## WELCOME TO

## $1^{\text {st }}$ <br> Contact Booklet Data Coding

Entries in red denote variable names and value coding used in the analysis dataset.

Entries in blue denote variable names and value coding used in the raw data, where this differs from the dataset.

This document was created on 7 March 2007 and last updated in March 2024.

## Notes:

1. The layout and formatting of the booklet have been somewhat modified in order to accommodate annotations of variable names and value codes However, the wording of questions and responses is unchanged and page numbers have been retained.
2. This document shows item variables, not derived variables; however, in some cases the item variables have been recoded or restructured from the raw data, and annotations show where this has been done.
3. As shown, variable names in the raw data are rather arbitrary and these have been changed to more descriptive names in the dataset variables.
4. In many cases, the value coding in the raw data is the same as that in the dataset, in which case the coding is shown in the red font only.
5. In other cases, the value coding in the raw data differs from the coding in the dataset, in which case the raw data variable/coding is shown in blue in addition to the dataset variable/coding shown in red.
6. In the cleaned raw data, a 'missing' response is coded as -99 and 'not applicable' is coded as -77. These values apply universally and are not shown for individual variables. However, in the analysis dataset these are all recoded to missing values.
7. The booklet contained many text-response questions. Some of these were entered in the original electronic raw data and others were not entered. For most questions, the text data were only entered for the 1996 cohort and part of the 1995 cohort (data entry by NOP); but the text data were not entered for the 1994 cohort and the first part of the 1995 cohort (data entry within TEDS). Where entered, the original verbatim text responses have now been coded into numeric variables. This coding is indicated within this document, where the questions occur, and with full coding given in the Appendix at the end of this document.
8. This booklet contains some twin-specific items, where the parents are asked questions about the elder and younger twins separately. In the analysis dataset, all twin-specific items are double-entered with a row of data for every twin. Here, variable name suffixes "1" and "2" refer respectively to twin and cotwin, not to elder and younger twin.
9. In other twin questions, raw responses for the twin pair were gathered using coding such as $0=$ neither twin, $1=e l d e r$ twin, $2=y o u n g e r$ twin, 3=both twins. Such responses have been recoded to separate twin variables in the dataset.
10. The paper booklet had date fields on eight of the pages, as shown. The raw dates as originally recorded had problems of missing data and anomalies. These dates have been cleaned and aggregated into a single best-estimate date, replacing the original dates in the cleaned raw data. The date fields for this date are shown at the top of the first main page of questions (You and Your Twins section, page 1).
11. Date variables are not retained in the dataset but have been used to derive ages.
12. "Don't know" and "not applicable" types of raw category response are all recoded to missing in the dataset.

## CONSENT FORM

If you and your family would like to be part of TEDS it is important that you sign this form. As in all research, we can only involve you if you sign.

When you sign the form, you are agreeing to fill out this booklet as best you can.

```
Text details on this page have not been retained in the raw data. Where
appropriate, contact details were transferred into the TEDS admin database at
the time of data collection.
```


## Your Name

## Relationship to the twins (eg. mother, guardian etc)

## Your address



## Your telephone number

YES, I agree to myself and my family taking part in TEDS, Twins' Early Development Study. I understand that we can withdraw from the study at any time, and that all information will be kept strictly confidential.

| Signature |  | Today's Date | ................./....... (Day/Month/Year) |
| :---: | :---: | :---: | :---: |
| sc05 |  |  |  |
| 1=signed, | not signed |  |  |

Thank you for agreeing to fill out this booklet. Before you start, here are a few instructions which we would like you to read.

## HOW TO FILL IN THIS BOOKLET

There are no right or wrong answers to any of the questions we ask. Every child has a differen way of developing, and this is a big part of what interests us. Please be as honest as you can when answering our questions. Everything you tell us will be kept strictly confidential.

Please try to answer all the questions you are asked. It is very important that the booklets are completed as fully as possible, so that we can get a full picture of your twins.

We realise that parents of twins are very busy, so don't feel that you have to answer all ou questions on the same day. However, please date the pages at the top.

It would be helpful if you would write as clearly possible.

## Here is an example of how a question could be answered.

Most of the questions in this booklet will ask you to tick a box next to the answer that is mos suitable. Some will also ask you to describe this answer in more detail, for example:

## Are there differences in the colour of your twins' eyes?

(PLEASE TICK ONE)

## None <br> Only slight difference Clear difference

If there is a difference, please describe:

This means that there is a slight difference in your twins' eye colour: one of the twins has darke blue eyes than the other.

TODAY'S DATE ......../......./19....... (Day/Month/Year)
booklet_dd, booklet_mm, booklet_yyyy (dd, mm and yyyy date fields)
As explained above, this is a best estimate of the date when the booklet was completed by the parent, replacing multiple date fields in the original raw data.

## YOU AND YOUR TWINS

## ABOUT YOU

Names and contact details on this page are not retained in the raw data. Where appropriate, contact details were transferred into the TEDS admin database at the time of data collection.

## First name <br> Last name

Male
Female
(respondent sex was not retained here, because the question is repeated in the About You section on page 9)

## Address

## Telephone number

Do you have a relative or friend?
(in case you move or we are unable to contact you)

Their first name
Their last name

## Address

## Telephone number

## Relationship to you

## FIRST BORN TWIN



## SECOND BORN TWIN



TODAY'S DATE ......../......./19....... (Day/Month/Year)
(If a date was originally recorded here, it has been used to estimate the booklet date shown on page 1.)

# YOUR TWINS DAY TO DAY 

1) Are you a member of a Twins' Club? atwclub dd01YES 1 NO 0

## Why/why not? (PLEASE DESCRIBE)

(text responses were not entered here and are not in the data)

## FEEDING

This initial twin-pair raw item is recoded into individual twin dataset items based on the responses in the questions that follow.
2) Were your twins ever breastfed? abrstfed1/2 dd03

YES 1
NO 0
Original responses below in terms of months, weeks and days were converted into total numbers of days in the raw data.

| If YES, for how long? dd04 (days) | 1st born ... Months ... Weeks ...Days |
| :--- | :--- | :--- |
| dd05 (days) | 2nd born ... Months ...Weeks ...Days |

abrstfdd1/2: days coded into categories:
$0=0,1=1-7$ (week), $2=8-30$ (month), $3=31-60$ (2 months), 4=61-180 (6 months),
$5=181-360$ ( 1 year), $6=361$ or more (over a year)
If NO, were they fed breast milk by bottle/cup? dd0 6
$\square$ YES, 1st born $1 \quad \square$ YES, 2nd born $2 \quad \square$ YES, both twins $3 \quad \square$ NO 0
abotfed1/2: 1=yes, $0=$ no
If YES, for how long? dd07 (days) 1st born ...Months ...Weeks ...Days
dd08 (days) 2nd born ...Months ...Weeks ...Days
abotfdd1/2: days coded into the same categories as abrstfd1/2 above
3) Who feeds your twins apart from you? (PLEASE TICK ALL THAT APPLY)

