirth is defined as giving birth to a baby born dead after 24 weeks of gestation.

Place a 'X' in the box marked 'YES' if any of the woman's previous pregnancies have resulted in stillbirth.

Place a 'X' in the box marked 'NO' if she has had no previous pregnancies resulting in stillbirth.

56. Has she had ANY previous neonatal deaths?

A neonatal death is defined as a death within 28 days of a live birth.

Place a 'X' in the box marked 'YES' if any of the woman's previous pregnancies have resulted in neonatal death.

Place a 'X' in the box marked 'NO' if she has had no previous pregnancies resulting in neonatal death.

Section 5: Vaccination history

Section 5: Vaccination history				
Has she been vaccinated against the following medical conditions?				
Influenza:	57. Before this pregnancy:	<input type="checkbox"/> yes <input type="checkbox"/> no	58. During this pregnancy:	<input type="checkbox"/> yes <input type="checkbox"/> no
Tetanus:	59. Before this pregnancy:	<input type="checkbox"/> yes <input type="checkbox"/> no	60. During this pregnancy:	<input type="checkbox"/> yes <input type="checkbox"/> no

Has she been vaccinated against the following medical conditions?

For each medical condition and specified time period:

Place a 'X' in the box marked 'YES' if the woman has been vaccinated against that condition during the specified time period.

Place a 'X' in the box marked 'NO' if the woman was not vaccinated against that condition during the specified time period.

57. **Influenza: Before this pregnancy** (any time before this pregnancy – not necessarily *immediately* before)

58. **Influenza: During this pregnancy**

59. **Tetanus: Before this pregnancy** (any time before this pregnancy – not necessarily *immediately* before)

60. **Tetanus: During this pregnancy**

Section 6: Clinical conditions

Section 6: Clinical conditions		
During this pregnancy was she diagnosed with, or treated for, any of the following conditions?		
61. Diabetes, thyroid disease or any other endocrinological condition	<input type="checkbox"/> yes	<input type="checkbox"/> no
62. Any type of malignancy/cancer (including leukaemia or lymphoma)	<input type="checkbox"/> yes	<input type="checkbox"/> no
63. Cardiac disease	<input type="checkbox"/> yes	<input type="checkbox"/> no
64. Epilepsy	<input type="checkbox"/> yes	<input type="checkbox"/> no
65. Mental illness e.g. Clinical depression	<input type="checkbox"/> yes	<input type="checkbox"/> no
66. Symptomatic malaria	<input type="checkbox"/> yes	<input type="checkbox"/> no
67. Symptomatic malaria with parasite count	<input type="checkbox"/> yes	<input type="checkbox"/> no
68. Respiratory disease (including asthma)	<input type="checkbox"/> yes	<input type="checkbox"/> no
69. Pyelonephritis or kidney disease	<input type="checkbox"/> yes	<input type="checkbox"/> no
70. Lower urinary tract infection requiring antibiotic treatment	<input type="checkbox"/> yes	<input type="checkbox"/> no
71. Respiratory tract infection requiring antibiotic/antiviral treatment	<input type="checkbox"/> yes	<input type="checkbox"/> no
72. Any other infection requiring antibiotic/antiviral treatment	<input type="checkbox"/> yes	<input type="checkbox"/> no
73. Group B streptococcus carrier	<input type="checkbox"/> yes	<input type="checkbox"/> no
74. Positive syphilis test	<input type="checkbox"/> yes	<input type="checkbox"/> no
75. HIV or AIDS	<input type="checkbox"/> yes	<input type="checkbox"/> no
76. Any genital tract or sexually transmitted infection	<input type="checkbox"/> yes	<input type="checkbox"/> no
77. Cholestasis	<input type="checkbox"/> yes	<input type="checkbox"/> no
78. Any other medical/surgical condition requiring treatment/referral	<input type="checkbox"/> yes	<input type="checkbox"/> no
79. Any accident or maternal trauma requiring hospital admission or referral to a higher level of care	<input type="checkbox"/> yes	<input type="checkbox"/> no

During this pregnancy was she diagnosed with, or treated for, any of the following conditions?

For each condition:

Place a 'X' in the box marked 'YES' if during this pregnancy the woman was diagnosed with or did receive any treatment for that condition.

Place a 'X' in the box marked 'NO' if during this pregnancy the woman was not diagnosed with and did not receive any treatment for that condition.

If she is uncertain whether she had one or more of the conditions listed, check her medical records. If there is no mention of the condition, and she did not have any symptoms, assume that she did not have it and place a 'X' in the box marked 'NO'.

61. **Diabetes, thyroid disease or any other endocrinological condition** (Examples: any type of diabetes where the woman was previously known to be diabetic before this pregnancy; any type of thyroid disease, hypo- or hyper-thyroidism, parathyroidism (PTH), Addison's disease, adrenal gland disorders, hypophysitis). Malignant thyroid nodules should be classed as a type of malignancy/cancer (Question 62).

NB If the woman developed diabetes during this pregnancy and had no previous history of diabetes, do not cross 'YES' here but instead refer to Question 81 ('Gestational diabetes') in Section 7.

62. **Any type of malignancy or cancer** (including leukaemia or lymphoma).

63. **Cardiac disease** (Examples: arrhythmias, murmurs, valve diseases, atherosclerosis, atrial fibrillation, sarcoma, pericarditis, cardiomyopathy, etc.)

64. **Epilepsy** (any episode)

65. **Mental illness e.g. Clinical depression** (excluding mild depression without treatment). Include all forms of mental illness requiring treatment. Examples: clinical depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder (OCD), generalised anxiety disorder.

66. **Symptomatic malaria** (any episode)

67. **Symptomatic malaria with parasite count**. If she showed symptoms of malaria, only select this option if the presence of malaria was confirmed by means of a parasite count.

68. **Respiratory disease (including asthma)**. Other examples: chronic bronchitis, emphysema.

69. **Pyelonephritis or kidney disease** – pyelonephritis is an inflammation of the kidney and upper urinary tract that usually results from non-contagious bacterial infection of the bladder (cystitis) or other urinary infections.

70. **Lower urinary tract infection requiring antibiotic treatment** (e.g. cystitis)

71. **Respiratory tract infection requiring antibiotic/antiviral treatment** (e.g. bacterial pneumonia)

72. **Any other infection requiring antibiotic/antiviral treatment**

73. **Group B streptococcus carrier** – a diagnosis of carrying (but not necessarily being infected by) the group B streptococcus bacteria, infection with which can cause serious illness and even death in newborn infants.

74. **Positive syphilis test**

75. **HIV or AIDS**

76. **Any genital tract or sexually transmitted infection** (e.g. syphilis, gonorrhoea, trichomoniasis, genital warts, condyloma acuminata, candidiasis)

77. **Cholestasis** (a condition where bile cannot flow from the liver to the duodenum)

78. **Any other medical/surgical condition requiring treatment/referral**

79. **Any accident or maternal trauma requiring hospital admission or referral to a higher level of care** (maternal trauma is a serious or critical bodily injury, wound or shock)

Section 7: Pregnancy-related complications

Section 7: Pregnancy-related complications			
During this pregnancy was she diagnosed with, or treated for, any of the following conditions?			
80. Severe vomiting requiring hospitalisation	<input type="checkbox"/>	<input type="checkbox"/>	
81. Gestational diabetes	<input type="checkbox"/>	<input type="checkbox"/>	
82. Vaginal bleeding before 15 weeks	<input type="checkbox"/>	<input type="checkbox"/>	
83. Vaginal bleeding at 15-27 weeks	<input type="checkbox"/>	<input type="checkbox"/>	
84. Vaginal bleeding after 27 weeks	<input type="checkbox"/>	<input type="checkbox"/>	
85. Pregnancy-induced hypertension (BP>140/90, no proteinuria)	<input type="checkbox"/>	<input type="checkbox"/>	
86. Preeclampsia (BP>140/90 and proteinuria)	<input type="checkbox"/>	<input type="checkbox"/>	
87. Severe preeclampsia/Eclampsia/HELLP syndrome	<input type="checkbox"/>	<input type="checkbox"/>	
88. Rhesus disease or anti-Kell antibodies	<input type="checkbox"/>	<input type="checkbox"/>	
89. Preterm labour	<input type="checkbox"/>	<input type="checkbox"/>	
90. Fetal anaemia	<input type="checkbox"/>	<input type="checkbox"/>	
91. Fetal distress (abnormal fetal heart rate [FHR] or biophysical profile [BPP])	<input type="checkbox"/>	<input type="checkbox"/>	
92. Suspected impaired fetal growth	<input type="checkbox"/>	<input type="checkbox"/>	
93. Oligohydramnios	<input type="checkbox"/>	<input type="checkbox"/>	
94. Polyhydramnios	<input type="checkbox"/>	<input type="checkbox"/>	
95. A condition requiring amniocentesis or fetal blood sampling (FBS)	<input type="checkbox"/>	<input type="checkbox"/>	
96. Abruption placentae	<input type="checkbox"/>	<input type="checkbox"/>	
97. Clinical chorioamnionitis	<input type="checkbox"/>	<input type="checkbox"/>	
98. Other pregnancy-related infection	<input type="checkbox"/>	<input type="checkbox"/>	
99. Other pregnancy-related condition	<input type="checkbox"/>	<input type="checkbox"/>	

During this pregnancy was she diagnosed with, or treated for, any of the following conditions?

For each condition:

Place a 'X' in the box marked 'YES' if during this pregnancy the woman was diagnosed with or did receive any treatment for that condition.

Place a 'X' in the box marked 'NO' if during this pregnancy the woman was not diagnosed with and did not receive any treatment for that condition.

If she is uncertain whether she had one or more of the conditions listed, check her medical records. If there is no mention of the condition, and she did not have any symptoms, assume that she did not have it and place a 'X' in the box marked 'NO'.

80. Severe vomiting requiring hospitalisation

81. **Gestational diabetes** (defined as any degree of glucose intolerance with onset or first recognition during pregnancy). NB If the woman was previously known to be diabetic before this pregnancy, do not cross 'YES' here but instead refer to Question 61 ('Diabetes, thyroid disease or any other endocrinological condition') in Section 6.

82. Vaginal bleeding before 15 weeks

83. Vaginal bleeding at 15-27 weeks

84. Vaginal bleeding after 27 weeks

85. **Pregnancy-induced hypertension** (blood pressure >140/90, no proteinuria; develops after 20 weeks' gestation in a previously normotensive pregnancy)

86. **Preeclampsia** (blood pressure >140/90 and proteinuria)

Preeclampsia is defined as high blood pressure 140/90 mmHg or greater, or an increase of 30mmHg systolic or 15mmHg diastolic over baseline values on at least two occasions 6 or more hours apart, that develops after 20 weeks' gestation in a previously normotensive pregnancy, and proteinuria (presence of excessive protein substance, chiefly albumin, in the urine).

87. **Severe preeclampsia/Eclampsia/HELLP syndrome**

Severe preeclampsia is diagnosed when blood pressure is ≥ 160 mmHg systolic and/or ≥ 110 mmHg diastolic on two occasions, between 4 and 168 hours apart, or if the first measurement was immediately followed by treatment with an antihypertensive, either of these scenarios being associated with the presence of proteinuria.

Eclampsia is defined as the occurrence of convulsions and/or coma unrelated to her cerebral conditions in a woman with signs and symptoms of pre-eclampsia. Seizures are of grand mal type and may first appear before labour, during labour, or up to 48 hours postpartum.

HELLP syndrome is a group of symptoms that occur in pregnant women who have pre-eclampsia or eclampsia and who also show signs of liver damage and abnormalities in blood clotting. It is characterised by: **Haemolysis**, **EL** (elevated) liver enzymes and **LP** (low platelet) count.

88. **Rhesus disease or anti-Kell antibodies.** Rhesus disease – also known as isoimmunisation or RH – can occur when the mother is Rh negative and the baby is Rh positive. The transfer of anti-Kell antibodies from the mother to the fetus across the placental barrier can cause severe anaemia by interfering with the early proliferation of red blood cells.

89. **Preterm labour** is initiation of labour before 37⁺⁰ weeks (either with or without delivery).

90. **Fetal anaemia** (suggested by very low haematocrit or haemoglobin concentration for gestational age)

91. **Fetal distress** (abnormal fetal heart rate (FHR) or biophysical profile (BPP))

92. **Suspected impaired fetal growth**

93. **Oligohydramnios** (a decreased amount of amniotic fluid)

94. **Polyhydramnios** (an excessive amount of amniotic fluid)

95. **A condition requiring amniocentesis or fetal blood sampling (FBS)**

96. **Abruptio placentae** (i.e. placental abruption) refers to the partial or complete separation of the normally located placenta after the 20th week of gestation and prior to birth. The normal placenta separates from the uterus prematurely and blood collects between the placenta and the uterus.

