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Maternity Services



I have prepared this report for presentation to the National Assembly under the Government of Wales Acts 1998 and 2006.

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Assembly on 19 June 2009**



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Summary

- 1 More than 30,000 women give birth in Wales each year and the annual rate of births¹ has increased from just over 33,600 in 2006 to nearly 34,500 in 2007². The level of demand on maternity services varies significantly across Welsh trusts, with more than a third of all births being in two NHS trusts – Cardiff and Vale NHS Trust and Gwent Healthcare NHS Trust.
- 2 During 2007 and 2008, we undertook audit work at each of the then 13 providers of maternity services in Wales, namely 12 NHS trusts and Powys Local Health Board (LHB) (referred to collectively in this report as trusts). We undertook this work in collaboration with the Healthcare Commission to benchmark the performance of maternity services across England and Wales. This report presents the national picture across Wales and draws on local reports presented in 2008 to each of the Welsh NHS trusts. Most trusts have now developed action plans aiming to address the issues we highlighted in our local work but we have not assessed the effectiveness of these plans. Our methodology is set out in [Appendix 1](#).
- 3 Our work assessed whether NHS trusts in Wales are delivering efficient maternity services that result in positive experiences and outcomes for women and their babies. We concluded that while maternity services are generally appropriate and women's satisfaction levels are relatively high compared with England, practices vary

unacceptably and information is generally not well collected or used.

The planning of maternity services is undermined by the lack of a coherent strategic vision and poor information about the cost and quality of services

- 4 Maternity services need to be planned in such a way that they meet the needs of the local population. It is also important that services meet national standards to help ensure consistency in the quality of services provided across Wales. However, whilst there is a raft of guidance documents that set out minimum standards for maternity services, we found that the Assembly Government has not yet articulated a clear vision about what a good maternity service looks like. The *National Service Framework for Children, Young People and Maternity Services* (the National Service Framework)³ sets out the policy priorities of the Assembly Government across all services related to children and includes key actions to be taken forward at a local level. But the framework document does not provide an overarching strategy for maternity services in Wales and, as a whole, the document is not ambitious enough as a driver for service improvement. The Assembly Government has not set any national

1 Live births, excluding still births.

2 Welsh Assembly Government, *Births in Wales: Data from the National Community Child Health Database: June 2008*. Provisional data for 2008 was due to be released in June 2009.

3 Welsh Assembly Government *National Service Framework for Children, Young People and Maternity Services in Wales: September 2005*.



performance targets for maternity services and, whilst we are not necessarily recommending the implementation of such targets, the lack of national performance targets for maternity services has resulted in other service areas being given higher priority.

- 5 At a local level, planning of maternity services is undermined by a lack of robust and accurate information about the cost of maternity services. Trusts are not provided with ring-fenced funding for maternity services which means it is difficult to quantify what it actually costs to provide these services. Long-term agreements between trusts and LHBs should be an important tool in providing information on cost and quality to inform the future planning of maternity services. But we found that only 5 of the 13 trusts had long-term agreements with their LHBs, that set out the level of funding provided by the LHB for these services and the quality and service levels that the NHS trust provides in return.
- 6 Most maternity services are planned such that they appear to have the necessary capacity to meet local demand. However, antenatal assessment units, which are hospital units used to monitor the condition of pregnant women, are not always used effectively to reduce unnecessary antenatal admissions of women to hospital. Furthermore, there are mismatches in capacity and demand within neonatal services.
- 7 Staffing levels in some trusts are not always adequate. Some trusts are failing to meet recommended midwifery staffing levels and, whilst some of the data related to consultant staffing levels is unclear, in some trusts there is insufficient consultant obstetrician presence on the delivery suite.

- 8 Levels of training for maternity staff vary considerably and are low in many Welsh trusts, particularly in areas such as skills for handling maternity emergencies and in monitoring the progress of labour. The proportion of obstetricians that have received core training within recommended timescales is particularly concerning.

Services are mainly of an appropriate standard and many women are satisfied with their experience but there is unacceptable variation in practice

- 9 The experience of mothers is a key indicator of how well maternity services are performing although what satisfies the user might not always be the most clinically effective or cost-efficient course of action. Therefore, maternity services should aim to achieve high levels of satisfaction as well as providing high-quality care that meet prescribed standards of good practice.
- 10 We found that the levels of women's satisfaction in Wales are higher and more consistent than in England. However, our survey of new mothers suggested that a significant minority of women felt they were not always treated with dignity and respect or kindness and understanding.
- 11 Our survey of new mothers indicated that most women access maternity services within recommended timescales in that they generally see a healthcare professional for the first 'booking appointment' within the first 12 weeks of pregnancy⁴. The National Service Framework promotes midwives as

⁴ A booking appointment is a detailed assessment of the woman's physical and social health and clinical history so that the rest of the antenatal care can be planned appropriately and any potential problems identified in good time. The booking appointment is normally carried out by a midwife.

being the most appropriate first point of contact for pregnant women. But we found that, typically, 69 per cent of women first went to their GP.

- 12** We found that, in some trusts, the information provided to pregnant women is not effective in informing women about what they can expect from maternity services and in helping women make informed choices about their care. Antenatal classes are an ideal opportunity for healthcare professionals to provide women and their partners with such information. However, the proportion of women who, through our survey, told us that they had wanted to attend antenatal classes and were able to do so varied markedly with low attendance rates in a number of trusts. There may be a number of factors behind the lower attendance including location, size and timings as well as actual content of classes.
- 13** Whilst we found that most women receive the appropriate number and type of antenatal scans, some women receive less than the recommended number of antenatal check-ups. And, in some trusts, the average number of scans that women receive appears excessive. All trusts offer screening for Down's syndrome but they are not offering the latest recommended screening tests that support higher detection rates. The new test cannot be implemented until the Assembly Government and Health Commission Wales agree the mechanism for funding the standardised test.
- 14** We found that the choices women have about where they give birth are limited by local differences in the types of services available as well as other factors such as different ways that clinicians assess the risks associated with homebirths. In addition, we found that the way labour is managed in some trusts is concerning. For example:
- a** although women highly rated their care during and shortly after labour, a significant minority felt they were left alone and worried;
 - b** the typical rate of normal births⁵ in Wales is 40 per cent which is considerably lower than the recommended level⁶, and there are inconsistencies in the extent to which some trusts intervene during labour such as through inductions and the use of forceps and ventouse;
 - c** staff working within some maternity units informed us that monitoring during labour was not always used effectively and this can lead to unnecessary interventions and potential risks;
 - d** there is a higher level of Caesarean sections within Wales than in England and there are inconsistencies in the practices that trusts employ to prevent unnecessary Caesareans; and
 - e** most women received effective pain management but about 20 per cent of women in our survey said they did not get the pain relief they wanted.
- 15** Our survey of new mothers indicated postnatal care is the least satisfactory phase of maternity care although, again, satisfaction rates compare well with England. Over a third of new mothers were unhappy with the quality of support and advice for infant feeding, which may be contributing to relatively low levels of breastfeeding in Wales. Trusts reported that the proportion of women who initiated breastfeeding ranged from 43 per cent to 66 per cent in Welsh trusts. In addition, we found wide variation in the length of time that mothers stayed in hospital after their baby was born even for similar types of delivery. Whilst many women were satisfied with their

⁵ In this review a 'normal birth' was defined as a spontaneous vaginal delivery without the aid of an epidural, spinal or general anaesthesia, forceps or ventouse.

⁶ The Maternity Care Working Party's consensus statement in 2007 recommends that normal births should account for 60 per cent of all deliveries by 2010.



length of stay, a quarter of surveyed women were not, with 15 per cent stating it was too long and 11 per cent stating it was too short. This suggests that trusts are not sufficiently responsive to women's individual needs in determining the length of stay in hospital, and in some cases, may not be making most efficient use of bed capacity.

- 16** It is important that the NHS maintains contact with mothers for a short period of time after they have returned home from hospital, in order to monitor their condition and the progress of the baby. However, we found wide variation between trusts in the number of times that maternity healthcare professionals have contact with new mothers. The large extent of this variation, together with the fact that up to a quarter of women in some trusts had wanted more contact after they had given birth, suggests a lack of consistency across Wales in the way that trusts decide on the appropriate level of postnatal support.

Information is not collected on a consistent basis or used effectively as the evidence base for improving services

- 17** The collection and analysis of good quality information on services and performance is a key aspect of the work that trusts should be doing to improve their maternity services. We found that there is no common data set for maternity services within Wales and, in general, maternity services do not monitor their performance well. Trusts collect performance management information in different ways which prevents meaningful benchmarking of performance amongst trusts in Wales and more widely. We found significant gaps in the information that trusts

collect in relation to maternal and neonatal outcomes, which are important indicators of safety and effectiveness.

- 18** Throughout our review many maternity staff, midwives and clinicians told us of their frustration about the lack of quality performance information available. We identified problems including inadequate and poorly maintained maternity service information systems and a reliance on paper systems for information provision.
- 19** Whilst maternity services have a range of forums and committees for gathering feedback on the performance of their services, these groups are not being used optimally to drive service improvement. The membership of these forums frequently does not include service users and trusts are therefore missing an opportunity to collect valuable, first-hand information about women's experiences.
- 20** Clinical negligence claims for obstetrics have more than doubled between 2003-04 and 2007-08 with £28.4 million paid out by the Welsh Risk Pool in 2007-08⁷. In addition, 10 trusts reported an increase in patient safety incidents in 2006-07 compared to 2005-06 although it is unclear to what extent this is due to better reporting of such incidents. We found that the culture in some trusts might not be conducive to learning from such incidents. For example, staff in five trusts told us that they do not get timely and comprehensive feedback following such incidents. We also found that in some maternity services the source of leadership for maternity services is unclear which might result in tensions among staff, may hamper effective team working and create problems with planning and improving services.

⁷ The 2007-08 data is the most recent available data at the time of our report.

Recommendations

To improve the planning of maternity services

- 1 At a national level, the improvement of maternity services does not appear to be one of the major strategic priorities for the Assembly Government, and there is not a coherent strategic vision for maternity services in Wales. At a local level, planning is hampered by a lack of robust and accurate information regarding the current cost and quality of services. **We recommend that:**
 - a **The Assembly Government develops a comprehensive strategy document that sets out its vision for maternity services, highlights good practice and offers guidance on the priorities for local service planning.**
 - b **The delivery of this strategy be supported by a clear accountability framework at every level. Such a framework should require policy leads and the different professional groups to work more closely together to achieve common and shared objectives.**
 - c **The new LHBs⁸, tasked with integrated service planning and provision, use the NHS reconfiguration as an opportunity to formalise the ways in which information about service quality and costs is fed back into service planning.**
 - d **The new LHBs should work together to carry out a comprehensive assessment of the actual costs of maternity services. The mechanism adopted needs to be consistently applied across each health body.**

- e **The new LHBs must work harder to gather the views of service users and to fully consider these views when planning services. In particular, the providers of maternity services should ensure that their maternity forums have appropriate representation from service users and ensure that the results of opinion surveys are considered as a priority.**

To ensure maternity services have the appropriate number of adequately trained staff

- 2 The midwifery staffing levels in some maternity services do not meet recommended levels and many trusts are unsure about how their consultants' time is divided between their obstetrics and gynaecology work. **We recommend that:**
 - a **Where midwifery staffing levels fall below recommended levels, the new LHBs should undertake an assessment of the adequacy of their staffing requirements for delivering safe and high-quality services.**
 - b **The new LHBs should review whether they have sufficient numbers of maternity support workers to support the efficient release of midwives to focus on more specialist care and treatment; and support the new national training programme⁹ to ensure all maternity support workers have the appropriate skills.**
 - c **The new LHBs need to strengthen the consultant job planning process to ensure that the details of consultant programmed activities are clearly stated and understood so that trusts are readily able to distinguish the time**

⁸ In July 2008, the Minister for Health and Social Services announced plans to reorganise the NHS in Wales. Local health boards and NHS trusts will be combined to produce single organisations responsible for both planning and delivering services.

⁹ News: More Training for Support Staff to Improve Maternity Services and Ease Pressure on Midwives, www.wales.nhs.uk/newsitem



consultants spend on obstetrics as opposed to gynaecology. This improvement would help trusts ensure they have appropriate consultant cover.

- d** Where the presence of consultant obstetricians on delivery suites fall below recommended levels, the new LHBs should undertake an assessment of the adequacy of their individual consultant staffing requirements for delivering safe and high-quality services.

3 The level of staff training is very low in some trusts and the results of our survey of new mothers suggest a potential training need in relation to the way that some staff treat women. **We recommend that:**

- a** the new LHBs should ensure all maternity service staff are trained to the required levels; and
- b** the new LHBs should review their training programmes to ensure that there is sufficient focus on the principles of respect, well-being, choice and dignity for women.

To improve women's access to antenatal check-ups

4 Although guidance specifies that midwives are the most appropriate first point of contact for pregnant women, the majority of women first contact their GP rather than a midwife. Some women are not having the appropriate number of check-ups. **We recommend that:**

- a** the new LHBs should provide locally accessible community locations that can function as antenatal drop-in centres run by midwives;
- b** the new LHBs should promote midwives as the most appropriate first

point of access for pregnant women and more widely signpost and publicise the services that can be accessed locally; and

- c** the new LHBs should review their processes for deciding on the appropriate number of antenatal check-ups to ensure this is based on need and that all women receive the recommended number of check-ups.

To improve antenatal screening and testing

5 Routine antenatal screening and testing is important for monitoring the baby's growth and for the early identification of any health problems that the mother or baby might be suffering. Whilst most women received the minimum number of scans, we found that in some trusts the average number of scans per woman appears excessive. We also found that the most up-to-date test for Down's syndrome is not being offered by Welsh trusts because they are awaiting the completion of an all-Wales agreement on the way that the test will be funded. **We recommend that:**

- a** The new LHBs develop local guidelines to ensure that pregnant women are scanned only if there has been a formal assessment of need and local audits should be carried out to assess the extent to which the guidelines are being applied.
- b** The new LHBs should include information about the local guidelines for scanning within the first booking appointment. This should help to explain to women that additional scanning (over and above the minimum expected) is not always the most appropriate way of assessing the condition of the baby.

- c The Assembly Government and Health Commission Wales must act quickly to agree the funding arrangements for the new Down's syndrome test to ensure that the most sensitive test is being used in Wales.**

To improve the ways maternity services help women come to informed decisions about their pregnancy

- 6** In some trusts, the information provided to pregnant women is not sufficient to explain what they can expect from their maternity services or to help women make informed choices about their care. The booking appointments provided in some trusts fail to cover issues such as the woman's mental health and maternity rights and benefits. And some mothers do not receive a copy of *The Pregnancy Book*, which is a particularly important source of information for first-time mothers. Attendance levels at the antenatal classes provided by some trusts are low. **We recommend that:**
 - a** **The new LHBs review their arrangements for booking appointments to ensure that mental health issues and issues concerning maternal rights and benefits are consistently covered in discussions with the pregnant woman.**
 - b** **The new LHBs ensure that every woman, whether having their first or subsequent baby, receives a copy of *The Pregnancy Book* if they want one.**
 - c** **Through general surveys of maternity service users, the new LHBs should explore the reasons for low attendance at antenatal classes. The results of these surveys should be acted upon to ensure women and their partners are given every opportunity of attending classes if they wish to.**

To improve care during labour and birth

- 7** About 20 per cent of women in our survey said that they did not get the pain relief they wanted. And although keeping women mobile during labour can encourage a smoother birth process, in 3 of the 13 trusts, more than half of staff responding to our survey felt that monitoring equipment, for example cardiotocography (CTG) equipment¹⁰, is connected to the woman for overly long periods of time, thereby preventing the woman from moving around. Continuity of care during labour and birth is an issue in some trusts with between 10 per cent and 24 per cent of women in our survey reporting that they felt they had been left alone and worried during labour. **We recommend that:**
 - a** **the new LHBs should put processes in place to ensure that women's preferences for pain relief are formally recorded by the clinicians caring for them and that clinicians discuss with women the issues regarding pain relief so that women have realistic expectations and understanding that not all pain relief methods can be used at all times;**
 - b** **the new LHBs should encourage women to move around during labour and assess whether CTG equipment is being overused to the extent that it is preventing women being mobile during labour; and**
 - c** **the new LHBs should promote the principle that women are not left alone during or just after labour, but if that is unavoidable then the woman should be assured that a clinician is close at hand if required.**

¹⁰ Cardiotocography is a method for electronically monitoring the fetal heart rate and uterine contractions during labour. Cardiotocography can be used to identify early signs of fetal distress.



8 All Welsh trusts exceed a 20 per cent rate of Caesareans, despite the World Health Organisation saying there is no justification for Caesarean rates higher than 15 per cent. We found inconsistencies in the practices that trusts employ to prevent unnecessary Caesarean sections and poor and inconsistent use of data to inform performance. **We recommend that:**

- a** the new LHBs carry out local audits to assess the appropriateness of their Caesarean section rate including a comparison of Caesarean rates for individual consultants; and
- b** where local audits reveal high rates of Caesarean sections, the new LHBs should implement a Caesarean toolkit developed by the NHS Institute for Innovation and Improvement which aims to reduce section rates (see **Box 7** on page 41).

To improve postnatal care and support

9 Women responding to our survey said they were less satisfied with their postnatal care than with the other phases of their maternity care. A particularly negative aspect of postnatal care was the quality of support and advice for infant feeding, which may contribute to low levels of breastfeeding in Wales. **We recommend that:**

- a** the new LHBs explore and act on the reasons for lower satisfaction rates in postnatal care and, where necessary, engage with new mothers further to assess the contributing factors and how services might be improved; and
- b** the new LHBs should ensure that the necessary support is available to support women to breastfeed and that the advice and support provided is consistent.

10 Trusts are not consistent in the frequency of contact with new mothers and their babies. Our survey of new mothers indicated that in 10 of the 13 trusts, more than 20 per cent of women did not receive the standard physical and emotional health check at six to eight weeks after birth. **We recommend that:**

- a** the new LHBs review their policy and practice to ensure that the level of postnatal care is appropriate to the needs of new mothers and that all women receive at least the minimum standard number of postnatal check-ups; and
- b** the new LHBs work with primary care to ensure that the standard six-week postnatal check-up of the mother's health and well-being takes place.

To improve maternity service data and analysis

11 We identified deficiencies in the ways that trusts collect and analyse data relating to the performance of their maternity services. There is no common data set for Welsh maternity services, which results in inconsistencies in the ways that different services monitor their performance and there are significant gaps in the data that maternity services collect relating to maternal and neonatal outcomes.

We recommend that:

- a** the Assembly Government, in partnership with the NHS in Wales and other key stakeholders, agree a coherent common data set for maternity services and this data set should be explicit about the neonatal and maternal outcome indicators to be monitored;
- b** the new LHBs develop appropriate IT systems that enables systematic recording and analysis of maternity service performance through the indicators defined in the common data set (see **a** above); and

- c the Assembly Government and NHS bodies should standardise coding of inpatient episodes to ensure that data is accurate and provides a true reflection of activity.**

To improve safety

12 In 2007-08, the Welsh Risk Pool paid out £28.4 million in respect of obstetric litigation claims. These obstetric litigation claims accounted for 66 per cent of the value of all clinical negligence claims in Wales during that year. Ten of the 13 trusts reported an increase in the number of patient safety incidents in 2006-07 although that might be due to more consistent reporting of such incidents.

We recommend that:

- a the new LHBs standardise the criteria for incident reporting; seek to promote a culture of openness and put mechanisms in place to support learning from incidents; and**
- b the new LHBs should implement the recommendations contained within the Welsh Risk Pool Maternity Project in addressing the problems in the use and interpretation of electronic fetal monitoring that is a common feature in a large number of high-value obstetric clinical negligence claims^{11 12}.**

¹¹ The Welsh Risk Pool is part of the NHS in Wales. The Welsh Risk Pool's work includes reimbursing trusts for expenditure incurred over £25,000 in respect of clinical negligence claims. In order to obtain reimbursement, trusts need to demonstrate that the circumstances of the claim have been reviewed and appropriate action has been taken to reduce the risk of recurrence. Where trends or common issues are evident from claims within Wales, the Welsh Risk Pool also undertakes thematic work.

¹² Welsh Risk Pool Maternity Project, January 2009



Part 1 - The planning of maternity services is undermined by the lack of a coherent strategic vision and poor information about the cost and quality of services

1.1 The planning of maternity services needs to ensure the provision of safe and effective services that meet the needs of their local populations. In this part of the report, we consider the national guidance provided to those trusts providing maternity services, the ways in which services are planned and the extent to which maternity services have adequate capacity to meet demand. We found that:

- a** although there are numerous guidance documents and policies to assist the planning of maternity services, the Assembly Government has not yet articulated a clear vision about what maternity services should look like;
- b** at a local level, the planning of maternity services is often weak and is undermined by a lack of robust and accurate information on cost and quality of services; and
- c** although the capacity of most maternity units appears appropriate to meet demand, in some trusts staffing levels and training are not always adequate.

Although there are clear guidance documents and policies, an overarching strategy for maternity services has not yet been articulated

1.2 NHS trusts' planning of maternity services needs to address the local needs of their population whilst also promoting best practice. We found that the level of demand on maternity services varies widely across Welsh trusts with more than a third of women having given birth in two NHS trusts – Cardiff and Vale NHS Trust and Gwent Healthcare NHS Trust (**Figure 1**).

1.3 There are numerous guidance documents and policies that inform the strategic and operational context for the delivery of maternity services and attempt to ensure consistency of the quality of services provided across Wales. These documents include:

- a** The Assembly Government's *National Service Framework for Children, Young People and Maternity Services* (the National Service Framework), launched in September 2005;
- b** *Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour*, October 2007¹³;
- c** National Institute for Health and Clinical Excellence (NICE) clinical guidance covering a number of key areas within maternity services; and

¹³ *Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour* Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health, October 2007

Figure 1 - The overall birth rate in Wales conceals significant local variations

NHS trust	Number of women who gave birth in year ending 31 March 2007
Gwent Healthcare	5,884
Cardiff and Vale	5,733
Swansea	3,445
Bro Morgannwg	2,547
Conwy and Denbighshire	2,402
North East Wales	2,394
Pontypridd and Rhondda	2,355
North West Wales	2,082
North Glamorgan	1,594
Carmarthenshire	1,584
Pembrokeshire and Derwen	1,283
Ceredigion and Mid Wales	587
Powys LHB	306

Source: Wales Audit Office and Healthcare Commission analysis of trust data

- d professional guidance documents from the relevant colleges such as the Royal College of Obstetricians and Gynaecologists guidelines identify guidelines and standards to inform and aid good clinical practice.

1.4 Whilst there is a considerable amount of guidance for the planning of maternity services, the Assembly Government has not developed an overarching strategy for maternity services in Wales that sets out what a good maternity service looks like. The National Service Framework supports the delivery of services for children and young people through the setting of national standards. The framework has a wide scope covering all relevant children’s services as well as a range of NHS and local government services. In our interviews with stakeholders across Wales, we were told that the document does not focus sufficiently on maternity services and is not ambitious enough.

1.5 A group of maternity service professionals, through the Obstetrics and Gynaecology National Specialty Advisory Group, has met to discuss how they would like maternity services to develop in Wales. We are advised that the next stage of this group’s work will be a multi-agency task and finish group. The group will not develop an overarching strategy but aims to provide a professional viewpoint to inform the future design of maternity services.

1.6 The Assembly Government has not established any national targets related to maternity services. Whilst we are not necessarily recommending the implementation of such targets, a consequence has been that maternity services have been given a relatively lower priority by NHS trusts.



At a local level, the planning of maternity services is often weak due to a lack of accurate information about the cost and quality of services

- 1.7 Trusts in Wales do not receive ring-fenced funding for maternity care. While LHBs provide trusts with a notional allocation for maternity services, trusts may use that funding for delivering any of their healthcare services. This practice makes it difficult to compare the amount of money trusts receive for maternity services. Trusts reported receiving funding that ranged from nearly £2,000 to over £4,000 per delivery.
- 1.8 The information available to trusts on the costs of providing maternity services is based on inpatient activity for normal deliveries with and without complications. Data for 2007-08¹⁴ shows significant differences in the cost of maternity services between trusts ranging from £761 to £1,895. However, these figures only cover the obstetric admission costs; and do not take into account antenatal and community maternity care. Until trusts have better information on the actual cost of maternity services, it will be difficult to ensure that such services are adequately funded.
- 1.9 We found that only 5 of the 13 trusts had an agreement in place with their LHBs that specified the maternity services to be delivered and the cost of those services. A further four trusts had such an agreement in draft. Where they are in place, these 'long-term agreements' are a valuable tool in supporting trusts' assessment of the cost and quality of maternity services in order to inform the future planning of these services. However, of the nine trusts where there is

some form of agreement in place or in draft, only five reported that it specified the quality of services to be delivered.

Most maternity units have sufficient capacity to meet local demand but the levels and training of maternity staff are not always adequate

The physical capacity of maternity services appears broadly appropriate to meet demand although this is not the case for neonatal services

Assessment units are not always being used to their full potential

- 1.10 Most Welsh trusts, other than Pembrokeshire and Powys, have both early pregnancy units and pregnancy day assessment units (see Figure 2). The primary purpose of these hospital units is to provide specialist antenatal care to pregnant women and to avoid

Figure 2 - There are two main types of hospital unit used to assess and resolve problems that women might face in the antenatal phase of their care

Early pregnancy unit	The provision of an early pregnancy unit can avoid admission to gynaecology units and provide better tailored and more sensitive support for women for the experiences that can happen at the earlier stage of pregnancy, typically before 20 weeks.
Antenatal assessment unit	Antenatal assessment units (or pregnancy day assessment units) allow women to be monitored over a length of time without needing to be admitted to hospital. These units should be open for sufficient hours to support unnecessary admission.

Source: Wales Audit Office

¹⁴ Data for 2007-08: WCR2 – HRG costing returns for normal deliveries without complications is the most recent data available.

unnecessary admissions to maternity wards. However, we found that the opening times of these units varied and that they were not always used to their full potential.

- 1.11** Seven of the 11 early pregnancy units in Wales are open for 35 hours or more per week but the unit in Ceredigion and Mid Wales NHS Trust is open just two hours per week. Nine of the day assessment units in Wales were open for 37.5 hours or more per week but this access ranged significantly from nine hours per week in Ceredigion and Mid Wales NHS Trust to 70 hours per week in Gwent Healthcare NHS Trust.
- 1.12** Whilst the opening hours of some units appear to be insufficient to avoid unnecessary admissions of women, we also found that some units with longer opening hours were admitting greater-than-average numbers of women. This suggests that some units are not being used optimally to avoid unnecessary antenatal admissions.