The other parent of the twins aparfeed dd09 1=yes 0=no
Other relatives arelfeed dd10 1=yes 0=no
Friends afrndfee dd11 1=yes 0=no
Professional carers (eg. nanny) aproffee dd12 1=yes 0=no
Anyone else? (PLEASE DESCRIBE)
(text responses were not entered here and are not in the data)
4) How often do others feed your twins? (PLEASE TICK ONE FOR EACH)

Daily dd14 Never 1 Once 2 2-3 times 3 More than 3 times 4
Weekly dd15 Never 1 Once 2 2-3 times 3 More than 3 times 4
Two raw variables combined in a single dataset variable.
aothfeedf: $0=$ never, $1=0$ nce a week, $2=2-3$ times a week, $3=0 v e r 3$ times a week, $4=$ once a day, 5=2-3 times a day, 6=over 3 times a day.
5) Is either twin a fussy eater? dd16

YES, 1st born $1 \quad \square$ YES, 2nd born 2
$\square$ YES, both twins 3
$\square \mathrm{NO} 0$
afussy1/2: 1=yes $0=$ no

If NO, how long do you leave between feeding them? ...Hours ...Minutes dd18 (minutes)
Combined into a single dataset category variable:
afeedgap: $0=$ fed together (gap less than 5 minutes),
1=5-15 minute gap, $2=16-59$ minute gap, $3=60$ minutes or more gap

## DRESSING

7) Do you usually try to dress your twins as similarly as possible?
(PLEASE TICK ONE) adressim dd19
$\square$ YES 1
NO 0

If NO, please go on to question 9
If YES, why is this? (PLEASE TICK ALL THAT APPLY)

| I like them to match | dd20 | adsmatch | $1=$ yes $0=$ no |
| :--- | :--- | :--- | :--- |
| They like to look the same | dd21 | adslike | $1=$ yes $0=$ no |
| It's easier to dress them the same | dd22 | adseasy | $1=$ yes $0=$ no |
| It's cheaper to dress them the same | dd23 | adscheap | $1=$ yes $0=$ no |
| I have been given matching clothes | dd24 | adsgiven | $1=$ yes $0=$ no |

Any other reason? (PLEASE DESCRIBE)
(text responses were not entered here and are not in the data)
8) Is it possible to tell your twins apart by one aspect of the way they dress? (for example, labels, certain colours, hairstyles) adresdif dd26YES 1NO 0

## SLEEPING

9) Do your twins share a room at night? asharerm dd27YES 1
NO 0
10) Do your twins have a regular sleeping pattern? dd28
$\square$ YES, 1st born 1
aslpreg1/2: 1=yes $0=$ no
11) 


$\square$ YES, 1st born $1 \quad \square$ YES, 2nd born $2 \quad \square$ NO 0
12) If one twin wakes up and is crying, does the other twin wake up? dd30
(PLEASE TICK ONE) aslpwake (recoded to ordinal values)
$\square$ YES
12NO 00Sometimes 21
13) $\qquad$ (PLEASE TICK ALL THAT APPLY)

| One parent | abed1par | dd31 | $1=y e s \quad 0=$ no |
| :--- | :--- | :--- | :--- |
| Both parents | abed2par | dd32 | $1=y e s \quad 0=$ no |
| Other relatives | abedrel | dd33 | $1=y e s \quad 0=$ no |
| Friends | abedfrnd | dd34 | $1=y e s \quad 0=$ no |
| Professional carer (eg. nanny) | abedprof | dd35 | $1=y e s \quad 0=$ no |
| Anyone else? (PLEASE DESCRIBE) |  |  |  |
| (text responses were not entered here and are not in the data) |  |  |  |

CARE
14)

Have you started working or studying since the birth of your twins? dd37 awork $\square$ YES, full-time $1 \quad \square$ YES, part-time $2 \square$ NO 0
If YES, how old were the twins when you began working or studying?
...Months ...Weeks ...Days dd38 (days, integer)
aworkdd categories: $1=1$ ess than 3 months, $2=3-5$ months, $3=5-7$
months, $4=7-12$ months, $5=12-18$ months, $6=0$ ver 18 months
15)

Do you ever leave your twins to be looked after by other people?

| Other parent | alookpar | dd39 | $1=y e s ~ 0=$ no |
| :--- | :--- | :--- | :--- |
| Other relatives | alookrel | dd40 | $1=$ yes $0=$ no |
| Friends | alookfrn | dd41 | $1=$ yes $0=$ no |
| Professional carer (eg. nanny) | alookpro | dd42 | $1=$ yes $0=$ no |
| Anyone else? | alookels | dd43 | $1=$ yes $0=$ no |

If you ticked any of the above, how many hours in a usual week do you leave them
for? ...Hours dd44 (hours, decimal)
alookh categories: 1=1 hour or less, 2=1-2, 3=2-4,
$4=4-10,5=10-20,6=20-40,7=$ over 40 (hours per week)
16)

How many hours per week does each twin usually spend alone with you?
1st born ... Hours dd45 (hours, decimal)
2nd born ... Hours dd46 (hours, decimal)
aaloneh1/2 categories: $0=0$, $1=u p$ to $1,2=1-2,3=2-6$, $4=6-20$, $5=20-40$, $6=$ over 40 (hours per week)
17)

Are your twins ever separated for more than half an hour? aapart dd47
YES $1 \quad \square$ NO 0

## OTHER SIBLINGS

Raw variables have free numeric values.
18) How many other children live in the home with your twins?

Younger (male) dd48 anyngmsi Older (male) dd49 anoldmsi
Younger (female) dd50 anyngfsi Older (female) dd51 anoldfsi
anyngsib anoldsib Total (M+F)
Dataset variables are categorized for higher numbers:
anyngmsi, anyngfsi, anyngsib: $0=0,1=1,2=2$ or more.
anoldmsi, anoldfsi: $0=0,1=1,2=2,3=3,4=4$ or more. anoldsib: $0=0,1=1,2=2,3=3,4=4,5=5$ or more.
19) Please tell us about the younger children in the home:

Young sibling details were originally entered below, including names, sexes, birth dates and relationships to the twins. These were used to update the TEDS admin system at the time of the study. These details have not been retained in the $1^{\text {st }}$ Contact raw data, and have now been deleted from the admin system for reasons of privacy.
Child's name(s) Date of birth (Day/Month/Year) $\square$ Boy $\square$ Girl

| Does this child have the same parents as the twins? |  |
| :--- | :--- |
| $\square$ both parents the same $\quad \square$ one parent the same $\square$ no parent the same <br> Child's name(s) $\square$ Date of birth (Day/Month/Year)$\quad \square$ Boy $\square$ Girl |  |

Does this child have the same parents as the twins?
both parents the same $\quad \square$ one parent the same
$\square$ no parent the same
IF THERE ARE MORE THAN TWO YOUNGER CHILDREN, PLEASE TELL US ABOUT THEM ON THE
BACK PAGE OF THIS BOOKLET AND TICK THIS BOX:

Older sibling details were originally entered below, including names, sexes, birth dates and relationships to the twins. These were used to update the TEDS admin system at the time of the study (but now been deleted from the admin system for reasons of privacy). Birth dates and parentage are retained in the raw data for the purpose of deriving the mother's age at the birth of her eldest child, but are not preserved as variables in the dataset.

