

Interventions in Normal Labour and Birth



THE ROYAL
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Survey report
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EXECUTIVE SUMMARY

Background

Rising rates of intervention during labour and birth have caused national and international concern. A number of initiatives to combat this trend have been introduced in recent years including the promotion of normal birth.

However, despite a consensus agreement on the nature of normal birth, there is some uncertainty about the kinds of interventions that are included in births recorded as 'normal' in routine clinical records. The lack of consistency in the use of the term means that audit, service development, and research studies that are focused on this area of practice may under-represent the degree of technical and pharmacological intervention in labour and birth. This could adversely affect decision making about future maternity service design and provision, and about the nature and impact of childbirth on mother and baby in the short and longer-term.

Aim of the Study

The aim of the study was to describe the nature and prevalence of interventions in labour and birth for births recorded as normal or spontaneous or physiological, for women and babies defined as both high and low risk at labour onset.

Methods

Using a pre-defined definition of 'normal birth' the research team developed a simple one page questionnaire based on a survey used by the project lead in a previous regional study (The Trent Survey). In collaboration with the RCM a representative sample of 32 UK maternity units was approached and asked to complete a survey for every birth recorded in the unit over a 5 week period. As well as basic birth details, midwifery co-ordinators at participating sites were asked to record whether any of nine pre-identified technical or pharmacological interventions were used during a birth recorded as 'normal'. The participating units could choose the most efficient method of data collection for their sites (electronic or paper, prospective or retrospective).

Results

Seven of the maternity units sampled agreed to take part in the study. The participating Trusts were, of varying size and configuration, and were from 5 different regions of England.

The response rate was a 98.6% overall, representing a total of 3106 births from the 7 Trusts.

The hospital recorded rates of normal birth were 65.5% across all 7 Trusts with a high of 76.5% and a low of 55.6%.

However, the percentage of women who went into labour and who experienced a normal labour and birth as defined by the study protocol was only 22% overall, ranging from 17%– 27% by Trust. Extrapolating from national data, this

rate reduces to 19.9% for the whole sample; 14.9% for primigravid women and 23.4% for multigravida women. This is considerably lower than the commonly quoted 40% normal birth rate identified by Birth Choice UK.

Just over two thirds of births recorded as 'normal' included some form of intervention (66.2%). The most frequently used intervention was cardiotocography (CTG) (38%) and the least frequently used were fetal blood sampling and antibiotics during labour (both 3%).

25% of births recorded as normal involved artificial rupture of membranes and 22% included induction of labour. These figures are remarkably similar to the findings from the Trent Survey undertaken in 2000, which suggests that, despite increasing awareness of over use of interventions during childbirth, the situation has changed very little over the last 15 years.

The proportion of women who gave birth normally without the interventions of interest and who had complications at the onset of labour (excluding women for whom this variable was not recorded) ranged from 30% to 58% by Trust, and was 39% overall. This supports the intent of the RCM Better Births Initiative (RCM 2015) in promoting the potential for women and babies with complications to experience a physiological birth without interventions.

Recommendations

To enhance recruitment of sites in future studies of this nature, particularly national surveys, it is recommended that the RCM join the list of approved organizations on the NIHR CRN portfolio. This would free up time and pay salary costs for a midwife or researcher to collect data as part of any approved study.

There is a need for further discussion by regulatory bodies and professional organizations around the definition of normal birth. Current definitions used by Birth Choice to monitor the normal birth rate in the UK, i.e. 'birth without induction of labour (with prostaglandins, oxytocics or ARM), epidural or spinal or general anaesthetic, forceps or ventouse, caesarean section, or episiotomy' do not include a number of technical and pharmacological interventions identified in this survey (e.g. artificial rupture of membranes, episiotomy, the use of antibiotics)

There is a striking discrepancy between what participating Trusts regard/record as a normal birth and the rates of normal birth according to our definition. In some Trusts the difference is as high as 50%. We recommend that each participating organization hold a series of consensus meetings with relevant staff to agree on a definition of normal birth and then to ensure it is recorded according to the agreed definition.