In general, there appears to be sufficient bed capacity in Welsh maternity services

- 1.13** Hospital maternity units need to have an appropriate number and range of beds for women who have problems during pregnancy, women giving birth and women recovering from birth. Most hospital stays are short, often only a day and usually no more than three or four days, but some women with more serious problems can be admitted for much longer.
- 1.14** Many trusts use beds interchangeably for antenatal and postnatal stays and allocate them according to immediate need. This policy can improve the utilisation of beds but means that it is possible that antenatal and postnatal women may be on the same ward. For some women this may be distressing, particularly if they are experiencing significant problems with the pregnancy yet are in a ward with women who have successfully given birth.

- 1.15** Typically in Wales we found there were nearly 15 antenatal and postnatal beds per 1,000 deliveries, compared with just over 11 such beds per 1,000 deliveries typically found in English maternity units. In terms of delivery beds, the typical number of beds specifically used for deliveries in Wales was just less than five per 1,000 deliveries. The equivalent number in England was just over three beds per 1,000 deliveries. We found that most trusts have less than one delivery per day in each of their delivery beds but in Pontypridd and Rhondda NHS Trust and Carmarthenshire NHS Trust there is more than one birth per day in each of the delivery beds, which may impact on their capacity to meet local demand.

There are few problems with theatre availability for maternity services but the availability of equipment to support labour is extremely limited in some trusts

- 1.16** Operating theatres are required for planned maternity procedures, such as elective Caesarean sections, and for emergency care. Emergencies are, by their nature, unpredictable and therefore a degree of spare theatre capacity is needed. Most trusts report good availability of maternity theatres and whilst Pembrokeshire and Derwen and Ceredigion and Mid Wales NHS trusts had no dedicated maternity theatre time, neither reported any occasions during our audit when there was difficulty accessing a theatre for an obstetric emergency.
- 1.17** Safe birth and subsequent care requires a range of equipment, in good order, to be available. We obtained information about the age and availability of certain key items such as CTG machines, resuscitaires, portable ultrasound, blood warmers and phototherapy units. We found large variations in the availability of equipment between trusts and that, typically, about a quarter of the equipment was less than three years old.



1.18 In response to our survey, staff from eight trusts generally disagreed with the statement: 'appropriate equipment is always available'. This suggests that some units should assess whether they need to invest in additional or more up-to-date equipment.

There is a mismatch in neonatal capacity and demand which indirectly impacts on the effective delivery of maternity services

1.19 Neonatal units or special care baby units provide more specialised care than the care provided on a normal maternity ward. The majority of babies receiving neonatal care will have been born prematurely. Neonatal units require specialist equipment as well as staff with specialist skills. Neonatal care facilities are classified as level one, two or three depending on the type of care they provide. **Figure 3** below explains the differences between these three types of units.

1.20 Neonatal capacity varies widely between Welsh trusts. Whilst all Welsh obstetric units have access to some level of specialist care services, the level one cots at Aberystwyth are located on the postnatal ward and are not supported by dedicated neonatal staff. Further, three trusts do not have on-site access to level three units.

1.21 During the six-month period to 31 March 2007, 10 of the 13 Welsh trusts reported that their neonatal units had closed to all admissions (including from within their own trust) for one or more days. Three trusts including Cardiff and Vale, Carmarthen and Swansea reported closures of 42 or more days. Unit closures mean that some babies may need to be cared for some distance from home and be separated from their mother. The most usual reasons cited for closure were insufficient cots or shortage of neonatal staff.

1.22 Neonatal transport can support trusts to effectively manage peaks in demand to enable safe and timely transfers to the nearest available unit. However, within Wales there is only an informal neonatal transport service. The ad hoc arrangements necessitate reliance on staff that are on duty either within the maternity or neonatal service to transfer the baby and possibly a mother in labour. This informal arrangement depletes the available resources and is unsatisfactory.

1.23 Despite wide-ranging reviews, consultations and option appraisals, limited progress has been made on agreeing the strategic framework and operation of Welsh neonatal services. The Assembly Government recently announced a £4 million investment for neonatal services over the next two years with proposals for a dedicated transport

Figure 3 - Neonatal units are classified depending upon the level of care they provide

Neonatal care facility classification	
Level one units	Provide special care but do not aim to provide any continuing high-dependency or intensive care.
Level two units	Provide high-dependency care and some short-term intensive care.
Level three units	Provide the whole range of medical neonatal care but not necessarily specialist services such as surgery.

Source: Wales Audit Office

system, a clinical information system, development of clinical networks and the launch of neonatal standards.

Some trusts are failing to meet the recommended staffing levels

Midwifery staffing levels in Wales are generally higher than in England but some trusts have lower than recommended ratios

- 1.24** If maternity units are to provide safe, high quality services then they must be staffed by an appropriate number and mix of adequately trained staff. Organisations¹⁵ representing the professionals who provide midwifery services are concerned that staffing levels are not increasing in line with the rising birth rate. There are three broad categories of care provided by midwives, each accounting for about a third of the workforce. These are:
- a** community midwives who provide antenatal and postnatal care, usually outside the hospital;
 - b** hospital midwives who provide care on antenatal and postnatal wards; and
 - c** midwives who provide care during labour and birth.
- 1.25** In many trusts, the distinction between these roles is blurred. For example, midwives on the wards are frequently rotated with midwives working in the labour rooms according to demand, and some community midwives come into hospital to provide care during labour.
- 1.26** *Safer Childbirth*¹⁶ recommends that 36 midwives per 1,000 deliveries are required for safe one-to-one care during labour and at least 40 midwives per 1,000 deliveries are

required where there are cases that are more complex. We found that whilst the ratio of births to midwives varied significantly; most Welsh trusts meet the recommended level of 36 midwives per 1,000 deliveries, but four trusts do not. These were Gwent Healthcare, Cardiff and Vale, Swansea and Conwy and Denbighshire with each of these trusts having between 33 and 34 midwives per 1,000 deliveries.

- 1.27** The staffing ratios mentioned in *Safer Childbirth* are relatively simplistic guidelines, taking no account of case complexity, demographics and rurality. *Birth Rate Plus* (see **Box 1**) provides a more comprehensive measure of workforce needs and is the workforce planning tool now currently recommended by the Royal College of Midwives (RCM) and approved by the Assembly Government. Most Welsh trusts use the system for assessing training requirements or for broad workforce planning.

Box 1 - *Birth Rate Plus* workforce planning tool

Birth Rate Plus is the most commonly used method by Welsh trusts for determining the number of midwifery staff required. Trusts collect a large sample of data on births, allocating each to one of five categories of complexity, ranging from simple straightforward birth to emergency Caesarean section, and the average birth time or time requiring care is measured for each of these. As births become more complex, for example emergency Caesarean sections, the number of staff involved increases as well as the time taken.

Source: Wales Audit Office

- 1.28** As shown in **Figure 4**, *Birth Rate Plus* suggests that additional midwives are required in eight Welsh trusts¹⁷. For three of the eight trusts, those with the greatest shortfall in staffing levels, additional midwives

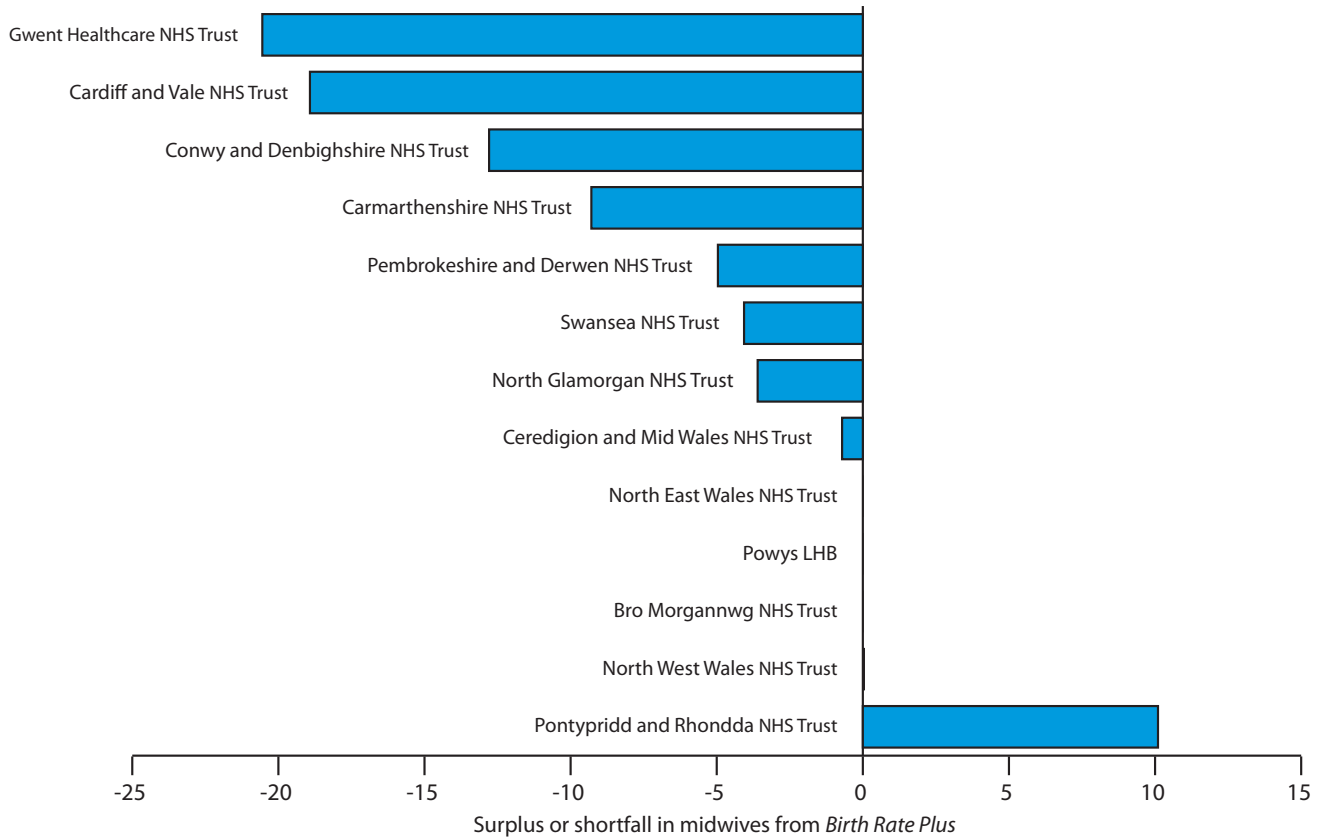
¹⁵ Royal College of Midwives and National Childbirth Trust

¹⁶ *Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour* Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health, October 2007

¹⁷ Since North Glamorgan NHS Trust last undertook the *Birth Rate Plus* exercise, the shortfall in midwifery staffing has been remedied. The data provided by Hywel Dda NHS Trust has not yet been validated by the trust board.



Figure 4 - Birth Rate Plus suggests that eight Welsh trusts require more midwives



Note
 Figure 4 includes the most up-to-date data available from trusts as of May 2009.
 Source: Wales Audit Office analysis of Birth Rate Plus data provided by NHS trusts

(and support staff) have been or will be appointed over the next financial year¹⁸.

1.29 In assessing future staffing requirements, NHS trusts in Wales should take account of a recent publication by the Royal College of Midwives, *Staffing Standards in Midwifery Services* (March 2009). This document stated that ‘the service will also require an additional minimum of eight per cent midwifery posts to adequately provide for management, risk assessment, supervision, practice development, some specialist and consultant posts. Such posts may not provide direct

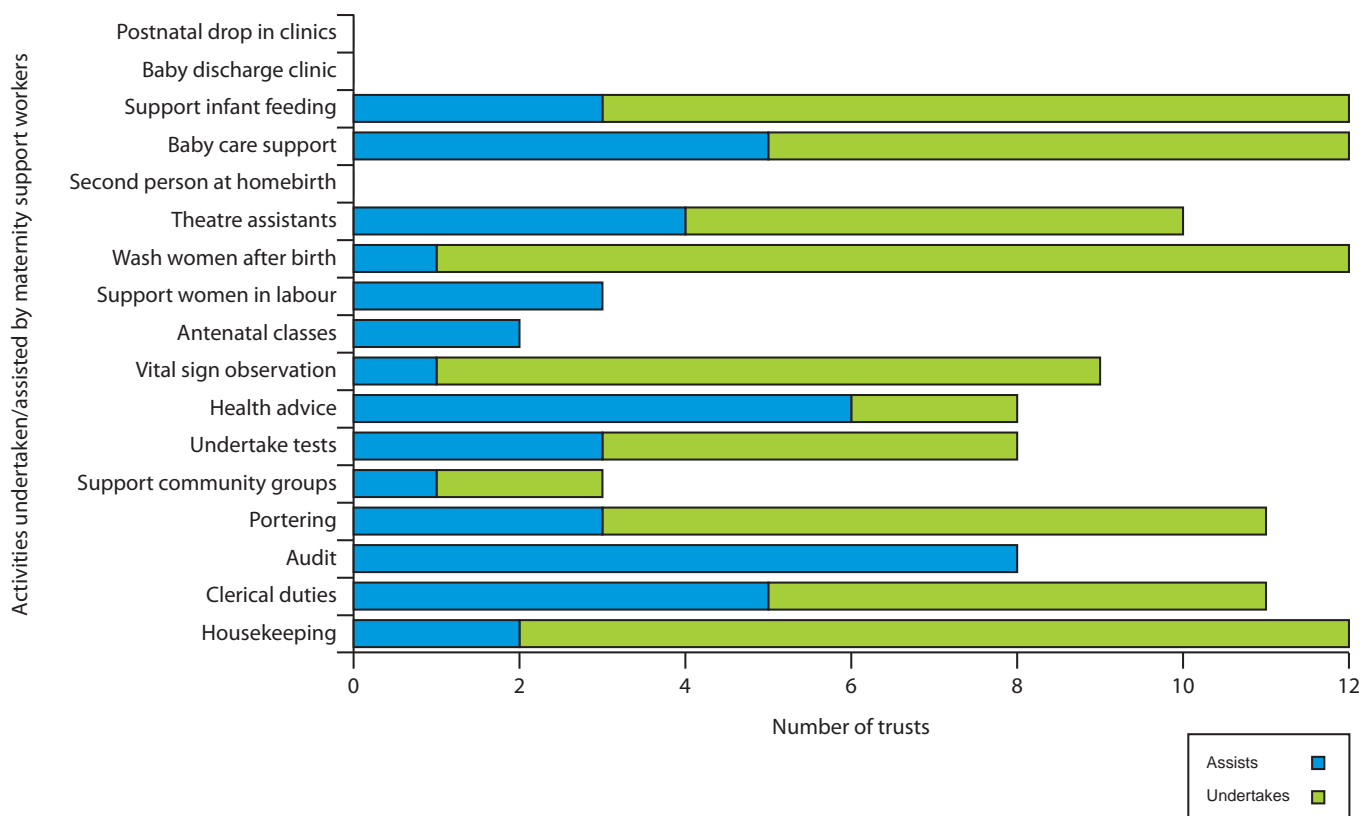
clinical care to individual women but are essential to support safe effective care’.

Trusts employ maternity support workers to varying degrees and there may be scope for some trusts to develop the use of these staff

1.30 All Welsh trusts, with the exception of Powys LHB, employ maternity support workers to release more highly trained midwives to concentrate on tasks that require their level of professional training and experience. The number of maternity support workers employed by trusts varies considerably across

¹⁸ Since Gwent Healthcare NHS Trust last carried out Birth Rate Plus, it has received funding for an additional 22 midwives and nine support staff. Since Cardiff and Vale NHS Trust last carried out Birth Rate Plus, an additional nine midwives have been funded and appointed with further appointments anticipated over the 2009-10 financial year. Since Conwy and Denbighshire NHS Trust last carried out Birth Rate Plus, eight whole time equivalent midwives have been added to the establishment.

Figure 5 - Maternity support workers perform a different range of tasks in trusts across Wales



Source: Wales Audit Office and Healthcare Commission

Wales. Typically there are eight maternity support workers per 1,000 deliveries, ranging from nil in Powys LHB to 13 in Ceredigion and Mid Wales NHS Trust. We also found significant variation between the trusts in the number and types of tasks undertaken and supported by maternity support workers (see Figure 5).

1.31 In February 2009, the Assembly Government announced details of a new 18-month training programme for maternity support workers in Wales. The programme aims to ensure all support workers have had consistent levels of training and that their role is clearly defined. All trusts are now required to develop plans for training maternity support workers to

ensure that these workers are used to their full potential.

It was difficult to distinguish the time that consultants spend between obstetrics and gynaecology and a number of trusts are failing to meet recommended levels of consultant presence on delivery suites

1.32 Nearly all of the doctors providing acute maternity care divide their time between the two specialties of obstetrics and gynaecology (see Box 2). One of the key findings from the Healthcare Commission’s investigation of 10 maternal deaths at, or following delivery at, Northwick Park Hospital was that doctors with obstetric and gynaecological responsibilities



Box 2 - Definitions of obstetrics and gynaecology

Obstetrics

This is a specialty that deals with problems that arise in maternity care, treating any complications of pregnancy and childbirth and any that arise after the birth.

Gynaecology

This is a specialty concerned with the care of women with problems of the female reproductive system (ovaries, tubes, womb, cervix, vagina).

Source: Wales Audit Office, adapted from the website of the Royal College of Obstetricians and Gynaecologists

were spending insufficient time in obstetrics¹⁹. We found that many Welsh trusts were unable to distinguish between the time that consultants spent on obstetrics and the time they spend on gynaecology.

- 1.33** *Safer Childbirth* provides guidance that most trusts should have at least 40 hours of consultant obstetrician presence per week on the labour ward. We found that four Welsh trusts fall below this level and that three of these four trusts – North Glamorgan, North East Wales and Pontypridd and Rhondda – have consultant presence of only 16 hours or less.
- 1.34** The *Safer Childbirth* guidance also states that units with birth rates in excess of 5,000 per annum should have at least 60 hours of consultant obstetrician presence. Cardiff and Vale is the only Welsh trust that exceeds this level of births. At 50 hours, Cardiff and Vale NHS Trust's consultant obstetrician presence is just below the recommended 60 hours.

All trusts have screening co-ordinators but in some trusts the co-ordinators have little dedicated time for their role

1.35 The UK National Screening Committee²⁰ advises that trusts employ a maternity test and screening co-ordinator to advise and support the improvement of screening services. All Welsh trusts have a screening co-ordinator in post although 11 of the 13 trusts have a co-ordinator for antenatal screening only.

1.36 In the absence of sufficient protected time, there is a risk that the non-emergency but important work of screening is neglected in order to provide acute care. In four²¹ Welsh trusts, the screening co-ordinator has sufficient protected hours to fulfil a full-time role but in other trusts the protected hours ranged from 30 hours to just 7.5 hours.

The level of staff training is low in some trusts

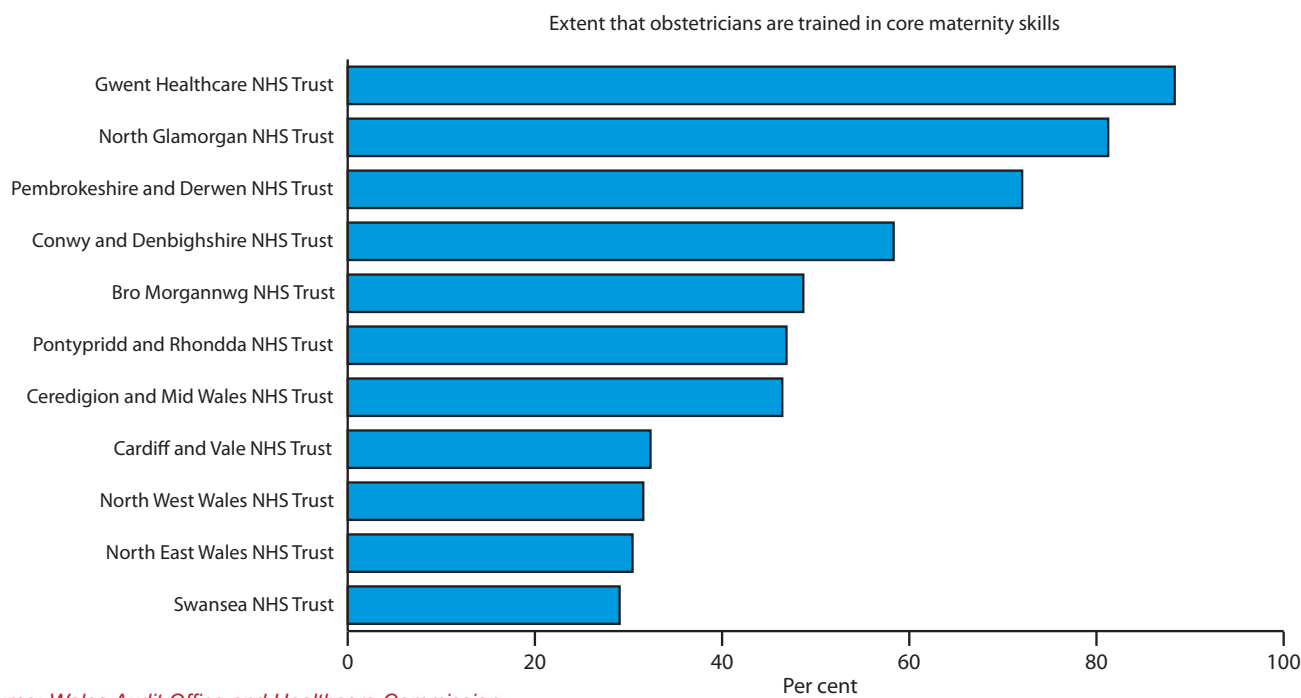
- 1.37** Training courses for staff in the core skills to handle maternity emergencies and in monitoring the condition of the fetus through CTG make an important contribution to safety. Core maternity skills must be kept up to date and clear records kept of who has received training. Figures 6 and 7 show that there was wide variation between trusts in the proportion of midwives and especially obstetricians who had received all of the core skills training in the previous six months. This figure was very low in some trusts.
- 1.38** One trust was unable to provide us with data relating to CTG training but, of those able to provide information, only two trusts – Bro Morgannwg and Ceredigion and Mid Wales – ensured that all obstetricians and midwives

¹⁹ Healthcare Commission Investigation into 10 maternal deaths at, or following delivery at, Northwick Park Hospital, North West London NHS Trust, between April 2002 and April 2005.

²⁰ The UK National Screening Committee advises Ministers and the NHS in all four UK countries about all aspects of screening policy and supports implementation of these policies.

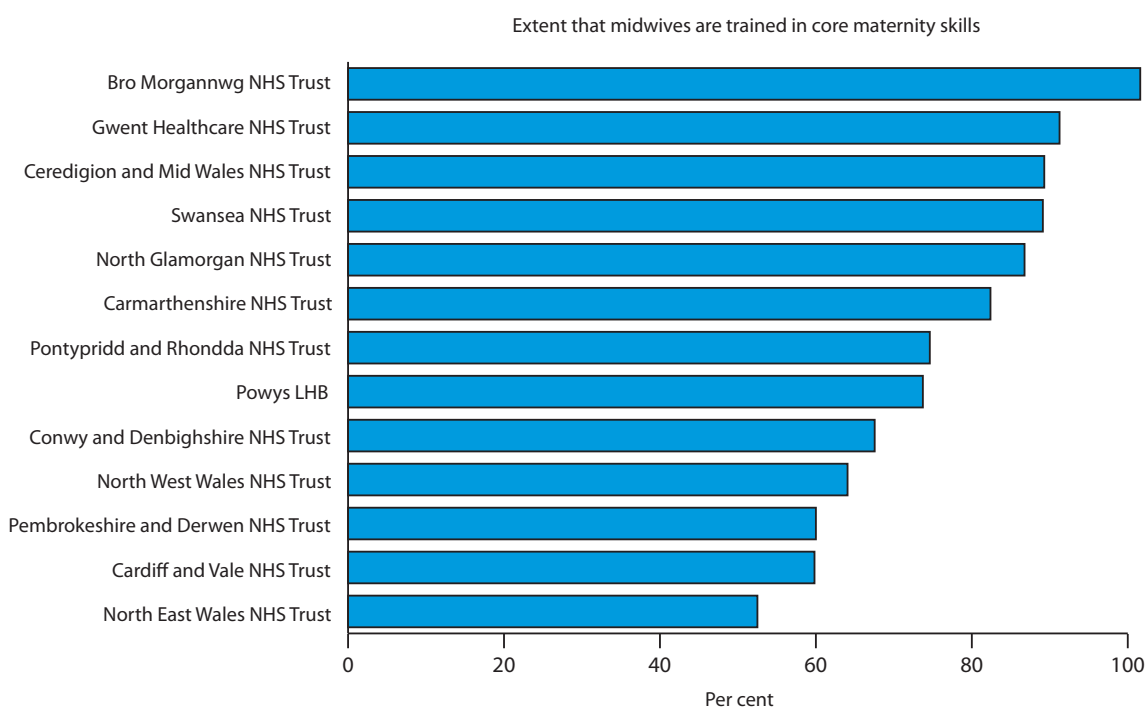
²¹ Cardiff and Vale, North East Wales, North Glamorgan and North West Wales.

Figure 6 - The levels of training in core maternity skills for obstetricians is low in many Welsh trusts



Source: Wales Audit Office and Healthcare Commission

Figure 7 - The levels of training in core maternity skills for midwives is low in some Welsh trusts



Source: Wales Audit Office and Healthcare Commission

Note
 Figures 6 and 7 consider the proportion of core training that the clinicians at each trust received. The calculation is ((the number of clinicians who attended CTG training + the number of clinicians who attended neonatal resuscitation training + the number of clinicians who attended adult resuscitation training + the number of clinicians who attended obstetrics skills and drills training)/(4 x (the total number of clinicians)) x 100



had received CTG training. And in two Welsh trusts – Gwent Healthcare NHS Trust and North East Wales NHS Trust²² – less than half of the obstetricians and midwives had received this training in the preceding six months.

- 1.39** Each practising midwife is supervised by a named midwife who has received additional training. The supervisor provides professional advice, guidance and support. The Nursing and Midwifery Council has recommended that no supervisor should supervise more than 15 midwives. This is to ensure that the supervisor's caseload is manageable and that each midwife receives an appropriate level of support. No Welsh trust exceeded the ratio of 15 midwives to one supervisor but Gwent Healthcare NHS Trust was at the threshold of 15:1 whilst in North Glamorgan the ratio was 7:1.

²² Powys LHB has been excluded from our analysis of CTG training because CTG is not considered as a core maternity skill for managing the low-risk pregnancies typically seen in Powys.