97. **Clinical chorioamnionitis** (an inflammation of the fetal membranes – chorion and amnion – due to a bacterial infection)

98. **Other pregnancy-related infection**

99. **Other pregnancy related condition**

	<15 weeks	15-27 weeks	>27 weeks
100. Lowest haemoglobin level:	<input type="text"/> <input type="text"/> - <input type="text"/> g/dl	<input type="text"/> <input type="text"/> - <input type="text"/> g/dl	<input type="text"/> <input type="text"/> - <input type="text"/> g/dl
OR Lowest haematocrit:	<input type="text"/> <input type="text"/> - <input type="text"/> %	<input type="text"/> <input type="text"/> - <input type="text"/> %	<input type="text"/> <input type="text"/> - <input type="text"/> %

100. Lowest haemoglobin level OR Lowest haematocrit

For each of the three gestational age-based time periods [<15 weeks, 15-27 weeks and >27 weeks], if the woman's haemoglobin level or haematocrit was measured in that time period enter the lowest haemoglobin level recorded, in grams/decilitre (g/dl), or the lowest haematocrit result as a percentage (%), to 1 decimal place.

If for any time period no results are available, leave that field blank.

Section 8: Ultrasound examination (for women in the Neonatal Study)

Section 8: Ultrasound examination (for women in the Neonatal Study)	
101. How many ultrasound examinations were carried out during the woman's pregnancy?	<input type="text"/> <input type="text"/>
Please complete a Neonatal Study Ultrasound Form for each ultrasound examination available in the woman's medical records.	

IMPORTANT: only complete this section for women who are taking part in the Neonatal Study (not the Fetal Study). Refer to the question in the header on page 1 of this form if you are unsure whether she has been part of the Fetal Study.

If the woman is part of the Fetal Study this information is already available in her **Ultrasound Follow-up Forms** in the Fetal Study Booklet – you do not need to answer this question or complete any **Neonatal Study Ultrasound Forms**.

101. How many ultrasound examinations were carried out during the woman's pregnancy?

Check the woman's medical records and enter the number of ultrasound examinations carried out during her pregnancy, regardless of where and by whom they were performed.

Please complete a Neonatal Study Ultrasound Form for each examination available in the woman's medical records.

Section 9: Length of the uterine cervix – during this pregnancy

Section 9: Length of the uterine cervix - during this pregnancy		
102. During the course of her pregnancy (before hospital admission for this birth), did she have any evaluations of uterine cervix length by vaginal examination? <i>If no, skip to Question 112.</i>		<input type="checkbox"/> yes <input type="checkbox"/> no
103. Date of 1 st examination:	106. Date of 2 nd examination:	109. Date of 3 rd examination:
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
104. Uterine cervix length by digital examination: <input type="text"/> - <input type="text"/> cm	107. Uterine cervix length by digital examination: <input type="text"/> - <input type="text"/> cm	110. Uterine cervix length by digital examination: <input type="text"/> - <input type="text"/> cm
105. Cervical dilation: <input type="text"/> <input type="text"/> - <input type="text"/> cm	108. Cervical dilation: <input type="text"/> <input type="text"/> - <input type="text"/> cm	111. Cervical dilation: <input type="text"/> <input type="text"/> - <input type="text"/> cm

102. **During the course of her pregnancy (before hospital admission for this birth), did she have any evaluations of uterine cervix length by vaginal examination?**

Place a 'X' in the box marked 'YES' if during this pregnancy (but before hospital admission for delivery) the woman had any vaginal examinations to evaluate the length of the uterine cervix. Continue to Question 103.

Place a 'X' in the box marked 'NO' if during this pregnancy (before hospital admission for delivery) the woman did not have any vaginal examinations to evaluate the length of the uterine cervix. Skip to Question 112.

In Questions 103-111, provide details of these examinations. If the woman had more than 3 vaginal examinations, please provide details of the 3 examinations with the shortest uterine cervix length.

Use only examinations taken prior to hospital admission for delivery. **DO NOT take extra examinations during labour in order to enter details into this section.**

103. **Date of 1st examination**

Enter the date of the first vaginal examination in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

104. **Uterine cervix length by digital examination (at 1st examination)**

Enter the length of the uterine cervix at 1st examination, in centimetres (cm), to 1 decimal place.

105. **Cervical dilation (at 1st examination)**

Enter the cervix dilation at 1st examination, in centimetres (cm), to 1 decimal place.

106. **Date of 2nd examination**

Enter the date of the second vaginal examination in the format 'dd-mm-yy', e.g. '20th May 2010' should be written '20-05-10'.

107. **Uterine cervix length by digital examination (at 2nd examination)**

Enter the length of the uterine cervix at 2nd examination, in centimetres (cm), to 1 decimal place.

108. **Cervical dilation (at 2nd examination)**

Enter the cervix dilation at 2nd examination, in centimetres (cm), to 1 decimal place.

109. **Date of 3rd examination**

Enter the date of the third vaginal examination in the format 'dd-mm-yy', e.g. '20th May 2010' should be written '20-05-10'.

110. **Uterine cervix length by digital examination (at 3rd examination)**

Enter the length of the uterine cervix at 3rd examination, in centimetres (cm), to 1 decimal place.

111. **Cervical dilation (at 3rd examination)**

Enter the cervix dilation at 3rd examination, in centimetres (cm), to 1 decimal place.

Section 10: Nutritional supplements/Medications

Section 10: Nutritional supplements/Medications								
During this pregnancy, has she routinely taken any of the following nutritional supplements?								
112. Multi-vitamins/minerals	<input type="checkbox"/>	<input type="checkbox"/>	115. Vitamin D	<input type="checkbox"/>	<input type="checkbox"/>	118. Food supplements	<input type="checkbox"/>	<input type="checkbox"/>
	yes	no		yes	no		yes	no
113. Iron	<input type="checkbox"/>	<input type="checkbox"/>	116. Calcium	<input type="checkbox"/>	<input type="checkbox"/>	119. Cod liver oil	<input type="checkbox"/>	<input type="checkbox"/>
	yes	no		yes	no		yes	no
114. Folic acid	<input type="checkbox"/>	<input type="checkbox"/>	117. Selenium	<input type="checkbox"/>	<input type="checkbox"/>	120. Other fish oil	<input type="checkbox"/>	<input type="checkbox"/>
	yes	no		yes	no		yes	no

During this pregnancy, has she routinely taken any of the following nutritional supplements?

For each nutritional supplement:

Place a 'X' in the box marked 'YES' if during this pregnancy she has routinely taken that supplement.

Place a 'X' in the box marked 'NO' if during this pregnancy she has not routinely taken that supplement.

'Routinely' is defined as 'for more than one month'. Do not (for example) cross 'YES' for Question 117: 'Selenium' for a woman who has received a one-off supplement of selenium.

If she has routinely taken multi-vitamins or minerals place a 'X' in the box marked 'YES' for Question 112. If this supplement includes any of the others listed, do not place a 'X' in the box marked 'YES' for the other supplement unless an additional preparation of that supplement, other than the multi-vitamins/minerals, is taken.

Example: If a woman has taken a multi-vitamin/mineral supplement which includes iron, but she has taken no other supplement of iron specifically, then place a 'X' in the box marked 'YES' for Question 112: 'Multi-vitamins/minerals' and a 'X' in the box marked 'NO' for Question 113: 'Iron'.

- 112. **Multi-vitamins/minerals** (see note above in cases where multi-vitamin/mineral supplement includes any of the other listed supplements)
- 113. **Iron**
- 114. **Folic acid**
- 115. **Vitamin D**
- 116. **Calcium**
- 117. **Selenium**
- 118. **Food supplements** e.g. high energy/calorie supplements for weight gain during pregnancy.
- 119. **Cod liver oil**
- 120. **Other fish oil** (i.e. a fish oil that is not cod liver oil)

During this pregnancy, has she routinely taken any of the following medications?					
121. Aspirin	<input type="checkbox"/>	<input type="checkbox"/>	126. Insulin	<input type="checkbox"/>	<input type="checkbox"/>
122. Non-steroidal anti-inflammatories	<input type="checkbox"/>	<input type="checkbox"/>	127. Prophylactic steroids for preterm labour	<input type="checkbox"/>	<input type="checkbox"/>
123. Antibiotics used for PPROM	<input type="checkbox"/>	<input type="checkbox"/>	128. Progesterone	<input type="checkbox"/>	<input type="checkbox"/>
124. Any other antibiotics/antivirals	<input type="checkbox"/>	<input type="checkbox"/>	129. Any other treatment	<input type="checkbox"/>	<input type="checkbox"/>
125. Antihypertensives	<input type="checkbox"/>	<input type="checkbox"/>			

During this pregnancy, has she routinely taken any of the following medications?

For each medication:

Place a 'X' in the box marked 'YES' if during this pregnancy she has routinely taken that medication.

Place a 'X' in the box marked 'NO' if during this pregnancy she has not routinely taken that medication.

'Routinely' is defined as 'for more than one month'. Do not (for example) cross 'YES' for Question 121: 'Aspirin' for a woman who has taken aspirin for occasional headaches.

121. **Aspirin**

122. **Non-steroidal anti-inflammatories**

123. **Antibiotics used for PPROM** (e.g. prophylactic antibiotics)

124. **Any other antibiotics/antivirals** (e.g. penicillin) – excluding those used for PROM

125. **Antihypertensives**

126. **Insulin**

127. **Prophylactic steroids for preterm labour**

128. **Progesterone**

129. **Any other treatment**

Section 11: Delivery

Section 11: Delivery						
130. Onset of labour: (cross one box only)	Spontaneous	<input type="checkbox"/>	Induced	<input type="checkbox"/>	No labour	<input type="checkbox"/>
131. Prelabour premature rupture of membranes (PPROM)?					yes	no
132. Place of delivery: (cross one box only)	Home	<input type="checkbox"/>	Health facility	<input type="checkbox"/>		
133. Mode of delivery: (cross one box only)	Vaginal spontaneous	<input type="checkbox"/>	Vaginal assisted (e.g. forceps, vacuum)	<input type="checkbox"/>		
	Caesarean section	<input type="checkbox"/>	Assisted breech or breech extraction	<input type="checkbox"/>		
If labour was induced or a Caesarean section performed, please cross all that apply:						
134. Vaginal bleeding	yes	no	148. Worsening of a pre-existing clinical condition	yes	no	
135. Placenta praevia	yes	no	149. Suspected intrauterine growth restriction (IUGR)	yes	no	
136. Fetal death	yes	no	150. Post term (>42 ⁺⁰ weeks gestation)	yes	no	
137. Pregnancy-induced hypertension (BP>140/90, no proteinuria)	yes	no	151. Rhesus disease or anti-Kell antibodies	yes	no	
138. Preeclampsia (BP>140/90 and proteinuria)	yes	no	152. Intrahepatic cholestasis of pregnancy	yes	no	
139. Severe preeclampsia/Eclampsia/HELLP syndrome	yes	no	153. HIV or AIDS	yes	no	
140. Breech presentation	yes	no	154. Any genital tract or sexually transmitted infection	yes	no	
141. Fetal distress (abnormal fetal heart rate [FHR] or biophysical profile [BPP])	yes	no	155. Any infection requiring antibiotic/antiviral treatment	yes	no	
142. Reduced fetal movement	yes	no	156. Any accident/maternal trauma	yes	no	
143. Failure to progress	yes	no	157. Pregnancy termination	yes	no	
144. Cephalo-pelvic disproportion	yes	no	158. Previous Caesarean section	yes	no	
145. PPRM	yes	no	159. Maternal request	yes	no	
146. Uterine rupture	yes	no	160. Any other maternal reason	yes	no	
147. Abruptio placentae	yes	no	161. Any other fetal reason	yes	no	

130. Onset of labour

Cross one box only.

Spontaneous is defined as the spontaneous initiation of labour even if she has any augmentation later during labour.

Induced is defined as the initiation of uterine contractions before the spontaneous onset of labour, with the aim of accomplishing vaginal delivery.

No labour refers to the woman having an elective Caesarean section without labour.

If either 'Induced' or 'No Labour' is crossed, ensure that you complete Questions 134 to 161.

If 'Spontaneous' is crossed, you do not need to complete Questions 134 to 161.

131. Prelabour premature rupture of membranes (PPROM)?

Prelabour premature rupture of membranes (PPROM) is the rupture of the sac membranes prior to labour/start of painful contractions, independently of gestational age.

Place a 'X' in the box marked 'YES' if she had prelabour premature rupture of membranes (PPROM).

Place a 'X' in the box marked 'NO' if she did not have prelabour premature rupture of membranes (PPROM) or if the indication is not written in the medical records as a main reason for induction or Caesarean section.

132. **Place of delivery**

Cross the one box that best applies: **Home** (if she delivered at her home) or **Health facility** (if she delivered at a health facility).

133. **Mode of delivery**

Cross the one box that best applies.

Vaginal spontaneous is defined as delivery that did not require any special intervention. Episiotomy is considered a normal delivery.

Vaginal assisted is defined as delivery assisted with forceps or vacuum. Vacuum extraction uses a suction cup that is placed over the baby's head, which allows the physician to pull the child through the birth canal.

Caesarean section (including elective, intrapartum and emergency C-sections).

Assisted breech or breech extraction.

If labour was induced or a Caesarean section performed, please cross all that apply.

If the answer to Question 130 was 'Induced' or 'No labour' or the answer to Question 133 was 'Caesarean section', answer Questions 134 to 161. If not, leave the responses to these questions blank and skip to Question 162.

Take the indications directly from the medical records. In cases of uncertainty, check with the attending midwife/doctor. Answer 'YES' to all that apply.

For each indication:

Place a 'X' in the box marked 'YES' if the indication is written in the medical records as a main reason for induction or Caesarean section.

Place a 'X' in the box marked 'NO' if the indication is not written in the medical records as a main reason for induction or Caesarean section.