MAIN REPORT

1. Introduction

The most recent UK NICE guidelines recommend that pregnant women at low risk of complications should consider giving birth outside of an acute hospital setting (NICE 2014). One consequence of this policy direction for out of hospital births is that, over time, hospital labour and birth may become synonymous with the need for more intensive surveillance and treatment, meaning that women (and their babies) without complications who choose to give birth in a hospital may be subject to over-use of intervention. Given the known iatrogenic risks of routine interventions in healthy women and babies, it is important to limit this potential unintended consequence of the out-of-hospital policy direction.

There is also increasing interest in the potential benefits of optimizing the potential for physiological labour and birth for women/babies who experience complications in pregnancy, or even during labour. This is part of the intent of the RCM Better Births Initiative, which has three themes, including: The promotion of normal births for majority of the women and normalisation for all women (RCM 2015).

Regular scrutiny of the nature of births recorded as 'normal' is one way of tracking any trends in this area. The first report into interventions in normal birth in England was published in 2001 (Downe et al 2001), based on data collected in 2000. To assess the situation 14 years later, for healthy women and babies and those with complications, the Royal College of Midwives (RCM) commissioned a repeat of this survey.

2. Background

Rising rates of intervention during labour and childbirth have caused worldwide concern in recent years. In 2010, caesarean section rates in Europe varied from 16.8% to 52.2% (Finland, Cyprus), episiotomy rates from 4.9% to 75% (Denmark, Cyprus), and induction of labour from 6.8% to 33% (Lithuania, Belgium) (Europeristat 2013). In the UK, the increased focus on risk has led to a significant increase in the rates of caesarean section and instrumental delivery over the last 20-30 years (HES, 2012). This has had a corresponding effect on births recorded as normal or spontaneous, which fell by approximately 20% over the same period (Birth Choice UK, 2015).

There are continuing discussions at the national and global level about what constitutes a 'normal' birth. The Association for Improvements in the Maternity Services (AIMS) noted that the births of some women who contacted them due to birth trauma were recorded as a normal or spontaneous birth in hospital records (Beech, 1997). A subsequent study of five maternity units in the UK (the Trent survey) found that almost one third of women recorded as having a normal birth had experienced induction or acceleration of labour (Downe et al 2001). In 2007, the Maternity Care Working Party (a collaborative group that included the National Childbirth Trust, AIMS, the Royal College of Midwives and the Royal College of Obstetricians and Gynaecologists) issued a statement which defined normal birth as being 'without induction, without the use of instruments, not by caesarean section and without general, spinal or epidural anaesthetic before or during delivery' (MCWP, 2007; p1). Data were collected nationally relating to this criteria until 2006. Since then, Birth Choice UK has continued to report on rates of normal birth, using the following definition: a birth without induction of labour (with prostaglandins, oxytocics or ARM), epidural or spinal or general anaesthetic, forceps or ventouse, caesarean section, or episiotomy'. It appears that rates of normal birth without these interventions may currently be around 40% of all births in the UK (Birth Choice UK, 2015). However, there are significant regional and local variations, with Trusts reporting figures as high as 56% and as low as 28% (Birth Choice UK, 2015).

Many interventions are not captured in the Birth Choice UK definition, as they are not routinely reported to central data collection agencies. These include labour augmentation, which was reported at 20.9% for primigravid women and 11.1% for multigravida women in the Trent survey. To gain a more accurate understanding of what happens in the UK for births reported as 'normal' 15 years after the Trent study was carried out, both for healthy women and babies and for those with complications, a national audit was carried out of a representative sample of maternity providers in England, using an adapted version of the Trent survey (Downe et al 2001).

3. Aim of the Study

The aim of the study was to describe the nature and prevalence of interventions in labour and birth for births recorded as normal or spontaneous or physiological, for women and babies defined as both high and low risk of complications at labour onset.

4. Design

The study was a cross-sectional prevalence survey of hospital births over 5 continuous weeks spanning a six month period in 2014.