Part 2 - Services are mainly of an appropriate standard and many women are satisfied with their experience but there is unacceptable variation in practice

2.1 This part of our report considers the extent to which Welsh maternity services are delivering safe and effective care. We found that:

- a** most women are satisfied with the services they receive although not all felt they were treated with dignity and respect or kindness and understanding;
- b** antenatal care generally meets good practice guidelines but some women do not receive enough check-ups and access to antenatal classes can be problematic;
- c** the way labour is managed in some trusts gives rise to concern with a significant minority of women stating that they were left alone and worried during labour, high rates of Caesarean sections and one in five women saying they did not get the pain relief that they wanted; and
- d** postnatal care is the least satisfactory phase for women and there are particular concerns about the quality of support for infant feeding.

Most women are satisfied with the services they receive though not all felt they were treated with dignity and respect or kindness and understanding

Levels of satisfaction in Wales are higher and more consistent than in England

- 2.2** The experience of mothers is clearly a vital indicator of how well maternity services are performing, although what satisfies the user might not always be the most clinically effective or cost-efficient course of action. Therefore, maternity services should aim to achieve high levels of satisfaction as well as providing high-quality care that meet prescribed standards of good practice.
- 2.3** Full details of our survey of new mothers are included in [Appendix 3](#) but our main finding was that women were generally satisfied with the care they received. We found that 92 per cent of women rated their antenatal care as good or better, 91 per cent rated their care during and shortly after labour as good or better and 85 per cent rated their postnatal care as good or better.
- 2.4** We also found that, on average, women's satisfaction levels were more positive in Wales with less variation in responses for Welsh trusts than those in England. This suggests more consistent levels of user satisfaction in Wales ([Figure 8](#)).



Figure 8 - Women’s satisfaction levels are more consistent between trusts in Wales than between trusts in England

	Care during labour and birth		Care after birth	
	% responding excellent or very good	% responding fair or poor	% responding excellent or very good	% responding fair or poor
Welsh trusts				
Most favoured trust	92%	5%	90%	7%
Least favoured trust	81%	15%	80%	19%
English trusts				
Most favoured trust	88%	5%	71%	12%
Least favoured trust	30%	34%	22%	55%

Source: Wales Audit Office and Healthcare Commission

A significant minority of women felt they were not always treated with respect and dignity or kindness and understanding

2.5 The Assembly Government’s 2008 document *Designed to Realise Our Potential*²³ says that care should be founded on the ‘principles focused on individual rights for respect, well-being, choice and dignity, for these are the things that really matter to patients and which determine their experience of care, regardless of outcome.’

2.6 However, the results of the women’s survey suggest that a significant minority of women do not feel that these principles are being applied, particularly post-natally. **Figure 9** shows that nearly a third of women felt that they were not always treated with kindness and understanding during the postnatal phase of care.

Antenatal care generally meets good practice guidelines but some women do not receive enough check-ups and there is generally low attendance at antenatal classes

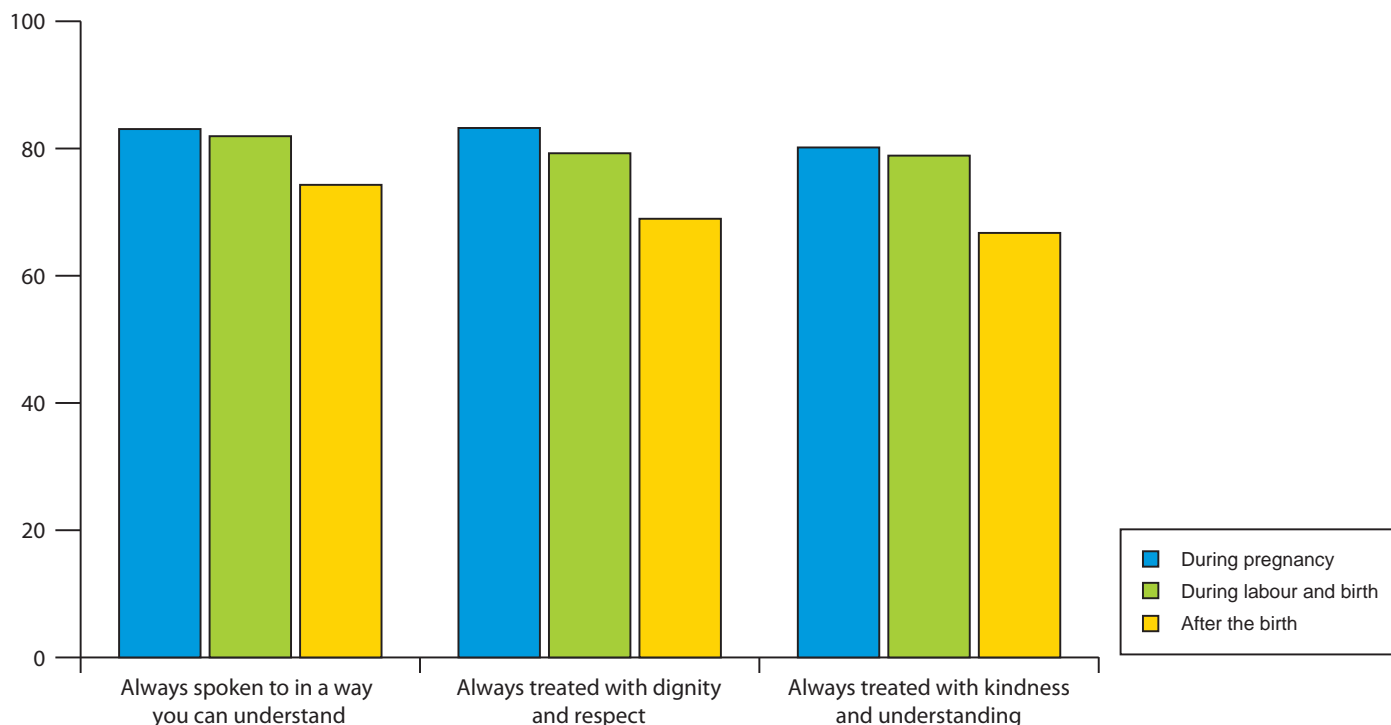
Most women access maternity services within recommended timescales but too few women access midwives as their first point of contact

2.7 The National Service Framework in Wales states that early maternity care should be promoted with midwives being the first point of contact for pregnant women²⁴. We found that only 3 of the 13 trusts promote the midwife as their first point of contact on their website. Ten trusts provide information leaflets

²³ Welsh Assembly Government, *Designed to Realise our Potential – a ‘Beliefs and Actions’ Statement for Nurses, Midwives and Specialist Community Public Health Nurses in Wales for 2008 and Beyond*, June 2008

²⁴ Welsh Assembly Government, *National Service Framework for Children, Young People and Maternity Services in Wales*, September 2005

Figure 9 - Women's perceptions of care received at each stage of pregnancy



Source: Wales Audit Office survey of new mothers

and posters through GP surgeries. Few trusts signpost their maternity services in pharmacies and chemists. We found that, typically, 69 per cent of women first went to their GP while 28 per cent first saw a midwife but this varies markedly across trusts with as few as 9 per cent to 42 per cent of pregnant women seeing a midwife first.

2.8 The National Service Framework also states that women should be able to access midwives in their community on a drop-in basis. Discussions with senior midwives indicate that midwives are having difficulties securing premises in the community to provide drop-in services. The Heads of Midwifery Advisory Group has been working with LHBs to identify suitable locations but there has been little progress to date.

2.9 Antenatal guidelines from NICE recommend that the first 'booking' appointment should occur within the first 12 weeks of pregnancy²⁵. In general, less than five per cent of women that responded to our survey were seen later than 12 weeks and the average number of weeks pregnant at the booking appointment was just over 10 weeks.

2.10 Delayed access to maternity services beyond the first 12 weeks of pregnancy limits the amount of information available to clinicians about the woman's condition and may adversely affect decisions about care and place women and their babies at risk. Our survey of new mothers indicates that only a very small number of pregnant women booked their first appointment after 22 weeks²⁶.

²⁵ National Institute for Health and Clinical Excellence, *Antenatal Care, Routine Care for the Healthy Pregnant Woman*, clinical guideline, March 2008

²⁶ In partnership with the Healthcare Commission, we chose to look at the number of women whose booking appointment was after 22 weeks. This timeframe was chosen because by this time the woman should ideally have received her 20-week ultrasound scan.



Some maternity services are not providing appropriate opportunities for women to learn about their pregnancy and forthcoming motherhood

Information provided to women when they are pregnant does not always help them to make an informed choice about their maternity care

- 2.11** A key element of antenatal care is to provide women and their partners with clear and relevant information. At the booking appointment, midwives often have a checklist to ensure that there is a discussion of all appropriate information. Almost all trusts cover the issues that are important at the start of the pregnancy; however, at only 5 of the 13 trusts do the booking appointments cover mental health issues and only eight covered maternity rights and benefits.
- 2.12** All pregnant women should be given a copy of *The Pregnancy Book*, a handbook published by the Department of Health, and it is particularly important that first-time mothers receive this information. However, our survey of new mothers indicated that not all women had received a copy of this book, and up to a third of women at some trusts had not received a copy. Some trusts cited inadequate supplies being provided as the barrier to complete provision. However, supply should not be a problem as the Assembly Government purchases these books and ensures that trusts receive one copy for every pregnant woman.
- 2.13** Trusts need to supplement *The Pregnancy Book* with additional information to ensure women understand the local service context, for example options for place of birth. Providing detailed fact sheets prior to an antenatal appointment give women the opportunity to consider what additional information they need, and so make better use of the time available at antenatal appointments. However, we found that not all trusts provide written information.
- 2.14** The booking and antenatal appointment should allow sufficient time to discuss women's concerns and choices. Most trusts allow at least an hour for the first 'booking' appointment, although North Glamorgan Trust only allowed 30 minutes. The time available for subsequent appointments is much less and typically 15 minutes, but with just 10 minutes in Swansea and Gwent.
- 2.15** It is important that trusts provide sufficient information about antenatal screening tests and scans to enable women to be able to balance the potential benefits and risks of going through with these investigations. Typically, 95 per cent of women felt that these tests had been properly explained to them. Eleven trusts advised that results could be discussed face to face and they also offered other options such as phoning, thereby giving prospective parents a choice. However, Bro Morgannwg NHS Trust did not offer face-to-face feedback and provided the information only via a letter. All trusts reported that test results could be discussed in a private room.
- 2.16** Despite the efforts made by trusts to communicate effectively with women, our survey indicated that typically, 36 per cent of pregnant women felt they were not always given adequate explanations and were fully involved in decisions about their antenatal care. A similar proportion of women (32 per cent) felt they were not always given sufficient information about labour and birth.
- 2.17** The Assembly Government has developed an All Wales Hand Held Maternity record and Postnatal Care Pathway record, which has been approved by the Minister for Health and Social Care. These records will provide women and professionals with information

and a full account of each woman's journey through maternity care. The use of an All Wales Hand Held Maternity record by Welsh trusts, launched in February 2009, may help address a number of the issues we have identified.

Attendance levels for antenatal classes are low in some trusts and the barriers to securing better attendance are unclear

2.18 Antenatal classes provide an opportunity to better inform women and their partners about pregnancy, labour, birth and early infant care. All Welsh trusts report that every pregnant woman is offered an opportunity to attend antenatal classes. However, the proportion of women who wished to attend antenatal classes and were able to do so varied markedly from only 24 per cent take-up in Gwent to 75 per cent in Ceredigion and North West Wales (Appendix 3). Of those attending, three-quarters thought the classes were at convenient times and four-fifths thought that the location was convenient and that the content of the class was appropriate.

2.19 However, working women and their partners may have difficulty attending classes. All trusts provided some classes outside the normal working day. But we know from the women's comments within the mothers' survey that there are limitations with the access in some areas (see Box 3). In March

Box 3 - Some mothers responding to our survey felt antenatal classes were badly organised and difficult to access

'There was poor access to antenatal classes for working mums and I felt that I missed out on valuable information.'
'I felt the antenatal classes were badly organised.'

Source: Wales Audit Office survey of new mothers

2009, the Heads of Midwifery Group completed an all Wales scoping exercise on antenatal education services that included antenatal classes. The exercise indicated that most maternity services in Wales are planning, implementing or considering changes to the provision of antenatal education. The exercise suggested that antenatal parent education, which engages all women and their partners, is an aim for maternity services.

While some women do not receive enough check-ups, the number of times women are scanned appears excessive in some trusts

All trusts aim to provide the recommended number of antenatal checks, but a significant proportion of women report that they did not receive this number

2.20 National Institute for Health and Clinical Excellence antenatal guidance states that women pregnant for the first-time should receive 10 antenatal check-ups including their booking appointment, and women who have had a baby before should receive seven check-ups²⁷. All Welsh trusts report that the planned number of antenatal checks meets NICE guidelines. But our survey of new mothers indicated that around a third of women received less than seven antenatal checks. For first-time mothers, around a fifth said they had received fewer than the recommended 10 check-ups.

2.21 Our survey of new mothers also indicated that some women had received considerably more than the recommended number of check-ups. Within four Welsh trusts, more than six per cent of women reported receiving 20 or more antenatal check-ups, over twice that for a healthy first-time pregnancy. Whilst this high level of check-ups may be linked to clinical need, the high proportion of women involved suggests that practice may be also be unduly

²⁷ National Institute for Health and Clinical Excellence, *Antenatal Care, Routine Care for the Healthy Pregnant Woman*, clinical guideline, March 2008



influenced by individual clinical practice. Such practice may also result in an unnecessary and inefficient use of resources.

2.22 The National Service Framework states that women should have access to antenatal care which is provided in a variety of local settings and at times that take account of the demands of the women's family and working life. However, we found limited choice and access in some trusts. Typically, 28 per cent of the women surveyed reported having a choice about the location of their check-ups, but this varied across Wales from 17 per cent to 49 per cent. Further, we found that only 5 of the 13 trusts have antenatal clinics available outside routine working hours.

Many women reported they did not receive continuity of care during their antenatal check-ups

2.23 Continuity of care for pregnant women can be improved if they are assigned a named midwife to co-ordinate their antenatal care and act as their main contact point. All trusts stated that they provided women with a named midwife. But we found that it is highly variable whether this named midwife will provide most of the woman's care during the pregnancy. Just over half of women reported in our survey that they mostly saw the same midwife for antenatal check-ups, although that varied across Wales from 28 per cent to 84 per cent of women. Women reported less continuity from medical staff, with typically 40 per cent reporting they mostly saw the same doctor, but varying between 24 per cent and 55 per cent across Wales.

2.24 The approach that a trust takes to delivering maternity care can have an impact on the continuity of care. Midwives can work in a number of different ways, either through caseload midwifery or through team

midwifery. With caseload midwifery, women are allocated to a single midwife who will look after that woman throughout her pregnancy, labour and birth and during the postnatal period until her care is transferred to a health visitor. This model of care can work very well but it can, at times, be difficult to ensure that midwives have a good work-life balance and may also require more midwives for a given number of births. Eight of the 13 trusts reported some caseload midwifery, with six stating it involved at least half of their midwives.

2.25 The team midwifery model allows a group of midwives to care for a number of women. Each woman has a named midwife but will also be introduced to other members of the team who may, on occasions, provide the care. If the team is large, women are less likely to experience continuity of care. Seven trusts reported some use of team midwifery. Five trusts operated both caseload and team midwifery. **Box 4** shows a selection of comments from mothers provided through our survey, that reflect on the antenatal care they received.

Box 4 - Mothers responding to our survey provided a range of comments about their antenatal care

'I received excellent care from the community midwives during a complicated first pregnancy.'

'I considered my antenatal care inconsistent as I did not see the same midwife twice. Even though the midwives tried their best, there was not an opportunity to develop a relationship between myself and the midwife.'

'I received excellent community midwifery care along with excellent medical care.'

Source: Wales Audit Office survey of new mothers

Most women are scanned in line with recommended guidelines but the rate of scanning in some trusts appears excessive and there is yet to be an all-Wales agreement on the funding for the revised test for Down's syndrome

2.26 Routine screening should be carried out at certain points during pregnancy to monitor the baby's growth and to check for any health problems in the baby or mother. Antenatal Screening Wales is a clinical network for antenatal screening in Wales and its recommendations for ultrasound scans are in line with those produced by NICE in 2003, that all women should receive at least two scans during their pregnancy^{28 29}. The first is used to confirm the age of the fetus, the second to test for fetal anomalies. We found that the vast majority of women received both of these scans.

2.27 Some women receive more than the two standard scans. This practice might be due to complications with the pregnancy and the need to monitor the fetus more closely. However, a high number of scans might also suggest that maternity services are not scanning women based on clinical need. We found that the rate of scans reported by trusts and those by the surveyed women differed, and in some cases, significantly. Overall, trusts reported an average of 3.4 scans per women but this ranged from as high as 6.2 in North Glamorgan down to 1.2 in Conwy and Denbighshire. Two trusts were unable to provide data on the number of scans that women received. In our survey of new mothers, women said they received an average of 3.7 scans, which varied from 3.2 in North West Wales NHS Trust to 4.9 in Pembrokeshire and Derwen NHS Trust. This latter figure was the highest reported rate of all trusts in England and Wales. An excessive number of ultrasound scans can be

problematic because unnecessary scans are not only an inefficient use of resources but they can also create capacity problems and prevent necessary scans taking place in a timely fashion.

2.28 Several tests are available to provide parents with information about the likelihood of their child having Down's syndrome. The UK National Screening Committee has advised moving to a more sensitive test which supports higher detection rates and Antenatal Screening Wales supports the introduction of this better test. However, the new test cannot be implemented across Wales until an all-Wales agreement regarding the funding for the test is reached with the Assembly Government and Health Commission Wales.

There is an inconsistent level of support for women with higher-risk pregnancies and some trusts do not serve women with mental health needs well

2.29 Obstetricians are more likely to be involved in antenatal care if check-ups, tests and scans suggest the woman has a higher risk pregnancy. From our survey of new mothers, we found that typically, 65 per cent of women will see an obstetrician at least once during their pregnancy. There is wide variation between trusts in the average number of obstetrician attendances per booked woman, from just over four to around one. Some of this variation may be explained by differences in case mix but our findings suggest that some trusts are relying excessively on doctors while other trusts are not making sufficient use of them.

2.30 For certain high-risk conditions such as epilepsy, some trusts might employ specialist midwives to work alongside obstetricians and doctors from the appropriate specialty in joint

²⁸ Antenatal Screening Wales, *Policy and standards to support the provision of antenatal screening in Wales*, December 2005

²⁹ National Institute for Health and Clinical Excellence, *Antenatal Care, Routine Care for the Healthy Pregnant Woman*, clinical guideline, March 2008



clinics. Compared to England, there has been limited development of specialist midwives, particularly for diabetes where 64 per cent of English trusts have specialist diabetic midwives compared to only one trust in Wales. In addition, and in common with England, there has been limited development of specialist midwives to support women with a psychiatric disorder. Just 2 of the 13 trusts in Wales had such a specialist midwife and only one Welsh trust had a specialist midwife for women with previous postnatal psychosis.

2.31 Mental health issues are increasingly recognised as important factors in securing good outcomes for women and their babies. The consequences of not providing appropriate care can be severe including, in the most extreme cases, maternal suicide. Early identification of these problems is vital. However, there is inconsistent recording of mental health issues by maternity staff in Welsh trusts. This inconsistency makes it difficult for trusts to understand how common problems of this kind are. Only 3 of the 13 trusts were able to provide us with information on the percentage of women identified as having a mental illness, and only four trusts provided information on the proportion of women referred for specialist psychiatric care.

2.32 We found that 8 of the 13 trusts have no arrangement to allow rapid access to a specialist mental health service; three had access to a community psychiatric nurse-led service; and just one had access to a perinatal psychiatrist. In only seven trusts were midwives able to refer women directly to mental health specialists. In most cases, the minimum waiting time for an urgent referral was no more than two days and the maximum waits were usually no longer than a week. However, in three trusts, the maximum wait could be a month or more, which is unacceptable.

The way labour is managed in some trusts gives rise to concern

The choices women have about where they give birth are limited by the types of maternity units available locally and the way that clinicians assess the risks associated with homebirths

2.33 Care during labour and birth can be provided in different types of units as well as in the woman's home. **Figure 10** shows that the configuration of these units within different NHS trusts varies considerably.

2.34 In Wales, the vast majority of births take place in obstetric units. Typically 89 per cent of births took place in obstetric units but this varied across trusts from 98 per cent to 76 per cent. However, for Powys, there were no births in an obstetric unit as there are no such units within that region (see **Box 5**). For the five trusts with no midwifery-led units this will inevitably reduce the choices that women can make about place of birth and the possibility of midwife-led care.

Box 5 - The configuration of maternity services in Powys

Powys is unique in the way that it provides maternity services. There is no district general hospital and low-risk women can give birth either at home or in any of the six birthing units located across Powys. For example, of those that gave birth within Powys, the homebirth rate of 44 per cent was significantly higher than all the other Welsh trusts within this review and is clearly due to the unique way in which the LHB provides its maternity service. Women who present a higher risk generally give birth in the geographically closest obstetric unit.

Source: Wales Audit Office

Figure 10 - The configuration of units within a trust varies across Wales

Trust configuration	Notes on unit type	Number of trusts
One obstetric unit only	Obstetric units are clinical locations where obstetricians work together with midwives to provide care for births at all levels of risk.	5
More than one obstetric unit		1
Obstetric unit and alongside midwifery unit (AMU)	An AMU is usually adjacent to, or integrated with, an obstetric unit. Care within an AMU is led by midwives.	1
Obstetric unit and freestanding midwifery unit (FMU)	FMUs are remote from any obstetric unit and care within an FMU is led by midwives.	4
Obstetric unit, AMU and FMU		2
Birth centre	Birth centres are small maternity units which are staffed and, in most cases, run by midwives. They offer a comfortable, low-tech environment where birth is treated as a 'normal' process rather than a medical one. Birth centres are a kind of halfway house between home and hospital (at times midwifery units may also be called birth centres).	1

Source: Wales Audit Office and Healthcare Commission

2.35 With the exception of Powys, the rate of homebirths ranged from less than one per cent to nearly seven per cent and we found significant differences between trusts in the proportion of women offered the choice of a homebirth. This proportion ranged from 71 per cent in Ceredigion and Mid Wales to 36 per cent in North Glamorgan.

2.36 Although all trusts use an all-Wales protocol to determine the risks associated with allowing women to choose the birth location, the interpretation and application of this protocol varies as trusts have the freedom to add additional criteria to the protocol. This lack of standardisation may be resulting in inequitable access and choice across different parts of Wales. Of those women that were given a choice of where to have their baby, typically only half of the women felt they were given adequate information to make that choice.

Most women highly rated their care during and shortly after labour, but a significant minority felt they were left alone and worried

2.37 As stated in paragraph 2.3, most women who responded to our survey described their care during labour and childbirth positively with 91 per cent rating their care as good or better. Fifty-four per cent of women rated this phase of their care as excellent. **Box 6** shows a selection of comments about care during labour that mothers provided through our survey. Creating a homely birth environment within delivery rooms can help women relax and improve their birthing experience. The National Childbirth Trust has promoted more home-like birthing rooms as a way to encourage 'normal birth'. A survey of women carried out by the National Childbirth Trust found that the features that make a room feel more homely are: an en suite toilet, an en suite bath or shower, space for women to



Box 6 - Mothers responding to our survey provided a range of comments about their care during labour

'I received excellent service during the birth and staff were supportive and professional.'

'I was left alone and delivered the baby alone. The experience left me feeling shocked at the nursing standards.'

'I feel I received poor medical care due to the unavailability of appropriate pain relief.'

'I cannot fault the assistance and support I received during the birth with plenty of encouragement and assurance given by staff.'

Source: Wales Audit Office survey of new mothers

walk around, ability to hide clinical equipment, a comfortable chair, space for and provision of a birthing mat and ropes or bars³⁰. Only one trust (Pontypridd and Rhondda NHS Trust) provided all of these facilities, although most trusts provide only some of these expected aspects of homeliness.

- 2.38** Another factor that might affect a woman's birthing experience is the continuity of care provided. We asked women if they had met at least one midwife caring for them during labour. We found that the proportion that already knew or had met one or more of the staff caring for them in labour ranged from 16 per cent to 59 per cent. Those cared for by one midwife during their labour and birth varied between 12 per cent and 30 per cent.
- 2.39** Continuity of care describes continuity in the person caring for a woman but also the need to ensure women feel they have support close to hand throughout the labour. Women in established labour should not be left alone except for short periods of time or if they ask to be. We found that within Wales, between

10 per cent and 24 per cent of women reported that they were left alone and worried during labour.

There is a low normal birth rate in Wales and there are inconsistencies in the extent to which some trusts intervene during labour

More appropriate monitoring during labour could result in fewer unnecessary interventions and a higher normal birth rate

- 2.40** With the appropriate support from maternity services, most women can go through labour with minimal intervention and have a 'normal birth'. A normal birth is defined as a spontaneous vaginal delivery without the use of an epidural, spinal or general anaesthetic, forceps or ventouse.
- 2.41** The Maternity Care Working Party's consensus statement in 2007 promotes normal birth and raises concerns about rising rates of intervention during labour³¹. The statement recommends that normal births should account for 60 per cent of all deliveries by 2010. However, many Welsh trusts have normal birth rates considerably lower than this target and there is wide variation between trusts. The typical rate of normal births within Wales was 40 per cent, ranging from 18 per cent to 57 per cent³².
- 2.42** The consensus statement comments that rates of normal birth appear to be higher where maternity service staff have a shared positive attitude towards childbirth as a normal physiological process. Other factors that contribute to higher rates of normal birth are positive leadership within units, timely access to support for junior staff, commitment to evidence-based practice, integration of different parts of the service and an ability to manage change.