Child's name(s) $\quad$| Date of birth ................... (Day/Month/Year) $\quad \square$ Boy $\square$ Girl |
| :--- |
| dd59dd/dd59mm/dd59yy |

## Does this child have the same parents as the twins? dd61

$\square$ both parents the same 1one parent the same 2
$\square$ no parent the same 0
Child's name(s) $\quad \begin{aligned} & \text { Date of birth .................. (Day/Month/Year) } \\ & \text { dd62dd/dd62mm/dd62yy (dd/mm/yy) } \\ & \text { Boy } \square\end{aligned}$ Girl dd62dd/dd62mm/dd62yy (dd/mm/yy)

## Does this child have the same parents as the twins? dd64

$\square$ both parents the same 1one parent the same 2no parent the same 0
 dd65dd/dd65mm/dd65yy (dd/mm/yy)

## Does this child have the same parents as the twins? dd67

$\square$ both parents the same $1 \quad \square$ one parent the same $2 \quad \square$ no parent the same 0

> IF THERE ARE MORE THAN THREE OLDER CHILDREN, PLEASE TELL US ABOUT THEM ON THE BACK PAGE OF THIS BOOKLET AND TICK THIS BOX: $\square$
21) Did you notice any changes in the older child/ren straight after the twins were born? asibch dd69 $\square$ YES $1 \quad \square$ NO 0

If YES, please describe:
(text responses were not entered here and are not in the data)

## 22) <br> Did/do you try to include the older child/ren in the care of the twins? <br> asibcare dd71 YES 1 <br> NO 0


24) Do you regularly spend time alone with the older children?
asibalon
dd73
YES 1
NO 0
25) Did other people seem to pay more attention to the twins than to the older child/ren after the twins were born? asibatt dd74

## YES 1

NO 0
If YES, did you try to do anything about it?
(text responses were not entered here and are not in the data)
26) Is the mother of the twins pregnant? (PLEASE TICK ONE)
apreg
dd76
YES 1 NO 0

If YES, when is the baby (not retained in raw data) expected to be born?
27) Is there anything else you would like to tell us about your family?
(text responses were not entered here and are not in the data)
(If a date was originally recorded here, it has been used to estimate the booklet date shown on page 1.)

## YOUR TWINS: IDENTICAL OR NON-IDENTICAL?

PLEASE NOTE: NON IDENTICAL TWINS ARE OFTEN CALLED FRATERNAL TWINS
IF YOUR TWINS ARE OF OPPOSITE SEX, PLEASE TURN TO PAGE 9.
28) Have you ever been told by a health professional (for example doctor, nurse, consultant) that your twins are identical or non-identical? azyprof in01

YES, identical 11
YES, non-identical 22
NO 0
If YES, why did they think this? text responses were coded into numeric category codes: inO2code azyprofc (see appendix for coding)
29) Do you think your twins are identical or non identical? azyyou in03
$\square$ Identical $1 \quad \square$ Non-identical 2
Why do you think this? text responses were coded into numeric category
codes: in04code azyyouc (see appendix for coding)

## PHYSICAL DIFFERENCES

30) 

Are there differences in the shade of your twins' hair? azyhairs in05
None 1
Only slight difference 2
Clear difference 3
If there is a difference, please describe:
(text responses were not entered here and are not in the data)
31) Are there differences in the texture of your twins' hair (fine or coarse, straight or curly etc.)? azyhairt in07

None $1 \quad \square$ Only slight difference 2
Clear difference 3
If there is a difference, please describe:
(text responses were not entered here and are not in the data)
32) Are there differences in the colour of your twins' eyes? azyeyes in09
$\square$ None $1 \quad \square$ Only slight difference $2 \quad \square$ Clear difference 3
If there is a difference, please describe:
(text responses were not entered here and are not in the data)
33) Are there differences in the shape of your twins' ear lobes? azyears in11None 1
Only slight difference 2
Clear difference 3
If there is a difference, please describe:
(text responses were not entered here and are not in the data)
34)

| Did the twins' teeth begin to come through at about the same time? |  |  |  |
| :--- | :--- | :--- | :--- |
| azyteeth in13 (also recoded into azyteetr as shown) | azyteetr |  |  |
| 1 | 1 | The twins had matching teeth on the same side come through within | 1 |

35) Do your twins look at all different? (PLEASE DESCRIBE) (text responses were not entered here and are not in the data)
36) Do you know of any physical differences between your twins that are not clear from looking at them (eg. differences in internal organs)? azyphysi in15

## YES 1

NO 0
If YES, please describe:
(text responses were not entered here and are not in the data)
37) Do you know your twins' ABO blood group and Rhesus (Rh) factors? azyblood in17
$\square$ YES $1 \quad \square$ NO 0
If YES, are they: (PLEASE TICK A BLOOD GROUP AND RHESUS FACTOR FOR EACH TWIN)
1st born in18: $\square \mathrm{A}_{1} \square \mathrm{~B}_{2} \square \mathrm{AB} 3 \quad \square \mathrm{O}_{4}$
in19: $\square$ Rh+1 $\square$ Rh- 2
2nd born in20: $\square A_{1} \square \mathrm{~B}_{2} \square \mathrm{AB} 3 \quad \square \mathrm{O}_{4}$
in21: $\square$ Rh+1 $\square$ Rh-2
Recoded into twin pair 'difference' dataset variables,
coded $0=$ no (same), 1=yes (different).
azytyp: different blood groups ( $A / B / A B / O$ )
azyfac: different rhesus factor (Rh+/Rh-)
38) If there are differences between your twins, are they because of anything like problems at birth; an accident; or illness? azyprobs in22
YES 12 NO 01 Don't Know 2 There are no differences 30

If YES, please describe:
(text responses were not entered here and are not in the data)
39) As your twins have grown older, has the likeness between them:
azygrow in24
$\square$ Remained the same $1 \quad \square$ Become less $2 \quad \square$ Become more 3
Also recoded into ordinal variable azyold: $1=$ more, $2=$ same, $3=1$ ess

## TELLING THE TWINS APART

40) 

How do you tell the twins apart? (PLEASE DESCRIBE)
(text responses were not entered here and are not in the data)
41) How do other members of your family tell them apart? (PLEASE DESCRIBE)
(text responses were not entered here and are not in the data)
42) When looking at a new photograph of your twins, can you tell them apart (without looking at their clothes or using any other clues)?
azyphoto in27
Also recoded into azyphotr:
azyphotr
$\square$ YES, easily 1 3
$\square$ YES, but it is hard sometimes 2 2
$\square$ NO, I often confuse them in photographs 0 1
43) Do any of the following people ever mistake your twins for each other?