5. Methods

5.1 Pilot Phase

A pilot study was conducted in 5 Trusts in the North West during March - May 2013 to test the validity of the survey and to evaluate data collection methods. The pilot study was conducted over a 2 week period (sequential) and participating sites could use either a prospective or a retrospective approach for data collection. The North West Clinical Research Midwives Network representative in each pilot site was asked to co-ordinate the study on behalf of the research team, and to report back on the most convenient and practical approach to data collection.

Based on feedback from the pilot study (including response rates and practicalities of survey completion) the Study Management Group and Steering Group decided that both approaches (prospective and retrospective) were suitable. Trusts in the main study were therefore given the choice to use either, depending on staff resources and time constraints. The research midwives also indicated that the survey was understandable and relatively simple to complete. Less than 2% of the returned surveys were incomplete or completed incorrectly indicating a high level of acceptability. The results from the pilot study are not presented in this report.

5.2 Main study

5.2.1 Recruitment

For the main study, a sampling frame was drawn up of all UK maternity units, to include data on geographical location (all four countries, and north, south, east, west) urban/rural context, annual number of births, type of provision (hospital only, hospital plus birth centre) and annual rates of mode of birth for 2012.

A representative sample of 52 units was selected from this sampling frame. Trusts were prioritised for selection if they had either a consultant midwife or active RCM representative in situ. These individuals were approached by the RCM to see if they would be willing to participate. The RCM coordinator sent a letter explaining the study and giving details of the survey to identified RCM representatives or research midwives at each selected site by way of invitation (see Appendix 1).

5.2.2 Data collection

Five weeks were selected at random over a 6 month study period during 2014. Data collection was undertaken prospectively or retrospectively, depending on Trust choice. For retrospective data collection, the maternity records of all women not booked for an elective caesarean section were checked at the end of each week by the local study coordinator. For prospective data collection local coordinators were asked to ensure that each midwife completed a survey after each birth. All surveys were returned to the co-ordinating centre at UCLan at the end of each study week.

5.2.3 The survey

The survey was adapted from the questionnaire used for the Trent study (Downe et al 2001), with some amendments following suggestions made by the staff participating in the pilot. It comprised a simple, two page instrument with tick box style binary questions (mainly yes/no) and a text box to record any associated details (where necessary) [See Appendix 2]. A preliminary question asked whether the birth was recorded as normal (or natural or spontaneous) and a subsequent question listed a number of potential complications including prematurity, breech, multiple pregnancy and delivery by caesarean section, ventouse or forceps. If the birth was recorded as normal and without any of the above, the co-ordinator or recorder was asked to complete a couple of supplementary questions relating to parity (primiparous or multiparous) and risk status (high or low) at labour onset. Finally, the co-ordinator or midwife was asked to indicate whether any of the following took place during labour and birth.

- a. Items included in the Trent survey:
 - Induction (before labour started)
 - Augmentation of labour
 - Artificial rupture of membranes
 - Epidural anaesthesia
 - Episiotomy
 - Items added for the current survey following the pilot:
- b. CTG (> 1 hour continuous)
 - Use of a catheter
 - Fetal blood sampling
 - Antibiotics during labour
 - *A blank box to add any other local intervention or procedure*

A list of definitions for all of the above interventions was highlighted on the back of each survey in case of any confusion about the exact meaning. [See Appendix 2 for details]

6. Data Analysis

All completed surveys were scanned directly using SNAP software and a 10% sample were checked for accuracy by hand. Simple descriptive statistics (using SPSS v.20) were used to explore the data.

7. Project Management

The day to day management of the study was coordinated by a member of the Research in Childbirth and Health (ReaCH) team at UCLan who was responsible for the design, distribution and analysis of the surveys. The ReaCH co-ordinator was also responsible for establishing ethical standards and research governance procedures in conjunction with national committees (National Research Ethics Service) and participating Trusts or Health Boards. A local Study Management Group (SMG) was set up to offer advice and support and met four times during the study to discuss progress and address any issues arising. The group included two members of the UCLan ReaCH team and five members of the North West Research Midwives Collaboration Group.

The RCM also set up a Steering Group to oversee the study and met three times during the timeframe of the study. The steering group consisted of 4 RCM members and two representatives from the UCLan ReaCH team.