³⁰ National Childbirth Trust: *Creating a Better Birth Environment, women's views about the design and facilities in maternity units*; a national survey, 2003

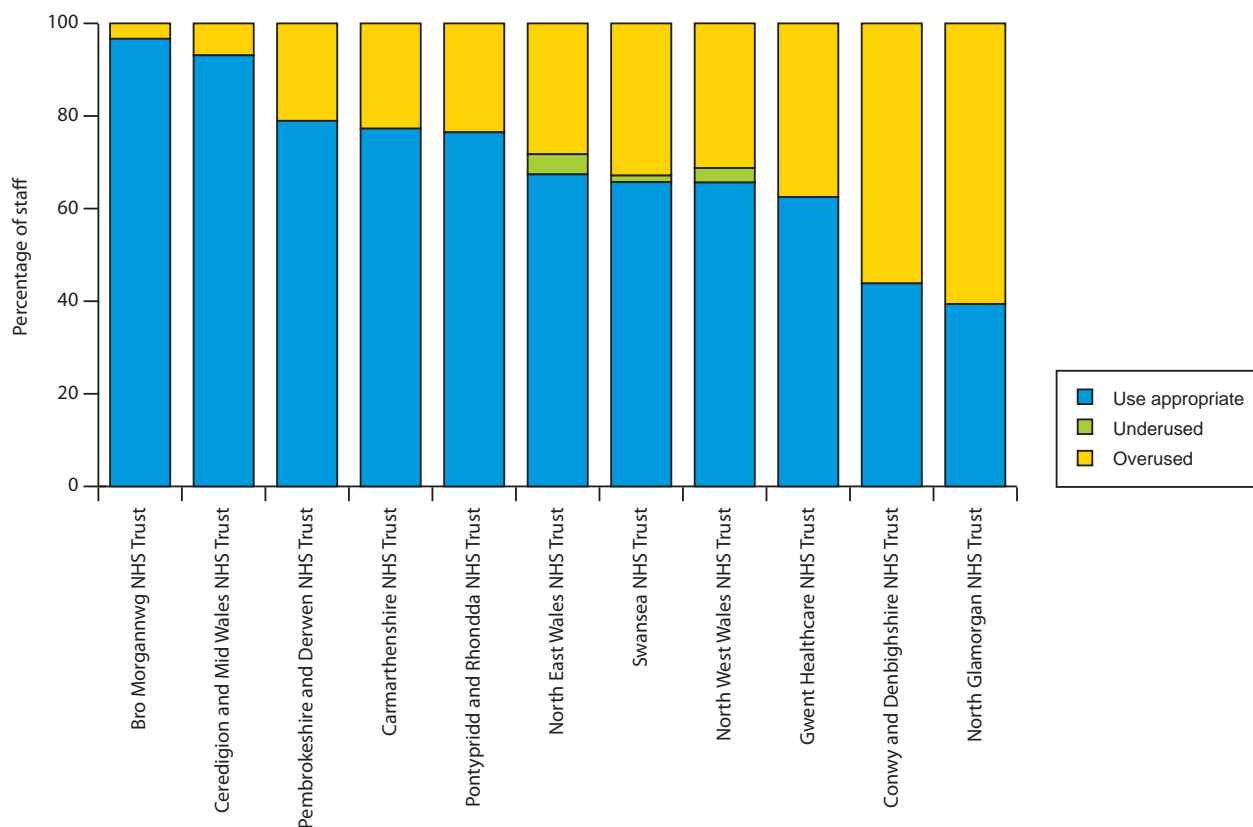
³¹ The Royal College of Midwives, The Royal College of Obstetricians and Gynaecologists and the National Childbirth Trust, Maternity Care Working Party, *Making Normal Birth A Reality*, consensus statement from the Maternity Care Working Party, November 2007

³² Due to the configuration of maternity services in Powys LHB, data relating to this organisation were excluded from this indicator. North West Wales NHS Trust was also excluded because of apparent data inaccuracies. A number of trusts were unable to provide data regarding the normal birth rate.

2.43 The early identification of problems through close monitoring of the woman and baby during labour may prevent unnecessary interventions and thereby increase the normal birth rate. Partograms are charts used for monitoring and documenting progress during labour and birth and are useful for highlighting unexpected changes which might suggest problems with the labour. Their use can help to ensure interventions are carried out only when necessary, and that when they are necessary, they are carried out at the appropriate time. We found that, in some trusts, partograms are not regularly completed or used appropriately.

2.44 Where there is concern about the condition of the fetus, continuous CTG is an important tool. However, if this monitoring equipment is connected to the woman for long periods of time this can prevent the woman moving around. Keeping women mobile during labour can encourage a smoother birth process. In addition, the consensus statement comments that the use of CTG during labour in low-risk women is associated with an increase in emergency sections but with no long-term health gain. **Figure 11** shows that in three trusts, more than half of the staff responding to our survey felt CTG monitoring is overused.

Figure 11 - Some staff feel CTG monitoring is overused



Note
Cardiff and Vale NHS Trust was excluded due to the low response rate. Powys was excluded because CTG is not used in the management of the low-risk pregnancies typically seen in Powys.

Source: Wales Audit Office survey of trust staff



Most trusts apply recommended guidelines for managing the induction of labour although a significant minority of women in some trusts gave birth outside the recommended timescale

2.45 Not all women start labour spontaneously at, or before, term (40 weeks). However, once the pregnancy has gone beyond 41 weeks, the effectiveness of the placenta in supporting the fetus can be reduced and there can be an increased risk of stillbirth and neonatal death. National Institute for Health and Clinical Excellence guidelines recommend that induction of labour should take place at least eight days after term but no later than 14 days after term. We found that just over 20 per cent of women were induced. **Figure 12** shows that while the typical rate of inductions

is very similar between England and Wales, six Welsh trusts have rates of induction which are amongst the highest quartile of all trusts.

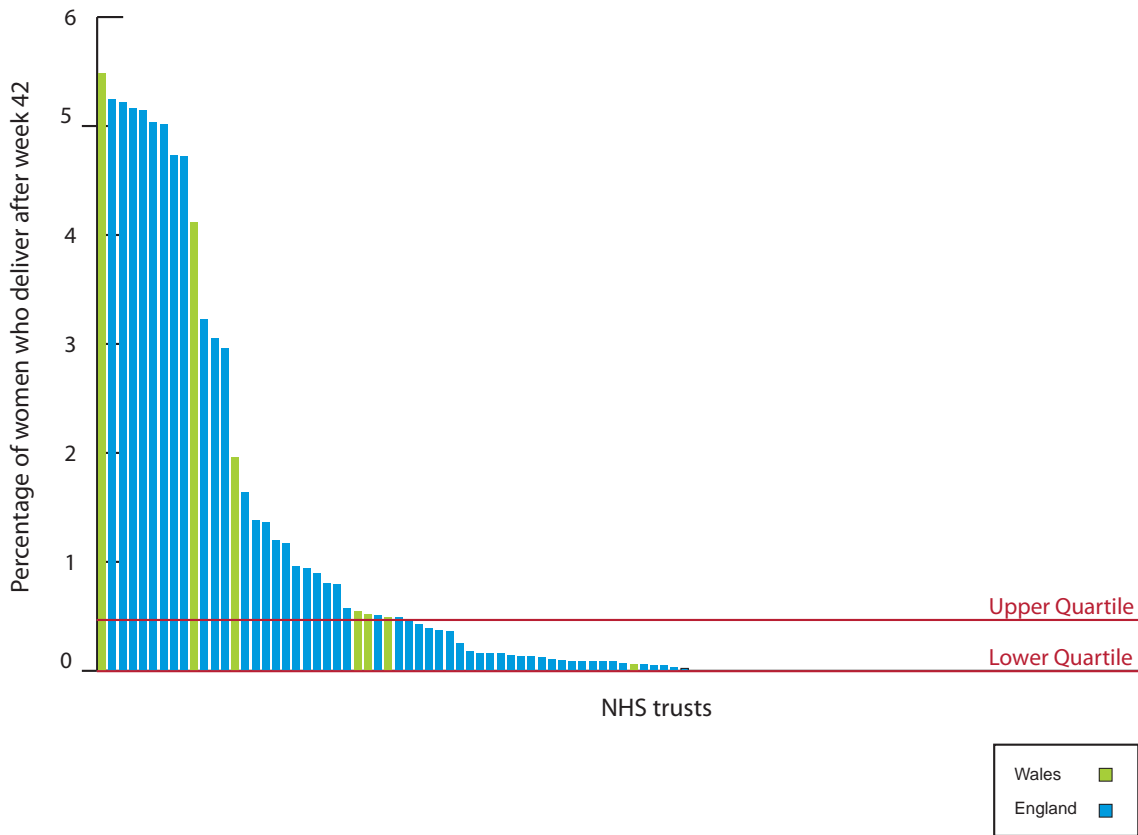
2.46 We found general consistency in trust policies over the timing of inductions. Nearly all trusts plan to initiate labour at 10 to 12 days after term, with one trust having a policy to leave inductions until 13 days. Nonetheless, we found that in some Welsh trusts, a significant minority of women gave birth more than 14 days after term. While six trusts had no women delivering more than 14 days after term, **Figure 13** shows that in two Welsh trusts – Carmarthen and Bro Morgannwg – more than four per cent of births, equivalent to between 85 and 104 births, took place more than 14 days after term.

Figure 12 - Six Welsh trusts have induction rates in the upper quartile



Source: Wales Audit Office and Healthcare Commission

Figure 13 - In two Welsh trusts, more than four per cent of women gave birth more than 14 days after term



Source: Wales Audit Office and Healthcare Commission, derived from Patient Episode Data Wales (PEDW) data April to September 2006

There is inconsistency across Wales in the extent to which ventouse is used for assisted vaginal births

2.47 Most vaginal births are completed naturally but about 13 per cent of births are assisted by either ventouse (a suction cap attached to the baby's head) or forceps. This assistance might be required if the baby does not move along the birth canal as expected, the baby is in distress, or if the mother has been advised not to push during birth.

2.48 Typically, 70 per cent of assisted births are performed using ventouse, but its use varies amongst trusts ranging from 42 per cent to 89 per cent. Obstetricians are responsible for

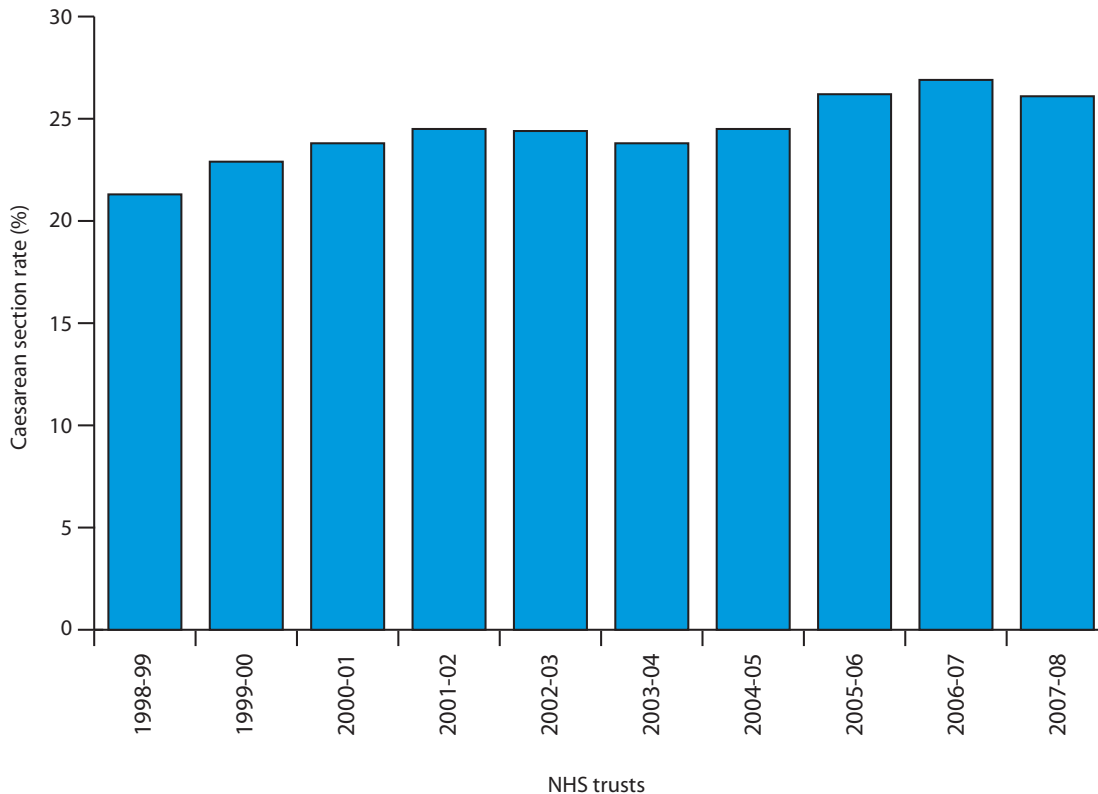
decisions about assistance of this kind so, since some situations can only be assisted by the use of forceps, it is important that they remain skilled in both methods.

Caesarean section rates are higher in Wales than in England and there are inconsistencies in the practices trusts employ to prevent unnecessary Caesareans

2.49 The most significant form of intervention for a birth with complications is a Caesarean section. Appropriate use of Caesarean sections has been found to reduce infant and maternal deaths but Caesarean sections can also have adverse consequences for the mother, which is why it is important that trusts



Figure 14 - Caesarean section rates have generally increased in Wales between 1998-99 and 2007-08



Source: Welsh Assembly Government, *Maternity Statistics, Wales: method of delivery, 1998-2008, SDR 42/2009*

balance the risks with the benefits³³. The World Health Organisation has said that there is no justification to have a Caesarean rate of higher than 15 per cent³⁴.

2.50 The National Sentinel Caesarean Section Audit³⁵ reported in 2001 that Wales had the highest rate of Caesarean sections out of all 11 participating countries³⁶. At that time, the rate of Caesareans in Wales was just over 24 per cent. **Figure 14** shows an upward trend in Caesarean sections in Wales from just over 20 per cent in 1998-99 to just over 26 per cent in 2007-08³⁷.

2.51 With the exception of Powys LHB, which does not undertake Caesarean sections, no trusts in Wales have Caesarean rates below 20 per cent. The typical Caesarean rate in Wales is 26 per cent compared with just under 24 per cent in England. **Figure 15** shows that only three trusts in Wales have a rate of Caesareans that is lower than the typical level across England and Wales.

2.52 The National Sentinel Caesarean Section Audit found that the mother's age and ethnicity can be major factors in the likelihood of a woman requiring a Caesarean section.

³³ National Institute for Health and Clinical Excellence, *Caesarean Section*, guidance 13, 2004.

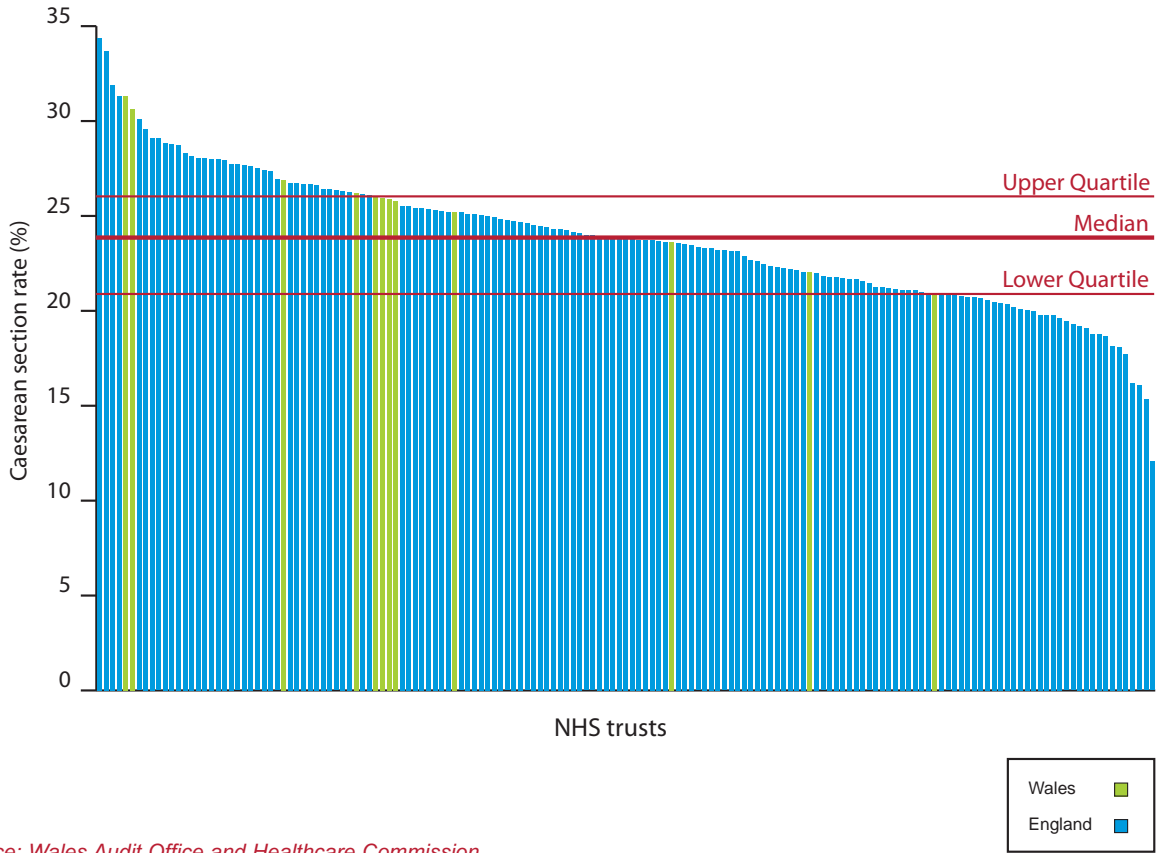
³⁴ World Health Organisation. *Appropriate technology for birth*. *Lancet* 1985;2:436-7

³⁵ The National Sentinel Caesarean Section Audit is carried out in collaboration between The Royal College of Obstetricians and Gynaecologists, the Royal College of Midwives, the Royal College of Anaesthetists and the National Childbirth Trust. It is funded by the Department of Health through NICE.

³⁶ The Royal College of Obstetricians and Gynaecologists Clinical Effectiveness Support Unit, *The National Sentinel Caesarean Section Audit, 2001*

³⁷ Welsh Assembly Government, *Maternity Statistics, Wales: method of delivery, 1998-2008, SDR 42/2009*, 25 March 2009

Figure 15 - Caesarean section rates are generally higher in Wales than in England



Source: *Wales Audit Office and Healthcare Commission*

The wide variation in Caesarean section rates between trusts in Wales cannot be explained by age and ethnicity factors. When looking at the rate of Caesareans in trusts across Wales adjusted for age and ethnicity, there is considerable variation from 21 per cent in North West Wales NHS Trust to 32 per cent in Pontypridd and Rhondda. This information, together with the evidence gathered through our discussions with maternity staff across Wales, suggests that inconsistencies in clinical practice are the major driver for this variation in section rates across Wales.

2.53 A small proportion (3.5 per cent) of babies are in the breech position at term. However, if the breech is identified at 36 weeks or later, carrying out a procedure termed ‘external cephalic version’ (ECV) may correct the breech position of the baby making a straightforward, head-first birth likely. Most, but not all, obstetricians recommend a Caesarean section for persistent breech babies and typically 84 per cent of breech babies are delivered in this way. Just seven trusts were able to provide data on the use of ECV.



- 2.54** Trusts vary widely in the extent to which they offer ECV, from all women to practically none. Not all women accept the offer, but where it is attempted, success rates also vary from 58 per cent to just 23 per cent. The Royal College of Obstetricians and Gynaecologists³⁸ guidelines indicate that take-up rates could be in the order of 75 per cent, suggesting that more women could benefit from this procedure.
- 2.55** Many women who have already had a Caesarean section do not necessarily need to have another section when delivering their next baby. The Royal College of Obstetricians and Gynaecologists suggests that around three-quarters of women should be able to give birth vaginally after having a previous Caesarean section, which is referred to as 'Vaginal Birth After Caesarean' (VBAC). Not all trusts keep VBAC figures and only seven trusts were able to provide data. Of these, the VBAC rate ranged from 17 per cent to 37 per cent. In around half of the participating trusts, staff felt that the rate of VBAC was appropriate. In the other half, at least 18 per cent of the staff in each trust felt that VBAC was not always offered when appropriate to do so.
- 2.56** Within England, a pilot study using a Caesarean toolkit (see **Box 7**) has been underway in a number of regions aimed at a whole system approach to reducing the Caesarean section rate. The Assembly Government has now decided to fund the mandatory implementation of this toolkit within all Welsh trusts. Every trust is expected to have implemented the toolkit by the end of the 2009-10 financial year and will receive support from the NHS Institute for Innovation and Improvement during the implementation.

Box 7 - Caesarean toolkit

The NHS Institute for Innovation and Improvement in England has launched a comprehensive toolkit to assist maternity units in achieving low Caesarean section rates while maintaining safe outcomes for mothers and babies. The toolkit is designed to encourage multidisciplinary involvement, offering an opportunity for midwives, obstetricians, managers, support staff and users of maternity care to work together to improve their services within multidisciplinary workshops. It draws on findings of the NHS Institute's 'Focus On: Caesarean Section' report. This identified key principles in promoting normality and reducing Caesarean section rates.

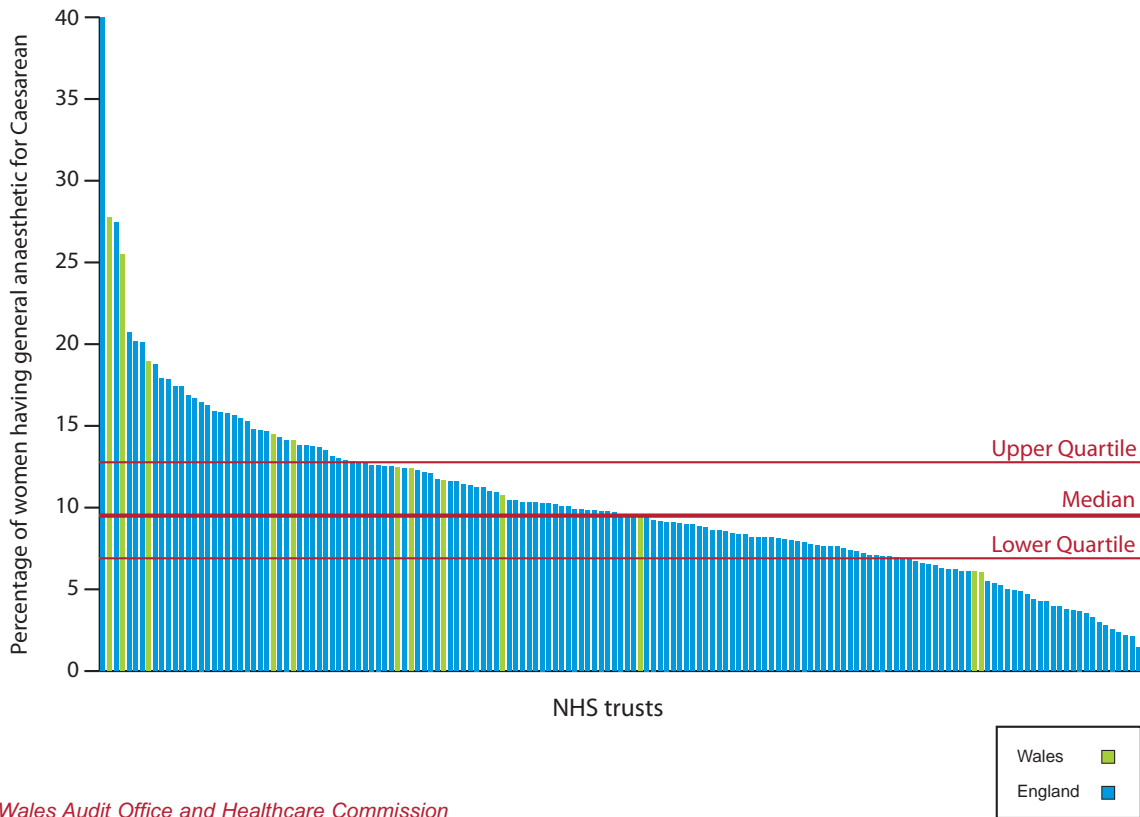
Source: NHS Institute for Innovation and Improvement

- 2.57** Carrying out Caesareans with an epidural (spinal anaesthesia) can reduce the risks associated with general anaesthetic for the mother and can also allow her to see her baby almost immediately after the birth. The use of general anaesthetic for Caesarean sections in Wales appears higher than in England. **Figure 16** shows that nine Welsh trusts had above-average rates, and of these, three Welsh trusts were amongst the highest of all trusts in England and Wales.
- 2.58** In situations where a Caesarean section is required because there is concern for the life of the mother or the baby, trusts are expected to commence the Caesarean section within 30 minutes of the decision to proceed with the procedure. Only six Welsh trusts were able to provide data on the timings for the procedures under these circumstances, but of those responding, three trusts reported that less than 50 per cent were undertaken within 30 minutes of the decision³⁹. Our review highlighted a lack of agreement in Wales about the classification of Caesareans as immediate, urgent or scheduled and the appropriateness of the 30-minute target suggesting the need for greater standardisation of practice.

³⁸ Royal College of Obstetricians: Guideline No: 20a, December 2006, *External Cephalic Version and Reducing the Incidence of Breech Presentation*

³⁹ Carmarthenshire, Ceredigion and Mid Wales and Swansea NHS trusts.

Figure 16 - Women who had a Caesarean section in Wales were more likely to have been given a general anaesthetic than in England



Source: Wales Audit Office and Healthcare Commission

Most women received effective pain management but about 20 per cent said they did not get the pain relief that they wanted

2.59 Women should be offered a range of methods to help them manage the pain of childbirth. These options include epidurals, pethidine, entonox (gas and air), Transcutaneous Electrical Nerve Stimulation (TENS)⁴⁰, the use of a birthing pool or natural methods such as breathing techniques or massage. Between 74 per cent and 84 per cent of the surveyed women reported that they had received the type of pain relief they wanted, and in the typical trust in Wales, 20 per cent of women did not receive the pain relief they wanted.

2.60 Most obstetric units offer, or can make available, the full range of pain relief options. For midwifery units, the range is different, with more emphasis on low-tech or non-invasive approaches such as massage and movement, water and entonox. For homebirths, all trusts provide entonox but in more than three-quarters of trusts, mothers might be expected to supply other types of pain relief such as a TENS machine, strong painkillers and birthing aids such as birthing balls or mats.

2.61 All obstetric units should be able to offer epidurals at any time of the day or night, seven days per week. All Welsh units, other than in Powys LHB⁴¹, are able to offer this

⁴⁰ Transcutaneous electrical nerve stimulation machines deliver small electrical pulses, via electrodes on the skin, to help ease pain.

⁴¹ Epidural services should only be offered in consultant-led obstetric units, and because there are no consultant-led units in Powys, it would be inappropriate to offer this service in Powys. Any woman requiring epidural services are referred to neighbouring obstetric services.



continuous epidural service. However, we found that women in a small number of Welsh trusts experienced delays in receiving this pain relief.

- 2.62** Giving birth in water is reported to relieve pain and reduce the likelihood of women having an epidural⁴². However, current provision and use of pools varies across Wales. A number of trusts have indicated that their birthing pools are not used due to concerns about the supply and cost of water.

Women are least satisfied with postnatal care and over a third of women were unhappy with the quality of support for infant feeding

Women are least satisfied with care during the postnatal phase although 85 per cent of women rated their care as good or better

- 2.63** After the birth, women and their babies often spend a period of time in hospital before going home. At home, their contact with the maternity service is maintained through postnatal visits from midwives.
- 2.64** Postnatal satisfaction levels in Wales compare well with those in England. But satisfaction levels during the postnatal phase are lower than in the antenatal phase or in the period of time during and shortly after labour and typically 15 per cent of women thought this phase of care was fair or poor. **Figure 9** (see page 28) shows that 36 per cent of women said that they were not always treated with dignity and respect during their postnatal care. **Box 8** shows a selection of comments about postnatal care provided within our survey of new mothers.