134. **Vaginal bleeding**

135. **Placenta praevia** (implantation of the placenta over the internal os of the cervix)

136. **Fetal death** (or suspected fetal death)

137. **Pregnancy-induced hypertension** (see definition p.19)

138. **Preeclampsia** (see definition p.19)

139. **Severe preeclampsia/Eclampsia/HELLP syndrome** (see definitions p.19)

140. **Breech presentation** (bottom/feet first)

141. **Fetal distress** (abnormal fetal heart rate (FHR) or biophysical profile (BPP))

142. **Reduced fetal movement**

143. **Failure to progress** (this diagnosis is given to a woman whose labour does not follow a normal pattern and is severely prolonged)

144. **Cephalo-pelvic disproportion** (when the baby's head is too big to fit through the mother's pelvis)
145. **PPROM** (prelabour premature rupture of membranes – see definition p.25)
146. **Uterine rupture.** Complete uterine rupture is a catastrophic event where a full-thickness tear develops, opening the uterus directly into the abdominal cavity; it requires rapid surgical attention to safeguard maternal and infant outcomes. Occult or incomplete rupture is where a surgical scar separates but the visceral peritoneum stays intact; it is usually asymptomatic and does not require emergency surgery.
147. **Abruptio placentae** (i.e. placental abruption) refers to the partial or complete separation of the normally located placenta after the 20th week of gestation and prior to birth. The normal placenta separates from the uterus prematurely and blood collects between the placenta and the uterus.
148. **Worsening of a pre-existing clinical condition**
149. **Suspected intrauterine growth restriction (IUGR)**
150. **Post term (>42⁺⁰ weeks gestation)**
151. **Rhesus disease or anti-Kell antibodies** (see definition p.20)
152. **Intrahepatic cholestasis of pregnancy** (a condition occurring in pregnancy where bile cannot flow from the liver to the duodenum)
153. **HIV or AIDS**
154. **Any genital tract or sexually transmitted infection** (e.g. syphilis, gonorrhoea, trichomoniasis, genital warts, condyloma acuminata, candidiasis)
155. **Any infection requiring antibiotic/antiviral treatment**
156. **Any accident/maternal trauma** (maternal trauma is a serious or critical bodily injury, wound or shock)
157. **Pregnancy termination**
158. **Previous Caesarean section**
159. **Maternal request**
160. **Any other maternal reason**
161. **Any other fetal reason**

Section 12: Newborn outcomes and care

Section 12: Newborn outcomes and care	
162. Date of delivery: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	167. Newborn sex: Male <input type="checkbox"/> Female <input type="checkbox"/>
163. Time of delivery: <input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> (24-hour clock)	168. Apgar score at 5 minutes: <input type="text"/> <input type="text"/>
164. Gestational age at birth based on the best obstetric estimate: <input type="text"/> <input type="text"/> weeks <input type="text"/> days	169. Was the newborn admitted to intensive care or any special care unit? <input type="checkbox"/> yes <input type="checkbox"/> no
165. Fetal presentation at delivery: (cross one box only) Cephalic <input type="checkbox"/> Breech <input type="checkbox"/> Other <input type="checkbox"/>	170. If yes, total amount of days spent in intensive care or special care unit: (if less than 24 hours please enter 1 day) <input type="text"/> <input type="text"/> <input type="text"/> days
166. Newborn status at birth: (cross one box only) Alive <input type="checkbox"/> Intrapartum death <input type="checkbox"/> Antepartum death <input type="checkbox"/>	

162. Date of delivery

Enter the date of delivery in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

163. Time of delivery

Enter the time of delivery using the 24-hour clock, e.g. '8:15pm' should be written as '20:15'.

164. Gestational age at birth based on best obstetric estimate

Obtain the *best obstetric estimate* (also known as 'clinical estimate') of the gestational age at birth – i.e. the estimate of gestational age at birth that has been made as a result of interpreting all clinical and ultrasound data available to the attending staff (as they interpreted it) and written in the medical records as the official estimated gestational age at birth for this newborn. This estimate will more often than not be based on a head circumference (HC) or crown-rump length (CRL) measurement taken during an earlier ultrasound scan, rather than just LMP. Write the estimated gestational age at birth in weeks and days.

165. Fetal presentation at delivery

Place a 'X' next to the option that corresponds to the fetal presentation at delivery. Cross one box only.

Cephalic (head first)

Breech (bottom/feet first)

Other (any other fetal presentation at delivery, e.g. arm first)

166. Newborn status at birth

Place a 'X' next to the option that corresponds to the newborn's status at birth. Options: Alive; Intrapartum death; Antepartum death.

Cross one box only.

167. **Newborn sex**

Place a 'X' next to the option that corresponds to the infant's sex. If the sex is undifferentiated or undeterminable, leave blank and complete a **Neonatal Abnormality Form**.

Cross one box only.

168. **Apgar score at 5 minutes**

Write the Apgar score (range 1-10) at 5 minutes in the corresponding box. Calculate according to the table below:

Apgar Scoring			
Apgar Sign	2	1	0
Heart Rate (pulse)	Normal (above 100 beats per minute)	Below 100 beats per minute	Absent (no pulse)
Breathing (rate and effort)	Normal rate and effort, good cry	Slow or irregular breathing, weak cry	Absent (no breathing)
Grimace (responsiveness or "reflex irritability")	Pulls away, sneezes, or coughs with stimulation	Facial movement only (grimace) with stimulation	Absent (no response to stimulation)
Activity (muscle tone)	Active, spontaneous movement	Arms and legs flexed with little movement	No movement, "floppy" tone
Appearance (skin coloration)	Normal color all over (hands and feet are pink)	Normal color (but hands and feet are bluish)	Bluish-gray or pale all over

169. **Was the newborn admitted to intensive care or any special care unit?**

Place a 'X' in the box marked 'YES' if the newborn was admitted to intensive care, special care, or any other non-routine form of care.

Place a 'X' in the box marked 'NO' if the newborn was not admitted to intensive care, special care, or any other non-routine form of care. Skip to Question 170.

170. **If yes, total amount of days spent in intensive care or special care unit (if less than 24 hours please enter 1 day)**

If the response to Question 169 was 'YES', enter the total number of days spent in intensive care, special care, or any other form of non-routine care, rounded up to the next whole day. For example, if the infant spent 1 day and 6 hours in the NICU, write '002' in the box.

Was the newborn diagnosed with, or treated for, any of the following conditions before hospital discharge?					
171. Respiratory distress syndrome	<input type="checkbox"/>	<input type="checkbox"/>	185. Fetal inflammatory response syndrome	<input type="checkbox"/>	<input type="checkbox"/>
172. Transient tachypnea of the newborn	<input type="checkbox"/>	<input type="checkbox"/>	186. Seizures	<input type="checkbox"/>	<input type="checkbox"/>
173. Apnea of prematurity	<input type="checkbox"/>	<input type="checkbox"/>	187. Necrotising enterocolitis, Bell's staging stage 2 or greater	<input type="checkbox"/>	<input type="checkbox"/>
174. Bronchopulmonary dysplasia	<input type="checkbox"/>	<input type="checkbox"/>	188. Meningitis	<input type="checkbox"/>	<input type="checkbox"/>
175. Pneumothorax	<input type="checkbox"/>	<input type="checkbox"/>	189. Hypoglycaemia	<input type="checkbox"/>	<input type="checkbox"/>
176. Meconium aspiration with respiratory distress	<input type="checkbox"/>	<input type="checkbox"/>	190. Anaemia (requiring transfusion)	<input type="checkbox"/>	<input type="checkbox"/>
177. No oral feeds for more than 24 hours	<input type="checkbox"/>	<input type="checkbox"/>	191. Hypotension (requiring inotropic treatment or steroids)	<input type="checkbox"/>	<input type="checkbox"/>
178. Retinopathy of prematurity	<input type="checkbox"/>	<input type="checkbox"/>	192. Intraventricular haemorrhage grade 2 or greater, periventricular haemorrhage or leukomalacia	<input type="checkbox"/>	<input type="checkbox"/>
179. Hypoxic-ischaemic encephalopathy	<input type="checkbox"/>	<input type="checkbox"/>	193. Polycythaemia	<input type="checkbox"/>	<input type="checkbox"/>
180. Hyperbilirubinaemia	<input type="checkbox"/>	<input type="checkbox"/>	194. Patent ductus arteriosus (requiring pharmacological treatment or surgery)	<input type="checkbox"/>	<input type="checkbox"/>
181. TORCH or any other intrauterine infection	<input type="checkbox"/>	<input type="checkbox"/>	195. Any other serious condition	<input type="checkbox"/>	<input type="checkbox"/>
182. HIV	<input type="checkbox"/>	<input type="checkbox"/>	196. Congenital abnormality (complete a Neonatal Abnormality Form)	<input type="checkbox"/>	<input type="checkbox"/>
183. Neonatal sepsis	<input type="checkbox"/>	<input type="checkbox"/>			
184. Fetal infection	<input type="checkbox"/>	<input type="checkbox"/>			

Was the newborn diagnosed with, or treated for, any of the following conditions before hospital discharge?

Take the indications directly from the medical records. In cases of uncertainty, check with the attending neonatologist. Answer 'YES' to all that apply.

For each condition:

Place a 'X' in the box marked 'YES' if the newborn was diagnosed with or received any treatment for that condition.

Place a 'X' in the box marked 'NO' if the newborn was not diagnosed with and received no treatment for that condition.

See [Appendix 3](#) for further clarification on the definitions of the following diagnoses, or for information when interacting with the neonatologist.

171. **Respiratory distress syndrome**

172. **Transient tachypnea of the newborn**

173. **Apnea of prematurity**

174. **Bronchopulmonary dysplasia**

175. **Pneumothorax**

176. **Meconium aspiration with respiratory distress**

177. **No oral feeds for more than 24 hours**

178. **Retinopathy of prematurity**

179. **Hypoxic-ischaemic encephalopathy**

180. **Hyperbilirubinaemia**

181. **TORCH or any other intrauterine infection**
182. **HIV**
183. **Neonatal sepsis**
184. **Fetal infection**
185. **Fetal inflammatory response syndrome**
186. **Seizures**
187. **Necrotising enterocolitis, Bell's staging stage 2 or greater**
188. **Meningitis**
189. **Hypoglycaemia**
190. **Anaemia (requiring transfusion)**
191. **Hypotension (requiring inotropic treatment or steroids).** If inotropic treatment and steroids are not available at your site and the hypotension was of a level severe enough to require one or the other of these treatments, then still place a 'X' in the box marked 'YES'.
192. **Intraventricular haemorrhage grade 2 or greater, periventricular haemorrhage or leukomalacia**
193. **Polycythaemia**
194. **Patent ductus arteriosus (requiring pharmacological treatment or surgery)**
195. **Any other serious condition**
196. **Congenital abnormality.** Complete a **Neonatal Abnormality Form**.

Section 13: Newborn anthropometry

NB Information required for this section must be obtained by the anthropometry team. For Questions 198-203, measurements should be taken using the equipment provided for this study.

Section 13: Newborn anthropometry (please carry out as soon as possible, no later than 24 hours after birth)	
197. Date of measurement:	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>

Carry out these anthropometric measurements as soon as possible, preferably within 12 hours, and absolutely no later than 24 hours after birth. For advice on carrying out the measurements in this section, consult the INTERGROWTH-21st Anthropometry Handbook and adhere to guidance given in training sessions.

197. Date of measurement

Enter the date that anthropometric measurements were taken, in the format dd-mm-yy, e.g. '20th May 2010' should be written as '20-05-10'.

First set of anthropometric measurements	Repeat measurements (if required)	Repeat measurements (if required)
198. Weight: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g
199. Length: <input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm
200. Head circumference: <input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm

First set of anthropometric measurements

Anthropometrist-1 takes the role of lead observer and takes the following measurements using the study equipment and following the guidelines:

198. **Weight** (in grams)
199. **Length** (in centimetres (cm), to 1 decimal place)
200. **Head circumference** (in centimetres (cm), to 1 decimal place)

Section 13: Newborn anthropometry (continued)		
Second set of anthropometric measurements	Repeat measurements (if required)	Repeat measurements (if required)
201. Weight: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> g
202. Length: <input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm
203. Head circumference: <input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm	<input type="text"/> <input type="text"/> . <input type="text"/> cm

Second set of anthropometric measurements

Anthropometrist-2 takes the role of lead observer and takes the following measurements using the study equipment and following the guidelines:

201. **Weight** (in grams)
202. **Length** (in centimetres (cm), to 1 decimal place)
203. **Head circumference** (in centimetres (cm), to 1 decimal place)

If one or more of the measurements differ between observers by more than the maximum allowable difference (see Anthropometry Manual) each observer should repeat the measurement(s) again and record on the form in the second box. If the difference is still greater than the maximum allowable difference, a third repetition should be carried out. If, after three times, the discrepancy is still too big, stop the process there and ensure all values are recorded on the form.

Section 14: Newborn outcomes

Section 14: Newborn outcomes	
204. Newborn status at hospital discharge: (cross one box only)	
Alive	<input type="checkbox"/>
Alive but referred to a lower dependency unit or clinic	<input type="checkbox"/>
Alive but referred to a higher level of care	<input type="checkbox"/>
Dead	<input type="checkbox"/>
205. Date of neonatal hospital discharge or date of death:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

204. Newborn status at hospital discharge

Place a 'X' next to the option that corresponds to the newborn status at discharge. Options: Alive; Alive but referred to a lower dependency unit or clinic; Alive but referred to a higher level of care; Dead.