8. Ethics and governance

For the pilot study the Steering Group agreed that the survey was a service evaluation and, on this basis, ethics approval was only sought from UCLan. However, the Research and Development (R&D) departments in 3 of the 5 Trusts invited to take part in the pilot phase questioned our interpretation and, although they agreed to participate, advised us that it might be best to apply for proportionate review via the National Research Ethics Service (NRES) for the main study. Following discussions with the SMG and RCM Steering Group we agreed to do this and submitted an ethics application to NRES for proportionate review in August 2013. This was approved by the West of Scotland Research Ethics Committee in September 2013 (REC Ref 13/WS/0238). The main study also received approval from the UCLan Ethics Committee (Ref - BuSH 153). Approvals from individual Trust and Health Board R&D departments were sought as necessary prior to study commencement.

9. Results

9.1 Site Recruitment

Despite repeated attempts by the RCM to encourage maternity providers to take part only 7 Trusts agreed to distribute the survey (13%). All of the Trusts were based in England (7/142 [5%] of all English Trusts with maternity services in 2014) and all 7 completed five consecutive weeks of data collection during 2014. Although the proportion of all units in England that took part was small, participating sites were of varying size and configuration, and were from 5 different regions of England (North West, Yorkshire, East Midlands, West Midlands and South Central). A brief description of each Trust is shown in the table below (Table 1).

Table 1: Characteristics of participating Trusts

Unit Code	Trust Location	Urban/Rural	Configuration*	No of Births (Annual)#
1	Yorkshire/Humber	Mainly Urban	OU + AMU	5709
2	South Central	Urban + Rural	OU + AMU	5299
3	Yorkshire/Humber	Mainly Urban	OU	5142
4	East Midlands	Urban	OU	5772
5	West Midlands	Rural	OU	1900
6	North West	Urban	OU + AMU	6560
7	North West	Urban	OU	4387

* OU = Obstetric Unit. AMU = Alongside Midwifery Unit

#Number of annual births based on 2013-14 figures from Birth Choice UK

9.2 Survey return rates

There were a total of 3106 births in the 7 Trusts (excluding elective caesarean sections) during the data collection period. 3063 surveys were returned by the participating Trusts giving an overall response rate of 98.6%. Survey return rates for each of the individual Trusts are shown in Table 2 (below).

Table 2: Survey return rates by Trust

Unit Code	Trust Location	Births in study period	Surveys Returned	Forms returned blank	% Returns of eligible births (excl blank forms)
ALL	ALL	3106	3063	43	98.6%
1	Yorkshire/Humber	372	343	29	93.2%
2	South Central	524	523	1	99.8%
3	Yorkshire/Humber	475	463	12	97.5%
4	East Midlands	511	511	0	100%
5	West Midlands	182	181	1	99.5%
6	North West	597	597	0	100%
7	North West	445	445	0	100%

Births by elective caesarean section were excluded from data collection and are not included in this report.

9.3 Birth Data: all births

During the 5 week data collection period the participating Trusts reported on 3063 births in total. The highest number of births was recorded in Trust 6 (n=597) and the lowest in Trust 5 (n=181).