Box 8 - Mothers responding to our survey provided a range of comments about their postnatal care

- 'I left hospital feeling happy and full of advice.'
- 'I saw five different midwives in five days.'
- 'The experience resulted in me feeling unimportant and not cared for.'
- 'I felt the postnatal care was helpful and considerate.'

Source: Wales Audit Office survey of new mothers

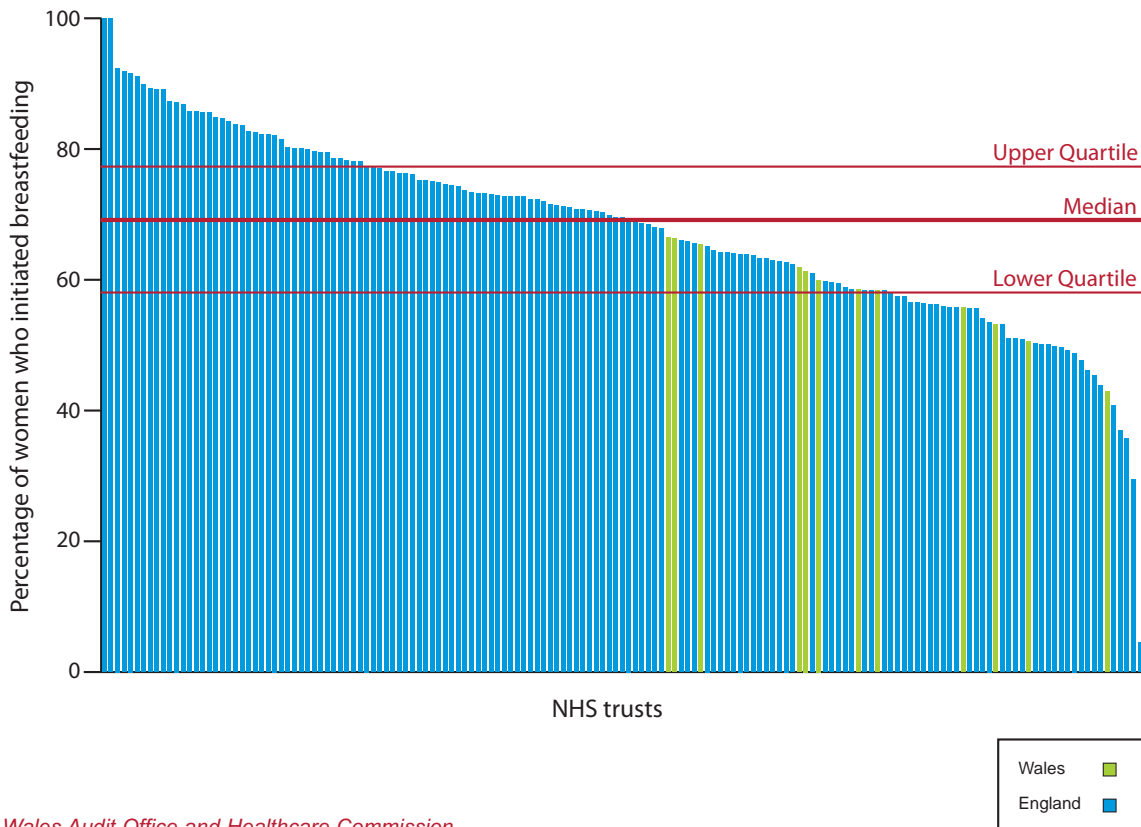
The quality of support for infant feeding may contribute to relatively poor levels of breastfeeding in Wales

- 2.65** Breastfeeding can provide considerable benefits for both the baby and the mother⁴³. Across Wales, trusts reported the proportion of women who initiated breastfeeding to be from 43 per cent in North Glamorgan NHS Trust to 66 per cent in Swansea NHS Trust. **Figure 17** shows that the rates within Welsh trusts are typically lower than those across England.
- 2.66** All Welsh trusts have a policy that aims to set out how breastfeeding support should be delivered. These policies aim to ensure that trust staff are providing consistent advice on breastfeeding and staff are provided with training on infant feeding. We found that, in 7 of the 13 trusts, doctors, midwives and support workers had been trained; in four trusts, only the midwives and support workers have been trained; and in two trusts, only the midwives had been trained.
- 2.67** Women should be aware of the benefits of breastfeeding and be supported in feeding their baby whatever their choice of feeding method. Our review suggests that midwives in Wales are generally performing well in terms of discussing the benefits of breastfeeding

⁴² National Institute for Health and Clinical Excellence, *Intrapartum care: Care of healthy women and their babies during childbirth*, guideline 55, 2007

⁴³ National Assembly for Wales, *Investing in a Better Start: Promoting Breastfeeding in Wales*, February 2001

Figure 17 - The rate of breastfeeding in Wales is considerably less than in England



Source: Wales Audit Office and Healthcare Commission

with women during their pregnancy. However, midwives appear to be performing less well in providing support and advice for breastfeeding after birth. Our survey of new mothers found that typically 37 per cent of women reported that they were not given good advice, support or encouragement for feeding their baby, either breast or bottle. Within the mothers' survey we found significantly more negative comments about breastfeeding than any other issue. **Box 9** shows a selection of comments about breastfeeding provided within our survey of new mothers.

2.68 Whilst social factors may contribute to low rates of breastfeeding, there is considerable scope for Welsh trusts to improve the support they provide for infant feeding. In late 2008, the Assembly Government launched a national programme to support and promote breastfeeding to the youngest mothers and those who left school early. The programme comprises a range of funded activities which incorporate work with the NHS, schools and the voluntary sector⁴⁴.

⁴⁴ <http://www.bestbeginnings.info/media-info>



Box 9 - Mothers responding to our survey provided a range of comments about the support they received with breastfeeding

'I had good support from the breastfeeding advisor at the midwife-led unit.'

'The midwife was not able to devote necessary time to breastfeeding which made me feel vulnerable.'

'Different midwives gave different advice about breastfeeding.'

'If I had received more support for breastfeeding I would have continued.'

Source: Wales Audit Office survey of new mothers

Although there are data limitations, the significant differences in lengths of stay and women's views suggest that length of stay may not always reflect individual need

2.69 Following a birth in hospital, length of stay varies according to the type of birth. The average length of stay reported by trusts for a normal delivery was 1.2 days but this ranged from less than one day at North West Wales to 2.8 days at Ceredigion and Mid Wales. Many trusts were unable to provide length of stay data for first-time mothers or mothers who had previously given birth. For an assisted birth, the average length of stay rises to two days and ranges from 1 to 2.9 days. The average length of stay for a Caesarean birth was 2.9 days, ranging from 1.5 to 3.5 days (only 7 of the 13 trusts could provide this information).

2.70 Women gave mixed feedback about their length of postnatal stay. Typically, 75 per cent of women were satisfied with their length of stay but this leaves 25 per cent who were not. Typically, 15 per cent felt their stay was too long but 11 per cent felt it was too short. The postnatal care that women receive should be responsive to individual circumstances. Women should leave hospital when they feel

they have had sufficient opportunity to recover and they feel confident in taking care of their baby.

2.71 Based on the data available, we concluded that the large variations in length of stay between trusts suggests that historical clinical practice would appear to be guiding length of stay in some trusts rather than individual need. In addition, this may not be making efficient use of the available bed capacity.

Wide variation in the level of postnatal contact with new mothers suggests this support is not always based on need

2.72 It is important that maternity services maintain contact with mothers once they have returned home from hospital, in order to monitor their condition and the progress of the baby. All Welsh trusts provide a postnatal visit as a matter of routine. Typically 80 per cent of planned postnatal contacts are at home but this varied across Wales from 50 per cent in two trusts to 100 per cent in five trusts.

2.73 Arguably, the quality of postnatal contacts is more important than the quantity. Each meeting between the midwife and mother should allow enough time for the appropriate checks and for the mother to discuss any issues she might have. Typically, trusts planned seven postnatal contacts between the mother and midwife after discharge from hospital, with variation across trusts from 3 to 14 contacts. Our survey of new mothers suggests that some women felt they would have liked more contact with a midwife after discharge. The proportion of women wanting more contact ranged from 10 per cent in Carmarthenshire NHS Trust to 25 per cent in Cardiff and Vale NHS Trust. It is not clear from the data whether women wanted more frequent contact or whether the actual content of each visit did not meet their needs.

2.74 The large variation in postnatal contacts, together with the fact that many women in some trusts wanted more contact with the maternity service once they had given birth, suggests a lack of consistency across Wales in the way that trusts decide on the appropriate level of postnatal support.

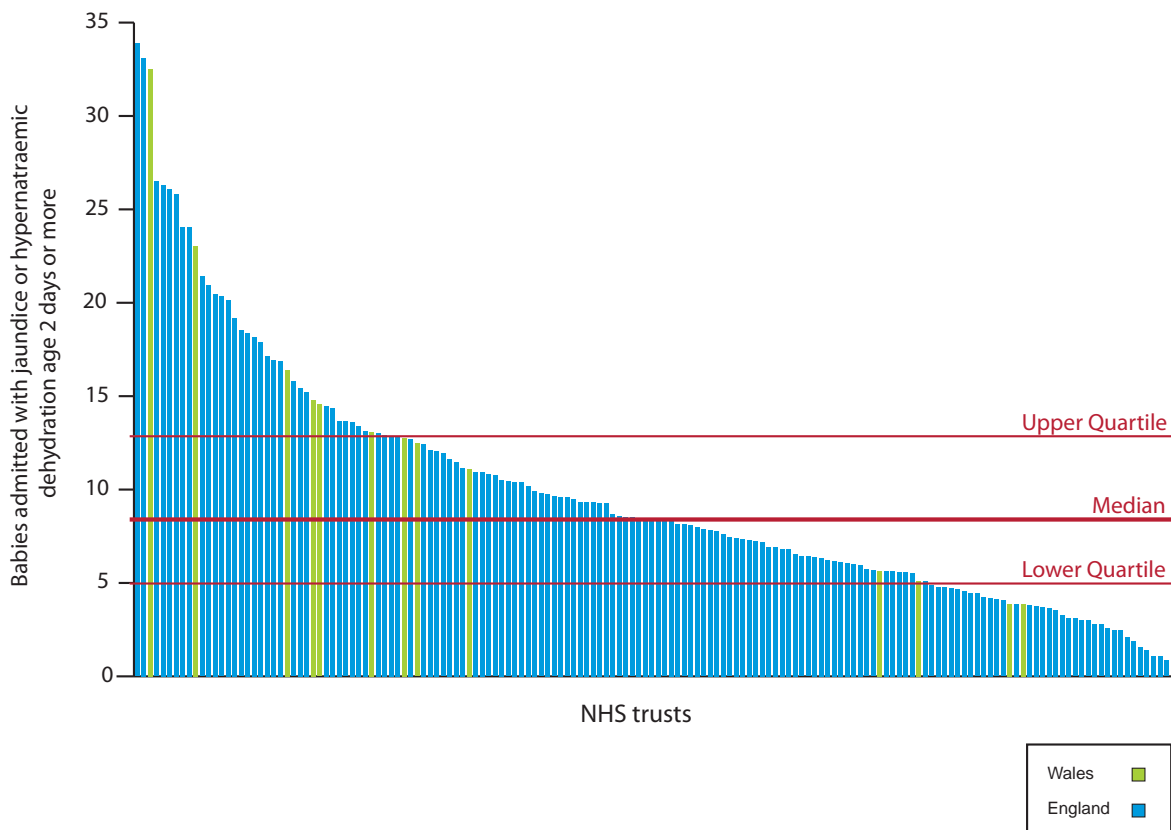
Rates of readmission for mothers and babies are relatively high and vary widely across Wales

2.75 If the baby or mother becomes sick after going home, they may need to be readmitted to hospital. High levels of readmissions of either mothers or babies can suggest problems with the health assessments they received before being discharged from hospital or with the postnatal care they received after going home. A complete

examination of the baby should take place within 72 hours of birth and nearly all of the women responding to our survey told us that their baby had received such an examination. Women’s physical and emotional health should be assessed prior to discharge from hospital and again at six to eight weeks after birth. The proportion of women who reported receiving a postnatal check-up of their own health and well-being at six weeks ranges from 62 per cent to 93 per cent with 10 trusts having a rate of 79 per cent or less.

2.76 Dehydration and jaundice are two common causes of readmission of babies and are often linked to problems with feeding. **Figure 18** shows that rates of readmission for babies with dehydration or jaundice are higher in Wales than in England. Within

Figure 18 - Rates of readmission for babies with dehydration or jaundice are higher in Wales than England



Source: Wales Audit Office and Healthcare Commission



Wales, typically 13 per cent of babies were readmitted with dehydration or jaundice after two days or more, compared with eight per cent in England.

2.77 Emergency readmissions of mothers within two weeks of discharge vary considerably between trusts, ranging from nil in two trusts to 13 per cent in Bro Morgannwg NHS Trust. However, our fieldwork revealed differing approaches to coding readmissions of babies and mothers which makes comparison of performance difficult.

Part 3 - Information is not collected on a consistent basis or used effectively as the evidence base for improving services

3.1 The collection and analysis of robust, reliable data is crucial to the effective management and improvement of maternity services. In this part of the report, we consider that:

- a** there are significant deficiencies in the way that maternity service monitor their performance;
- b** maternity services are not getting full value from their existing forums and committees in feeding back performance information and driving service improvement; and
- c** the culture within certain trusts may not be conducive to learning from the rising numbers of patient safety incidents and litigation claims in obstetrics accounted for 66 per cent of all clinical negligence claims in Wales during 2007-08.

There are significant deficiencies in the way that maternity services monitor their performance

There are inconsistencies in performance data across Wales due to the lack of a common data set

3.2 Maternity units need good information systems to report accurately on the services they deliver and to highlight areas where improvements might be made. This monitoring information should underpin the

planning of maternity services across Wales. We found that maternity services in Wales do not generally monitor their performance well and clinicians expressed frustration at the lack of quality information from which they can assess and compare practice. Five of the 13 Welsh trusts reported having no maternity information system, and of those trusts that did have a maternity information system, only two identified it to be comprehensive.

3.3 Our survey of staff indicated that in six trusts, at least 30 per cent of staff felt that information systems were inadequate in supporting clinical and management decisions (Figure 19)⁴⁵.

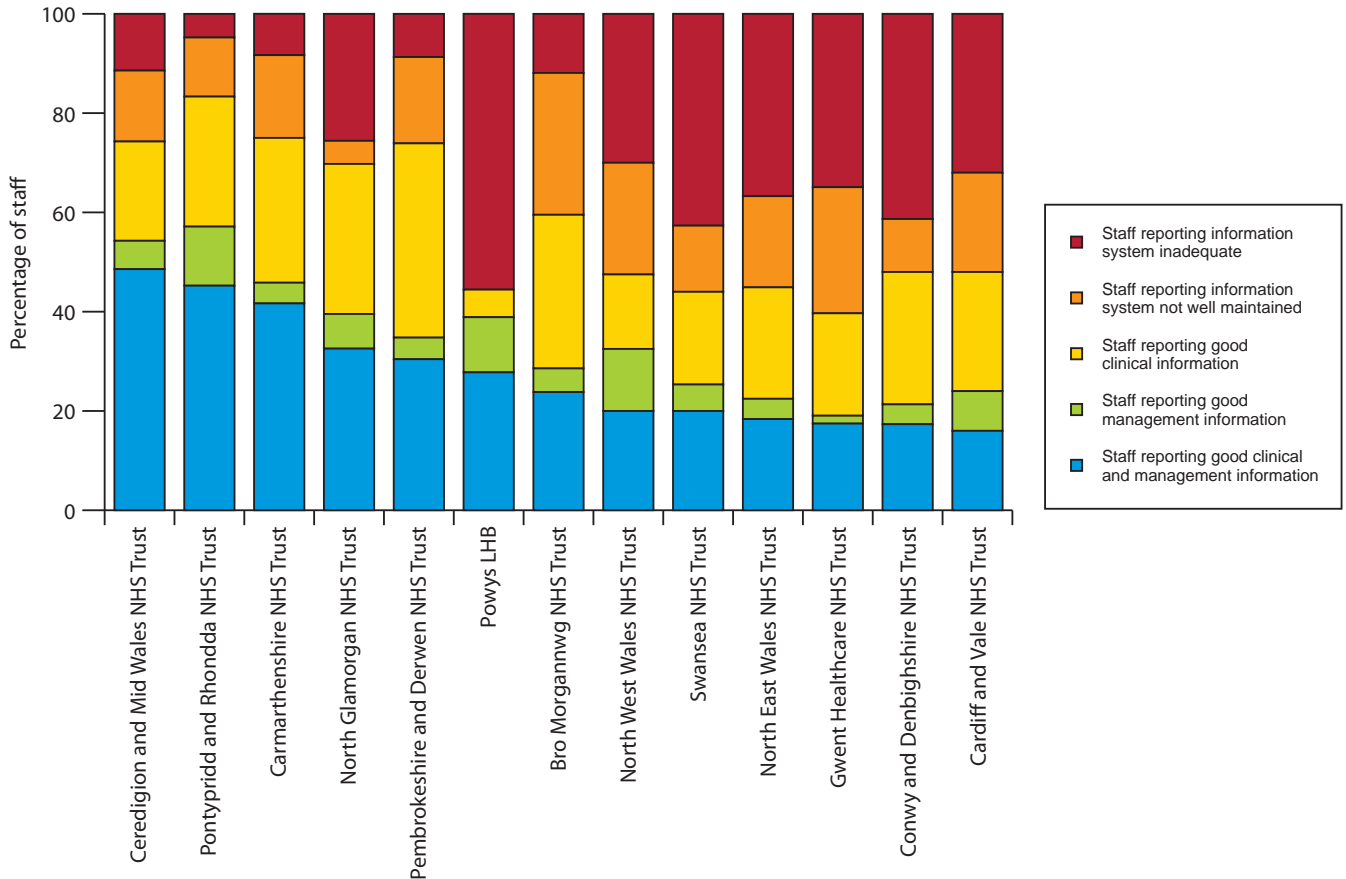
3.4 There is no commonly agreed maternity data set and therefore trusts are measuring different aspects of their maternity services. The 2007 Healthcare Inspectorate Wales report on maternity services in Wales commented that there was no standard, all Wales maternity data set and that, in many cases, it was unclear how the data collected locally and centrally was being used. Healthcare Inspectorate Wales recommended that the Assembly Government should work with maternity providers in Wales to develop a coherent and integrated national data set for maternity services⁴⁶.

⁴⁵ The six trusts where at least 30 per cent of staff felt that information systems were inadequate in supporting clinical and management decisions were Powys LHB, Swansea, Conwy and Denbighshire, North East Wales, Gwent Healthcare and North West Wales.

⁴⁶ Healthcare Inspectorate Wales: *Maternity Services in Wales – Findings and Themes from the All Wales Review*, August 2007.



Figure 19 - Staff in some trusts felt that the maternity service information system was inadequate and poorly maintained



Source: Wales Audit Office survey of trust staff

There are significant gaps in information which are preventing meaningful analysis of maternal and neonatal outcomes

3.5 Maternity services need to collect and analyse information about the clinical outcomes for mothers and their babies because these are important indicators of the safety and effectiveness of services. Many trusts were not able to supply us with comprehensive or robust data regarding maternal and neonatal outcomes. And where trusts were able to provide information, it had often required a hugely resource-intensive exercise, requiring manual trawls of maternity

documentation and ledgers. From our discussions with staff, we found that the responsibility for collecting and recording data on maternal and neonatal outcomes often falls to midwives. However, midwives told us that they often found it difficult to fulfil this responsibility because of pressing clinical duties.

3.6 Maternal outcome indicators include rates of excessive bleeding after birth (post-partum haemorrhage), rates of convulsions (eclampsia) and rates of perineal trauma (damage to the mother’s genitalia during childbirth). Two examples demonstrating the

problems with maternal outcome data collected by Welsh trusts include:

- a** Only eight trusts were able to provide data on rates of eclampsia.
- b** The occurrence of serious perineal trauma, as reported by trusts, was very different to that reported by mothers. This might be due to women's inaccurate perception of the perineal trauma they might have suffered or due to inaccuracies in the recording of this information in maternal units.

3.7 There are also considerable problems with the neonatal outcome data collected by trusts. Trusts were asked to provide us with data relating to the indicators listed below:

- a** the Apgar score at five minutes after birth (this is a score between 0 and 10 of the baby's physical condition, based on the activity and muscle tone, pulse, grimace response, appearance and respiration);
- b** the need for newborn intubation, to help breathing;
- c** meconium aspiration before, during, or after labour and birth, when a newborn inhales (or aspirates) a mixture of meconium and amniotic fluid, and
- d** the occurrence of the condition neonatal encephalopathy.

3.8 Information regarding all of these indicators was poorly reported with significant gaps in the information provided to us. Even within the information that trusts were able to provide, the variation in rates was often so great as to make the value of the data questionable.

3.9 The Assembly Government has commenced work aimed at standardising the data recorded by Welsh maternity services. This work aims to standardise the data relating to all phases of maternity care. The data set will be used to inform planning and performance management at local and national levels.

Committees and forums within maternity services are rich sources of information but are not being used optimally

3.10 Maternity services often use a variety of methods for gathering feedback on the quality and delivery of their services. All trusts report having a labour ward forum – a formal grouping that brings together key stakeholders to review labour ward activity and develop guidelines. Stakeholders should include the lead obstetrician, clinical midwife manager, an obstetric anaesthetist, a neonatal paediatrician, the risk manager, representatives from junior medical and midwifery staff and a consumer representative. The frequency with which these groups met varied, with 4 of the 13 trusts reporting that their labour ward forum met at least once a month and three reporting that they met less than once a quarter. Eleven trusts reported that one or more guidelines had been approved by their labour ward forum in the last year. The recent Healthcare Inspectorate Wales review (see paragraph 3.4) indicated that all trusts had experienced problems with attendance at their labour ward forum and recommended that all organisations review their membership.

3.11 All trusts reported being involved in a maternity services liaison committee (see **Box 10**), that had met at least three times in the past year. The regional organisation of these committees within Wales enables a



Box 10 - Maternity services liaison committees

Maternity services liaison committees have a much wider remit than labour ward forums and are intended to be multidisciplinary, multi-organisational forums for planning, monitoring and developing maternity services. In Wales, these committees are organised on a regional basis with three regional committees covering Wales.

These committees provide an opportunity for those who commission, provide and use maternity services to agree ways to improve the service. The committee should comprise clinicians from all specialties involved, together with commissioners, managers, public health and social care representatives, and at least a third of members should be women who use services.

Source: Wales Audit Office

wide scope for the work of each committee, although runs the risk of limiting local representation.

- 3.12** We found that most maternity services are not using their existing forums or committees effectively in service planning and development. For example, only 4 of the 13 trusts reported that their maternity services liaison committee has representation from LHBs, and only seven trusts said that the committee had shared recommendations for improvement with the trust board in the past year. This suggests that maternity services liaison committees could have more influence particularly with trusts' high-level management.
- 3.13** Getting the views of service users is challenging for trusts but these opinions are essential in providing a realistic picture of patient experience. Maternity services liaison committees are an ideal forum for including service users and listening to their first-hand experiences of services. The average number of user representative on maternity services liaison committees is four, although this ranges from nil to 15. Eight trusts said the maternity services liaison committees they were involved with had no user representation. By not involving service users

in this way, some trusts are missing an important opportunity to gather information about women's experiences and use this information to improve services. The Assembly Government has acknowledged that maternity service user groups are underused and is planning a review of user involvement in 2009.

- 3.14** Another method for collecting the views of users is through regular surveys. All trusts said they had carried out at least one survey of women during the past year.

Most trusts are experiencing rising numbers of reported patient safety incidents although it is unclear to what extent this is due to better reporting

Litigation claims for clinical negligence in obstetrics account for a large proportion of all claims in the NHS

- 3.15** Figure 20 shows that money paid out in litigation claims that relate to obstetrics more than doubled between 2003-04 and 2007-08. The £28.4 million paid out in obstetric litigation claims in 2007-08 made up 66 per cent of the value of all clinical negligence claims approved by the Welsh Risk Pool Advisory Board in that year.
- 3.16** While these figures clearly show that obstetric litigation claims are costing significant amounts of public money, the proportion of claims that relate to maternity services should be viewed in the light of some important factors. Obstetric claims are often very expensive due to the need to provide long-term care. The figures can also increase dramatically due to one or two severe cases. For example, during 2007-08, payments were made on 34 claims but six of these represented 85 per cent of the total.

Figure 20 - The cost of maternity service litigation increased between 2003-04 and 2007-08

Year	Obstetric litigation claims paid by the Welsh Risk Pool
2003-04	£11.4 million
2004-05	£15.2 million
2005-06	£9.7 million
2006-07	£20.2 million
2007-08	£28.4 million

Source: Welsh Risk Pool

3.17 It is common for the high-value obstetric claims to include failures in relation to the use and interpretation of electronic fetal monitoring, for example the use of CTGs. Weaknesses in the interpretation of the CTGs will potentially result in fetal hypoxia being undiagnosed. This issue is common to both England and Wales and the National Patient Safety Agency has funded an ongoing project by the Royal College of Obstetricians and Gynaecologists to develop standards to improve the quality of this monitoring. In addition, the Welsh Risk Pool has established a project group to consider the development of a framework for the assessment of competency in terms of the use and interpretation of electronic fetal monitoring.

The culture within some trusts may not be conducive to learning from incidents and there are risks associated with inconsistent advice and guidance from some clinicians

3.18 If things do go wrong during pregnancy or labour, then the trust must record such incidents to ensure the service learns lessons to prevent such an incident happening again. Whilst we found inconsistency in the criteria that Welsh trusts use to decide whether such

incidents should be formally recorded, 10 of the 13 trusts reported an increase in patient safety incidents related to maternity services in 2006-07 compared to 2005-06.

The reasons for these increases are unclear. The increase in incidents might suggest a rise in the risk to patient safety, but similarly, it may also reflect a more consistent and comprehensive approach to incident reporting within individual trusts.

3.19 Learning from incidents is important if trusts are to reduce maternal and neonatal morbidity and mortality. All trusts reported that they had multidisciplinary groups to discuss recent incidents and help share learning across the trust, 11 of which meet at least monthly. Nine trusts reported that debriefs take place after all serious incidents; although one of the nine trusts reported that this only occurred in a minority of events. Our survey of trust staff indicated that staff in five trusts do not get timely and comprehensive feedback from incidents.