Cross one box only.

205. Date of neonatal hospital discharge or date of death

If the infant is discharged from hospital (i.e. no longer requires any special care) but the mother remains in hospital/special care, the 'date of neonatal discharge' is the date that the infant leaves special care, even if it remains in hospital so as to be with the mother.

Enter the date of neonatal discharge or the date of neonatal death (whichever is appropriate) in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

Section 15: Nutritional practices

Section 15: Nutritional practices			
206. What was the main mode of feeding in the 24 hours prior to hospital discharge? (cross one box only)			
Exclusive breast milk	<input type="checkbox"/>	Combination feeding: Predominant breast milk	<input type="checkbox"/>
		Combination feeding: Partial breast milk	<input type="checkbox"/>
Exclusive formula	<input type="checkbox"/>		
No oral feeds: Intravenous (IV) fluids only	<input type="checkbox"/>		

206. What was the main mode of feeding in the 24 hours prior to hospital discharge?

Refer to the definitions below and place a 'X' next to the option that corresponds to the main mode of feeding in the 24 hours prior to hospital discharge.

If in the 24 hours prior to discharge the newborn received no breast milk or formula and was instead fed only intravenously, place a 'X' next to 'No oral feeds: Intravenous (IV) fluids only'.

Cross one box only.

Feeding practice	Requires that the infant receive:	Allows that the infant receive:	Does not allow the infant to receive:
Exclusive breast milk	Human breast milk (including milk expressed or from a wet nurse) as the sole source of nourishment	Oral Rehydration Solution (ORS), drops, syrups (vitamins, minerals, medicines)	Anything else (in particular, non-human milk, food-based fluids)
Predominant breastfeeding	Human breast milk (including milk expressed or from a wet nurse) as the predominant source of nourishment	Certain liquids (water and water-based drinks, fruit juice and ritual fluids, and ORS, drops, syrups (vitamins, minerals, medicines)	Anything else (in particular, non-human milk, food-based fluids)
Partial breast milk	Human breast milk (including milk expressed or from a wet nurse)	Any other liquids including non-human milk (formula) and water-based drinks/soups. ORS, drops, syrups (vitamins, minerals, medicines)	N/A
Exclusive formula	Infant formula (made from non-human milk) fed from a bottle with a nipple/teat as the sole source of nourishment. This includes all types of infant formula.	ORS, drops, syrups (vitamins, minerals, medicines)	Anything else (in particular breast milk)

Section 16: Maternal outcomes

Section 16: Maternal outcomes	
207. Was the mother admitted to intensive care or any special care unit after delivery?	<input type="checkbox"/> yes <input type="checkbox"/> no
208. If yes, total number of days: (if less than 24 hours, please enter as 1 day)	<input type="text"/> <input type="text"/>

207. Was the mother admitted to intensive care or any special care unit after delivery?

‘Special care’ is defined as any form of care that is non-routine following delivery. Do not include those who were kept in the recovery room following Caesarean section if this is the routine practice in your institution. Include those that gave birth in a high-risk delivery ward and were kept there following delivery for more than 2 hours.

Place a ‘X’ in the box marked ‘YES’ if the mother was admitted to any ‘special care’ after delivery. Continue to Question 208.

Place a ‘X’ in the box marked ‘NO’ if the mother continued with the routine postnatal procedure. Skip to Question 209.

208. If yes, total number of days

If the response to Question 208 was 'YES', enter the total number of days that the woman spent in special care, rounded up to the next whole day. For example, if the woman spent 1 day and 6 hours in special care, write '02' in the box.

209. Maternal status at hospital discharge: (cross one box only)	
Alive	<input type="checkbox"/>
Alive but referred to a higher level of care	<input type="checkbox"/>
Dead	<input type="checkbox"/>

209. Maternal status at hospital discharge

Place a 'X' next to the option that corresponds to the mother's status at discharge. Options: Alive; Alive but referred to a higher level of care; Dead.

Cross one box only.


****PLEASE CAREFULLY CHECK EACH PAGE FOR MISSING VALUES BEFORE SIGNING THE LAST PAGE AND PASSING THE FORM TO THE DATA MANAGEMENT UNIT FOR DATA ENTRY****

Neonatal Study Ultrasound Form (NSU)

IMPORTANT: This form should only be completed for women participating in the Neonatal Study (not the Fetal Study). A copy of this form should be completed retrospectively for every ultrasound examination carried out during the woman's pregnancy, regardless of where or by whom it was performed, as requested in Question 101 of the Pregnancy and Delivery Form.

All the information required for this form should be available in the medical records, having been obtained during the scan.

Form Header

 UNIVERSITY OF OXFORD	INTERBIO-21st Neonatal Study Neonatal Study Ultrasound Form		NSU Page <input type="text"/>
	INTERBIO-21 st PTID Number <input type="text" value="0"/> <input type="text" value="7"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Hospital/Clinic Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
AFFIX PTID LABEL HERE	Maternal Hospital Record No. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	Maternal Date of Birth <input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>		
	Date of Ultrasound <input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>		
Please answer all yes/no questions by placing a 'X' in the corresponding box			

INTERBIO-21st PTID Number: Affix one of the woman's assigned patient identifier (PTID) labels to the marked space. Also enter the number from the PTID label here (the first two digits correspond to your country and are pre-printed), ensuring that the two numbers match.

Hospital/Clinic Code: Enter the code that corresponds to the hospital or clinic where the woman received her routine ANC care and was screened for the study.

Maternal Hospital Record No.: This number is the hospital/clinic's own internal reference number for the woman; it can be used to help identify the woman and link the information on this form with her medical records.

Maternal Date of Birth: Enter the woman's date of birth in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'. Make every effort to obtain her date of birth in full. If, however, she knows only the year or month-and-year of her birth, enter this known information and replace the unknown details with 'xx'.

Date of Ultrasound: Enter the date of the ultrasound scan in question in the format dd-mm-yy, e.g. '20th May 2010' should be written '20-05-10'.

In cases where more than one NSU is to be completed, use the empty **Page** box in the top right hand corner to denote the chronological order of the forms (1 being the earliest, 2 being the next one after that, etc.).

Please answer all yes/no questions by placing a 'X' in the corresponding box.

Section 1: Ultrasound observations

Section 1: Ultrasound observations			
1. Are there any fetal abnormalities?		<input type="checkbox"/> yes <input type="checkbox"/> no	
If yes, please complete the Fetal Abnormality Form .			
2. Fetal presentation: (cross one box only)			
Cephalic	<input type="checkbox"/>	Transverse	<input type="checkbox"/>
Breech	<input type="checkbox"/>	Oblique	<input type="checkbox"/>
3. Amniotic fluid volume: (cross one box only)			
Normal	<input type="checkbox"/>	Moderately reduced	<input type="checkbox"/>
Moderately increased	<input type="checkbox"/>	Oligohydramnios	<input type="checkbox"/>
Polyhydramnios	<input type="checkbox"/>	Anhydramnios	<input type="checkbox"/>
4. Placental localisation: (cross one box only)			
Fundal	<input type="checkbox"/>	Low anterior	<input type="checkbox"/>
High anterior	<input type="checkbox"/>	Low posterior	<input type="checkbox"/>
High posterior	<input type="checkbox"/>	Low left lateral	<input type="checkbox"/>
High left lateral	<input type="checkbox"/>	Low right lateral	<input type="checkbox"/>
High right lateral	<input type="checkbox"/>		
5. Can the uterine cervix be visualised transabdominally?		<input type="checkbox"/> yes <input type="checkbox"/> no	
If yes, length:		<input type="text"/>	<input type="text"/> mm

Please refer to the **Ultrasound Handbook** for any clarification on measurement technique.

1. Are there any fetal abnormalities?

Place a 'X' in the box marked 'YES' if there is any evidence of congenital abnormality. Complete a **Fetal Abnormality Form** to provide further information.

Place a 'X' in the box marked 'NO' if there is no evidence of fetal abnormality.

2. Fetal presentation

Place a 'X' in the box that best corresponds to the fetal presentation. Cross one box only.

3. Amniotic fluid volume

Place a 'X' in the box that best corresponds to the amniotic fluid volume. Cross one box only.

4. Placental localisation

Place a 'X' in the box that best corresponds to the localisation of the placenta. Cross one box only.

5. Can the uterine cervix be visualised transabdominally?

Place a 'X' in the box marked 'YES' if the uterine cervix can be visualised by transabdominal ultrasound. In the corresponding boxes, enter the cervical length in millimetres (mm). Round up to the nearest mm.

Place a 'X' in the box marked 'NO' if the uterine cervix cannot be visualised. Continue to Question 6.

Section 2: Ultrasound measurements

Section 2: Ultrasound measurements	
6. Crown-rump length (CRL):	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> mm
7. Estimated gestational age by CRL:	<input type="text"/> <input type="text"/> weeks <input type="text"/> days
8. Biparietal diameter (BPD):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm
9. Occipito-frontal diameter (OFD):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm
10. Head circumference (HC):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm
11. Estimated gestational age by HC:	<input type="text"/> <input type="text"/> weeks <input type="text"/> days
12. Abdominal circumference (AC):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm
13. Femur length (FL):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm
14. Amniotic Fluid Index (AFI):	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> cm

6. Crown-rump length (CRL)

Enter the crown-rump length measurement, in millimetres (mm), to 1 decimal place.

Example: If the CRL is 59.8mm, write '059.8mm' in the box – do not round up to 60mm.

7. Estimated gestational age by CRL

Enter the estimated gestational age by CRL in completed weeks and days. This information is obtained from the ultrasound machine.

Example: If the estimated age by CRL is 80 days, write '11' weeks and '3' days.

8. Biparietal diameter (BPD)

Enter the biparietal diameter measurement, in centimetres (cm), to 2 decimal places.

9. Occipito-frontal diameter (OFD)

Enter the occipito-frontal diameter measurement, in centimetres (cm), to 2 decimal places.

10. Head circumference (HC)

Enter the head circumference measurement, in centimetres (cm), to 2 decimal places.

11. Estimated gestational age by HC

Enter the estimated gestational age by HC in completed weeks and days. This information is obtained from the ultrasound machine.

Example: If the estimated age by HC is 80 days, write '11' weeks and '3' days.

12. Abdominal circumference (AC)

Enter the abdominal circumference measurement, in centimetres (cm), to 2 decimal places.

13. Femur length (FL)

Enter the femur length measurement, in centimetres (cm), to 2 decimal places.

14. Amniotic Fluid Index (AFI)

Enter the Amniotic Fluid Index measurement (the summation of the deepest vertical pool depth in each of the four quadrants surrounding the fetus), in centimetres (cm), to 2 decimal places.

Section 3: Doppler examinations

Section 3: Doppler examinations			
15. Were the Uterine Doppler measurements obtained? <input type="checkbox"/> yes <input type="checkbox"/> no <i>If yes, continue to Question 16; if no, skip to Question 20.</i>		20. Were the Umbilical Doppler measurements obtained? <input type="checkbox"/> yes <input type="checkbox"/> no <i>If yes, continue to Question 21; if no, stop here.</i>	
Uterine arteries		Umbilical artery	
16. Notch?	LEFT artery <input type="checkbox"/> yes <input type="checkbox"/> no	RIGHT artery <input type="checkbox"/> yes <input type="checkbox"/> no	21. End diastolic flow: (cross one box only) Positive <input type="checkbox"/> Absent <input type="checkbox"/> Reversed <input type="checkbox"/>
17. Pulsatility index (PI):	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>	22. Pulsatility index (PI): <input type="text"/> . <input type="text"/>
18. Resistance index (RI):	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>	23. Resistance index (RI): <input type="text"/> . <input type="text"/>
19. Systolic/Diastolic (SD) ratio:	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>	24. Systolic/Diastolic (SD) ratio: <input type="text"/> . <input type="text"/>

15. Were the Uterine Doppler measurements obtained?

Place a 'X' in the box marked 'YES' if the Uterine Doppler measurements were obtained. Continue to Question 16.

Place a 'X' in the box marked 'NO' if the Uterine Doppler measurements were not obtained. Skip to Question 20.

For Questions 16 to 19, enter the measurements for the left and right uterine arteries in the corresponding boxes.

16. Notch?

Place a 'X' in the box marked 'YES' if notch was seen in the Doppler trace.

Place a 'X' in the box marked 'NO' if no notch was seen in the Doppler trace.

17. Pulsatility index (PI)

Enter the value of the pulsatility index for each uterine artery, to two decimal places.

18. Resistance index (RI)

Enter the value of the resistance index for each uterine artery, to two decimal places.

19. Systolic/Diastolic (SD) ratio

Enter the value of the systolic/diastolic ratio for each uterine artery, to two decimal places.

20. Were the Umbilical Doppler measurements obtained?

Place a 'X' in the box marked 'YES' if the Umbilical Doppler measurements were obtained. Continue to Question 21.

Place a 'X' in the box marked 'NO' if the Umbilical Doppler measurements were not obtained. **Stop here** – you do not need to complete the rest of the form.

