

**Electronic Encyclopaedia of Perinatal Data (EPPD)
Volume XIV. Complex Topics**

Major Problem areas with current paper-based Maternity Data Set Definitions.

**See also similar discussions
concerning “Method of Birth” and “Anaesthesia / Analgesia”**

IV - Place of Birth

**1. Current paper based definitions which do not make sense
using direct entry flow-patterned computerised systems.**

2. Suggested Solutions

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**Any Comments, Criticisms, Corrections, Feedback
or Suggestions for Improvement very welcome**

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1. "Place of Birth" Current Definitions / Needs

Any attempt to use a computer in sensible "minimal-work for the midwife" manner is impossible using the present variety of confusing paper-based requirements as set out below:

A. BIRTH CERTIFICATE

Place of Birth seems to mean. "Address where birth takes place"

B. KORNER MATERNITY

Place of Delivery as used for "Original Intention" and "Actual Place for Delivery."

0. Domestic Address
1. NHS Hospital - Consultant Ward
2. NHS Hospital - GP Ward
3. NHS Hospital - Consultant/GP Ward
4. Private Hospital
5. Other Hospital or Institution
6. Other than above

Unfortunately there has never been any official definition as to what is meant by the original intention. Does this refer to the woman's original intention that she should have a home birth, or a GP's decision that she should give birth in the GP unit even if that is subsequently overruled by a consultant or does it only refer to a consultant's decision. If it only refers to a consultant's 'original intention' decision what is to be done about the many districts (including Milton Keynes) where a woman may never see a consultant at all if she is booked for the G P or Midwifery Unit?

More importantly it also does not provide any information about transfers of care a) from GP beds to Consultant beds within a Consultant/GP Ward or b) from one type of consultant unit to another e.g. from a DGH to a Tertiary Centre

Because of these problems, as far as I know, no-one has made any use of the mass of data collected in response to this question.

C. BIRTH NOTIFICATION (OXFORD)

MILTON KEYNES (OLD OXFORD REGION) VERSION

FOR OFFICE USE ONLY

Born at Code	Single integer. 1 = Born at home, 2 = Born at hospital, 3 = Born at nursing home, 4 = other, 5 = GP Unit
Place of Birth	3-4 letter/digit code eg H140 = John Radcliffe Hospital, MKH for Milton Keynes Gen Hosp
Birth Place	Special Codes for Hospital as follows [MKH] for Milton Keynes General Hospital [] for John Radcliffe and many others. Only MKH is relevant to MK maternity computer system, not on Ipswich version
Reg District	Only on Ipswich version
District of Birth	List of DHAs Same as Health District above On MK and Ipswich versions
OPCS Birth/Resid area code	Same as residence Area Code above

D. CESDI RETURNS (1996)

- 1 Unit of First Booking for this pregnancy (Unit/Place)
Tick if Home planned
Name of Unit/Place
- 2 Type of Care planned at first booking
(Consultant-including shared, GP +/- Midwife, Midwife only, Never booked, Not known)
- 3 Where did delivery/birth actually take place
Name of Unit/Place
Home Yes/No
Transit Yes/No
- 4 Type of Care at Delivery
(Consultant-including shared, GP +/- Midwife, Midwife only, Other, Unattended, Not known)

E. PMDS DELIVERY SECTION (MATERNITY TAIL)

Delivery Place Type

Initial Intended Delivery Place Type

Change from Intention Reason

F. RCOG HOSPITAL RECOGNITION COMMITTEE

requires the following information which is relevant to "The place of Birth"

No of Patients under Total Midwifery Care

No of Patients under Consultant Care

No of Home Confinements

Is there a G P Unit

No of Deliveries in GP Unit

G. RCOG Audit Sub-Group

Type of Planned Place of Birth

(First intended place of delivery by the health)

(care professional in consultation with the woman)

- a) 24 hour on-site doctors with obstetric training
- b) Medical facilities but without the above
- c) Home
- d) Other
- e) Not Applicable (No antenatal care)
- f) Unknown

H. ENGLISH NATIONAL BOARD. MIDWIFERY PRACTICE AUDIT

requires the following information which is relevant to "The place of Birth"