Other parent of the twins azymistp in28YES, often 1YES, sometimes 2
Rarely or never 3
No other parent 4
Other relatives azymistr in 30
$\square$ YES, oftenYES, sometimesRarely or never

Parents' close friends azymistf in32
YES, oftenYES, sometimesRarely or never

Older brothers or sisters azymists in29
1Rarely or never 3No older brothers or sisters 4
Babysitter/day carer azymistb in31
YES, often 1
$2 \square$ YES, sometimes 2
$3 \quad \square$ Rarely or never 3
$\square$ No babysitter/day carer 4
Parents' casual friends azymistc in33
$\square$ YES, often
$\square$ YES, sometimes
$\square$ Rarely or never

## People meeting the twins for the first

 time azymistm in34YES, oftenYES, sometimesRarely or never
44) $\qquad$ are together? azytoget in35Yes, often 1Yes, sometimes 2No, almost never 3They are not mistaken for one another 4
45) Would you say that your twins: azypeas in 36are as physically alike as "two peas in a pod" (virtually the same) 1are as physically alike as brothers and sisters are 2do not look very much alike at all 3

TODAY'S DATE ................/19....... (Day/Month/Year)
(If a date was originally recorded here, it has been used to estimate the booklet date shown on page 1.)

# INFORMATION ABOUT THE ADULTS IN THE HOME 

## ABOUT YOU

| First name | (names were used at the time of data |
| :---: | :---: |
| Last name | admin information, but are not retained in the raw data) |
| arespsex | ia01 $\quad \square$ Male $1 \quad \square$ Female 0 |

Relationship to the twins aresprel ia02
(dataset codes for guardian and other combined because these are rare)
Natural mother of Natural father of the Legal guardian of the twins 33
the twins 11 twins 22
Other 43 (PLEASE DESCRIBE) (any text response originally given here has been coded into the responses above)

```
Date of birth
ia04dd/ia04mm/ia04yy (day/month/year)
(birth date not in dataset but is used to derive ages)
(Day/Month/Year)
Date of birth
``` \(\qquad\)
```

ia04dd/ia04mm/ia04yy (day/month/year)

```
46) What educational qualifications do you have?

Recoded into highest qualification level:
No qualifications
CSE (Grade 2, 3, 4, 5) or GSCE (D, E, F, G)
CSE (Grade 1) or 'O'level (A, B, C) or GSCE (A, B, C)
aresphqual
‘A'level, 'S'level
Higher National Certificate (HNC)
Higher National Diploma (HND)
Undergraduate degree
```

Postgraduate qualification (eg Masters, PhD)
PLEASE DESCRIBE: *

```
    Other ia14 1=yes 0=no
PLEASE DESCRIBE: *
(* text not retained: responses were coded into the numeric categories above)
47)

Do you currently have a job? arespjob ia16
\(\square\) YES \(1 \quad \square\) NO \(0 \quad \square\) Staying at home to look after the children 2
If YES, please continue, if NO, or staying at home to look after the children please go to question 51
48) What is your FULL job title?
```

(text responses are not retained in the data, but were coded into the
categories shown below at the time of data entry)
arespsoc ia17a 1-9 (SOC main groups)
arespclas ia17b 1-6 (social class groups)

```
49)

Do you need any special qualification for your job? arespspq ia18
\(\square\) YES \(11 \quad \square\) NO \(00 \quad \square\) Don't Know 2
If YES, please describe: (text responses were not entered here and are not in the data)
50) Of the following, which best describes you at work? arespwork ia20
\begin{tabular}{lll}
\(\square\) manager 1 & \(\square\) employee 2 & \(\square\) self-employed - with employees 3 \\
\(\square\) foreman 4 & \(\square\) apprentice 5 & \(\square\) self-employed - with no employees 6
\end{tabular}
51)

Marital status arespstat ia21
Married to or cohabiting with: \(\square \quad\) parent of the twins 1 \(\square\) someone else 2 Single parent: divorced 3separated 4 \(\square\) widowed 5 unmarried 6 If you are a single parent, please go to question 58 on page 11

\section*{ABOUT THE PERSON YOU LIVE WITH}
\begin{tabular}{|l|}
\hline First name \\
\hline Last name \\
\hline
\end{tabular}
(names were used at the time of data collection to update admin information, but are not retained in the raw data)
ia22

Female 0

Relationship to the twins apartrel ia23
(dataset codes for guardian and other combined because these are rare)
Natural mother of Natural father of the Legal guardian of the twins 33
the twins 11
Other 43 (PLEASE DESCRIBE) (text not retained: responses were coded into the numeric categories above)

\section*{Date of birth}
ia25dd/ia25mm/ia25yy:
\(\qquad\)
\(\qquad\) ./. (day/month/year)

\section*{(Day/Month/Year)}
(birth date not in dataset but used to derive ages)
52) What educational qualifications does \(\mathbf{s} / \mathrm{he}\) have?

Recoded into highest qualification level:
No qualifications
CSE (Grade 2, 3, 4, 5) or GSCE (D, E, F, G)
aparthqual

CSE (Grade 1) or ‘O’level (A, B, C) or GSCE (A, B, C) 'A'level, 'S'level
Higher National Certificate (HNC)
Higher National Diploma (HND)
Undergraduate degree
Postgraduate qualification (eg Masters, PhD)
PLEASE DESCRIBE: *
Other
(PLEASE TICK ALL THAT APPLY)

PLEASE DESCRIBE:
(* text not retained: responses were coded into the numeric categories above)
53) Does s/he currently have a job? apartjob ia37
\(\square\) YES \(1 \quad \square\) NO \(0 \quad \square\) Staying at home to look after the children 2
54) What is his/her FULL job title?
(text responses are not retained in the data, but were coded into the categories shown below at the time of data entry)
apartsocia38a 1-9 (SOC groups)
apartclas ia38b 1-6 (social class groups)
If YES, please continue, if NO, or staying at home to look after the children please go to question 57
55) Does s/he need any special qualification for the job? apartspq ia39
\(\square\) YES \(11 \quad \square\) NO \(10 \quad \square\) Don't Know 2
If YES, please describe: (text responses were not entered here and are not in the data)
56)

Of the following, which best describes him/her at work? apartwork ia41
\begin{tabular}{lll}
\(\square\) manager 1 & \(\square\) employee 2 & \(\square\) self-employed - with employees 3 \\
\(\square\) foreman 4 & \(\square\) apprentice 5 & \(\square\) self-employed - with no employees 6
\end{tabular}
57) Marital status ia42
Married to or cohabiting with: \(\square \quad\) parent of the twins \(1 \quad \square\) someone else 2 Single parent: \(\square\) divorced \(3 \quad \square\) separated \(4 \quad \square\) widowed \(5 \quad \square\) unmarried 6 Partner marital status is redundant (use respondent marital status above) and is not used as a variable in the dataset.
See also derived variable aadults (adults present at home):
1=both biological parents cohabiting; 2=biological parent cohabiting with other;
 \(9=\) unknown.