For Questions 21 to 24, enter the measurements for the umbilical artery in the corresponding boxes. NB These measurements will only have been taken when the estimated gestational age is 24 weeks or above – below 24 weeks, this information will be missing.

21. End diastolic flow

Place a 'X' in the box which best describes the end diastolic flow. Cross one box only.

22. Pulsatility index (PI)

Enter the value of the pulsatility index for the umbilical artery, to two decimal places.

23. Resistance index (RI)

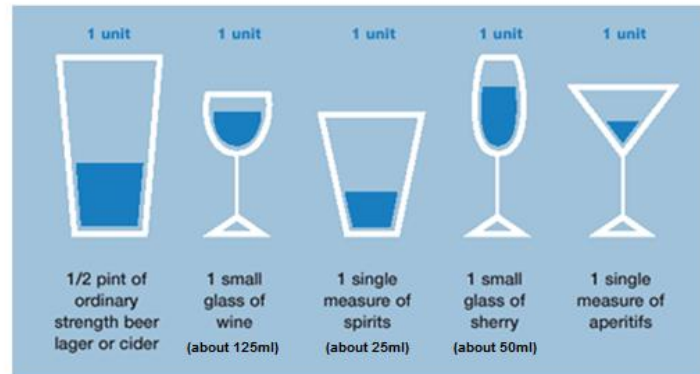
Enter the value of the resistance index for the umbilical artery, to two decimal places.

24. Systolic/Diastolic (SD) ratio

Enter the value of the systolic/diastolic ratio for the umbilical artery, to two decimal places.

Appendix 1. Supplementary Flip-chart

Units of Alcohol



Recreational Drugs

Heroin	Amphetamines (including ya ba and khat)	Benzodiazepines (including diazepam)
Methadone	Hallucinogens	Inhalants/Solvents
Crack/Cocaine	Cannabis	Any other recreational drug...

High-risk Activities

Frequent exposure to the following chemicals or toxic substances:	Physically demanding work:	High-risk sports/vigorous exercise:
Pesticides Lead or mercury Solvents Petrochemicals Anaesthetic gases Tetrachloroethylene	More than 7 hours standing per day More than 50 hours work per week Work involving heavy lifting or very awkward postures	Sports that involve a high risk of abdominal trauma, falls or excessive joint stress (e.g. martial arts, rugby, long-distance running or cycling, weight-lifting) Women planning to do 1 hour of vigorous exercise more than 4 times per week into the 2 nd half of pregnancy



Special Diets

Vegetarian with no animal products (vegan) None of the following: 	Gluten-free Diet No wheat, oats, barley or rye products (bread, pasta, breakfast cereals etc.)
Malabsorption Treatment 	Weight-loss Programme

Appendix 2. Occupational Classification Scheme

Manager/professional/technical

- ◆ Chief executives, senior officials and legislators and associated professionals;
- ◆ Administrative and commercial managers and associated professionals;
- ◆ Health professionals and associated professionals;
- ◆ Teaching professionals and associated professionals;
- ◆ Business and administration professionals and associated professionals;
- ◆ Information and communications technology professionals and technicians;
- ◆ Legal, social and cultural professionals;
- ◆ Production and specialised services managers;
- ◆ Hospitality, retail and other services managers;
- ◆ Science and engineering professionals.

Clerical support, service or sales

- ◆ General and keyboard clerks;
- ◆ Customer services clerks;
- ◆ Numerical and material recording clerks;
- ◆ Other clerical support workers;
- ◆ Service and sales workers;
- ◆ Personal service workers;
- ◆ Sales workers;
- ◆ Personal care workers e.g. care home worker;
- ◆ Protective services workers.

Housework (including child care/care of elderly relative)

Student

- ◆ School student;
- ◆ University student.

Skilled manual work

- ◆ Market-oriented skilled agricultural, forestry, fishing and hunting workers;
- ◆ Subsistence farmers, fishers, hunters and gatherers;
- ◆ Craft and related trades workers;
- ◆ Building and related trades workers, excluding electricians;
- ◆ Metal, machinery and related trades workers;
- ◆ Handicraft and printing workers;
- ◆ Electrical and electronic trades workers;
- ◆ Food processing, wood working, garment and other craft and related trade workers;
- ◆ Stationary plant and machine operators;
- ◆ Assemblers;
- ◆ Drivers and mobile plant operators.

Unskilled manual work

- ◆ Cleaners and helpers;
- ◆ Agricultural, forestry and fishery labourers;
- ◆ Labourers in mining, construction, manufacturing and transport;
- ◆ Food preparation assistants;
- ◆ Street and related sales and service workers;
- ◆ Refuse workers and other elementary workers.

Other

- ◆ Redundancy/unemployed.

Appendix 3. Definitions of Neonatal Morbidities

Birth asphyxia

Apgar score ≤ 5 or a continued need for resuscitation at 10 minutes;

OR

Acidosis (defined as any occurrence of umbilical-cord, arterial or capillary pH <7.00 or base deficit ≥ 16 mmol per litre) within 60 minutes after birth.

Moderate-to-severe encephalopathy (indicated by lethargy, stupor or coma) and either hypotonia, abnormal reflexes (including oculomotor or pupillary abnormalities), an absent or weak suck, or clinical seizures.

Abnormal background activity of at least 30 minutes' duration or seizures on amplitude-integrated electroencephalography.

Reference: Azzopardi, D.V., Strohm, B., Edwards, A.D., Dyet, L., Halliday, H.L., Juszczak, E., Kapellou, O., Levene, M., Marlow, N., Porter, E., Thoresen, M., Whitelaw, A., Brocklehurst, P., for the TOBY Study Group, 2009. Moderate Hypothermia to Treat Perinatal Asphyxial Encephalopathy. *N Engl J Med*, **361**, pp.1349-1358.

Respiratory distress syndrome (RDS)

An infant is determined to have respiratory distress syndrome if each of the following is true:

- Requires O₂ at 6 hours of life continuing to age 24 hours;
- Demonstrates clinical features within age 24 hours;
- Has need for respiratory support to age 24 hours;
- Has an abnormal chest x-ray within age 24 hours consistent with surfactant deficiency,

OR

Has received surfactant therapy within the first 24 hours of life.

Reference: Fanaroff, A.A., Stoll, B.J., Wright, L.L., Carlo, W.A., Ehrenkranz, R.A., Stark, A.R., Bauer, C.R., Donovan, E.F., Korones, S.B., Laptook, A.R., Lemons, J.A., Oh, W., Papile, L.-A., Shankaran, S., Stevenson, D.K., Tyson, J.E., Poole, W.K., NICHD Neonatal Research Network, 2007. Trends in neonatal morbidity and mortality for very low birthweight infants. *Am J Obstet Gynecol*, **196**(2), pp.147.e1-147.e8.

Transient tachypnea of the newborn (TTN)

TTN is a parenchymal lung disorder characterised by pulmonary oedema resulting from delayed resorption and clearance of fetal alveolar fluid.

The onset of TTN is usually at the time of birth and within two hours after delivery, with tachypnea being the most prominent clinical feature. Characteristic findings on a chest radiograph support the diagnosis and include increased lung volumes and prominent vascular markings, with fluid in the interlobar fissure. In order to make the diagnosis, other conditions (such as pneumonia, respiratory distress syndrome, pneumothorax, etc.) must be ruled out.

Symptoms of TTN usually last for 12 to 24 hours, but may persist as long as 72 hours in severe cases. Infants rarely require supplementary oxygen, but if required they usually respond to oxygen therapy. When oxygen is needed, usually concentrations less than 40% are sufficient to achieve adequate oxygenation.

Reference: Gugliani, L., Lakshminrusimha, S., Ryan, R.M., 2008. Transient Tachypnea of the Newborn. *Pediatr Rev*, **29**(11), pp.e59-e65.

Apnea of prematurity

Clinically significant apnea in infants is defined as breathing pauses that last for >20 seconds or for >10 seconds if associated with bradycardia (e.g. <80 beats per minute) or oxygen desaturation (e.g. O₂ saturation of $<80-85\%$).

Reference: Finer, N.N., Higgins, R., Kattwinkel, J., Martin, R.J., 2006. Summary Proceedings from the Apnea-of-Prematurity Group. *Pediatrics*, **117**, pp.S47-S51.

Bronchopulmonary dysplasia (BPD)

Chronic supplementary oxygen needs for >28 days (28 days oxygen need-based BPD);
OR

Chronic supplementary oxygen needs at either postmenstrual age (PMA) 36 weeks or discharge from hospital, whichever comes first (36 weeks oxygen need-based BPD).

Reference: Lavoie, P.M., Pham, C., Jang, K.L., 2008. Heritability of Bronchopulmonary Dysplasia, Defined According to the Consensus Statement of the National Institutes of Health. *Pediatrics*, **122**(3), pp.479-485.

Pneumothorax*

A pneumothorax is air or gas in the pleural space. A generalised pneumothorax results when a whole hemithorax contains air; a localised pneumothorax occurs when the visceral and parietal pleurae have become adherent.

A pneumothorax may be spontaneous, the result of trauma, or the result of other pathological processes.

Reference: *General Practice Notebook* [online]. Available from: <http://www.gpnotebook.co.uk/> [Accessed 26 October 2011].

Meconium aspiration syndrome

Meconium aspiration syndrome (MAS) is defined as respiratory distress in an infant born through meconium-stained amniotic fluid (MSAF), whose symptoms cannot otherwise be explained. This disorder may be life threatening, complicated by respiratory failure, pulmonary air leaks and persistent pulmonary hypertension.

Reference: Fanaroff, A.A., 2008. Meconium aspiration syndrome: historical aspects. *J Perinatol*, **28**, pp.S3-S7.

Retinopathy of prematurity (ROP)

A developmental vascular retinopathy occurs only in the incompletely vascularised retina of premature infants, leading to a wide range of outcomes from normal vision to blindness. For a diagnosis of ROP to be documented we need a confirmed diagnosis by an ophthalmologist in the notes, according to the staging criteria below:

Stage 1: Demarcation line separating the avascular retina anteriorly from the vascularised retina posteriorly, with abnormal branching of small vessels immediately posterior.

Stage 2: Intraretinal ridge; the demarcation line has increased in volume, but proliferative tissue remains intraretinal.

Stage 3: Ridge with extraretinal fibrovascular proliferation.

Stage 4: Partial retinal detachment.

Stage 5: Total retinal detachment.

References: (1) Gole, G.A., Ells, A.L., Katz, X., Holmstrom, G., Fielder, A.R., Capone Jr, A., Flynn, J.T., Good, W.G., Holmes, J.M., McNamara, J.A., Palmer, E.A., Quinn, G.E., Shapiro, M.J., Trese, M.G.J., Wallace, D.K., 2005. The international classification of retinopathy of prematurity revisited. *Arch Ophthalmol*, **123**(7), pp.991-999.

(2) Subhani, M., Combs, A., Weber, P., Gerontis, C., DeCristofaro J.D., 2001. Screening Guidelines for Retinopathy of Prematurity: The Need for Revision in Extremely Low Birth Weight Infants. *Pediatrics*, **107**(4), pp.656-659.

Hypoxic-ischaemic encephalopathy (HIE)

Hypoxic-ischaemic encephalopathy (HIE) of the newborn is a clinically defined syndrome of disturbed neurological function in the earliest days of life in the term infant, manifested by difficulty with initiating and maintaining respiration, depression of tone and reflexes, sub-normal level of consciousness and often seizures.

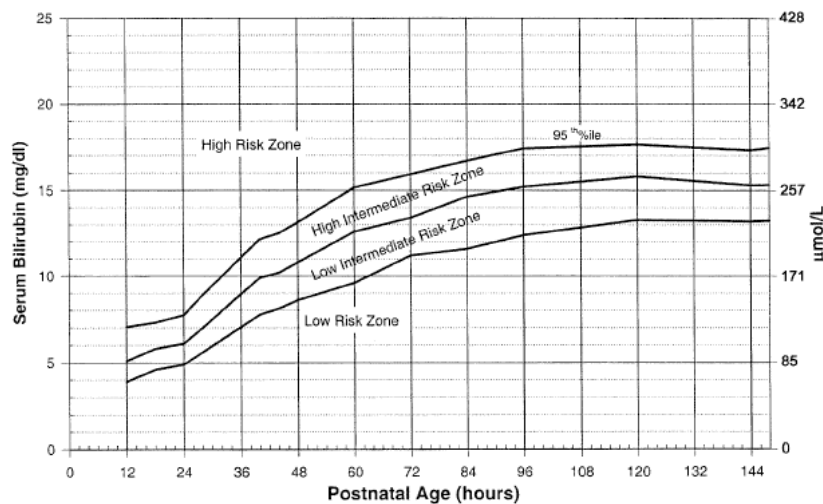
Reference: Nelson, K.B., Leviton, A., 1991. How Much of Neonatal Encephalopathy Is due to Birth Asphyxia? *Am J Dis Child*, **145**(11), pp.1325-1331.

Hyperbilirubinaemia

Moderate and severe hyperbilirubinemia:

We should accept the categorisation of hyperbilirubinemia based on clinical criteria and documented laboratory evidence of elevated serum bilirubin as per the following American Academy of Pediatrics (AAP) criteria, which represent objective criteria.

The AAP designed a nomogram in which serum bilirubin is plotted against the age in hours, labeling a newborn as being low-, intermediate- or high-risk (see below).