3.20 Consistent advice and practice within maternity services should help to reduce the risk of an adverse incident and promote a culture where staff feel confident in the advice they are given. However, our staff survey indicated that the midwives in eight Welsh trusts strongly agreed that advice and practice within the maternity service was inconsistent.

3.21 Another cultural issue highlighted by our staff survey was that midwives and medical staff have differing perceptions about the source of leadership within their maternity service. We found that midwives in all maternity services generally considered themselves as providing the strongest leadership whilst, obstetricians believe the medical staff are providing this leadership. This lack of clarity over the source of leadership in maternity units is likely to cause tensions between professional groups and act as a barrier to driving service improvements.



Appendix 1 - Methodology

- 1** Our audit examination was based on local audit fieldwork undertaken during 2007 and reported in 2008 at each of the then 13 providers of maternity services (see table). Our findings are based on the following sources of evidence:
- a** a web-based questionnaire completed by each trust to identify their configuration of delivery units and performance data for the year ending 31 March 2007;
 - b** a voluntary web-based questionnaire for maternity staff to complete at each trust;
 - c** a survey of women who had given birth in early 2007 whilst in the care of the trust. More details and the findings of this questionnaire are in [Appendix 3](#); and
 - d** national sources of information about the performance of maternity services.

Maternity questionnaire for trusts

- 2** Trusts identified their configuration of delivery units and performance data for the year ending 31 March 2007. The survey included trust-level questions and separate sections for each maternity delivery unit identified by the trust. The questions asked at unit level varied according to type of unit and were the most extensive for obstetric units. Specific questions for units providing community and home-birth maternity services were included.

Provider of maternity services at the time of our work	Successor body
Bro Morgannwg NHS Trust	Abertawe Bro Morgannwg University NHS Trust
Swansea NHS Trust	
Cardiff and Vale NHS Trust	Cardiff and Vale NHS Trust
North Glamorgan NHS Trust	Cwm Taf NHS Trust
Pontypridd and Rhondda NHS Trust	
Gwent Healthcare NHS Trust	Gwent Healthcare NHS Trust
Carmarthenshire NHS Trust	Hywel Dda NHS Trust
Ceredigion and Mid Wales NHS Trust	
Pembrokeshire and Derwen NHS Trust	
Conwy and Denbighshire NHS Trust	North Wales NHS Trust
North East Wales NHS Trust	
North West Wales NHS Trust	North West Wales NHS Trust
Powys LHB	Powys LHB

Source: Wales Audit Office

Questionnaire for trust maternity staff

- 3 A short questionnaire was produced for trusts to gather the views that their staff hold about maternity services. It was mainly intended to provide a supporting tool for trusts to help diagnose their priorities for improvement. Questions were targeted for each staff group that worked in maternity with common questions aimed at all staff groups.
- 4 All staff who worked within maternity services were asked to complete a voluntary web-based questionnaire at each trust and a total of 646 maternity service staff responded. But trust response rates ranged from 94 in Conwy and Denbighshire to 24 in Powys. The results for Cardiff and Vale NHS Trust were excluded as the low response rate risked the responses not being representative;
- 5 A total of 449 midwives responded to the survey, 69 per cent of all responders. And a total of 54 obstetricians responded, just eight per cent of the total. There were no obstetrician responses from Carmarthen and North Glamorgan NHS trusts. The remainder of responses were from midwife managers and maternity support workers.

Survey of women who have recently given birth

- 6 The Wales Audit Office commissioned the Picker Institute UK to undertake local postal questionnaire surveys of women who gave birth in February 2007. A total of 1,630 women responded. Full details of this survey can be found in [Appendix 3](#).

Other existing national sources of data

- 7 National sources of data were identified for inclusion in the review:
 - a Aggregated data at unit level on stillbirths and neonatal mortality provided by the

Confidential Enquiry into Maternal and Child Health.

- b The Baby Friendly scheme, one method for improving breastfeeding, publishes the status of each trust as intent registered, certificate of commitment or accreditation. This data is contextual information to be compared to breastfeeding outcomes.
- c The Welsh Risk Pool (Standard 15) provided data for each maternity standard, on whether the standard was fully, partially or not met at the last assessment. The 2006 result was reported.
- d Available data at July 2007 (April to September 2006) obtained from PEDW for the following:
 - percentage of women with Caesarean who are aged 35 or over;
 - percentage of women who deliver after week 42;
 - percentage of women reaching week 40 who deliver in week 42;
 - percentage of women readmitted within two weeks of discharge; and
 - babies admitted to hospital with jaundice aged two days or greater/babies born in the hospital.

Expert panel

- 8 We established an advisory panel to support our work, which comprised a broad range of professionals representing those involved in delivering, managing or reviewing maternity services in Wales. The panel provided advice to the Wales Audit Office at key stages of our audit. Members of our expert panel are listed on the following page. We are extremely grateful to panel members for their time, commitment, support and helpful insights.



Name	Organisation	Role at the time of the review
Polly Ferguson	Assembly Government	Department for Public Health and Health Professions Nursing Officer
Dr Jane Ludlow	Assembly Government	Senior Medical Officer
Gillian Harris	Healthcare Inspectorate Wales	LSA Midwifery Officer
Jean Keats	Healthcare Inspectorate Wales	LSA Midwifery Officer
Helen Rogers	Royal College of Midwives	Head of UK Board for Wales
Andrew Dawson	Royal College of Obstetricians	Chair of Committee
Rosemary Johnson	Velindre NHS Trust	All Wales Antenatal Screening Co-ordinator, Antenatal Screening Wales
John Bowles	Welsh Risk Pool	Welsh Risk Pool Manager
Sarah Cooper	Healthcare Inspectorate Wales	Inspections Manager
Sue Sky	Assembly Government	Infant Feeding Co-ordinator
Julie Richards	Powys Teaching LHB	Head Midwife/mainly in capacity of role as lead for user involvement
Kath McGrath	Pontypridd and Rhondda NHS Trust	Head of Midwifery and Directorate Manager/Chair Head of Midwifery Advisory Group
Jean Matthes	Royal College of Paediatricians	Consultant Paediatrician
Maggie Redshaw	National Perinatal Epidemiology Unit	Social Scientist

Appendix 2 - Glossary

Alongside Midwifery Unit (AMU)	An NHS clinical location offering care to women with straightforward pregnancies during labour and birth in which midwives take primary professional responsibility for care. During labour and birth diagnostic and treatment medical services, including obstetric, neonatal and anaesthetic care are available, should they be needed, in the same building, or in a separate building on the same site. Transfer will normally be by trolley, bed or wheelchair.
Antenatal screening	Antenatal screening is undertaken to detect defined serious conditions present in either the mother or baby that are likely to have an adverse effect on the health of either, and for which an effective intervention is available and warranted. For some conditions, preventative treatment is available during the antenatal period or after delivery to improve the baby's health. For others, the condition can be identified during the antenatal period but no preventative treatment is available. With counselling, women can make an informed choice about whether they wish to continue the pregnancy and appropriate support, dependent on their ultimate choice, can be arranged.
Caseload midwifery	A model of midwifery care where a single midwife is allocated a woman who she will support for antenatal, intrapartum and postnatal care.
Caseload midwifery managed by a team	A model of midwifery care, where a single midwife working as a part of a team is allocated a woman. This midwife and her team will support the woman for antenatal, intrapartum and postnatal care.
Delivery	In the questionnaire, a delivery occurs when a woman gives birth after 22 weeks irrespective of number of babies born or whether the baby was live or stillborn.
Delivery room	A room where a birth takes place. In a midwifery unit these can be called birthing rooms.
Fetal hypoxia	Deficient oxygenation of fetal blood.
Freestanding Midwifery Unit (FMU)	An NHS clinical location offering care to women with straightforward pregnancies during labour and birth in which midwives take primary professional responsibility for care. GPs may also be involved in care. During labour and birth, the full range of diagnostic and treatment medical services, including obstetric, neonatal and anaesthetic care, are not immediately available but are located on a separate site should they be needed. Transfer will normally involve car or ambulance.
Homebirth	A birth at any residential location.
Meconium	The first contents of the bowel, present in the baby, and passed during the first few days after birth.
Midwifery care	Care where the midwife is the lead professional. Midwifery care is suitable for women assessed to be low risk.
Named midwife	A named, registered midwife who is responsible for providing all, or most, of a woman's antenatal and/or postnatal care and co-ordinating care should they not be available.
Neonatal	The first four weeks after birth.

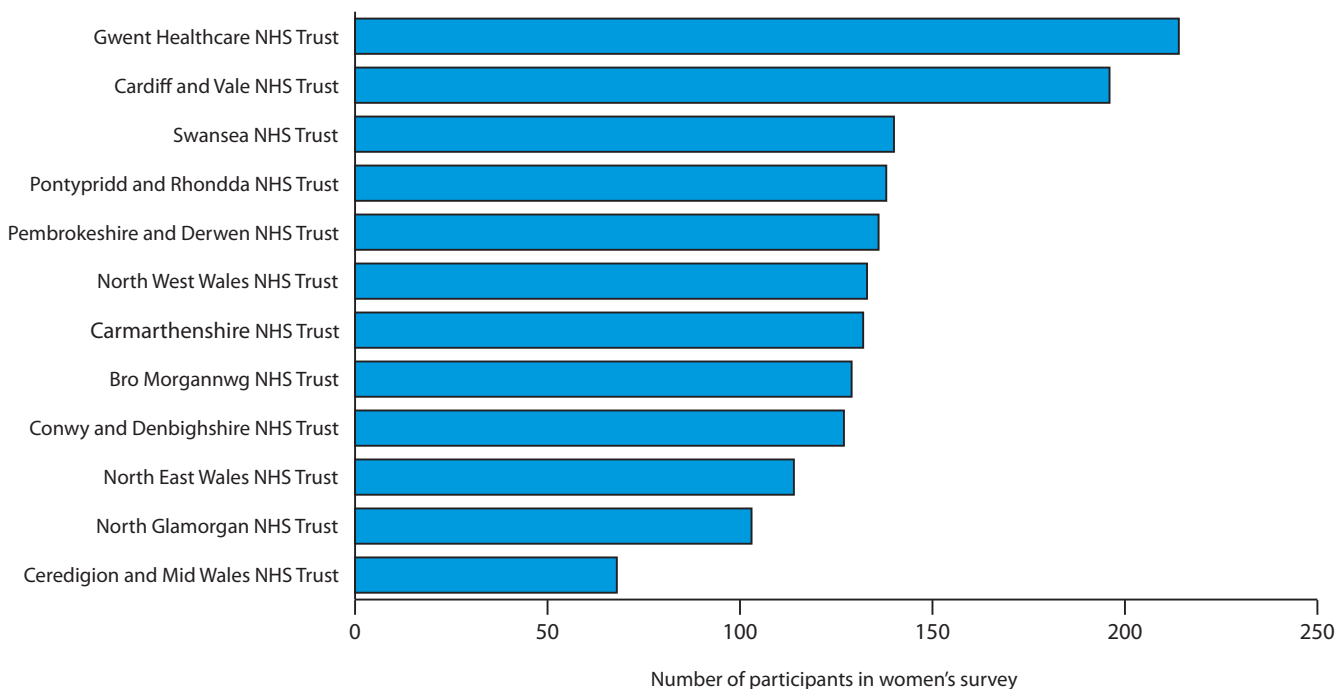


Neonatal encephalopathy	With stage 2 hypoxic encephalopathy an infant experiences obtundation (lethargic), hypotonia, strong distal flexion and multifocal seizures. With stage 3 hypoxic encephalopathy the infant is stuporous, flaccid, and brain stem and autonomic functions are suppressed. (For a fuller definition see The BAPM Neonatal Data Set – for the annual reporting of data by neonatal intensive care units, May 1997, Appendix D.)
Normal birth	In this report, normal birth is defined as a spontaneous vaginal delivery without the aid of an epidural, spinal or general anaesthesia, forceps or ventouse. The consensus statement published after the data for this review was collected additionally excludes episiotomy from the definition of normal births, which is now embodied in the Information Centre definition.
Obstetric doctors	Obstetric medical staff including consultants, staff grades and doctors in training.
Obstetric unit	An NHS clinical location in which care is provided by a team, with obstetricians taking primary professional responsibility for women at high risk of complications during labour and birth. Midwives offer care to all women in an obstetric unit, whether or not they are considered at high or low risk, and take primary responsibility for women with straightforward pregnancies during labour and birth. Diagnostic and treatment medical services including obstetric, neonatal and anaesthetic care are available on site.
Planned homebirth	A birth at any residential location where at the start of the labour the plan was for the birth to take place away from an NHS site.
Post-partum haemorrhage	Blood loss of 500 ml or more from the genital tract after delivery.
Spontaneous vaginal birth	A vaginal birth where there has been no induction of labour at the start (augmentation may have occurred) and forceps and ventouse are not used.
Maternity support worker	Staff who work with pregnant mothers or newborn babies within the maternity department who are not trained midwives or doctors. Titles for support workers in maternity can include maternity support worker, midwifery assistant, auxiliary, healthcare support worker, healthcare assistant, maternity care assistant, nursery nurse employed to work on postnatal ward and assistant practitioner.
Unplanned homebirth	A birth at any residential location which is not an NHS site where the initial plan was for the birth to take place at an NHS site.

Appendix 3 - Mothers' survey

- 1 This appendix gives details of the main findings from our survey of mothers who had recently given birth in Wales. The survey was developed by the National Perinatal Epidemiology Unit at the University of Oxford and the Picker Institute UK.
- 2 The survey provided a detailed picture of the perceptions and experiences of women about their care and their views about the choice and quality of the service.
- 3 Some of the topics covered within the survey were booking, antenatal check-ups, scans and screening, antenatal classes, labour, birth and birth settings, care in hospital after birth, infant feeding, babies needing special care and care at home after the birth.
- 4 The minimum sample size was 200 live births and those trusts with fewer deliveries could increase their sample size by including January births. The survey was carried out in 12 Welsh trusts. Powys LHB was excluded from this survey as the responses were focused on the place of birth eg, obstetric unit. Therefore, the absence of an obstetric unit in Powys meant that the sample size could not be achieved and responses would not be representative of Powys⁴⁷. In total 1,630 women responded who gave birth in February 2007.

Figure 21 - The sample sizes at each trust for the women's survey



⁴⁷ Using a similar approach to ours, Powys LHB undertook their own survey seeking to understand the views and experiences of mothers who deliver within Powys.



Overall perceptions of care

- 5 The women were asked to rate each phase of their care as excellent, very good, good, fair or poor. Overall, most women describe their care positively with that received during pregnancy and during labour and childbirth getting the highest rating. During these two phases, we found that more than 90 per cent of women rated their care as good or better. Postnatal care received slightly more critical responses with 15 per cent rating it only as 'fair' or 'poor' but this increases to 19 per cent in Cardiff and Vale NHS Trust. **Figure 22** shows that for each phase, excellent was the most common rating from women.

Figure 22 - Women's rating of the care they received

	Women's rating of the care they received (%)				
	Excellent	Very Good	Good	Fair	Poor
Antenatal phase	46	31	15	7	2
During and shortly after labour	54	26	11	6	4
Postnatal phase	39	28	18	8	7

- 6 The feedback was generally more positive in Wales with less variation in responses for Welsh trusts than those in England where there was considerable variation.

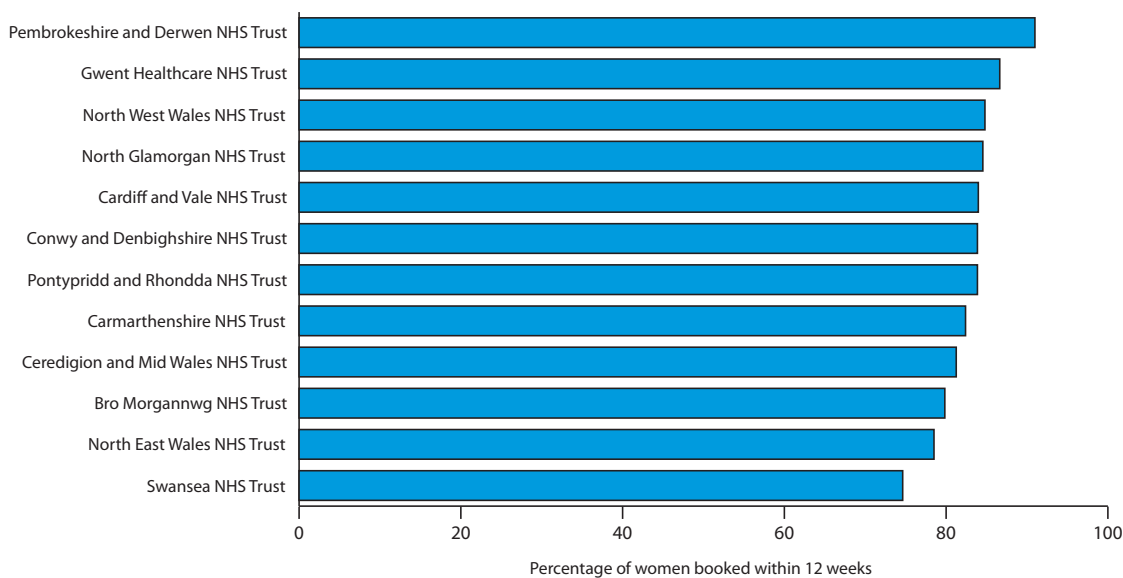
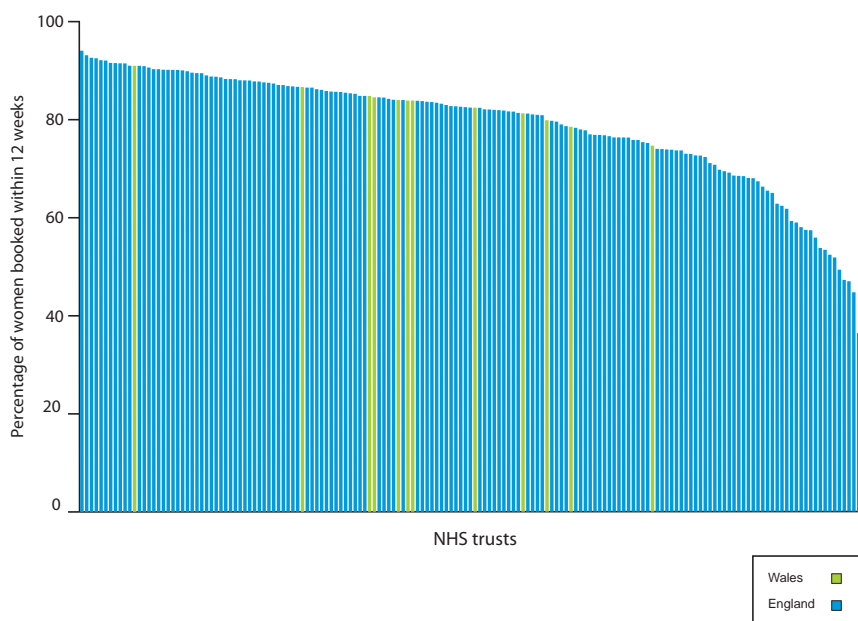
Figure 23 - Comparison of women's feedback between Wales and England

	Care during labour and birth		Care after birth	
	% responding excellent or very good	% responding fair or poor	% responding excellent or very good	% responding fair or poor
Welsh trusts				
Most favoured trust	92%	5%	90%	7%
Least favoured trust	81%	15%	80%	19%
English trusts				
Most favoured trust	88%	5%	71%	12%
Least favoured trust	30%	34%	22%	55%

Specific aspects of care

Percentage of women booked within 12 weeks

- 7 An effective antenatal care process should lead to a significant number of women, not only in contact with the maternity service by week 12, but also booked as the first screening tests should take place no later than week 12.

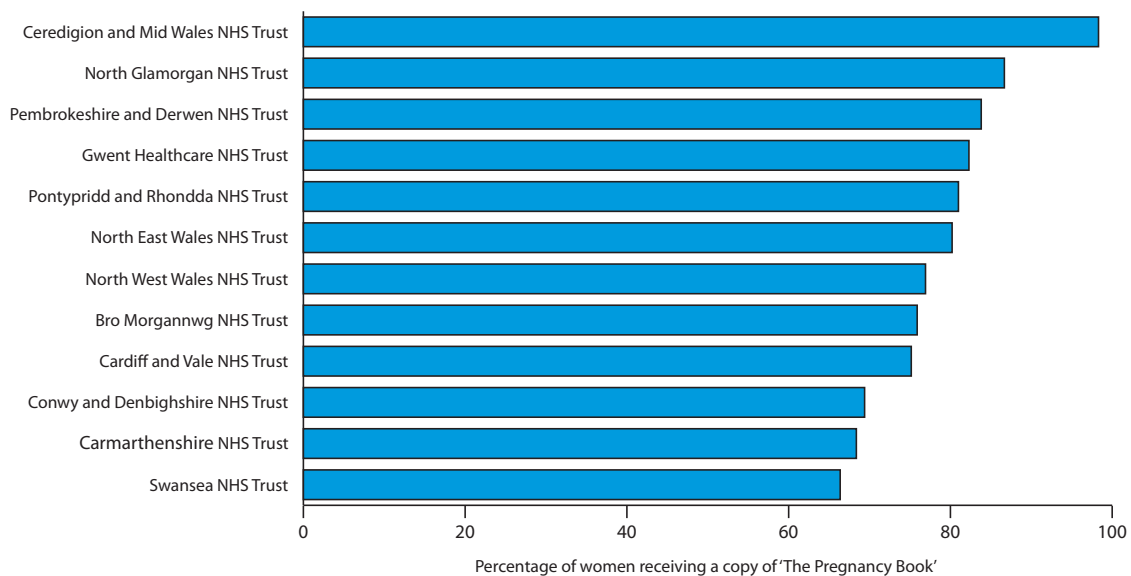
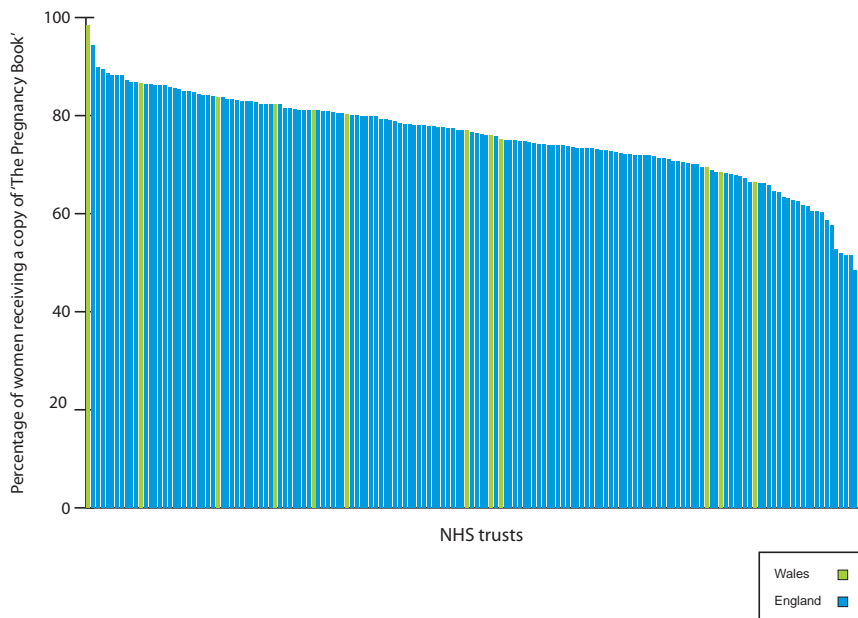


Note
The results for Welsh trusts are highlighted within the results for all trusts in England and Wales.



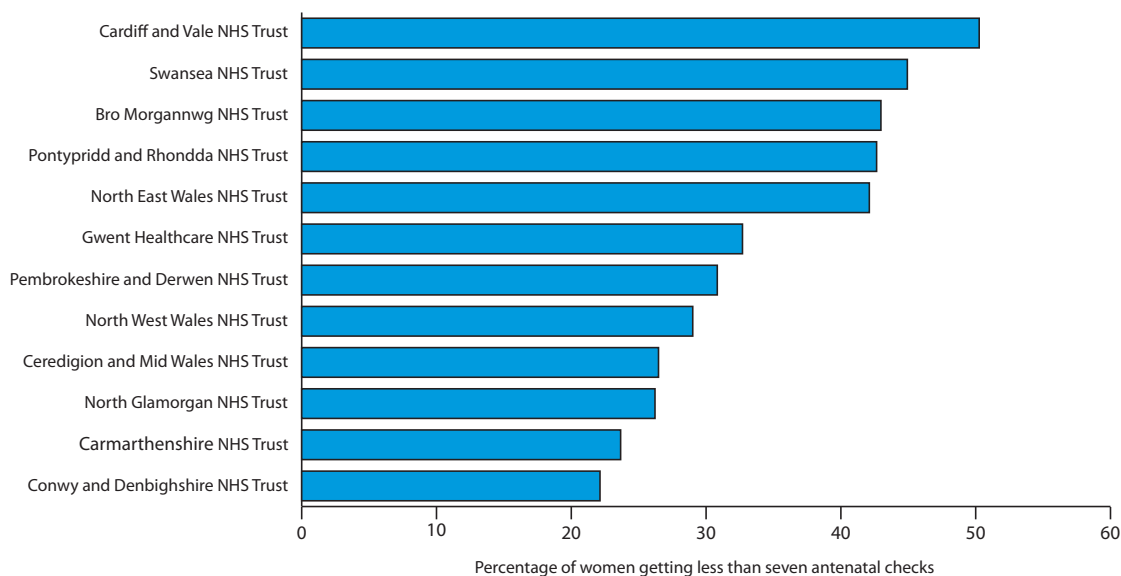
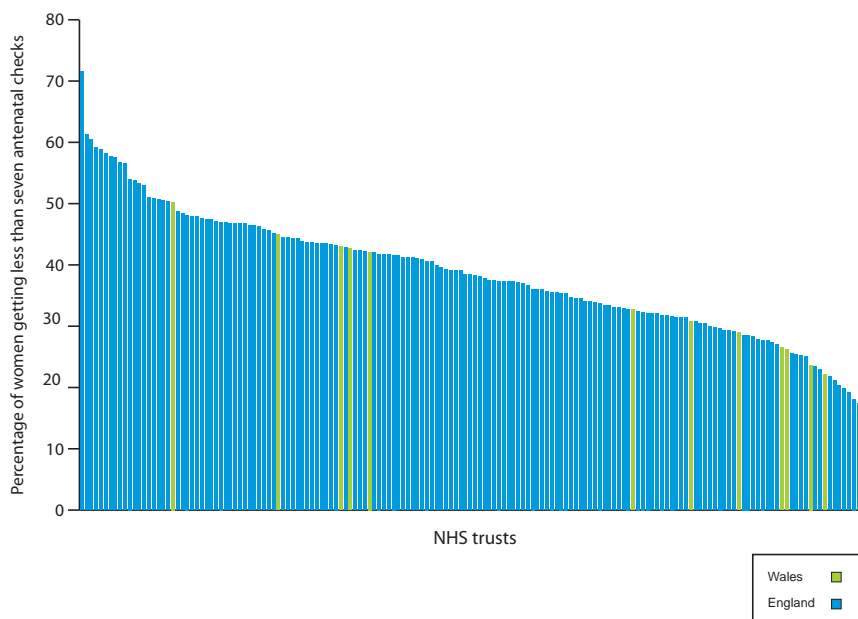
Percentage of women receiving a copy of *The Pregnancy Book*

- 8 All pregnant women should be given a copy of *The Pregnancy Book* and it is particularly important that first-time mothers receive this information. The survey asked women if they needed and received a copy of this book.