TODAY'S DATE ......../......./19....... (Day/Month/Year)
(If a date was originally recorded here, it has been used to estimate the booklet date shown on page 1.)

\section*{MOTHER'S PREGNANCY AND BIRTH}

TWINS' FIRST NAME(S): FIRST BORN (names entered here are not SECOND BORN retained in the raw data)

\section*{YOUR PREGNANCY}
    When you became pregnant, were you having any fertility treatment? afert mp01
        \(\square\) YES 1
                        NO 0
            If YES, please describe: text responses were coded into numeric category
codes: mp02code afertc (see appendix for coding)
59)

Were you regularly taking any medicine whilst pregnant? ameds mp03

\section*{\(\square\) YES \(1 \square\) NO 0}

If YES, was this: (PLEASE TICK ALL THAT APPLY) all coded \(1=y\) ys \(0=\) no for the first 3 months \(\square\) for the middle 3 months \(\square\) for the last 3 months ameds1x mp04 ameds2x mp05 ameds3x mp06
What was the medicine? text responses were coded into numeric category codes: mp07code amedsc (see appendix for coding)
60)

Did you smoke cigarettes whilst pregnant? asmoke mp08
\(\square\) YES \(1 \quad \square\) NO 0
If YES, was this: (PLEASE TICK ALL THAT APPLY) all coded \(1=y e s \quad 0=\) no
for the first 3 months for the middle 3 months for the last 3 months
asmoke1x mp09 asmoke2x mp10 asmoke3x mp11
How many cigarettes did you smoke each day, on average? mp12 (integer number)
asmokenu: \(0=0,1=1-4,2=5-9,3=10-14,4=15-19,5=20\) or more
61) Were you on a special diet whilst pregnant (vegetarian, vegan, etc.)? adiet mp13 \(\square\) YES \(1 \quad \square\) NO 0
If YES, please describe: text responses were coded into numeric category codes: mp14code adietc (see appendix for coding)
62) Did you drink alcohol whilst pregnant? adrink mp15
\(\square\) YES \(1 \quad \square\) NO 0
If YES, was this: (PLEASE TICK ALL THAT APPLY) all coded \(1=y e s \quad 0=\) no
for the first 3 months for the middle 3 months for the last 3 months
adrink1x mp16 adrink2x mp17 adrink3x mp18

How many units of alcohol did you drink, per week, on average? mp19 (integer number) adrinknu: \(0,1,2,3,4=4-5,5=6-7,6=8-13,7=14\) or more (units per week) ( 1 unit = 1 glass of wine, OR, 1 measure of spirits, OR, \(1 / 2\) a pint of beer)
63) Did you experience any severe stress during your pregnancy (for example, bereavement, serious illness in the family, major money problems)? astress mp20
\(\square\) YES 1
NO 0
If YES, please describe: text responses were coded into numeric
category codes: mp21code astressc (see appendix for coding)
64) Did your doctor suggest that you stay in bed for part of your pregnancy? mp22
(PLEASE TICK ONE)

\section*{\(\begin{array}{llll}\text { YES } 1 \quad \square \text { NO } 0 \quad \square & \text { Don't Know } 2\end{array}\)}

If YES: Why? text responses were coded into numeric category codes:
mp23code arestc (see appendix for coding)
For how long? ...Months, ...Weeks, ...Days mp24 (days, integer)
Coded into a single category variable, arestdd:
\(0=\) no, \(1=1-7\) days, \(2=8-14\) days, \(3=15-30\) days, \(4=31-60\) days, \(5=0\) erer 60 days.
65)

During your pregnancy did you experience any of the following:
(PLEASE TICK ONE FOR EACH ITEM)
Dataset coding \(1=y e s \quad 0=\) no ( \(2=\) don't know recoded to missing)
mp25 Amniocentesis
mp26 High blood pressure
mp27 Diabetes
mp28 Toxaemia/pre-eclampsia
mp29 Vaginal bleeding
mp30 Rubella/German Measles
mp31 Slow growth of baby/ies
mp32 Waters breaking more than 11 hours before labour
asick1x YES 1 NO 0 Don't Know 2
asick2x YES 1 NO 0 Don't Know 2
asick3x YES 1 NO 0 Don't Know 2
asick4x YES 1 NO 0 Don't Know 2
asick5x YES 1 NO 0 Don't Know 2
asick6x YES 1 NO 0 Don't Know 2
asick7x YES 1 NO 0 Don't Know 2
asick8x YES 1 NO 0 Don't Know 2

\section*{THE TWINS' BIRTH}
66) How many weeks pregnant were you at the time of delivery? mp33 (24-43)
agestage: \(26=26\) or lower, 27,28 ... \(40,41,42=42\) or higher
\begin{tabular}{cccccccccccccc} 
under 31 & 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 & 40 & 41 & 42 & 43 \\
\(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\) & \(\square\)
\end{tabular}

If under 31, please specify number of weeks: (original raw responses here were coded into the variable above)
67)

Was your labour induced? ainduced mp35
\(\square\) YES \(11 \quad \square\) NO \(100 \quad \square\) Don't Know 2
68)

How long was your labour? (some responses originally give in minutes)
... Hours mp36 (converted to minutes, integer)
alabourh categories (hours): \(0=0,1=1-2,2-3-4,3=5-6,4=7-8\),
\(5=9-10,6=11-12,7=13-16,8=17-24,9=\) over 24 hours
69) Were you given any drugs, including an epidural, to help you through your labour? abdrug mp37
\(\square\) YES \(11 \quad \square\) NO \(0 \quad \square \quad \square\) Don't Know 2
If YES, what drugs were given? text responses were coded into numeric
category codes: mp38code abdrugc (see appendix for coding)
70) Were there any complications during the birth of your twins? abcomp mp39 \(\square\) YES \(11 \quad \square\) NO \(0 \quad \square \quad \square\) Don't Know 2
If YES, please describe: text responses were coded into numeric category codes: mp4Ocode abcompc (see appendix for coding)
71) Was the birth by Caesarean section? acaes mp41

YES, expected \(11 \quad \square\) YES, emergency \(22 \quad \square\) NO \(0 \quad 0 \quad \square\) Don't Know 3
If YES, why? text responses were coded into numeric category codes:
mp42code acaesc (see appendix for coding)
72) Roughly how long was the gap between the births?
...Hours ...Minutes mp43 (minutes, integer)
abgap categories (minutes): \(1=1\) or less, \(2=2-5,3=6-10,4=11-15\), \(5=16-20,6=21=30,7=\) over 30 minutes
73) What were the lengths and the weights of the twins at birth?