Acute bilirubin encephalopathy:

A clinical syndrome in the presence of severe hyperbilirubinemia, of lethargy, hypotonia and poor suck, which may progress to hypertonia (with opisthotonus and retrocollis) with a high-pitched cry and fever and eventually to seizures and coma.

Chronic bilirubin encephalopathy:

The clinical sequelae of acute bilirubin encephalopathy with athetoid cerebral palsy with or without seizures, developmental delay, hearing deficit, oculomotor disturbances, dental dysplasia and mental deficiency.

References: (1) Subcommittee O. Hyperbilirubinemia, 2004. Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation. *Pediatrics*, **114**(1), pp.297-316.

(2) Fetus and Newborn Committee, Canadian Pediatric Society, 2007. Guidelines for detection, management and prevention of hyperbilirubinemia in term and late preterm newborn infants (35 or more weeks' gestation). *Pediatr Child Health*, **12**(Suppl B), pp.:1B-12B.

TORCH or any other intrauterine infection

Physician-led diagnosis of a confirmed non-bacterial intrauterine or congenital viral infection.

Neonatal sepsis

Neonatal sepsis is a clinical syndrome of systemic illness accompanied by bacteremia occurring in the first month of life.

Late onset sepsis is defined as 1 or more positive blood cultures obtained after 3 days of age from infants with clinical features of sepsis.

Since culture-positive sepsis is relatively rare, a physician-documented episode of sepsis would suffice.

References: (1) Gomella, T.L., 2004. Infectious disease. In: *Neonatology: Management, Procedures, On-Call Problems, Diseases and Drugs*. 5th ed. New York: McGraw Hill, pp.434-440.

(2) Karlowicz, M.G., Buescher, E.S., Surka, A.E., 2000. Fulminant Late-Onset Sepsis in a Neonatal Intensive Care Unit, 1988-1997, and the Impact of Avoiding Empiric Vancomycin Therapy. *Pediatrics*, **106**(6), pp.1387-1390.

Fetal infection*

Physician-led diagnosis of a confirmed infection of the fetus before birth, not otherwise captured by other options in this list.

Fetal inflammatory response syndrome (FIRS)*

FIRS is a condition characterised by systemic inflammation and an elevation of fetal plasma interleukin-6. This syndrome has been observed in fetuses with preterm labour with intact membranes, prelabour premature rupture of membranes (PPROM), and also fetal viral infections such as cytomegalovirus. FIRS is a risk factor for short-term perinatal morbidity and mortality after adjustment for gestational age at delivery and also for the development of long-term sequelae such as bronchopulmonary dysplasia and brain injury.

Reference: Gotsch, F., Romero, R., Kusanovic, J.P., Mazaki-Tovi, S., Pineles, B.L., Erez, O., Espinoza, J., Hassan, S.S., 2007. The Fetal Inflammatory Response Syndrome. *Clinical Obstetrics and Gynecology*, **50**(3), pp.652-683.

Seizures*

Seizures are episodes during which there is disturbance of the function of the brain, which may be manifested as abnormality of motor activity, behaviour, sensation, consciousness or of autonomic function.

The term is often used synonymously with epilepsy; however, it has a more diverse aetiology and the clinician should refrain from diagnosing a first seizure as epilepsy.

Reference: *General Practice Notebook* [online]. Available from: <http://www.gpnotebook.co.uk/> [Accessed 26 October 2011].

Necrotising enterocolitis (NEC)

A diagnosis and staging of Necrotising enterocolitis (NEC) should be based on a clinical documentation by treating clinician based on the following criteria:

Stage 1: Suspected

- *History of perinatal stress;
- *Systemic signs of ill health: temperature instability, lethargy, apnea;
- *Gastrointestinal manifestations: poor feeding, increased volume of gastric aspirates, vomiting, mild abdominal distension, faecal occult blood (no fissure).

Stage 2: Confirmed

- Any of the features of Stage 1 plus:
 - *Persistent occult, or gross gastrointestinal bleeding, marked abdominal distension;
 - *Abdominal radiograph: intestinal distension, bowel wall oedema, unchanging bowel loops, pneumatosis intestinalis, portal vein gas.

Stage 3: Advanced

- Any of features of Stages 1 or 2 plus:
 - *Deterioration in vital signs, evidence of shock or severe sepsis, or marked gastrointestinal haemorrhage;
 - *Abdominal radiograph shows any of features of stage 2 plus pneumoperitoneum.

Reference: Robertson, R., 1999. Gastrointestinal disorder. In: *Robertson's Textbook of Neonatology*. 3rd ed. London: Churchill Livingstone, p.752.

Meningitis*

Meningitis describes an inflammation of membranes that surround the brain (pia mater, arachnoid and the interposed cerebro spinal fluid). The inflammation may spread around the brain, spinal cord and the ventricles through the subarachnoid space. As such it represents a manifestation of a variety of diseases with varying severity.

Meningitis can be (i) bacterial – positive CSF Gram stain and positive CSF bacterial with an increased polymorphonuclear leucocytes in the CSF; (ii) aseptic – no evidence of pyogenic bacterial infection on Gram's stain or culture and usually accompanied by a mononuclear leucocytes in CSF (aseptic meningitis could be viral or non-viral).

Reference: *General Practice Notebook* [online]. Available from: <http://www.gpnotebook.co.uk/> [Accessed 26 October 2011].

Hypoglycaemia

A normal range for neonatal hypoglycaemia has not been properly defined, and there is controversy over safe blood glucose concentration. The World Health Organization designates a blood glucose "operational threshold" <2.6 mmol/L or <46.8 mg/dl as requiring treatment and makes no distinction between preterm and term infants.

Reference: Division of Child Health and Development and Maternal and Newborn Health/Safe Motherhood, World Health Organization, 1997. *Hypoglycaemia of the Newborn: Review of the Literature*. Geneva: World Health Organization.

Anaemia (requiring transfusion)

There is no consensus on definition of anaemia of prematurity. Shown below are the criteria for transfusion taken from a US and Canadian collaborative study; patients were transfused with packed red blood cells at 15ml/kg, administered in 2-3 hours.

TABLE 1. Transfusion Criteria

-
- A) Hct 31%–35%
Receiving >35% supplemental hood oxygen
Intubated on CPAP or mechanical ventilation with mean airway pressure >6–8 cm H₂O
- B) Hct 21%–30%
Receiving <35% supplemental hood oxygen
On CPAP or mechanical ventilation with mean airway pressure <6 cm H₂O
Significant apnea and bradycardia (>9 episodes in 12 h or 2 episodes in 24 h requiring bag and mask ventilation) while receiving therapeutic doses of methylxantines
Heart rate >180 beats/min or respiratory rate >80 breaths/min persisting for 24 h
Weight gain <10 g/d observed over 4 d while receiving >100 kcal/kg/d
Undergoing surgery
- C) Hct <21%
Asymptomatic with reticulocytes <1%
- D) Transfuse at any hematocrit value if hypovolemic shock develops
- E) Do not transfuse
To replace blood removed for laboratory tests
For low Hct alone
-

CPAP indicates continuous positive airway pressure; Hct, hematocrit.

Table 1 adapted from: Donato, H., Vain, N., Rendo, P., Vivas, N., Prudent, L., Larguía, M., Digregorio, J., Vecchiarelli, C., Valverde, R., García, C., Subotovsky, P., Solana, C., Gorenstein, A., for the Private Hospitals Neonatal Network, 2000. Effect of Early Versus Late Administration of Human Recombinant Erythropoietin on Transfusion Requirements in Premature Infants: Results of a Randomized, Placebo-Controlled, Multicenter Trial. *Pediatrics*, **105**(5), pp.1066-1072.

Hypotension in neonates

Hypotension is a blood pressure (BP) >2 standard deviations below normal for age. For infants who are <30 weeks' gestation, a mnemonic that is helpful in remembering BP is that the mean BP should be at least the same number as gestational age. For example, a 23 week infant should have a mean BP of 23 mmHg.

Reference: Gomella, T.L., 2004. Hypotension and shock. In: *Neonatology: Management, Procedures, On-Call Problems, Diseases and Drugs*. 5th ed. New York: McGraw Hill, pp.434-440.

Intraventricular haemorrhage (IVH)

A diagnosis of IVH should be based on a documentation of IVH based on ultrasonographic findings conducted by a qualified ultrasonographer/ultrasonologist.

Intraventricular haemorrhage is graded by the classification of Papile et al on ultrasonographic examination as follows:

Grade 1: Blood in the periventricular germinal matrix regions or germinal matrix haemorrhage.

Grade 2: Blood within the lateral ventricular system without ventricular dilatation.

Grade 3: Blood acutely distends the lateral ventricles.

Grade 4: Blood within ventricular system and parenchyma.

Reference: Papile, L.-A., Burstein, J., Burstein, R., Koffler, H., 1978. Incidence and evolution of subependymal and intraventricular hemorrhage: A study of infants with birth weights less than 1,500 gm. *J Pediatr*, **92**(4), pp.529-534.

Periventricular leukomalacia

Damage to the deep white matter (WM) in the centrum semiovale is the main characteristic feature of PVL. The damage may vary from punctuated areas of haemorrhage & necrosis to more extensive injuries including cystic changes, scarring, hypomyelination/demyelination and even haemorrhagic infarction of the white matter.

Reference: De Vries, L.S., Eken, P., Dubowitz, L.M.S., 1992. The spectrum of leukomalacia using cranial ultrasound. *Behav Brain Res*, **49**(1), pp.1-6.

Polycythaemia

Polycythaemia in a term infant is the presence of a venous haematocrit more than 65% or a venous haemoglobin concentration in excess of 22 g/dl.

Reference: Phibbs, R.H., 1997. Neonatal polycythemia. *In: A.M. Rudolph ed. Rudolph's Pediatrics*. 16th ed. New York: Appleton Century Crofts.

Patent ductus arteriosus*

The ductus arteriosus is a normal vascular channel during intrauterine life. It is a large vessel with a muscular wall which courses between the pulmonary artery and the aorta.

The ductus arteriosus normally closes within the first 48 hours of life. If it remains patent longer than this it is unlikely to close spontaneously. The exception is in premature babies where closure should occur within 3 months.

A persistently patent ductus is a common congenital heart lesion, occurring either singly or in combination with other defects.

It is more common in (i) girls than in boys, (ii) congenital rubella syndrome, and (iii) premature babies.

Reference: *General Practice Notebook* [online]. Available from: <http://www.gpnotebook.co.uk/> [Accessed 26 October 2011].

Inborn error of metabolism

Inborn errors of metabolism comprise a large class of genetic diseases involving disorders of metabolism. The majority are due to defects of single genes that code for enzymes that facilitate conversion of various substances (substrate) into others (products). In most of the disorders, problems arise due to accumulation of substances which are toxic or interfere with normal function, or to the effects of reduced ability to synthesise essential compounds. Inborn errors of metabolism are now often referred to as congenital metabolic diseases or inherited metabolic diseases, and these terms are considered synonymous.

Reference: Scriver, C., Beaudet, A.L., Valle, D., Sly, W.S., Vogestein, B., Kinzler, K.W., 2001. *The Online Metabolic & Molecular Bases of Inherited Disease*. New York: McGraw Hill.

**Definitions marked with an asterisk are provisional and will be confirmed or refined by members of the study Neonatal Group.*

Appendix 4. Country-specific Socio-economic Question (DEV Q15)

It is important in this study to gain an accurate and useful illustration of the socio-economic backgrounds of the participating women. To this end, Question 15 on your version of the Pregnancy and Delivery Form has been designed specifically for your country. Where available, content has been drawn from past national surveys, under the guidance of Prof. Cesar Victora, Professor of Epidemiology at the Federal University of Pelotas, Brazil.

You will probably need to ask this question directly to the woman – this information will most likely not be kept in her medical records. For guidance on the specific content relevant to your study site, please see the sub-section for your country below.

UK (Oxford)

Source: Avon Longitudinal Study of Parents and Children (ALSPAC), questionnaire given at 33 months: 'Your Health Events and Feelings'. [Accessed 26 October 2011].

<http://www.bristol.ac.uk/alspac/documents/ques-m08-your-health-events-and-feelings.pdf>

15. On average, about how much is the take-home family income each week (include social benefits etc.)?

15. On average, about how much is the take-home family income each week (include social benefits etc.)? (cross one box only)			
Less than £100	<input type="checkbox"/>	£300 - £399	<input type="checkbox"/>
£100 - £199	<input type="checkbox"/>	£400 or more	<input type="checkbox"/>
£200 - £299	<input type="checkbox"/>		

07 UK.

Place a 'X' next to the one option that corresponds to the total weekly amount of take-home income for the woman's whole household.

Include (i) earnings after tax, (ii) any social benefits or jobseeker's allowance received, (iii) any pension received, and (iv) any other source of income, including rentals.

Cross one box only.

Brazil (Pelotas)

In Brazil, Question 15 comprises 8 parts (i-viii).

i. How much income did the members of the woman's household earn during the past month?

i. No mês passado, quanto receberam as pessoas da casa?									
Pessoa 1:	R\$	<input type="text"/> <input type="text"/>	, <input type="text"/> <input type="text"/>	/ mês	Pessoa 3:	R\$	<input type="text"/> <input type="text"/>	, <input type="text"/> <input type="text"/>	/ mês
Pessoa 2:	R\$	<input type="text"/> <input type="text"/>	, <input type="text"/> <input type="text"/>	/ mês	Outro:	R\$	<input type="text"/> <input type="text"/>	, <input type="text"/> <input type="text"/>	/ mês
A família tem outra fonte de renda?				<input type="checkbox"/> sim <input type="checkbox"/> não	Se sim, quanto: R\$ <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> / mês				

01 Brazil.

For each member of the woman's household currently in work, enter the total amount earned after tax during the last calendar month, in Brazilian real. Do not include sources of income other than occupation-related earnings.