Deliveries in Midwifery-Led Centres

Total Deliveries (Confinements) in the Home

MIDWIFERY LED CARE

Total Bookings for Midwife-Led Care

Delivered by midwives in private practice

Women Delivering in other units but receiving ante and post natal care from your midwives

H. CURRENT PROTOS QUESTION

Intended Place of Birth

Local DGH Hospital
Home - with GP Support
Home - without GP Support
Home - GP Support Unknown
NHS District Hospital (Not Local)
Hospital (Not NHS)
Abroad
Other
Undecided
Unknown

I. CONGENITAL ANOMALIES REGISTER

Place of Birth

Hospital
Home
Other (Please specify)

It is impractical to use any maternity computer system to collect the data for all these requirements because the only way to try to do it using a computer would be:

1. to pay expensive computer programming costs so that the maternity computer program in each hospital in the U.K. would be able to provide the data in the form required for each separate need. No-one is prepared to pay for this, especially since there is no guarantee that what is expensively paid for this year will not have to be expensively re-written next year because the ENB and or the RCOG have in the past frequently changed the wording of their annual return requirements and it is virtually certain that they will do so again in future.

or

2. to ask the midwives who have to enter the data to answer a series of questions often with the same wording for the question but with different options for the answer. i.e. to answer 6 different but similar questions regarding the Original Intention for Place of Birth, the Final Intention for Place of Birth and the Actual Place of Birth

or

3. As at present, to repeat some questions and/or to enter some garbled mixture (see Protos options above) and then expect clinical staff (the IT and audit departments being too overloaded) to spend hours at the computer trying to extract the required information from the raw data in an Excel format data base

or

4. Invent rubbish and hope no-one notices. (The most common I suspect!)

Because of this there is an urgent need for an agreed universal set of definitions which are designed for data entry into any maternity computer system and which is then used by all the interested parties listed above.

2. Electronic

“Place of Birth”

Draft Set of Flow-patterned Questions and Allowable Answer Options

I. SUMMARY of Electronic “Place of Birth” Proposals

for maternity computer systems using direct entry flow-patterned questions

Because of the widely perceived need to identify Transfers of Care during Pregnancy and during “the Birth Event” (Labour or Caesarean without labour) it must be made possible from the data collected to identify all such transfers. For example:

- a) *from a GP bed in a combined GP/Consultant Unit to a Consultant bed in a combined GP/Consultant Unit,*
- b) *from a GP/Consultant Unit bed in a District Hospital to a GP/Consultant Unit bed in a Tertiary Centre*
- c) *from a Home Delivery in Bath to a Home Delivery in Milton Keynes?*
- d) *from a Maternity Unit in Trowbridge to a DGH in Bedford etc.*

None of the above possibilities can be identified using the current Korner or any known alternative Maternity definitions.

It is also essential that the power of the computer is used to it's maximum to minimise the work of data entry.

THEREFORE THE COMPUTER NEEDS TO BE ABLE TO OUTPUT THE PRECISE ANSWER TO EACH OF THE FOLLOWING QUESTIONS.

On the basis of the above it is suggested that the computer should, by carefully flow patterned questions, must be able to store the following data:

A. ORIGINAL INTENTION

(Normal maximum of 2 questions only)

- 1. **Original Intention - by Type of Place (inc “On Site” Cover)**
- 2. **Original Intention - by Responsibility / Lead Professional (“Bed”)**
- 3. **Original Intention - by Name of Institution (Hospital or Maternity Unit if relevant)** *(Usually already known by Computer)*

B. INTENTION AT THE START OF THE “BIRTH EVENT”

(Normal maximum of 2 questions only)

- 4. **Intention at start of Birth Event - by Type of Place (inc “On Site” Cover)**
- 5. **Intention at start of Birth Event - by Responsibility / Lead Professional (“Bed”)**
- 6. **Intention at start of Birth Event - by Name of Institution (Hospital or Maternity Unit)** *(Usually already known by Computer)*

C. CHANGE OF INTENTION DURING PREGNANCY

- 7. **If any one of A. “Original Intention” answers does not match B. “Intention at Start of Birth Event” answers.**