Original responses all converted to metric units in the raw data.

74) Was there any concern about either twin at birth (for example, did either twin have any breathing problems)? abprob1/2
\begin{tabular}{llllll} 
1st born mp52 & \(\square\) YES 11 & \(\square\) NO 00 & \(\square\) Don't Know 2 \\
2nd born mp53 & \(\square\) & YES 11 & \(\square\) NO 00 & \(\square\) Don't Know 2
\end{tabular}

If YES, please describe: text responses were coded into numeric category codes: mp54code abprobc (see appendix for coding)
75) Did either of the twins have any special care when born (for example, incubators etc)?
\begin{tabular}{llll} 
1st born mp55 & \(\square\) YES 1 & \(\square\) NO 0 & \(\square\) Don't Know 2 \\
2nd born mp56 & \(\square\) YES 1 & \(\square\) NO 0 & \(\square\) Don't Know 2
\end{tabular}

If YES, please describe : text responses were coded into numeric category codes: mp57code aspcarc (see appendix for coding) How long did they stay in special care?
\begin{tabular}{llll} 
1st born mp58 (days, integer) & ...Months & ...Weeks & ...Days \\
2nd born mp59 & (days, integer) & ...Months
\end{tabular}

The yes/no response and the length of stay were coded into a single category twin variable, aspcard1/2:
\(0=\) no, \(1=1-2\) days, \(2=3-14\) days, \(3=15-30\) days, \(4=31-97\) days, \(5=98+\) days
76) How long did the twins stay in hospital after birth?
\begin{tabular}{llllll} 
1st born & mp60 & (days, integer) & ...Months & ...Weeks & ...Days \\
2nd born & mp61 & (days, integer) & ...Months & ...Weeks & ...Days
\end{tabular}
ahospd1/2 categories: \(1=0-3,2=4-5,3=6-7,4=8-14,5=15-30\),
\(6=31-74,7=75\) or more days
77) Has either of the twins had to go back to hospital as an outpatient?
(PLEASE TICK ONE FOR EACH CHILD) aoutp1/2
\begin{tabular}{llllll} 
1st born mp62 & \(\square\) YES 11 & \(\square\) NO 00 & \(\square\) & Don't Know 2 \\
2nd born mp63 & \(\square\) & YES 11 & \(\square\) NO 00 & \(\square\) & Don't Know 2
\end{tabular}

If YES, please describe : text responses were coded into numeric category codes: mp64code aoutpc (see appendix for coding)
78) Has either of the twins had to go back to hospital to stay overnight?
(PLEASE TICK ONE FOR EACH CHILD) aover1/2
1st born mp65
\(\square\) YES 11
NO 00
\(\square\) Don't Know 2
2nd born mp66
\(\square\) YES 11
NO 0
\(\square\) Don't Know 2

If YES, please describe : text responses were coded into numeric category codes: mp67code aoverc (see appendix for coding)
79)

Have either of your twins:
any medical problems in the first two weeks after birth?
mp68
YES, 1st born 1 YES, 2nd born 2 YES, both 3 NO \(0 \quad\) Don't Know 4 amprob1/2: 1=yes 0=no
If YES, please describe: text responses were coded into numeric category codes: mp69code amprobc (see appendix for coding)
physical problems (for example, cleft lip, hole in the heart)? mp70
YES, 1st born 1 YES, 2nd born 2 YES, both 3 NO \(0 \quad\) Don't Know 4 aphys1/2: 1=yes \(0=n \circ\)
If YES, please describe: text responses were coded into numeric category codes: mp71code aphysc (see appendix for coding)
genetic or chromosomal problems (for example, Down's Syndrome, PKU)? mp72 YES, 1st born 1 YES, 2nd born 2 YES, both 3 NO \(0 \quad\) Don't Know 4 agenpro1/2: 1=yes \(0=\) no
If YES, please describe: (negligible numbers of responses: not coded) a problem with vision? mp74
YES, 1st born 1 YES, 2nd born 2 YES, both 3 NO \(0 \quad\) Don't Know 4 avispro1/2: 1=yes 0=no
If YES, please describe: text responses were coded into numeric category codes: mp75code avisproc (see appendix for coding)
80) Has either of the twins ever had any fits, seizures or convulsions?
(PLEASE TICK ONE FOR EACH CHILD) afits1/2
\begin{tabular}{lllll} 
Dataset: & 1 & 2 & 0 & \\
Raw data: & 1 & 2 & 0 & 3 \\
1st born & YES, at least one & YES, but only with a & NO & Don't know \\
mp76 & without a temperature & high temperature & & \\
2nd born & YES, at least one & YES, but only with a & NO & Don't know \\
mp77 & without a temperature & high temperature & &
\end{tabular}
81) Which hand does each twin use for most activities (eating, colouring, picking up objects)? (PLEASE TICK ONE FOR EACH CHILD) ahand1/2
\begin{tabular}{lllllll} 
Dataset: & 1 & 2 & 3 & 4 & 5 & \\
Raw data: & 1 & 2 & 3 & 4 & 5 & 6 \\
1st born & Always & Usually & Either & Usually & Always & Don't \\
mp78 & right hand & right hand & hand & left hand & left hand & know \\
2nd born & Always & Usually & Either & Usually & Always & Don't \\
mp79 & right hand & right hand & hand & left hand & left hand & know
\end{tabular}
82)

Have you any comments about the twins' general health?
(text responses were not entered here and are not in the data)
(If a date was originally recorded here, it has been used to estimate the booklet date shown on page 1.)

\section*{YOUR TWINS' HEARING}
83) Have you, or has anyone else, ever suspected, that either of the twins may have a hearing problem? (PLEASE TICK ONE) ahprob1/2
```

1st born h01
YES 1

```
```NO 0
2nd born h02
YES 1
```

```NO 0
```

84) During or after a cold, do either of the twins seem to have difficulty hearing?

| ahcold1/2 | 3 | 2 | 1 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 1st born h03 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |
| 2nd born h04 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |


86) Do either of the twins pull, poke, or scratch their ears?

|  |  |  | 0 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ahscrat1/2 | 3 | 2 | 1 | Never 4 |
| 1st born h07 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |

87) Do either of the twins' ears go red and look sore for a long time? (Please note: an ear that has just been slept on may look red for a short time, and does not apply in this question) (PLEASE TICK ONE)
$\begin{array}{llll}\text { ahsore1/2 } & 3 & 2 & 1\end{array}$
1st born ho9 Often 1 Sometimes 2 Occasionally $3 \quad$ Never 4
2nd born h10 Often $1 \quad$ Sometimes $2 \quad$ Occasionally $3 \quad$ Never 4
88) 

Has pus or a sticky mucus (not ear wax) ever leaked out of either of the twins' ears? (PLEASE TICK ONE)

| ahpus1/2 | 3 | 2 | 1 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 1st born h11 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |
| 2nd born h12 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |

89) Do either of the twins breathe through their mouth, rather than through their nose? (PLEASE TICK ONE)

| ahmouth/2 | 3 | 2 | 1 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 1st born h13 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |
| 2nd born h14 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |

90) Do either of the twins snore or make snorting noises during their sleep?

| ahsnore1/2 | 3 | 2 | 1 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 1st born h15 | Often 1 | Sometimes 2 | Occasionally 3 | Never 4 |

2nd born h16 Often $1 \quad$ Sometimes $2 \quad$ Occasionally $3 \quad$ Never 4

## MEDICAL RECORDS CONSENT FORM

(Responses from this page were never used, and have not been retained in the raw data)

PLEASE NOTE: This consent form should be completed by the natural mother of the twins.