9.3.1 Births with none of the interventions under examination

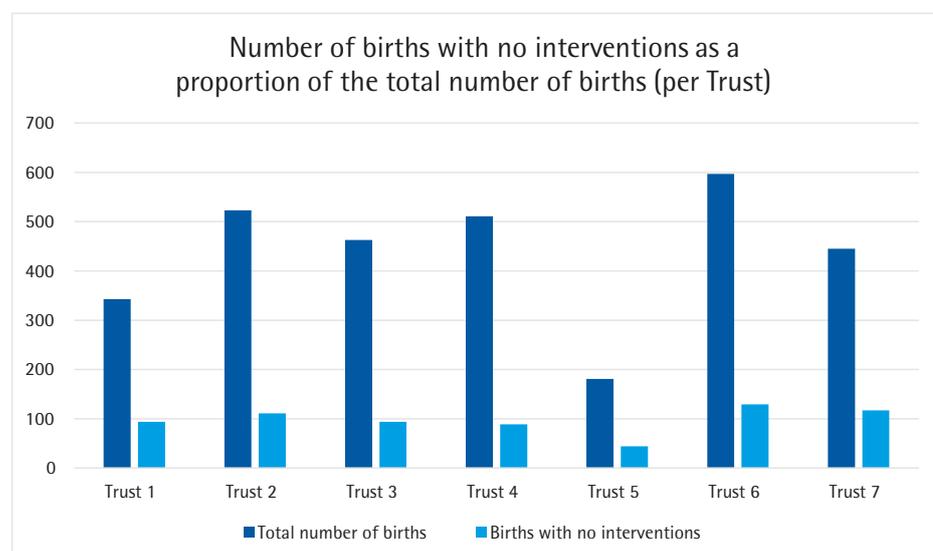
2385 (78%) women experienced at least one of the nine interventions highlighted in the survey. Only 22% of births (n=678) across all sites had no record of any of the listed interventions. At a Trust level the number of births with none of the interventions of interest varied from less than 1 in 5 (17%) in Trust 4 to slightly more than a quarter in Trust 1 (27%). Full details are shown in Table 3 and figure 1 (below)

Table 3: Births with none of the study interventions

Unit No.	Total number of births	Number of women with no study interventions* (% of Total)
ALL	3063	678 (22%)
1	343	94 (27%)
2	523	111 (21%)
3	463	94 (20%)
4	511	89 (17%)
5	181	44 (24%)
6	597	129 (22%)
7	445	117 (26%)

*excluding elective caesarean sections

Figure 1: Births with no study interventions compared to total number of births



Based on 2013/2014 data, around 11% of all births in the contributing Trusts were by elective caesarean section. Extrapolating from this figure to the data above results in a total birth count of approximately 3400 over the period of the survey across all the participating Trusts. This reduces the rate of births without the interventions under examination to 19.9% for the whole sample (678/3400). The overall rate of births to nulliparous women in England in 2013/2014 was 36.7%. By extrapolation, approximately 1248 of the births in the five weeks of the survey were to nulliparous women. Of the 487 nulliparous women in the survey that were recorded as having a normal birth, 186 did not have any of the interventions of interest recorded. This suggests that around 14.9% of all nulliparous women in the sample had a normal birth without at least one of the study interventions (186/1248). Using the same method of calculation, there were approximately 2152 births to multiparous women in the sample over the 5 weeks of the study. 504 multiparous women in the study had a normal birth without any of the study interventions recorded, giving a rate of 23.4% (504/2152).

9.4 Birth Data: 'normal' births

9.4.1 Births recorded as 'normal'

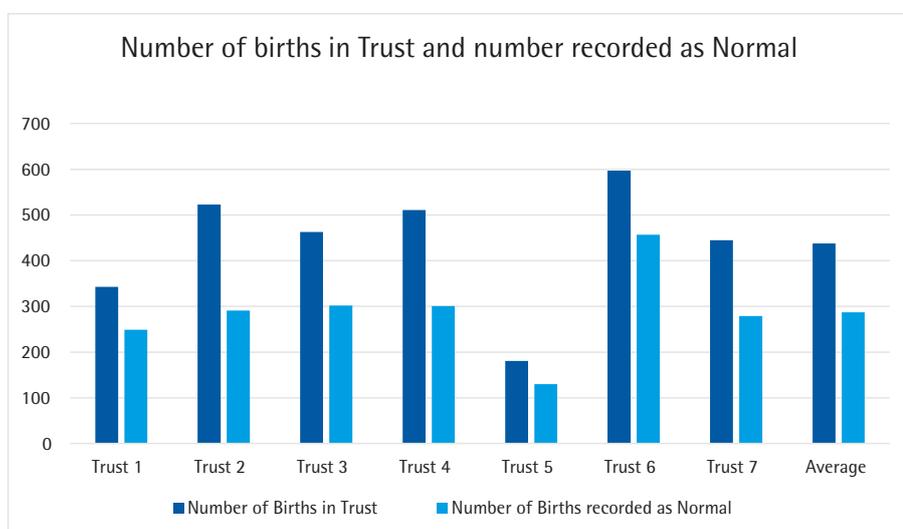
Overall, 2009 (65.5%) births were recorded as being 'normal'. The Trust recording the highest number of births as 'normal' was Trust 6 with 456 (76.5% of all births during the study period) and the lowest was Trust 2 with 291 (55.6%). Full details of the birth rates and normal birth rates for each Trust are shown in table 4 and Figure 2 (below).