Percentage of women getting less than seven antenatal checks

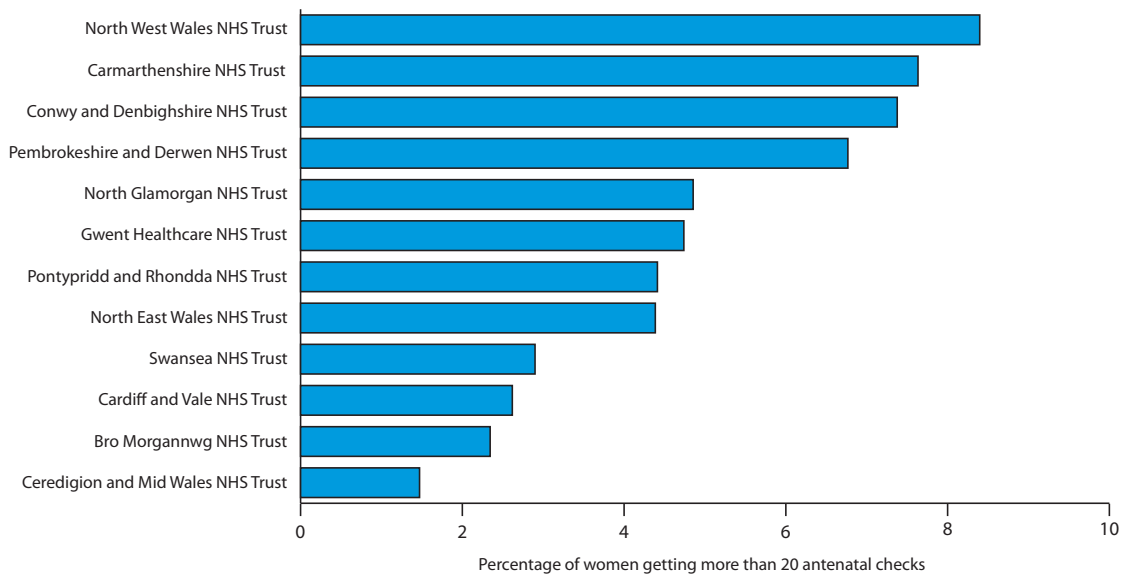
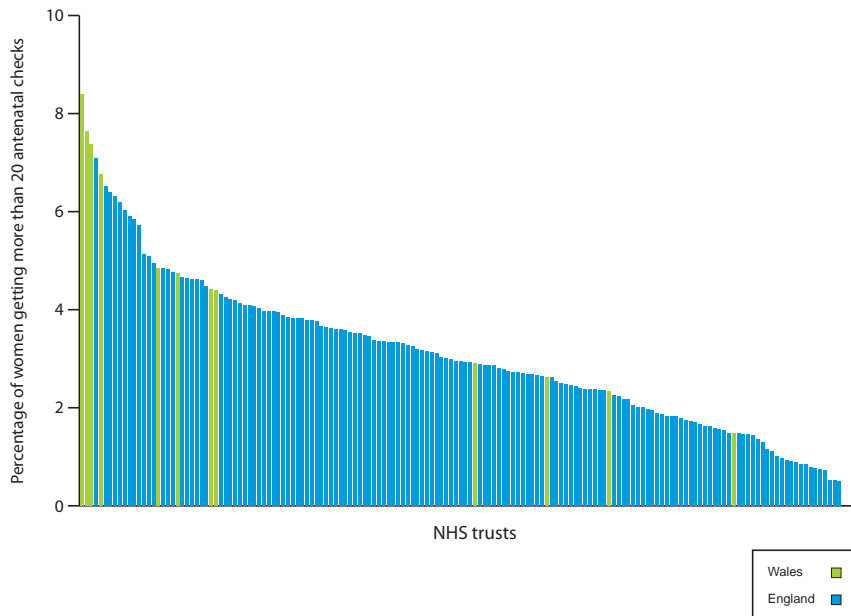
- 9 Women may get less than seven antenatal checks if they book late and/or they deliver early. If this percentage is high, the trust may want to review its processes for encouraging early booking and/or its processes for ensuring women attend an appropriate number of antenatal checks.





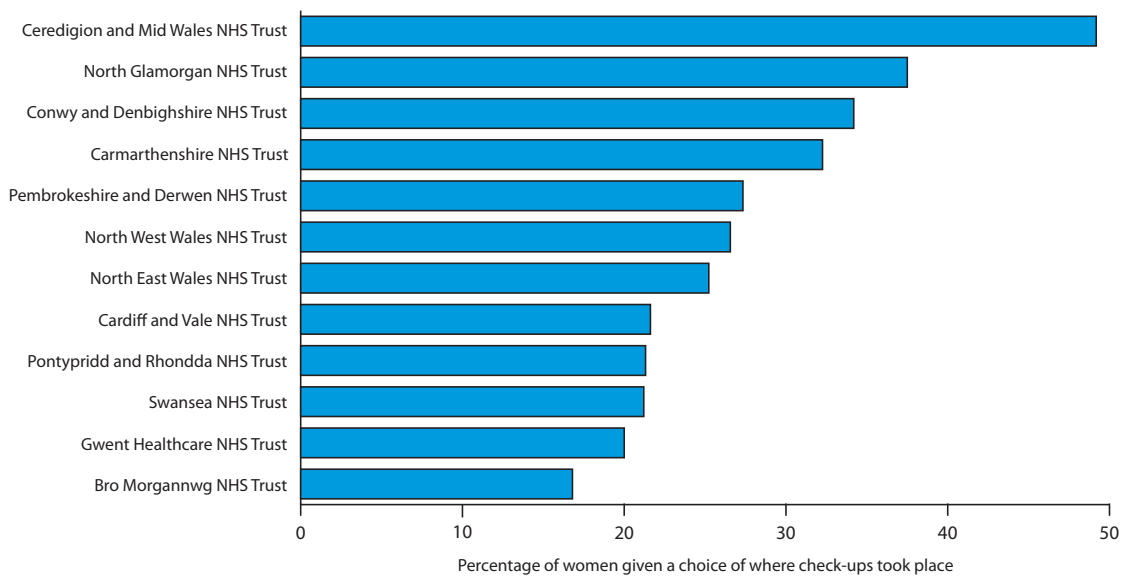
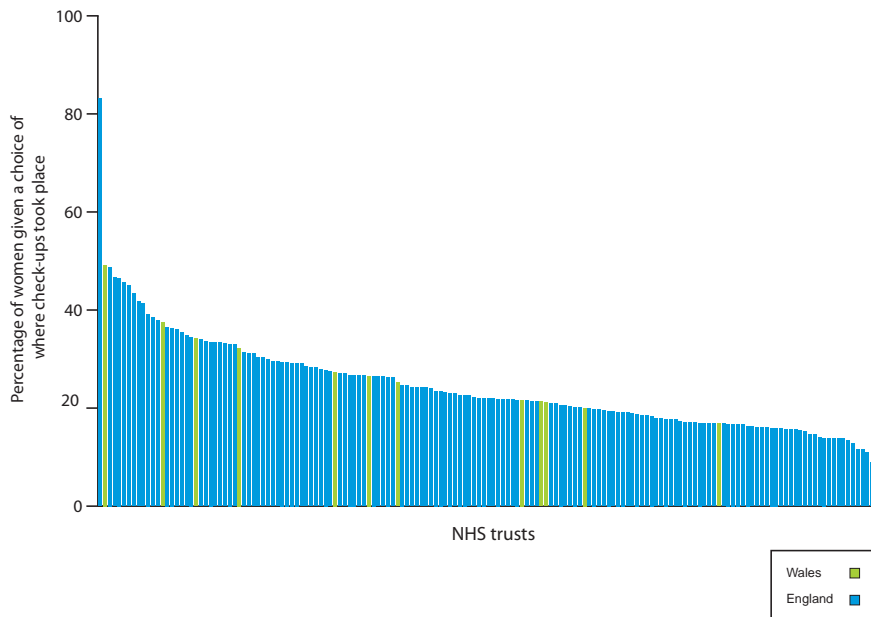
Percentage of women getting 20 or more antenatal checks

- 10 Some women experience difficulties during their pregnancy and will require frequent checks. This indicator provides a measure of the complexity of case mix but also considers whether trusts are seeing women too often.



Percentage of women given a choice of where check-ups took place

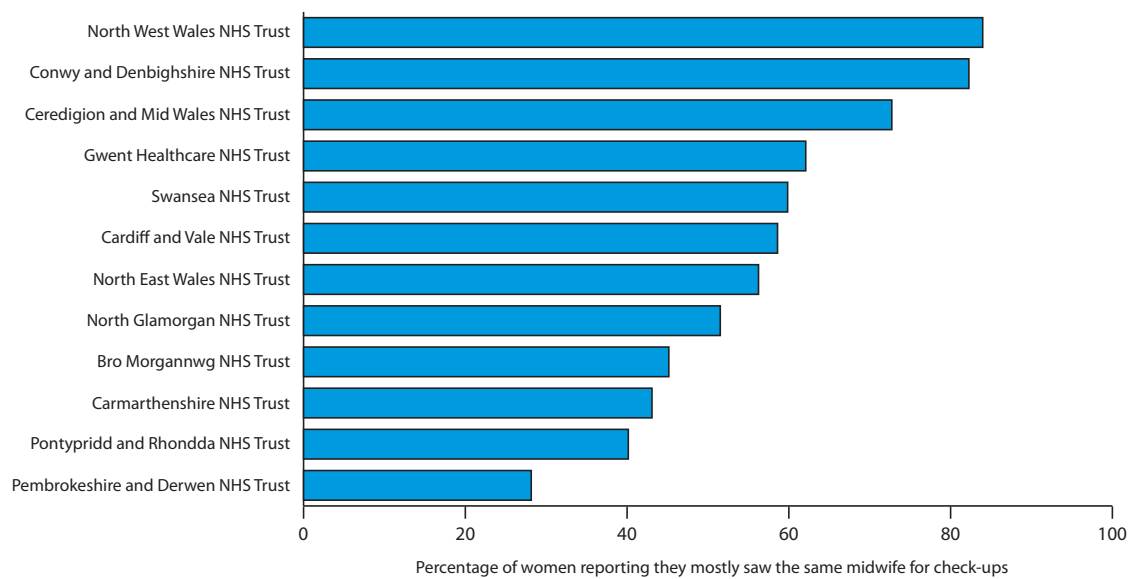
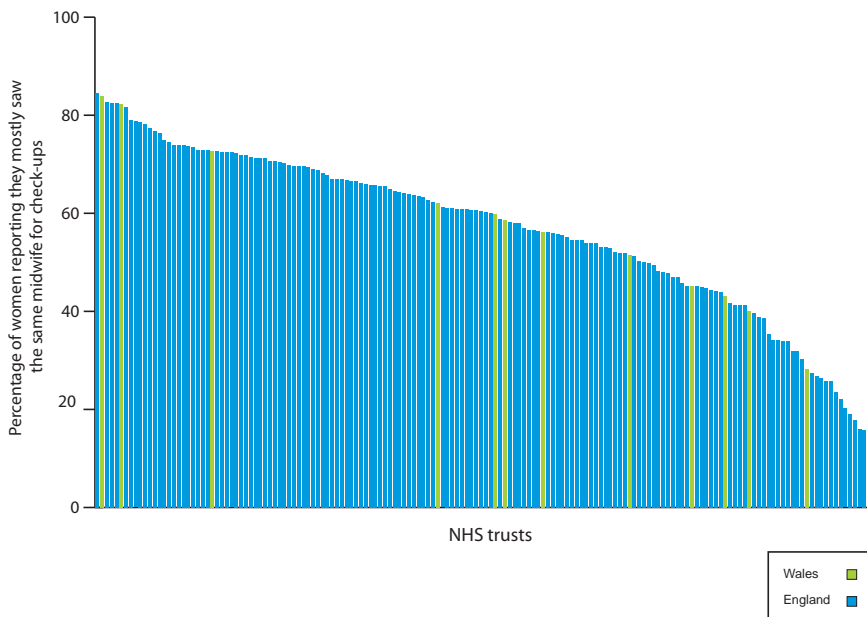
- 11 If women were offered a choice in where they can receive their antenatal care it can make it easier for women to attend appointments.





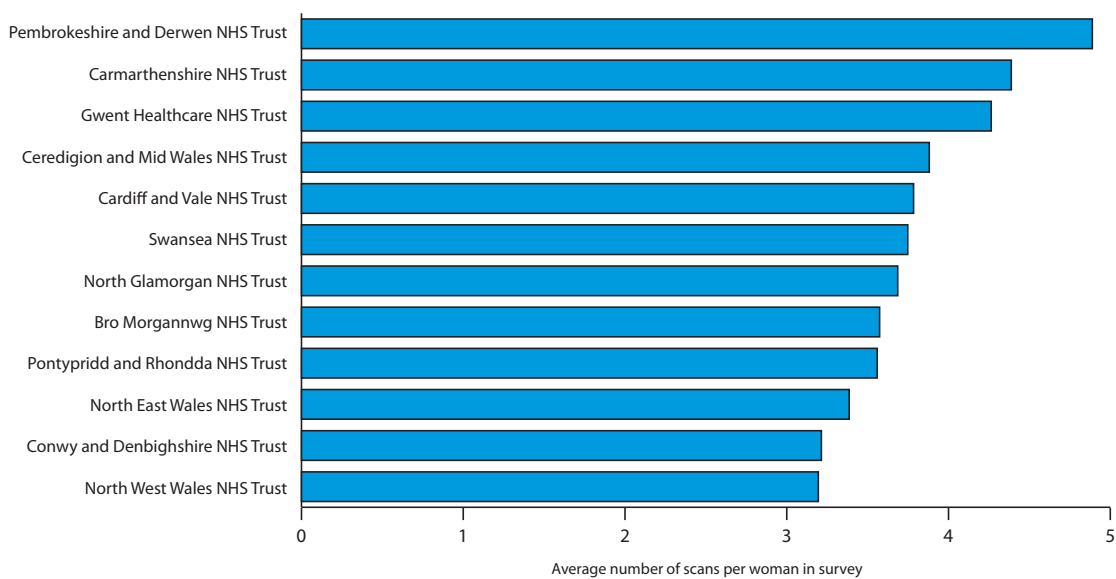
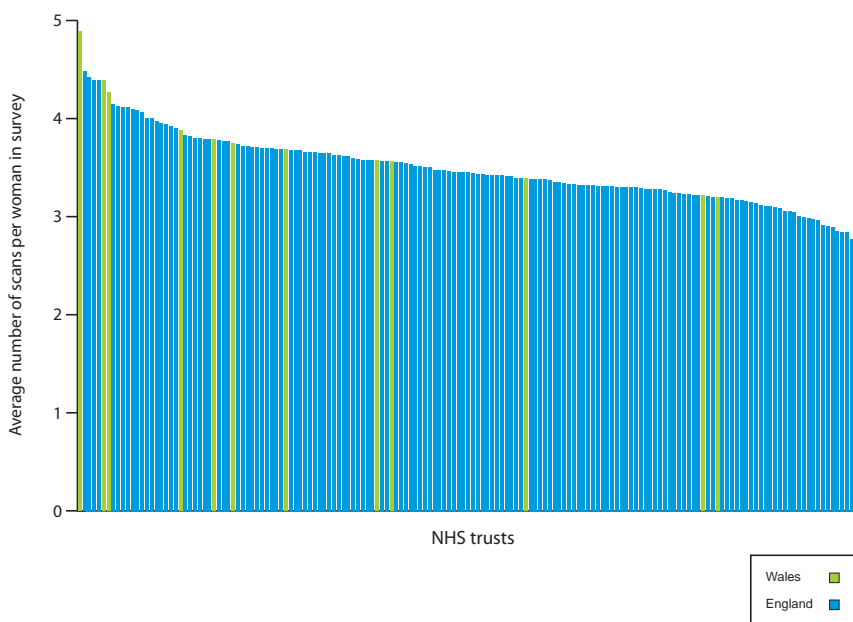
Percentage of women reporting they mostly saw the same midwife for check-ups

- 12** Women should have an opportunity to build up a relationship with the staff caring for them during their pregnancy which should help with information sharing, mutual confidence and hence clinical care.



Average number of scans per woman

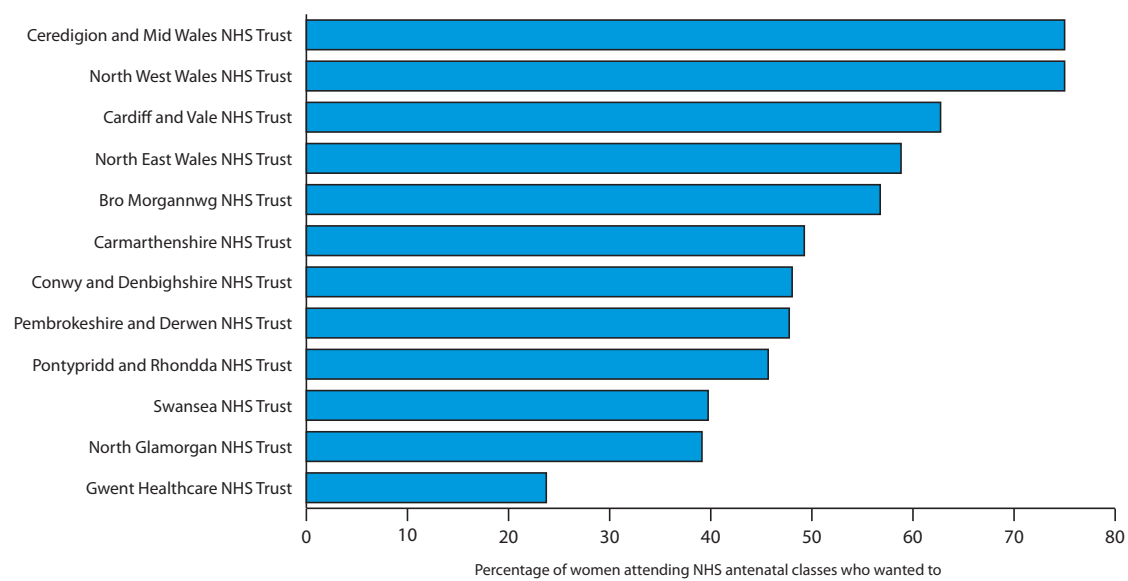
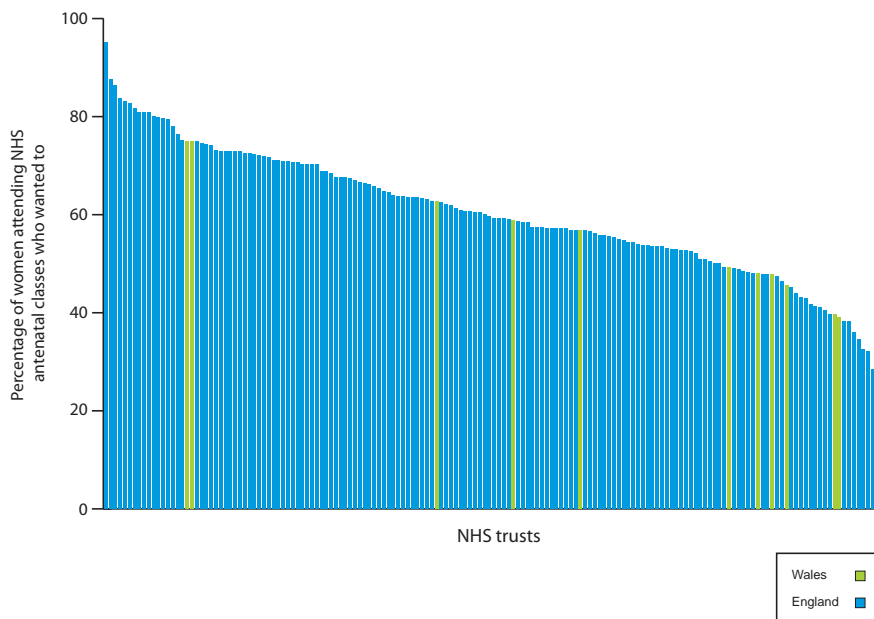
- 13 Pregnant women should be offered at least two scans (dating and fetal anomaly). Complications can lead to further scans. This indicator asked woman how many scans they had received.





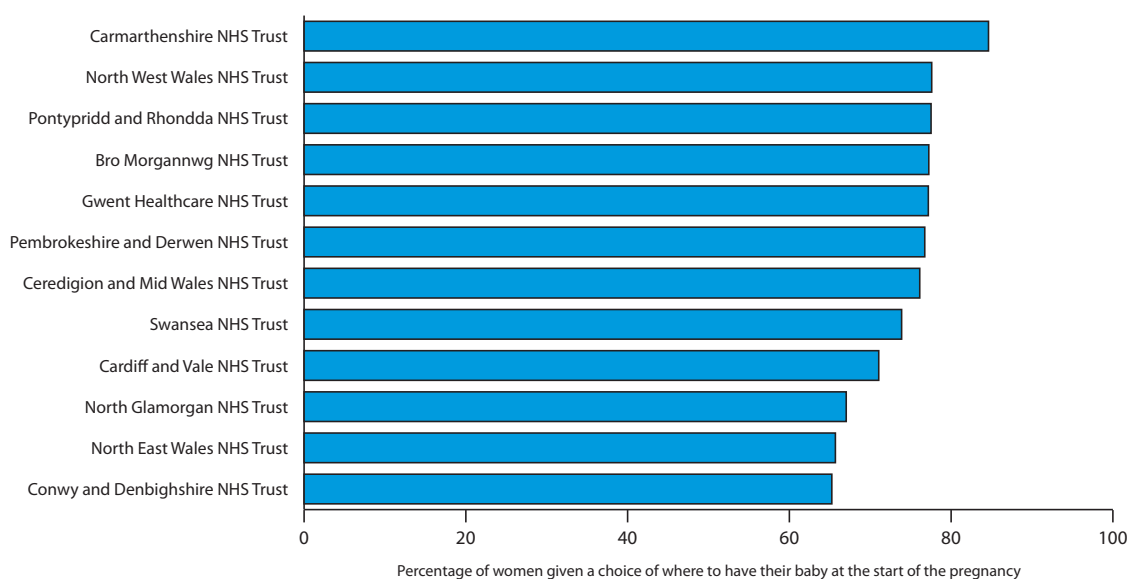
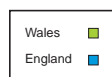
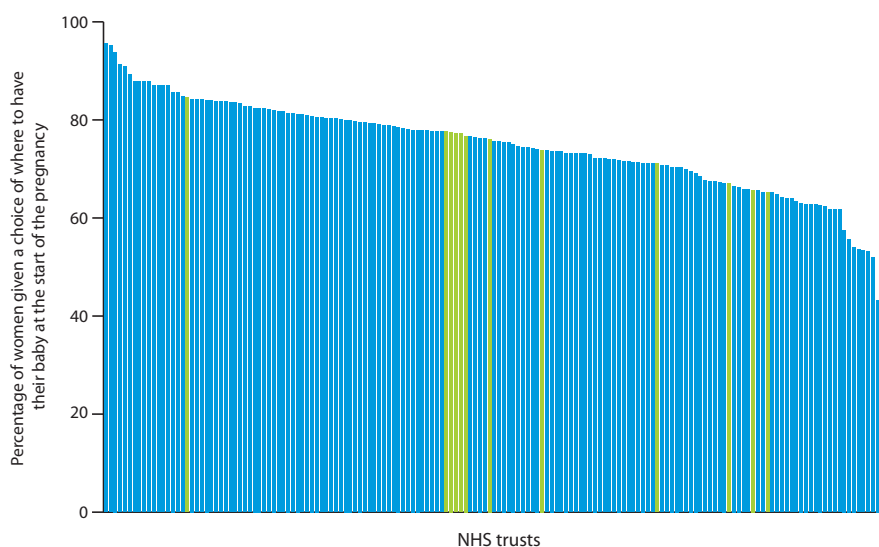
Percentage of women attending NHS antenatal classes who wanted to

- 14** National Institute for Health and Clinical Excellence guidelines state that pregnant women should be offered opportunities to attend antenatal classes and have written information about antenatal care. The National Service Framework states that good antenatal care for all women and their partners will include access to parenting education and preparation for birth at classes or through other means.