All information will be kept strictly confidential.
Please give your full name and address at the time of the birth of the twins, and also the Hospital address and Consultant's name (if known), then sign and date the bottom of the page.

## Your Name:

Your Date of Birth:
..........................
(Day/Month/Year)

## Your Address at the time of the twins' birth:

(If different from current address)
Your NHS number (if known)


Your National Insurance (NI) number (if known) $\square$

## Hospital Name:

Hospital Location (town/city etc):
Full Hospital Address (if known):

## Consultant: (if known)

Would you let us request your hospital records regarding pregnancy and childbirth?
$\square$ YES, I give my consent for my medical records regarding pregnancy and child birth to be made available to the TEDS Project Co-ordinator. PLEASE SIGN AND DATE THE BOTTOM OF THIS PAGE.
$\square$ NO, PLEASE SIGN AND DATE THE BOTTOM OF THIS PAGE.
Please note - you can still be part of TEDS whether you give this consent or not

| Signature $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ T o d a y ' s ~ D a t e ~$ |
| :--- |
|  |

The booklet contains many questions in which text responses were elicited. These generally fall into three groups:

1. Respondent and partner job titles (pages 9 and 10) have been coded into occupation codes, for all booklets in all cohorts.
2. Data collected for admin reasons were used at the time of data collection for updating the TEDS admin system and have not been used at all in the dataset. This includes names and contact details (consent form, page 1, page 16) and sibling details (pages 4 to 5).
3. Text questions within the body of the questionnaire, typically of the "if yes, please describe" type.

For the latter type, the approach to data entry of verbatim text varied:

- In some cases, the text responses were not entered at all, for any cohorts. For example, questions within the zygosity questionnaire (pages 6 to 7).
- In some cases, text responses were entered for those booklets sent to NOP for data entry (the 1996 cohort and part of the 1995 cohort), but not for those booklets entered within TEDS (the 1994 cohort and the remainder of the 1995 cohort). For example, questions in the pregnancy and birth section (pages 11 to 14). Where entered, these original text responses have now been coded into numeric category variables.

In the latter case, for data entry that was done in TEDS, although the text were not entered, a code of " 1 " was used to indicate where text had actually been recorded on the page by the parent. In the dataset, for all questions, this has been recoded into coded value 0 , meaning that text were present but not entered and not available for coding.

In questions describing twins, there was only one text question and there was insufficient information to code twin-specific responses. In rare cases where more than one response was described in the text, an attempt was made to code the most relevant response, or the more "serious" medical condition mentioned.

In the cleaned raw data, the numeric coded variables but not the raw text responses have been retained. For each text question, annotations in the document above, in this blue font, indicate whether the text were entered and coded. Details of the coding follow below.

Your twins: identical or non-identical: page 6.

Question: reason for health professional's opinion of zygosity Raw data variable: in02code
Dataset variable: azyprofc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Single placenta | One placenta, one sac, monochorionic, <br> blood transfusion syndrome |
| 2 | Two placentas | Two or fused placentas, two amniotic <br> sacs, dichorionic |
| 3 | Blood or DNA test | Blood group test, DNA test |
| 4 | Unspecific check <br> of placenta | Tests or examination of placenta without <br> specifying details |
| 5 | IVF | Physical <br> characteristics |
| 6 | Unspecific known number of eggs or embryos <br> response | View based on similarity or difference <br> in appearance or physical features |
| 7 | Vague responses, "from scan", "told by <br> medic", unspecified tests |  |

Question: reason for respondent's opinion of zygosity
Raw data variable: in04code
Dataset variable: azyyouc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Physical <br> similarity | Similarities of appearance or physical <br> features, cannot tell them apart |
| 2 | Physical <br> difference | Differences in appearance or physical <br> features, can easily tell them apart |
| 3 | Same as above <br> (azyprofc) | Restatement of reason given by health <br> professional |

Mother's Pregnancy and Birth: pages 11 to 14.
Question: type of fertility treatment
Raw data variable: MPO2code
Dataset variable: afertc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | (In vitro <br> fertilization) IVF | IVF, ICSI, GIFT |
| 2 | Intrauterine (IUI) <br> insemination (IU | IUI, artificial insemination |
| 3 | Drug or hormone <br> treatment | Clomid/clomiphene, metrodin, <br> hormone injections, pergonal |

Question: type of medicine taken while pregnant
Raw data variable: MPO7code
Dataset variable: amedsc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | Folic acid and/or iron | Folic acid, iron tablets |
| 2 | Other medicines | Medication for asthma, heartburn, <br> pain; hormones |

Question: type of special diet while pregnant
Raw data variable: MP14code
Dataset variable: adietc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | Meat-free diet | Vegetarian, vegan, pescatarian, <br> meat-free |
| 2 | General healthy diets | Low-sugar, diabetic, low-fat, <br> dairy-free |

Question: cause of stress during pregnancy
Raw data variable: MP21code
Dataset variable: astressc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Bereavement | Bereavement, serious family illness |
| 2 | Financial or job | Money problems, job loss, stresses at <br> work or in studies |
| 3 | Home-related | Moved house, renovation, loss of home, <br> burglary |
| 4 | Marital problems | Separation, divorce, partner absence, <br> marital or close family problems |
| 5 | Maternal illness | Pregnancy complications, personal <br> illness or accident, depression |

Question: reason for bed rest during pregancy
Raw data variable: MP23code
Dataset variable: arestc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Bleeding | Bleeding, blood loss |
| 2 | Blood pressure | High or low blood pressure |
| 3 | Pre-eclampsia | Pre-eclampsia |
| 4 | Risk of <br> miscarriage | Previous miscarriage, threat of <br> miscarriage |
| 5 | Early labour | Premature labour, waters broke, <br> contractions started |
| 6 | Concern about <br> embryos | Illness, sickness, infection, back pain, <br> swelling, accident, heart problems |
| 7 | Garious concerns about health or <br> development of embryos, low placenta <br> unspecific rest | Unspecified bed rest, tiredness, too big <br> to move |
| 8 |  |  |