Table 4: Total births, and proportion recorded as 'normal' by Trust

Unit code	Trust location (by region)	No of recorded births in Trust (n)	% of total recorded births in all Trusts	Normal births recorded in Trust (n)	% of births recorded as normal in Trust
1	Yorkshire/Humber	343	11.2	249	72.6
2	South Central	523	17.1	291	55.6
3	Yorkshire/Humber	463	15.0	302	65.2
4	East Midlands	511	16.7	301	58.9
5	West Midlands	181	6.0	130	71.8
6	North West	597	19.5	457	76.5
7	North West	445	14.5	279	62.7
Total (Mean)	-	3063 (438)	100.0 (14.3%)	2009 (287)	- (65.5%)

Data collected at different time periods depending on the date of Trust recruitment into the study

Figure 2: Total number of recorded births and total recorded as normal (per Trust)



A number of the births recorded as normal were also associated with complications and/or instrumental delivery including prematurity, i.e. before 37 weeks gestation, (n=103), breech (n=14), multiple births (n=25), caesarean section (n=22), ventouse (n=76) and the use of forceps (n=58) (see Table 5). Data from individual Trusts is shown in Appendix 3.

Table 5: Recording of normal birth associated with complications at labour onset/instrumental birth

Births recorded as normal (n=2009)	No. of Births	% of normal births
Baby born before 37 weeks gestation	103	5
Baby breech at presentation	14	0.7
Multiple pregnancies	25	1
Birth by caesarean section	22	1
Ventouse delivery	76	4
Forceps delivery	58	3

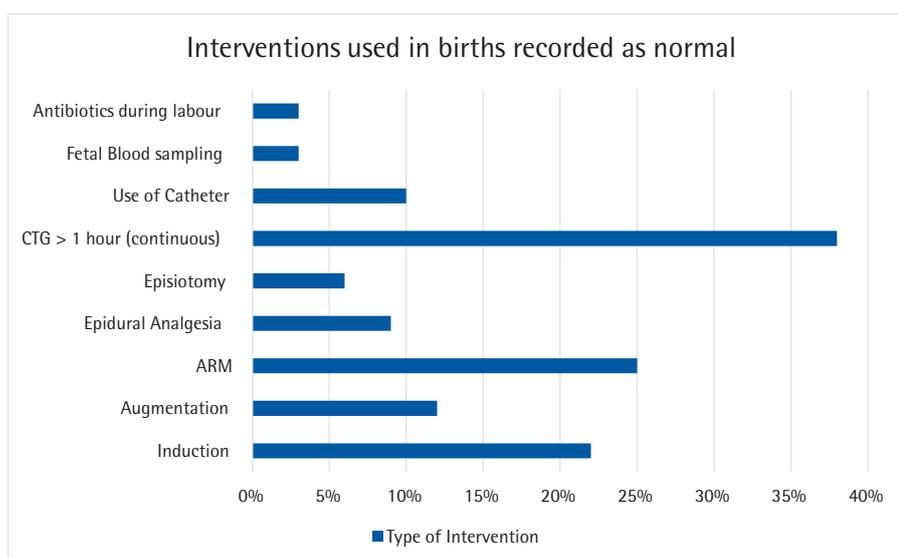
The reasons for these births being recorded as 'normal' are unclear but may be due to recording error.

Just over two thirds of births recorded as 'normal' were associated with intervention (66.2%). The most frequently used technique was cardiotocography (CTG) (38%) and the least frequent were fetal blood sampling and antibiotics during labour (both 3%). Rates of ARM (Artificial rupture of membranes) and induction were also relatively high at 25% and 22% respectively. See Table 6 and figure 3 for details.