D. ACTUAL PLACE OF BIRTH (May differ for each baby if multiple births)

(Normal maximum of 3 questions only. May potentially differ for each baby if Multiple Births)

- A. **Actual Place of Birth - by Type of Place (inc “On Site” Cover)**
- B. **Actual Place of Birth - Unprepared place?** *(e.g. In transit (car, bus, ambulance), in maternity ward, in A & E, in car park etc)*
- C. **Actual Place of Birth - by Responsibility / Lead Professional**
- D. **Actual Place of Birth - by Name of Institution (Hospital or Maternity Unit)** *(Usually already known by Computer)*
- E. **Actual Place of Birth - by Institution Code (with a Special Code for Home or Other?)** *(Usually already known by Computer)*
- F. **Actual Place of Birth - by Address** *(Usually already known by Computer)*

E. CHANGE OF INTENTION DURING BIRTH EVENT

- G. **If any one of B. “Intention at Start of Birth Event” answers does not match E. “Actual Place of Birth” answers**

F. RESIDENCE ADDRESS OF MOTHER AT THE TIME OF CONFINEMENT

- i. **Residence Address of Mother** *(Already known by Computer)*
- II **Postcode of Residence Address** *(Already known by Computer)*
- III **Code for Health Authority of Residence Address of Mother** *(Already known by Computer)*
- IV **Home Telephone of Mother** *(Already known by Computer)*

As far as I have been able to calculate so far the above data should be sufficient for all requirements except if a woman is booked for a home delivery in one district and then moves to have a home delivery in another district.

II.DETAILS of Electronic Proposals

FLOW-PATTERNED QUESTIONS AS FOLLOWS

A. ORIGINAL INTENTION *(Normal maximum of 2 questions only)*

A. Place of Birth by Type, and by availability of medical help in an Emergency **(Original Intention - by Type of Place)**

1. DGH or similar Hospital with 24 hr 'on site' medical cover
2. Tertiary Centre Hospital with 24 hr 'on site' medical cover
3. Maternity Unit without 24 hr "on site' medical cover
4. Home (Domicilliary Address)
5. Another Part of UK or Overseas
8. Unknown
9. Other (Specify)

Default value will depend on whether the computer is in a DGH, a Tertiary centre or a Maternity Unit

If Answer A = 1 or 2 (24 hr 'on site' medical cover), then

A1/1 "Type of Responsibility" **(Original Intention - by Responsibility / Lead Professional)**

1. Obstetrician / Midwifery "Bed"
2. NHS Midwife only "Bed"
3. GP / Midwife "Bed"
4. Private Midwife "Bed"
5. Private Obstetrician / Midwife "Bed"
8. Unknown
9. Other (Specify)

Depending on local factors the default value will be 1 or 3

A1/2 Name of Hospital **(Original Intention - by Name of Institution)**

Automatically calculated by the computer unless birth data regarding more than one such hospital is being entered onto the same maternity computer system, in which case the computer will need to be programmed to ask which hospital is being referred to.

If Answer A = 3. (Maternity Unit without 24 hr 'on site' medical cover) then

A3/1 "Type of Responsibility" **(Original Intention - by Responsibility / Lead Professional)**

1. GP / Midwife "Bed"
2. Midwife only "Bed"
3. Private Midwife
8. Unknown
9. Other (Specify)

A3/2 Name of Maternity Unit **(Original Intention - by Name of Institution)**

Automatically calculated by the computer unless birth data regarding more than one such hospital is being entered onto the same maternity computer system.