Question: type of drug given during labour
Raw data variable: MP38code
Dataset variable: abdrugc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | General anaesthetic | General anaesthetic |
| 2 | Spinal block | Spinal block, spinal anaesthetic |
| 3 | Epidural | Epidural |
| 4 | Opioid or other <br> injection | Pethidine, meptid, syntocinon, <br> diamorphine, steroids, hormones |
| 5 | Gas and air | Gas and air, entonox |
| 6 | Other or unspecified | Unknown or unnamed drug |

Question: type of complication during birth
Raw data variable: MP40code
Dataset variable: abcompc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | Foetus position | Breech, transverse, position or <br> presentation problems |
| 2 | Cord or placenta <br> problems | Cord around neck, cord prolapse, <br> placenta abruption or praevia |
| 3 | Twin medical issues | Heart or breathing problems, foetal <br> distress |
| 4 | Maternal medical <br> issues | Haemorrhage, high blood pressure, pre- <br> eclampsia, infection |
| 5 | Forceps or ventouse <br> delivery | Forceps, ventouse, suction used for <br> delivery |
| 6 | Other or unspecified | Premature, small babies, not dilating, <br> planned caesarean, contractions stopped |

Question: reason for caesarian section
Raw data variable: MP42code
Dataset variable: acaesc
[Note codes 1-4 and 6 are as above for abcompc; responses often very similar]

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | Foetus position | Breech, transverse, position or <br> presentation problems |
| 2 | Cord or placenta <br> problems <br> Twin medical issues | Cord around neck, cord prolapse, <br> placenta abruption or praevia |
| 3 | Heart or breathing problems, foetal <br> distress |  |
| 4 | Maternal medical <br> issues | Haemorrhage, high blood pressure, pre- <br> eclampsia, infection |
| 5 | Precautionary <br> reasons | Previous caesarian, small pelvis, IVF, <br> recommended for twins |
| 6 | Other or unspecified | Premature, small babies, not dilating, <br> planned caesarean, contractions stopped |

Question: concerns about twins at birth
Raw data variable: MP54code
Dataset variable: abprobc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Breathing problem | Ventilated, given oxygen, RDS, grunting, <br> blue baby |
| 2 | Jaundice or blood <br> problem | Jaundice, blood sugar problems, needed <br> blood transfusion |
| 3 | Heart or other <br> internal organ | Heart murmur, hole in heart, brady <br> cardia, lung problems |
| 4 | Premature, low <br> birthweight | Low birthweight, needed incubation, <br> premature birth |
| 5 | Breech, cord or <br> limb problem | Breech birth, cord around neck, clicky <br> hip, twisted limb, club foot |
| 6 | Inhaled or <br> ingested fluids | Required suction, mucus, fluid in lung, <br> meconium |
| 7 | Needed <br> resuscitation | No vital signs, had to be revived or <br> resuscitated |
| 9 | Other or <br> unspecified | Low apgar score, general signs of <br> distress, minor or unspecified concerns |

Question: twins had special care when born
Raw data variable: MP57code
Dataset variable: aspcarc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Premature, low <br> birthweight | Born very small or low weight, premature <br> birth |
| 2 | Jaundice or blood <br> problem | Jaundice, phototherapy, blood sugar <br> problems, needed blood transfusion |
| 3 | Care related to <br> problems at birth | Heart or internal organ problems, hernia <br> or other surgery (see other questions) |
| 4 | Feeding or <br> breathing problem | Ventilated, given oxygen, tube-fed, <br> drips |
| 5 | Unspecific special <br> care | Incubated, under observation, <br> unspecified care |

Question: twins went back to hospital as outpatients
Raw data variable: MP64code
Dataset variable: aoutpc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Chest or breathing <br> problem | Asthma, coughs, wheezy, general chest or <br> breathing problems |
| $\mathbf{2}$ | Infection | Pneumonia, meningitis, bronchiolitis, <br> gastroenteritis, viral infection |
| 3 | Routine follow-up <br> defect | Developmental checks, blood tests, <br> checks on problems at birth |
| 4 | Ear or hearing <br> problems | Congenital problems, hernia, birthmark <br> correction, genitourinary problem |
| 5 | Grommets, glue ear, hearing test, ear <br> infection <br> problems |  |
| $\mathbf{7}$ | Limb problem <br> correction |  |
| 8 | Clicky hip, club foot, limb damaged at <br> birth |  |

Question: twins went back to hospital for overnight admission
Raw data variable: MP67code
Dataset variable: aoverc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Respiratory <br> problem | Asthma attack, breathing/chest problem, <br> croup |
| 2 | Infection | Pneumonia, meningitis, bronchiolitis, <br> gastroenteritis, whooping cough |
| 3 | Sonvulsions | Fits, convulsions, epilepsy |
| 4 | Hernia repair, heart surgery, correction <br> of various congenital problems |  |
| 5 | Accident or injury | Broken bones, falls, cuts, scalds and <br> burns <br> unspecified |
| Miscellaneous problems, feeding, rash,, <br> fever, general distress |  |  |

Question: twin medical problems within two weeks of birth
Raw data variable: MP69code
Dataset variable: amprobc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but not <br> entered | - |
| 1 | Heart problem | Hole in heart, heart murmur, brady <br> cardia, other heart defects |
| 2 | Respiratory problem | Breathing or lung problems, needed <br> oxygen or ventilation |
| 3 | Feeding problem | Tube feeding, loss of weight, <br> vomiting, digestive problems |
| 4 | Infection | Jaundice <br> 5 <br> 7$\|$Pneumonia, bronchiolitis, thrush, <br> gastroenteritis, septicemia |
| 8 | or surgery |  |
| Prematurity, special | Hernia, internal organ surgery, <br> correction of various abnormalities |  |
| 9 | Blood-related |  |
| indication of cause |  |  |, | Abnormal blood sugar, needed |
| :--- |
| transfusion, anaemia |, | Miscellaneous problems, eczema, |
| :--- |
| sticky eyes, fits |

Question: twin physical problems
Raw data variable: MP71code
Dataset variable: aphysc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Heart problem | Heart murmur, hole in heart, VSD, PDA |
| 2 | Limb or skeletal <br> problem | Talipes/club foot, clicky hip, spinal <br> problems, hand or limb defects |
| 3 | Internal organ | Hernia, bowel or kidney problem |
| 4 | Head, face, eye or <br> ear problem | Cleft lip, birthmark on face, skin tags, <br> tongue tied, microcephally, squint |
| 5 | Genitourinary <br> problem | Undescended testes, hypospadias |
| 6 | Other | Cerebral palsy, miscellaneous problems <br> (not always physical) |

Question: twin vision problems
Raw data variable: MP75code
Dataset variable: avisproc

| Code value | Category | Examples |
| :--- | :--- | :--- |
| 0 | Text present but <br> not entered | - |
| 1 | Squint | Squint, cross-eyed, lazy or turning eye |
| 2 | Eyesight problem | Long or short sight, astigmatism |
| 3 | Physical eye <br> defect | Duane syndrome, nystagmus, other or <br> unspecified eye problems |