Table 6: Births recorded as normal, with at least one of the interventions of interest

Births recorded as normal (n= 2009)	No of times intervention used (n)	% of births recorded as 'normal'
Induction	449	22%
Augmentation of labour	248	12%
Artificial rupture of membrane	506	25%
Epidural analgesia	176	9%
Episiotomy	116	6%
CTG (> 1 hour continuous)	758	38%
Use of a catheter	204	10%
Fetal blood sampling	63	3%
Antibiotics during labour	66	3%
Other	15	0.7%

Figure 3: Type of intervention used in births recorded as normal



The combined rates of induction and augmentation are very similar to those found in 2000 (Downe et al 2001). In general, individual Trust data were remarkably consistent with the overall picture. However, there were notable exceptions with the smallest unit (5) having much lower levels of intervention, especially augmentation (4%) and ARM (17%) whilst antibiotic use in Unit 2 was almost three times the average at 10%. Further information relating to individual Trusts, including use of all of the interventions is shown in Appendix 2.

9.4.2 Parity and Health Status

As noted above, data on parity and health status were only recorded when a birth was marked as normal. Of the 2009 births recorded this way, data on parity were available in 1675 cases with 487 births being to primiparous women (29% of records with this information) and 1188 to multiparous women (71% of records with this information). Data were missing in 334 cases (16.1%). The rate of missing data by Trust did not correlate with the proportions of multigravida and primigravida women experiencing births recorded as normal, so the differences in rates by Trust are likely to be accurate, and not influenced by systematic bias in the missing data. At labour onset the health status of the woman was recorded as high risk (with complications) in 642 instances (39% of records with this information) and low risk (healthy) in 982 (61% of records with this information) with 385 (19.2%) cases missing. As with the parity data, the rate of missing data for this item did not seem to be directly related to the rates of women/babies who were healthy at labour onset, and those with complications, as recorded by Trust (see table 9 for details).

Table 7: Parity and health status by births recorded as normal

Unit No	Births recorded as Normal	Parity			Status at Labour Onset		
		Of all recorded cases (minus missing data)		Missing	Of all recorded cases (minus missing data)		Missing
		Primigrav'd	Multigravid		Complications	Healthy	
All	2009 (65.5%)	487 (29%)	1188 (71%)	334 (16%)	642 (39%)	982 (61%)	385 (19%)
1	249 (72.6%)	33 (15%)	192 (85%)	24 (10%)	110 (49%)	113 (51%)	26 (10%)
2	291 (55.6%)	63 (26%)	182 (74%)	46 (16%)	92 (37%)	154 (63%)	45 (15%)
3	302 (65.2%)	91 (36%)	159 (64%)	52 (17%)	83 (34%)	160 (66%)	59 (20%)
4	301 (58.9%)	87 (34%)	171 (66%)	43 (14%)	119 (48%)	128 (51%)	54 (17%)
5	130 (71.8%)	32 (30%)	74 (70%)	24 (18%)	59 (58%)	42 (42%)	29 (23%)
6	457 (76.5%)	86 (25%)	253 (75%)	118 (26%)	111 (33%)	226 (67%)	120 (27%)
7	279 (62.7%)	95 (39%)	151 (61%)	33 (12%)	68 (30%)	159 (70%)	52 (19%)

Among all women recorded as having a normal birth where parity was also recorded, the proportion of all normal births that were to primigravida women was 15%-39% by Trust, with an average of 29% across all Trusts. The proportion of women who gave birth normally without the interventions of interest and who were high risk of complications (excluding women for whom this variable was not recorded) ranged from 30% to 58% by Trust, and 39% overall. This supports the intent of the RCM Better Births Initiative (RCM 2015) in promoting the potential for women and babies with complications to experience a physiological birth without interventions. However, it also raises a question about what is happening to women and babies who are healthy at labour onset, if, in some Trusts, the proportion of those experiencing physiological birth who did not have complications is about the same as, or lower than, those who did have complications at labour onset. Both Trusts where this occurred were in the Midlands, but, otherwise, there were no specific characteristics in the rest of the data analysis to differentiate them from the other 5 Trusts in the analysis. Indeed, they had very different profiles in terms of size of unit (6100, 1900) and overall rates of recorded normal birth (58.9%, 71.8%).