If Answer A = 4. (Home - Domicilliary Address), then

A4/1 "Type of Responsibility" **(Original Intention - by Responsibility / Lead Professional)**

1. Midwife with GP Back-Up
2. Midwife without GP Involvement
3. Private Midwife
3. Private Midwife
8. Unknown
9. Other (Specify)

B. INTENTION AT THE START OF THE “BIRTH EVENT” *(Normal maximum of 2 questions only)*

B. Place of Birth by Type and by availability of medical help in an Emergency **(Intention at start of Birth Event - by Type of Place)**

1. DGH or similar Hospital with 24 hr 'on site' medical cover
2. Tertiary Centre Hospital with 24 hr 'on site' medical cover
3. Maternity Unit without 24 hr "on site" medical cover
4. Home (Domicilliary Address)
8. Unknown
9. Other (Specify)

Default value will depend on whether the computer is in a DGH, a Tertiary centre or a Maternity Unit

If Answer B = 1 or 2. (24 hr 'on site' medical cover), then

B1/1 "Type of Responsibility" **(Intention at start of Birth Event - by Responsibility)**

1. Hospital Medical Staff/Midwife "Bed" [*Hospital Medical Staff = Consultant Bed*]
2. GP / Midwife "Bed"
3. Midwife only "Bed"
4. Private Midwife
5. Unknown
9. Other (Specify)

B1/2 Name of Hospital **(Intention at start of Birth Event - by Name of Institution)**

Automatically calculated by the computer unless birth data regarding more than one such hospital is being entered onto the same maternity computer system, in which case the computer will need to be programmed to ask which hospital is being referred to.

If Answer B = 3. (Maternity Unit without 24 hr 'on site' medical cover) then

B3/1 "Type of Responsibility" **(Intention at start of Birth Event - by Responsibility)**

1. GP / Midwife "Bed"
2. Midwife only "Bed"
3. Private Midwife
4. Unknown
9. Other (Specify)

B3/2 Name of Maternity Unit **(Intention at start of Birth Event - by Institution)**

Automatically calculated by the computer unless birth data regarding more than one such hospital is being entered onto the same maternity computer system

If Answer B = 4. (Home - Domicilliary Address), then

B4/1 "Type of Responsibility" **(Intention at start of Birth Event - by Responsibility)**

1. NHS Midwife with GP Back-Up
2. NHS Midwife without GP Involvement
3. Private Midwife
4. Unknown
9. Other (Specify)

C. CHANGE OF INTENTION DURING PREGNANCY

If any one of A. Original Intention answers do not match B. Intention at Start of Birth Event answers.

C. Reason for change during pregnancy from a pick-list such as the following

- Pre-Eclampsia
- Preterm
- Post Term
- Small for Dates
- Reduced Fetal Movements
- Malpresentation
- APH
- Multiple Pregnancy
- High Head
- Unknown
- Other (Specify)

D. ACTUAL PLACE OF BIRTH (May differ for each baby if multiple births)

D. Place of Birth by Type and by availability of medical help in an Emergency (Actual Place - by Type of Place)

1. DGH or similar Hospital with 24 hr 'on site' medical cover
2. Tertiary Centre Hospital with 24 hr 'on site' medical cover
3. Maternity Unit without 24 hr "on site" medical cover
4. Home (Domiciliary Address)
5. In Transit, not within grounds of any of the above premises. (e.g. Ambulance, car, shopping centre etc)
8. Unknown
9. Other (Specify)

Default value will depend on whether the computer is in a DGH, a Tertiary centre or a Maternity Unit

If Answer D = 1 or 2 (24 hr 'on site' medical cover), then

D1/1 Appropriateness of Place (Actual Place - Unpreparedness Place?)

1. Delivery Suite or Theatre
2. Maternity Ward
3. Accident and Emergency
4. In Transit in Hospital or Maternity Unit (e.g. on trolley)
5. In Hospital or Maternity Unit Car Park
8. Unknown
9. Other (Specify)

Default value will naturally be 1.

D1/2 "Type of Responsibility" (Actual Place - by Responsibility / Lead Professional)

1. Hospital Medical Staff/Midwife "Bed" [Hospital Medical Staff = Consultant Bed]
2. GP / Midwife "Bed"
3. Midwife only "Bed"
4. Private Midwife
8. Unknown
9. None of the above

D1/3 Name of Hospital (Actual Place - by Name of Institution)

Already known by the computer unless birth data regarding more than one such hospital is being entered onto the same maternity computer system, in which case the computer will need to be programmed to ask which hospital is being referred to.