Does the woman's household have any other source of income? If yes, how much?

Place a 'X' in the box marked 'YES' if anybody in the woman's household has another source of income other than occupation-related earnings, and enter the total income from all other sources in the box provided. Include (i) any social benefits or jobseeker's allowance received, (ii) any pension received, and (iii) any other source of income, including rentals.

Place a 'X' in the box marked 'NO' if nobody in the woman's household has a source of income other than occupation-related earnings.

ii. Does the woman's household have or own any of the following

ii. Na casa na qual a mulher mora existem qualquer um dos seguintes itens:

Microcomputador	<input type="checkbox"/> yes <input type="checkbox"/> no	Freezer ou geladeira duplex	<input type="checkbox"/> yes <input type="checkbox"/> no	Telefone fixo? (convencional)	<input type="checkbox"/> yes <input type="checkbox"/> no
Aspirador de pó	<input type="checkbox"/> yes <input type="checkbox"/> no	Forno de microondas	<input type="checkbox"/> yes <input type="checkbox"/> no	Máquina de lavar roupa?	<input type="checkbox"/> yes <input type="checkbox"/> no
Geladeira	<input type="checkbox"/> yes <input type="checkbox"/> no	Videocassete ou DVD	<input type="checkbox"/> yes <input type="checkbox"/> no	(não considerar tanquinho)	
Rádio	<input type="checkbox"/> yes <input type="checkbox"/> no	Se sim, quantos?	<input type="text"/>		
Televisão preto e branco	<input type="checkbox"/> yes <input type="checkbox"/> no	Se sim, quantas?	<input type="text"/>		
Televisão colorida	<input type="checkbox"/> yes <input type="checkbox"/> no	Se sim, quantas?	<input type="text"/>		
Automóvel (somente de uso particular)	<input type="checkbox"/> yes <input type="checkbox"/> no	Se sim, quantos?	<input type="text"/>		
Aparelho de ar condicionado	<input type="checkbox"/> yes <input type="checkbox"/> no	Se sim, quantos?	<input type="text"/>		(se ar condicionado central, marque o número de cômodos servidos)

01 Brazil

For each possession or household feature:

Ask the woman whether she or her household has/owns that possession.

Place a 'X' in the box marked 'YES' if the woman or her household has or owns that possession or household feature.

Place a 'X' in the box marked 'NO' if the woman or her household does not have or own that possession or household feature.

Personal computer

Vacuum cleaner

Refrigerator

Freezer

Microwave oven

VHS or DVD player

Telephone

Washing machine

For the remaining 5 possessions or household features, repeat this process but also enter the number owned in the box provided:

Radio

Black-and-white television

Colour television

Car (for private use)

Air conditioner – If the woman’s house has central air conditioning, specify the number of rooms which are air conditioned.

iii. Number of people living in the woman’s household

iii. Número total de pessoas vivendo na mesma casa da mulher:		TOTAL	<input type="text"/>	<input type="text"/>		
Número para cada:	Marido/companheiro da mulher	<input type="text"/>	<input type="text"/>	Outros filhos da mulher	<input type="text"/>	<input type="text"/>
	Outros familiares	<input type="text"/>	<input type="text"/>	Outras pessoas (não familiares)	<input type="text"/>	<input type="text"/>

01 Brazil.

In the box marked ‘TOTAL’, enter the number of people who currently live together in the woman’s home.

In the other boxes, enter the number of these who are:

(Top left) **A husband or partner of the woman**

(Top right) **The woman’s children**

(Bottom left) **Other family members**

(Bottom right) **Other people who are not related to the woman**

iv. Number of rooms used for sleeping in the woman’s household

iv. Número de peças utilizadas para dormir na casa da mulher:	<input type="text"/>	<input type="text"/>
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01 Brazil.

Enter the number of rooms in the woman’s home in which members of her household sleep at night.

v. Number of bathrooms in the woman’s household

v. Número de banheiros na casa da mulher:	<input type="text"/>	<input type="text"/>
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01 Brazil.

Enter the number of bathrooms in the woman’s home.

vi. Highest school grade completed

vi. Até que série a mulher completou na escola?	Série	<input type="text"/>	<input type="text"/>	Grau	<input type="text"/>	<input type="text"/>
	Se cursou nível superior, a mulher completou a faculdade?				yes	no

01 Brazil.

Enter the highest school year and/or grade that the woman has completed.

If the woman attended higher education, did she complete college?

Place a 'X' in the box marked 'YES' if the woman attended higher education and completed college.

Place a 'X' in the box marked 'NO' if the woman attended higher education but did not complete college.

vii. Highest school grade completed by the head of the family

vii. Até que série o chefe da família completou na escola?	Série	<input type="text"/>	<input type="text"/>	Grau	<input type="text"/>	<input type="text"/>
	Se cursou nível superior, o chefe da família completou a faculdade?				yes	no

01 Brazil.

Enter the highest school year or grade that the person considered to be the head of the woman's family has completed.

If the head of the family attended higher education, did they complete college?

Place a 'X' in the box marked 'YES' if the head of the woman's family attended higher education and completed college.

Place a 'X' in the box marked 'NO' if the head of the woman's family attended higher education but did not complete college.

viii. How does the woman classify herself in terms of colour/race?

viii. Como a mulher se classifica em termos de cor ou raça?									
Branca	<input type="checkbox"/>	Negra	<input type="checkbox"/>	Morena ou Parda	<input type="checkbox"/>	Amarela ou Asiática	<input type="checkbox"/>	Indígena	<input type="checkbox"/>

01 Brazil.

Place a 'X' next to the option that best reflects the mother's ethnic origin (in her opinion).

Options: White; Black; Brown; Yellow/Asian; Indigenous.

Cross one box only.

Other sites

Sources: (1) Kenya National Bureau of Statistics (KNBS) and ICF Macro. 2010. *Kenya Demographic and Health Survey 2008-09*. Calverton, Maryland: KNBS and ICF Macro.

(2) National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. *Pakistan Demographic and Health Survey, 2006-07*. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.

(3) Department of Health, Medical Research Council, OrcMacro. 2007. *South Africa Demographic and Health Survey 2003*. Pretoria: Department of Health.

(4) Thailand National Statistical Office. 2006. *Thailand Multiple Indicator Cluster Survey December 2005- February 2006, Final Report*. Bangkok, Thailand: National Statistical Office.

In each of the 5 other sites, Question 15 takes a similar form, comprising several parts. For South Africa there are 9 parts (A-I); for the Kenyan sites (Kilifi and Nairobi), Thailand and Pakistan there are 10 parts (A-J).

A. Does the woman's household have or own any of the following

A. Does the woman's household have or own any of the following:											
Electricity	<input type="checkbox"/>	<input type="checkbox"/>	Cell phone	<input type="checkbox"/>	<input type="checkbox"/>	Bicycle	<input type="checkbox"/>	<input type="checkbox"/>			
Radio	<input type="checkbox"/>	<input type="checkbox"/>	Personal computer	<input type="checkbox"/>	<input type="checkbox"/>	Motorcycle/Scooter	<input type="checkbox"/>	<input type="checkbox"/>			
Television	<input type="checkbox"/>	<input type="checkbox"/>	Farm animals	<input type="checkbox"/>	<input type="checkbox"/>	Car/Truck/Tractor	<input type="checkbox"/>	<input type="checkbox"/>			
Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>	Agricultural land	<input type="checkbox"/>	<input type="checkbox"/>						

05 Nairobi, Kenya; 10 Kilifi, Kenya; 11 Thailand; 13 Pakistan; 14 South Africa.

For each possession or household feature:

Ask the woman whether she or her household has/owns that possession.

Place a 'X' in the box marked 'YES' if the woman or her household has or owns that possession or household feature.

Place a 'X' in the box marked 'NO' if the woman or her household does not have or own that possession or household feature.

Electricity

Radio

Television

Refrigerator

Cell phone

Personal computer

Farm animals – past national surveys have specifically asked about the following animals:

Kilifi/Nairobi (Kenya): Cattle, cows, bulls, horses, donkeys, mules, goats, sheep or chickens.

Pakistan: Cows, bulls, buffalo, camels, horses, donkeys, mules, goats, sheep or chickens.

South Africa/Thailand: No specifically defined list.

Agricultural land

Bicycle

Motorcycle/Scooter

Car/Truck/Tractor

B. Number of people living in the woman's household

B. Number of people living in the woman's household:

05 Nairobi, Kenya; 10 Kilifi, Kenya; 11 Thailand; 13 Pakistan; 14 South Africa.

Enter the number of people who currently live together in the woman's home.

C. Number of rooms used for sleeping in the woman's household

C. Number of rooms used for sleeping in the woman's household:

05 Nairobi, Kenya; 10 Kilifi, Kenya; 11 Thailand; 13 Pakistan; 14 South Africa.

Enter the number of rooms in the woman's home in which members of her household sleep at night.

D. Main fuel used for cooking in the woman's household

D. Main fuel used for cooking in the woman's household: (cross one box only)

Electricity	<input type="checkbox"/>	Coal/Lignite	<input type="checkbox"/>	Agricultural crop	<input type="checkbox"/>
Liquid propane gas (LPG)	<input type="checkbox"/>	Charcoal	<input type="checkbox"/>	Other	<input type="checkbox"/>
Natural gas	<input type="checkbox"/>	Wood	<input type="checkbox"/>	No cooking	<input type="checkbox"/>
Kerosene	<input type="checkbox"/>	Straw/shrubs/grass	<input type="checkbox"/>		

05 Nairobi, Kenya; 10 Kilifi, Kenya.

D. Main fuel used for cooking in the woman's household: (cross one box only)

Electricity	<input type="checkbox"/>	Coal/Lignite	<input type="checkbox"/>	Agricultural crop	<input type="checkbox"/>
Liquid propane gas (LPG)	<input type="checkbox"/>	Charcoal	<input type="checkbox"/>	Animal dung	<input type="checkbox"/>
Biogas	<input type="checkbox"/>	Wood	<input type="checkbox"/>	Other	<input type="checkbox"/>
Kerosene	<input type="checkbox"/>	Straw/shrubs/grass	<input type="checkbox"/>	No cooking	<input type="checkbox"/>

11 Thailand.

D. Main fuel used for cooking in the woman's household: (cross one box only)

Electricity	<input type="checkbox"/>	Charcoal	<input type="checkbox"/>	Animal dung	<input type="checkbox"/>
Liquid propane gas (LPG)	<input type="checkbox"/>	Wood	<input type="checkbox"/>	Other	<input type="checkbox"/>
Natural gas	<input type="checkbox"/>	Straw/shrubs/grass	<input type="checkbox"/>	No cooking	<input type="checkbox"/>
Biogas	<input type="checkbox"/>	Agricultural crop	<input type="checkbox"/>		

13 Pakistan.

D. Main fuel used for cooking in the woman's household: (cross one box only)

Electricity	<input type="checkbox"/>	Kerosene	<input type="checkbox"/>	Animal dung	<input type="checkbox"/>
Liquid propane gas (LPG)	<input type="checkbox"/>	Charcoal	<input type="checkbox"/>	Other	<input type="checkbox"/>
Natural gas	<input type="checkbox"/>	Wood	<input type="checkbox"/>	No cooking	<input type="checkbox"/>
Biogas	<input type="checkbox"/>	Straw/shrubs/grass	<input type="checkbox"/>		

14 South Africa.

Ask the woman about the main fuel that is used for cooking in her household.

Place a 'X' next to the one option that best indicates the main fuel used for cooking by members of the woman's household. If more than one type of fuel is used for cooking, select the one which is used most often.

Cross one box only.

For this question, slightly different lists of fuels apply to each site – see form screenshots above.