10. Discussion

The main limitation of this survey is that data were only available for 7 Trusts in England. However, the Trusts that did take part were diverse in terms of service configuration, size of unit, and geographic spread. The response rates were good, with good completion rates for most items.

As in previous studies in this area, the data demonstrate that rates of births recorded as normal vary widely between Trusts (55.6–76.5%). However, these figures do not represent the rates of physiological labour and birth, as 78% of all the births occurring after spontaneous onset in this survey included at least one of the interventions pre-specified in this study. The percentage of women who went into labour and who experienced a normal labour and birth as defined by the study protocol was only 22% overall, and it ranged from 17%– 27% by Trust. As noted above, extrapolating from national data, this rate reduces to 19.9% for the whole sample; 14.9% for primigravid women and 23.4% for multigravida women.

This is a strikingly low percentage, given the national and international recognition of the clinical, psychological, and economic importance of physiological labour and birth from research, political and governance perspectives (NICE 2014, 2015, Renfrew et al 2014, WHO 1996). It is also intriguing that these data indicate that women and babies who had complications at the onset of labour were, in some hospitals, more highly represented in the group of those experiencing physiological labour and birth than women and babies who were deemed low-risk (healthy) at labour onset. The RCM Babies Born Better initiative could learn from places where this is the case to develop strategies to maximise physiological labour and birth for women and babies with complications. However, the low proportion of healthy women and babies in the group of women experiencing physiological birth is of great concern, as this suggests iatrogenic risks for this specific group. There is therefore an urgent imperative for the RCM and others to consider what is happening to many apparently healthy women and babies between labour onset and the birth of their baby.

According to WHO (1996), 80% of women and babies globally are healthy at the onset of labour, and most of them should experience a normal labour and birth. This figure has recently been corroborated by a WHO-sponsored study of the required level of caesarean section below which populations of women and babies experience excessive mortality and morbidity, and above which they are at risk of iatrogenic damage (WHO 2015). The global recognition that caesarean section rates are too high continues to largely ignore the profound implications of very low rates of physiological labour and birth. Indeed, the growing popularity of induction of labour at, or even before term as a solution to high rates of caesarean (Gulmezoglu et al 2012; Sacconi and Berghella 2015) indicates that the value of physiological and psychosocial labour processes, as well as of the mode of birth itself, are still not understood or appreciated in the national and global maternity services community.

As the evidence mounts of the potential implications of physiological labour and birth for the wellbeing of the mother and baby in the longer term and even trans-generationally (Dahlen et al 2013, Olze-Fernandez et al 2014, Marin et al 2015), it is imperative to understand the nature of physiological birth and how to maximise it for all women and babies, within as well as outside of the hospital context, whether they start labour in good health, or with complications. Given the anecdotal accounts of the numbers of midwives wanting to work in a birth centre environment, it is possible that retention and wellbeing of midwifery staff is maximised in settings where physiological birth is more prevalent. If this is so, efforts to learn from sites where this is done well might also improve the sustainability of midwife staffing. This survey provides a benchmark for future tracking of the success or failure of initiatives in this area in the future.

11. Conclusions

This study indicates that, despite high levels of affluence and general health, good midwifery and obstetric cover, free maternity care, and government policies supporting normal labour and birth, rates of physiological labour and birth in English hospital settings continue to be very low, and that they may even be falling, especially among healthy women and babies.

However, it also demonstrates that women and babies with complications at the onset of labour can be supported to experience a labour and birth with minimal interventions. The survey could serve as a baseline for regular tracking of this situation in future years, and as a trigger for establishing how and why some Trusts maintain high rates of physiological labour and birth in their hospital maternity settings, both for healthy women and babies and for those with complications. This could be a basis for rolling out what they do well to other settings that are performing less well, with the aim of improving maternal and newborn safety and wellbeing, reducing NHS costs, and improving the job satisfaction and retention of midwives and other maternity care staff.

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