D1/4 Institution Code (Actual Place - by Institution Code)

Already known by the computer

D1/5 Address of Institution (Actual Place - by Address)

Already known by the computer

D1/6 Post Code of Institution (Actual Place - by Post Code)

Already known by the computer

If Answer D = 3. (Maternity Unit without 24 hr 'on site' medical cover) then

- D3/1 Appropriateness of Place **(Actual Place - Unprepared Place?)**
1. Delivery Suite or Theatre
 2. Maternity Ward
 3. Accident and Emergency
 4. In Transit in Hospital or Maternity Unit (e.g. on trolley)
 5. In Hospital or Maternity Unit Car Park
 8. Unknown
 9. Other (Specify)

Default value will naturally be 1.

- D3/2 "Type of Responsibility" **(Actual Place - by Responsibility / Lead Professional)**
1. GP / Midwife
 2. Midwife only
 3. Private Midwife
 4. Unknown
 9. Other (Specify)

- D3/3 Name of Maternity Unit **(Actual Place - by Name of Institution)**
Already known by the computer unless birth data regarding more than one such maternity unit is being entered onto the same maternity computer system, in which case the computer will need to be programmed to ask which maternity unit is being referred to.

- D3/4 Institution Code **(Actual Place - by Institution Code)**
Already known by the computer

- D3/5 Address of Institution **(Actual Place - by Address)**
Already known by the computer

If Answer D = 4. (Home - Domiciliary Address), then

- D4/1 "Type of Responsibility" **(Actual Place - by Responsibility)**
1. Midwife only
 2. GP / Midwife
 3. Private Midwife
 8. Unknown
 9. Other (Specify)

- D4/2
1. Mother's Own Residence
 2. Other Home Address

If D4/2 = 1. Mother's Own Residence

1. Mother's own Address **(Actual Place - by Address)**
Already known by the computer

**If D4/2 = 2. Other Home Address (but not mother's own Residence)
or if Answer D = 9. "Other"**

1. Address of Place of Birth **(Actual Place - by Address)**
Needs to be entered on computer

E. CHANGE OF PLACE DURING LABOUR/BIRTH EVENT

If any one of II. Intention at Start of Birth Event answers does not match IV. Actual Place of Birth answers

E. Reason for Transfer of care during Labour

- Slow progress - First Stage
- Slow progress - Second Stage
- Fetal Distress
- Premature Rupture of Membranes
- Pre Eclampsia - Hypertension
- Malpresentation
- Malposition
- Need/Request for Epidural
- Preterm Labour
- Obstetric GP required but not contactable
- Unknown
- Other (Specify)

F. RESIDENCE ADDRESS OF MOTHER AT THE TIME OF CONFINEMENT

F1. **Residence Address of Mother**

Already known by the computer

F2. **Postcode of Residence Address of Mother**

Already known by the computer

F3. **Code for Health Authority of Residence Address of Mother**

Already known by the computer

F4. **Home Telephone of Mother**

Already known by the computer

G. COMMENTS ON LOCALISATION OF COMPUTER QUESTIONS

It should be possible for the computer to ask a simpler set of localised questions from the booking letter (or at a booking clinic) and then automatically provide the answers to the above as defaults for the original intention for place of birth to be corrected at the time of final data entry before the birth event e.g.

For the Milton Keynes Labour Ward Computer, from the booking letter

Where is this birth to be booked?

1. *Milton Keynes General Hospital (Consultant Booking)*
2. *Milton Keynes General Hospital (GP Booking)*
3. *Milton Keynes General Hospital (Midwife Booking)*
4. *Milton Keynes General Hospital (Booking unknown or undecided)*
5. *Home with GP support*
6. *Home without GP Support*
7. *Home (GP support situation unknown)*
8. *Unknown*
9. *Other (Specify)*

With appropriate flow-patterned supplementary questions to provide all the data needed for default answers to the four standard national questions. (e.g. Original Intention - by Type of Place, Original Intention - by Responsibility, Original Intention - by Name of Hospital or Maternity Unit if relevant)

GENERAL NOTE

Whenever data is released for epidemiological or other analytical purposes then any home addresses and the second half of any postcodes need to be stripped off.