E. Main source of drinking water in the woman's household

E. Main source of drinking water in the woman's household: (cross one box only, unless selecting 'Bottled water' - see below)

Bottled water (if so, please <u>also</u> cross the box corresponding to the main source for cooking/washing)	<input type="checkbox"/>		<input type="checkbox"/>
Piped water into dwelling	<input type="checkbox"/>	Tubewell/borehole	<input type="checkbox"/>
Piped water into yard/plot	<input type="checkbox"/>	Tanker truck/Cart with small tank	<input type="checkbox"/>
Protected dug well	<input type="checkbox"/>	Unprotected dug well	<input type="checkbox"/>
Protected spring	<input type="checkbox"/>	Unprotected spring	<input type="checkbox"/>
Rainwater	<input type="checkbox"/>	Surface water	<input type="checkbox"/>
Public tap/standpipe	<input type="checkbox"/>	Other	<input type="checkbox"/>

05 Nairobi, Kenya; 10 Kilifi, Kenya; 11 Thailand.

E. Main source of drinking water in the woman's household: (cross one box only, unless selecting 'Bottled water' - see below)

Bottled water (if so, please <u>also</u> cross the box corresponding to the main source for cooking/washing)	<input type="checkbox"/>		<input type="checkbox"/>
Piped water into dwelling	<input type="checkbox"/>	Tubewell/borehole/handpump	<input type="checkbox"/>
Piped water into yard/plot	<input type="checkbox"/>	Tanker truck/Cart with small tank	<input type="checkbox"/>
Protected dug well	<input type="checkbox"/>	Unprotected dug well	<input type="checkbox"/>
Protected spring/karez	<input type="checkbox"/>	Unprotected spring	<input type="checkbox"/>
Rainwater	<input type="checkbox"/>	Surface water	<input type="checkbox"/>
Public tap/standpipe	<input type="checkbox"/>	Other	<input type="checkbox"/>

13 Pakistan.

E. Main source of drinking water in the woman's household: (cross one box only, unless selecting 'Bottled water' - see below)

Bottled water (if so, please <u>also</u> cross the box corresponding to the main source for cooking/washing)	<input type="checkbox"/>		<input type="checkbox"/>
Piped water into dwelling	<input type="checkbox"/>	Tanker truck/Cart with small tank	<input type="checkbox"/>
Piped water into yard/plot	<input type="checkbox"/>	Unprotected dug well	<input type="checkbox"/>
Protected dug well	<input type="checkbox"/>	Unprotected spring	<input type="checkbox"/>
Protected spring	<input type="checkbox"/>	Surface water	<input type="checkbox"/>
Rainwater	<input type="checkbox"/>	Other	<input type="checkbox"/>
Public tap/standpipe	<input type="checkbox"/>		

14 South Africa.

Ask the woman about where her household get their drinking water.

Place a 'X' next to the one option that best indicates the main source of drinking water for members of the woman's household. If more than one water source is used, select the one which is used most often.

If she says 'a well', try to ascertain whether it is a hand-dug well or a tubewell/borehole (more often drilled – *not applicable in South Africa*). If hand-dug, is it protected or unprotected?

If she says 'a spring', try to ascertain whether it is protected or unprotected.

'Surface water' includes any river, stream, pond, lake, pool/stagnant water or dammed water supply.

Cross one box only.

EXCEPTION: If the main household source of drinking water is bottled water, ask the woman about where her household get the water they use for cooking and washing; place a cross next to this option as well. *This is the only instance in which more than one option should be crossed.* If the water source for cooking or washing is also 'bottled water', no further boxes need to be crossed.

For this question, slightly different lists of water sources apply to each site – see form screenshots above.

F. Type of toilet facility in the woman's household

F. Type of toilet facility in the woman's household: (cross one box only)			
Flush/pour flush to piped sewer system	<input type="checkbox"/>	Pit latrine without slab or open pit	<input type="checkbox"/>
Flush/pour flush to septic tank	<input type="checkbox"/>	Composting toilet	<input type="checkbox"/>
Flush/pour flush to pit latrine	<input type="checkbox"/>	Bucket	<input type="checkbox"/>
Flush/pour flush not to sewer/septic tank/pit latrine	<input type="checkbox"/>	Hanging toilet/hanging latrine	<input type="checkbox"/>
Ventilated improved pit (VIP) latrine	<input type="checkbox"/>	No facility or bush or field	<input type="checkbox"/>
Pit latrine with slab	<input type="checkbox"/>	Other	<input type="checkbox"/>

05 Nairobi, Kenya; 10 Kilifi, Kenya.

F. Type of toilet facility in the woman's household: (cross one box only)			
Flush/pour flush to piped sewer system	<input type="checkbox"/>	Pit latrine with slab	<input type="checkbox"/>
Flush/pour flush to septic tank	<input type="checkbox"/>	Pit latrine without slab or open pit	<input type="checkbox"/>
Flush/pour flush to pit latrine	<input type="checkbox"/>	No facility or bush or field	<input type="checkbox"/>
Flush/pour flush not to sewer/septic tank/pit latrine	<input type="checkbox"/>	Other	<input type="checkbox"/>

11 Thailand.

F. Type of toilet facility in the woman's household: (cross one box only)			
Flush/pour flush to piped sewer system	<input type="checkbox"/>	Pit latrine without slab or open pit	<input type="checkbox"/>
Flush/pour flush to septic tank	<input type="checkbox"/>	Bucket	<input type="checkbox"/>
Flush/pour flush to pit latrine	<input type="checkbox"/>	Hanging toilet/hanging latrine	<input type="checkbox"/>
Flush/pour flush not to sewer/septic tank/pit latrine	<input type="checkbox"/>	No facility or bush or field	<input type="checkbox"/>
Ventilated improved pit (VIP) latrine	<input type="checkbox"/>	Other	<input type="checkbox"/>
Pit latrine with slab	<input type="checkbox"/>		

13 Pakistan.

F. Type of toilet facility in the woman's household: (cross one box only)			
Flush to piped sewer system	<input type="checkbox"/>	Ventilated improved pit (VIP) latrine	<input type="checkbox"/>
Flush to septic tank	<input type="checkbox"/>	No facility or bush or field	<input type="checkbox"/>
Traditional pit toilet	<input type="checkbox"/>	Other	<input type="checkbox"/>

14 South Africa.

Ask the woman about the type of toilet facility available to members of her household.

Place a 'X' next to the one option that best indicates the type of toilet facility used in the woman's household.

Cross one box only.

For this question, slightly different lists of toilet facilities apply to each site – see form screenshots above.

Definitions of different flush/pour flush facilities:

Flush/pour flush to piped sewer system: Flush/pour flush toilets with treatment system and treated water overflowing to sewage system without having to empty the content. This type of toilet is mostly found in condominiums, apartments or sky-scrapers.

Flush/pour flush to septic tank: Flush/pour flush toilets that keep all excreta in a septic tank without an overflow system for water or solid waste. When the tank is full, it needs to be emptied by suction truck, and the tank may be located inside or outside the house. This type of toilet is mostly found in houses.

Flush/pour flush to pit latrine: Flush/pour flush toilets that flush all excreta to a pit, allowing water and excreta to seep into the ground. Sometimes when the pit is full, it has to be emptied by suction truck or manually.

G. Is the toilet facility shared with other households?

G. Is the toilet facility shared with other households?	<input type="checkbox"/> yes	<input type="checkbox"/> no
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05 Nairobi, Kenya; 10 Kilifi, Kenya; 11 Thailand; 13 Pakistan; 14 South Africa.

Place a 'X' in the box marked 'YES' if the toilet facility selected in Part F is shared with other households.

Place a 'X' in the box marked 'NO' if the toilet facility selected in Part F is not shared with other households.

H. Main flooring material in the woman's household

H. Main flooring material in the woman's household: (cross one box only)					
Earth/sand/mud	<input type="checkbox"/>	Parquet or finished wood	<input type="checkbox"/>	Carpet	<input type="checkbox"/>
Dung	<input type="checkbox"/>	Vinyl or asphalt strips	<input type="checkbox"/>	Other	<input type="checkbox"/>
Wood planks	<input type="checkbox"/>	Cement	<input type="checkbox"/>		
Palm/bamboo	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>		

05 Nairobi, Kenya; 10 Kilifi, Kenya.

H. Main flooring material in the woman's household: (cross one box only)					
Earth/sand/mud	<input type="checkbox"/>	Vinyl or asphalt strips	<input type="checkbox"/>	Carpet	<input type="checkbox"/>
Wood planks	<input type="checkbox"/>	Cement	<input type="checkbox"/>	Marble	<input type="checkbox"/>
Palm/bamboo	<input type="checkbox"/>	Polished cement (with stone pieces)	<input type="checkbox"/>	Other	<input type="checkbox"/>
Parquet or finished wood	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>		

11 Thailand.

H. Main flooring material in the woman's household: (cross one box only)					
Earth/sand/mud	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>	Marble	<input type="checkbox"/>
Chips/terrazo	<input type="checkbox"/>	Bricks	<input type="checkbox"/>	Other	<input type="checkbox"/>
Cement	<input type="checkbox"/>	Carpet	<input type="checkbox"/>		

13 Pakistan.

H. Main flooring material in the woman's household: (cross one box only)					
Earth/sand/mud	<input type="checkbox"/>	Vinyl/linoleum	<input type="checkbox"/>	Carpet	<input type="checkbox"/>
Wood planks	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>	Other	<input type="checkbox"/>
Parquet or finished wood	<input type="checkbox"/>	Cement	<input type="checkbox"/>		

14 South Africa.

Ask the woman about the material used for flooring in her household.

Place a 'X' next to the one option that best indicates the main material used for flooring in the woman's household. If more than one type of material is used for flooring, select the one which makes up most of the flooring.

Cross one box only.

For this question, slightly different lists of flooring materials apply to each site – see form screenshots above.

I. Main wall material in the woman's household

I. Main wall material in the woman's household: (cross one box only)					
No walls	<input type="checkbox"/>	Plywood	<input type="checkbox"/>	Cement blocks	<input type="checkbox"/>
Cane/palm/trunks	<input type="checkbox"/>	Cardboard	<input type="checkbox"/>	Covered adobe	<input type="checkbox"/>
Dirt	<input type="checkbox"/>	Reused wood	<input type="checkbox"/>	Wood planks/shingles	<input type="checkbox"/>
Bamboo/sticks with mud	<input type="checkbox"/>	Cement	<input type="checkbox"/>	Other	<input type="checkbox"/>
Stone with mud	<input type="checkbox"/>	Stone with lime/cement	<input type="checkbox"/>		
Uncovered adobe	<input type="checkbox"/>	Bricks	<input type="checkbox"/>		

05 Nairobi, Kenya; 10 Kilifi, Kenya.

I. Main wall material in the woman's household: (cross one box only)					
No walls	<input type="checkbox"/>	Bamboo	<input type="checkbox"/>	Zinc	<input type="checkbox"/>
Cane/palm/trunks	<input type="checkbox"/>	Cement	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>
Dirt	<input type="checkbox"/>	Stone with lime/cement	<input type="checkbox"/>	Sheara	<input type="checkbox"/>
Plywood	<input type="checkbox"/>	Bricks	<input type="checkbox"/>	Other	<input type="checkbox"/>
Carton	<input type="checkbox"/>	Cement blocks	<input type="checkbox"/>		
Reused wood	<input type="checkbox"/>	Wood planks/shingles	<input type="checkbox"/>		

11 Thailand.

I. Main wall material in the woman's household: (cross one box only)					
No walls	<input type="checkbox"/>	Unbaked bricks with mud	<input type="checkbox"/>	Baked bricks	<input type="checkbox"/>
Bamboo/sticks with mud	<input type="checkbox"/>	Cement	<input type="checkbox"/>	Cement blocks	<input type="checkbox"/>
Stone with mud	<input type="checkbox"/>	Stone blocks	<input type="checkbox"/>	Other	<input type="checkbox"/>

13 Pakistan.

I. Main wall material in the woman's household: (cross one box only)					
No walls	<input type="checkbox"/>	Mud and cement	<input type="checkbox"/>	Bare brick or cement block	<input type="checkbox"/>
Plastic/cardboard	<input type="checkbox"/>	Corrugated iron/zinc	<input type="checkbox"/>	Plaster/finished	<input type="checkbox"/>
Mud	<input type="checkbox"/>	Prefab	<input type="checkbox"/>	Other	<input type="checkbox"/>

14 South Africa.

Ask the woman about the material that makes up the walls in her household.

Place a 'X' next to the one option that best indicates the main material used for walls in the woman's household. If more than one type of material is used for walls, select the one which makes up most of the walls.

For this question, slightly different lists of wall materials apply to each site – see form screenshots above.

J. Main roof material in the woman's household

J. Main roof material in the woman's household: (cross one box only)					
No roof	<input type="checkbox"/>	Corrugated iron (mabati)	<input type="checkbox"/>	Concrete	<input type="checkbox"/>
Grass/thatch/makuti	<input type="checkbox"/>	Tin cans	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>
Dung/mud	<input type="checkbox"/>	Asbestos sheet	<input type="checkbox"/>	Other	<input type="checkbox"/>

05 Nairobi, Kenya; 10 Kilifi, Kenya.

J. Main roof material in the woman's household: (cross one box only)					
No roof	<input type="checkbox"/>	Wood planks	<input type="checkbox"/>	Cement	<input type="checkbox"/>
Thatch/palm leaf	<input type="checkbox"/>	Metal	<input type="checkbox"/>	Roofing shingles	<input type="checkbox"/>
Sod	<input type="checkbox"/>	Calamine/cement fibre	<input type="checkbox"/>	Other	<input type="checkbox"/>
Palm/bamboo	<input type="checkbox"/>	Ceramic tiles	<input type="checkbox"/>		

11 Thailand.

J. Main roof material in the woman's household: (cross one box only)					
No roof	<input type="checkbox"/>	Reinforced brick cement/reinforced concrete cement	<input type="checkbox"/>		
Thatch/palm leaf	<input type="checkbox"/>	T-iron/wood/brick	<input type="checkbox"/>	Other	<input type="checkbox"/>
Iron sheets/asbestos	<input type="checkbox"/>				

13 Pakistan.

Ask the woman about the material used for roofing in her household.

Place a 'X' next to the one option that best indicates the main material used for roofing in the woman's household. If more than one type of material is used for roofing, select the one which makes up most of the roof.

Cross one box only.

For this question, slightly different lists of roof materials apply to each site – see form screenshots above.