Percentage of women given a choice of where to have their baby at the start of the pregnancy

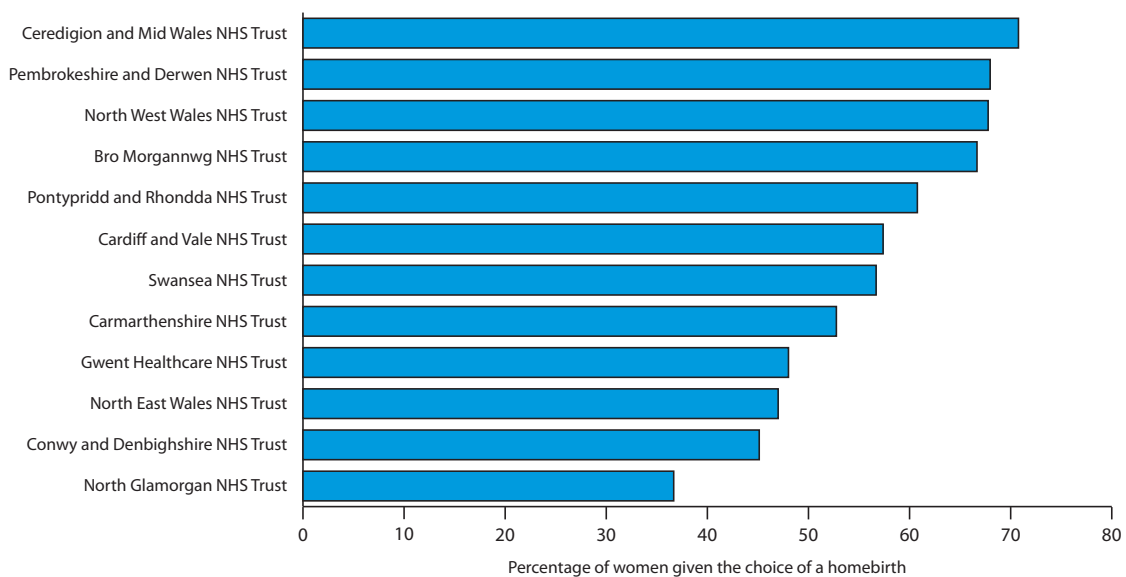
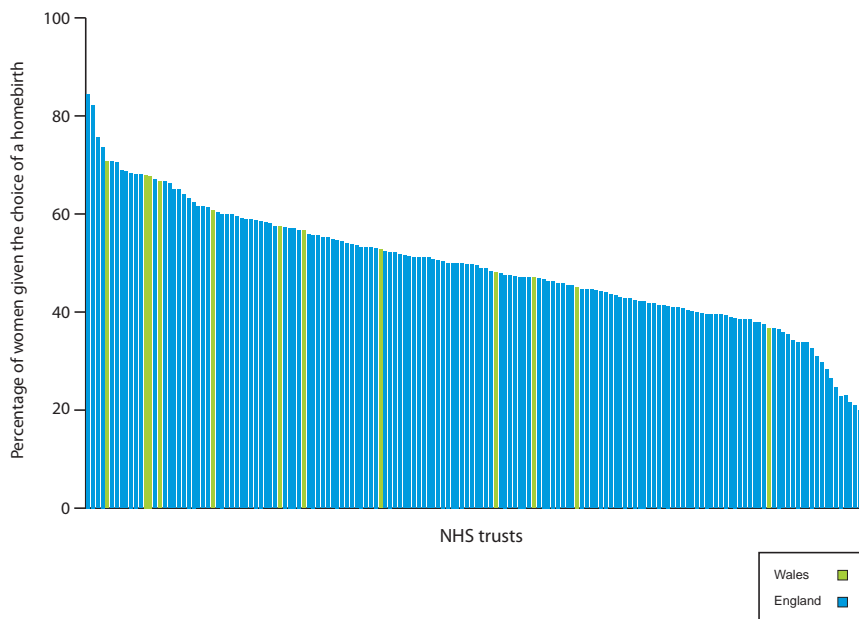
- 15 Women should be offered a choice of birth locations at the start of their pregnancy, with options such as homebirth and midwifery care being offered where appropriate.





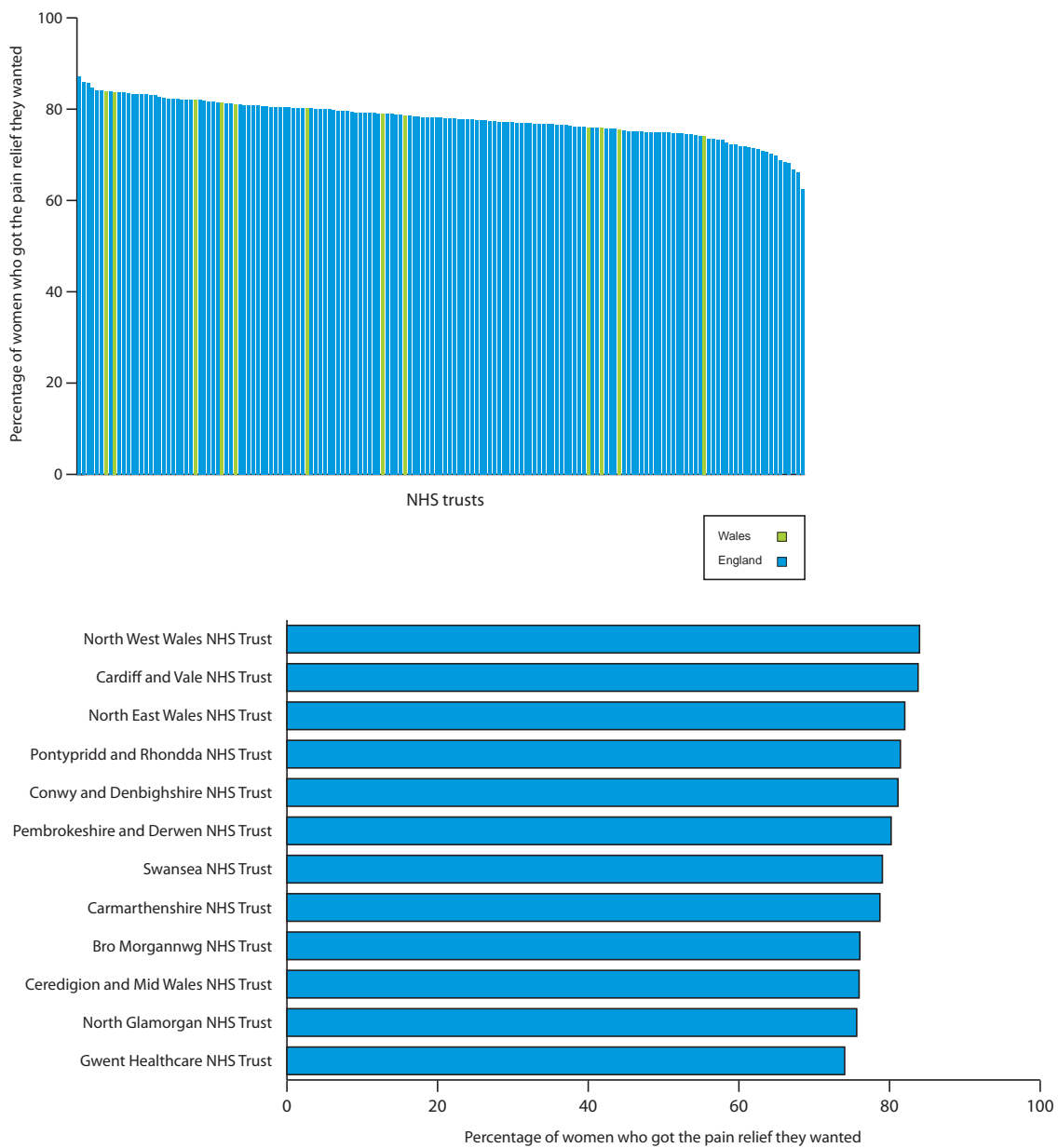
Percentage of women given the choice of a homebirth

- 16** Recent government initiatives have been suggesting that homebirth could be increased and this option needs to be offered to women. High-risk women who are not considered suitable for a homebirth will not be encouraged to take up this option so it is expected that this percentage will be somewhere below 100 per cent.



Women who got the pain relief they wanted

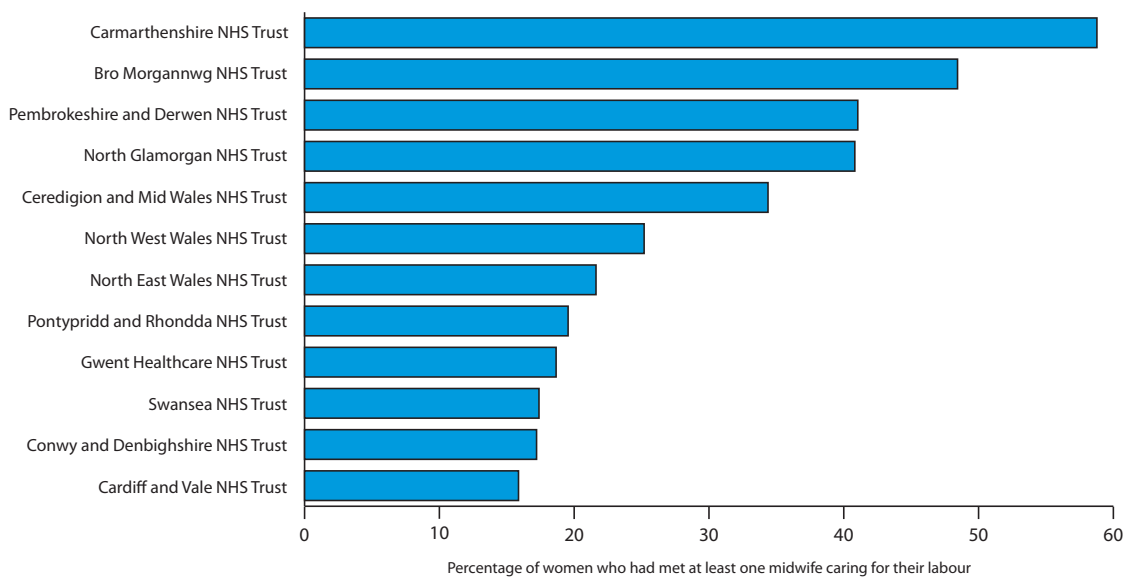
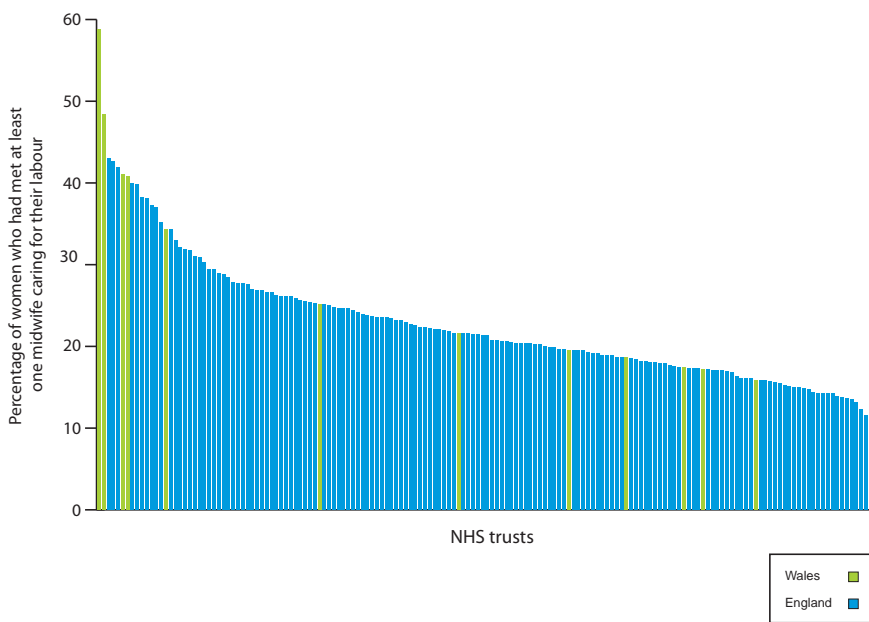
- 17 Women should have choices of methods of pain relief during labour, including non-pharmacological options, for example, birth mats or birthing balls.





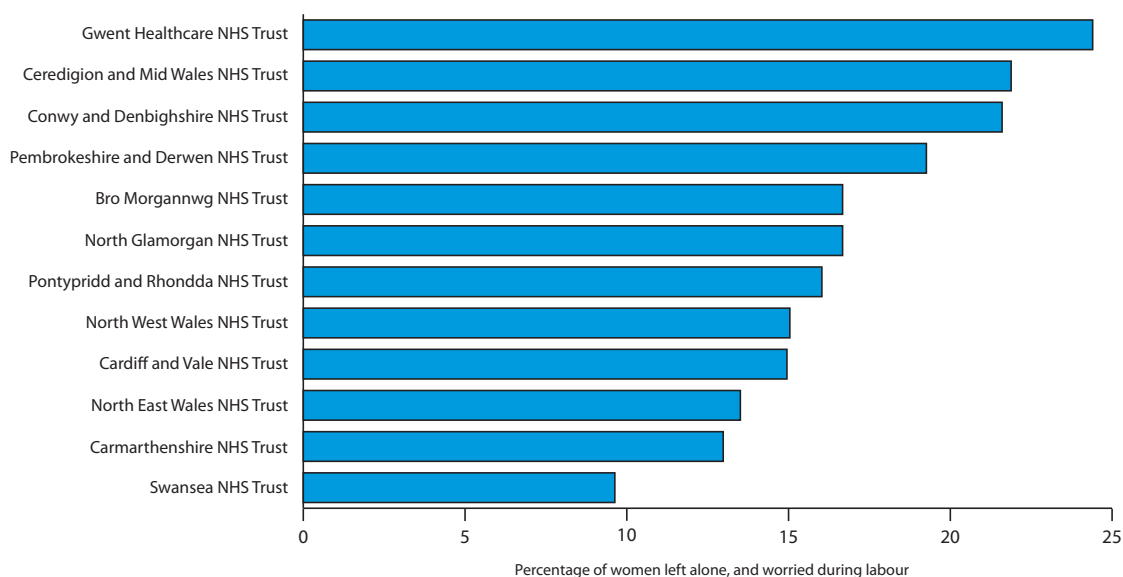
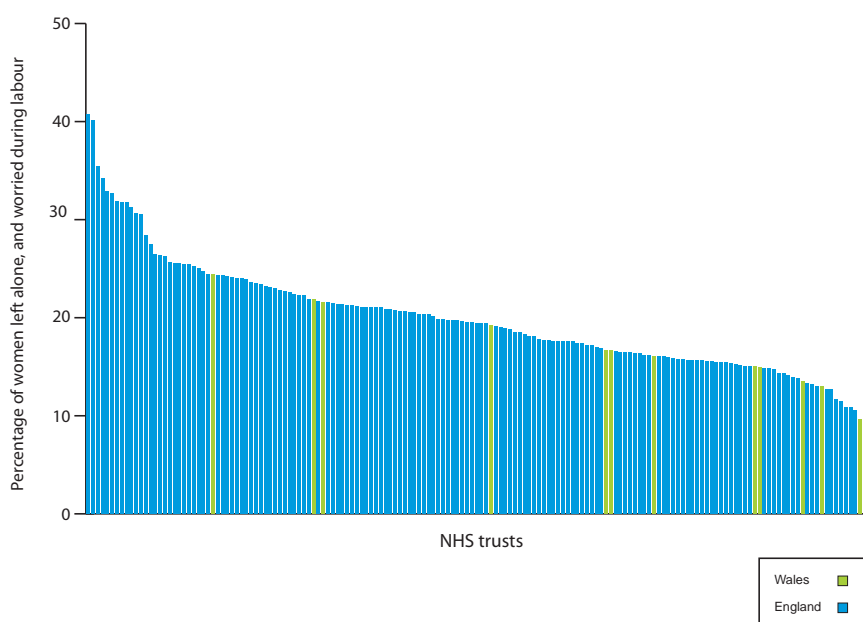
Percentage of women who had met at least one midwife caring for them during their labour

- 18** Although it will not always be possible for a woman to have a member of staff caring for them who they have met antenatally, they may feel more supported if this can occur.



Percentage of women left alone, and worried during labour

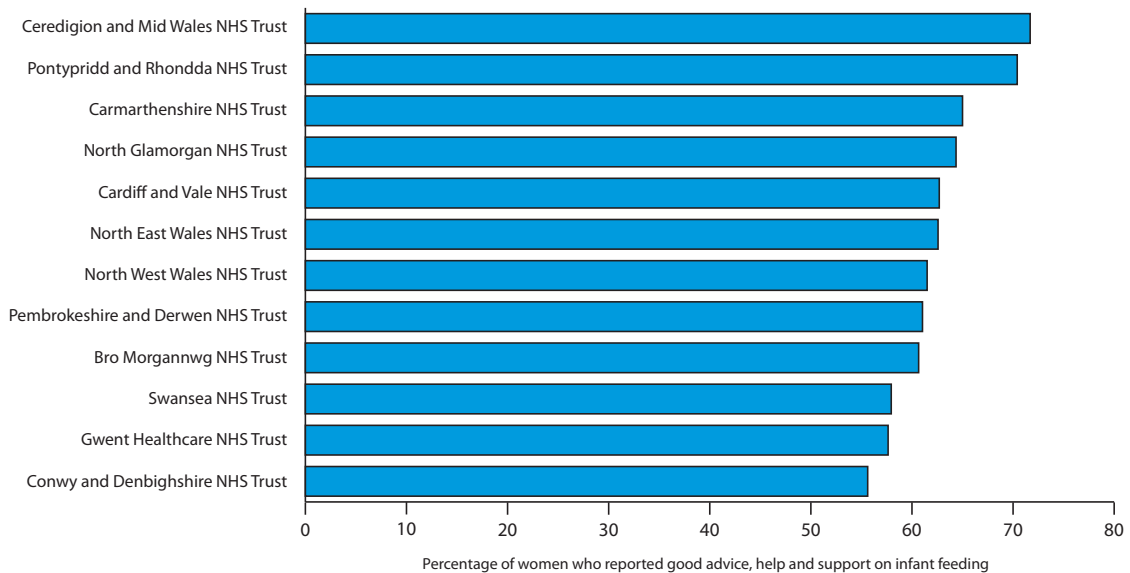
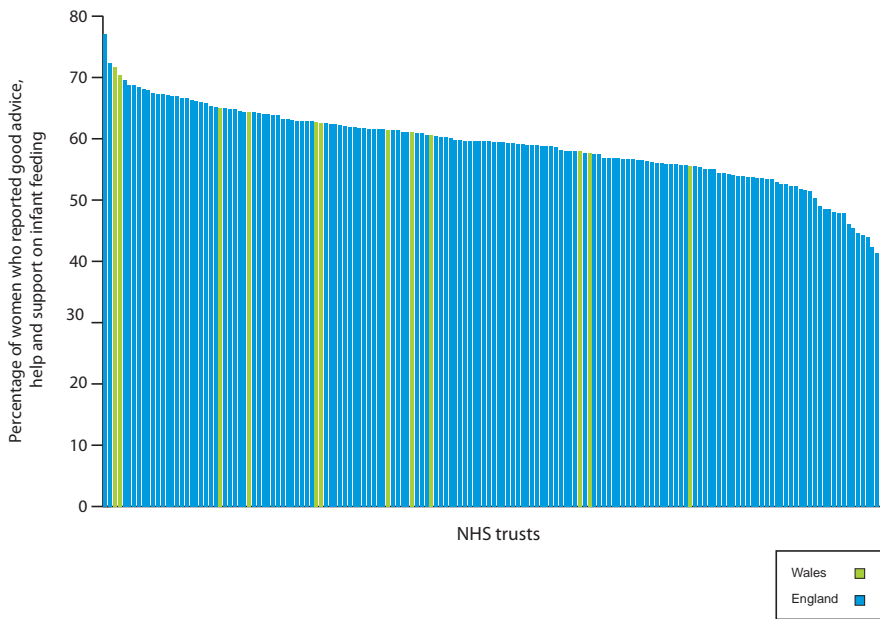
- 19** If a high proportion of women report being left alone and worried during labour, the trust needs to consider addressing this issue. Better information on how a woman or their partner can seek help whilst a midwife is out of the room could alleviate concerns. Possibly, the introduction of a maximum time a woman can be left may help improve care.





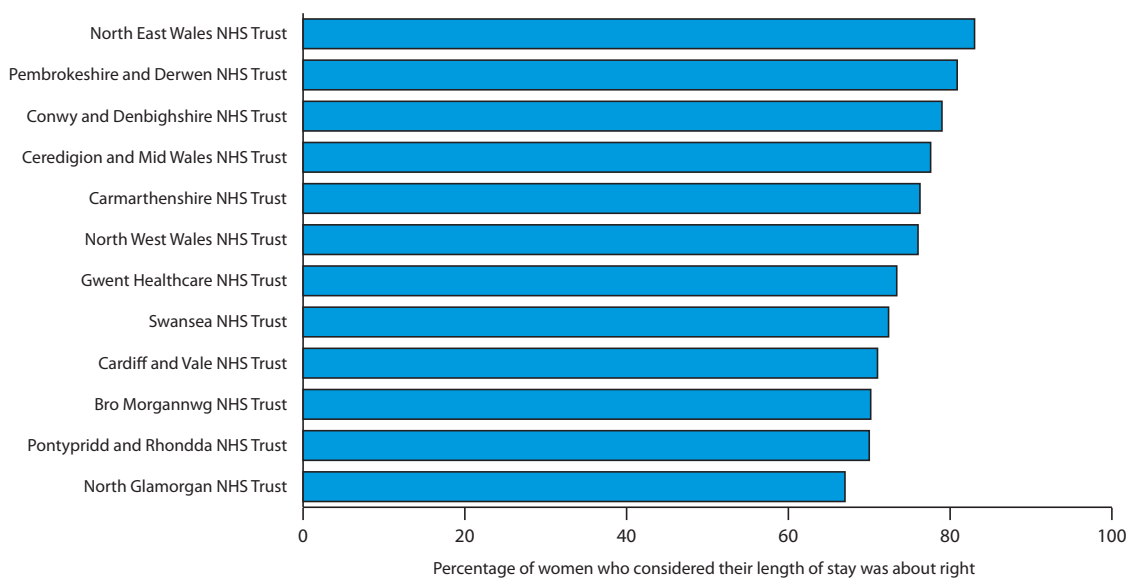
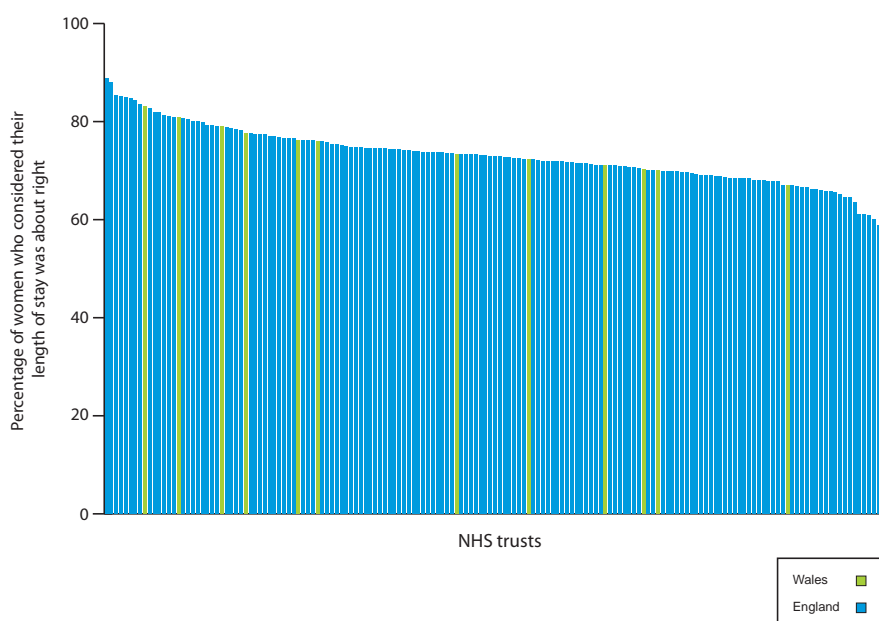
Percentage of women who reported good advice, help and support on infant feeding

20 Women should be aware of the benefits of breastfeeding but should be well supported in infant breastfeeding whatever their choice on how to feed.



Percentage of women who considered their length of stay was about right

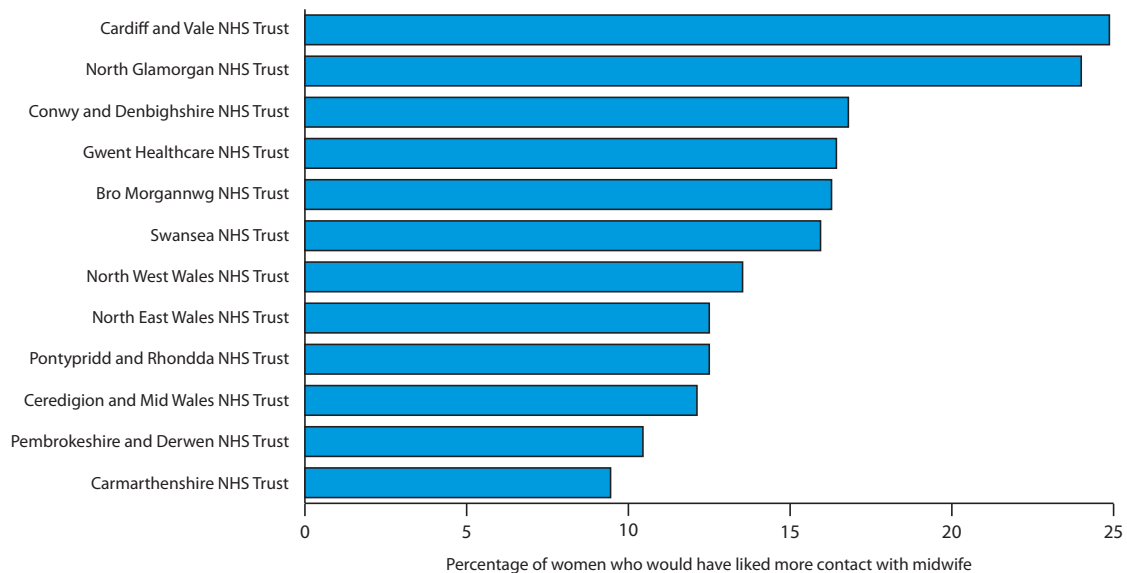
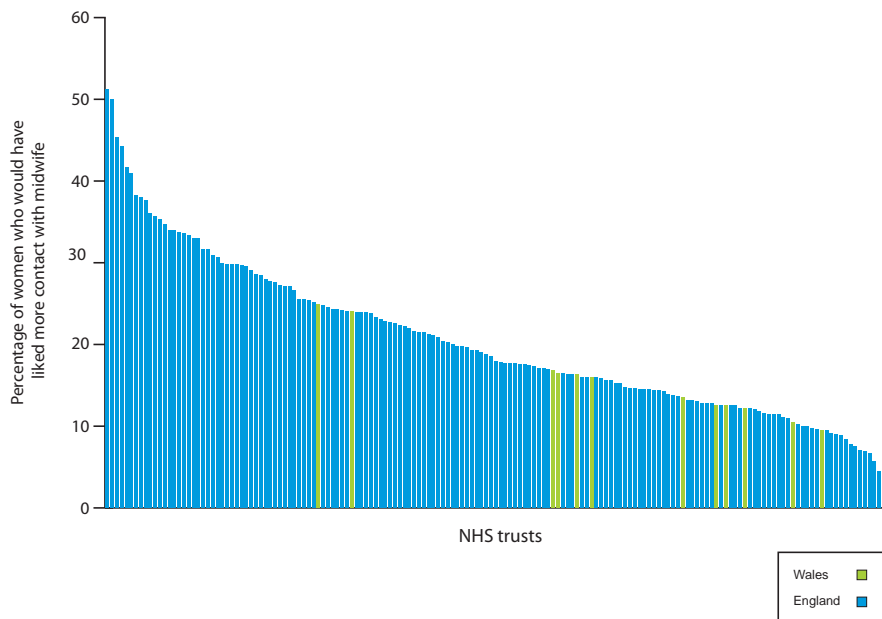
- 21 Some women reported they would have liked a longer postnatal stay whilst others wanted shorter. The postnatal care women receive should be individualised. It is important that women leave hospital when they feel they have had sufficient opportunity to recover and adequate support to feel confident in taking care of their baby.





Percentage of women who would have liked more contact with midwife

- 22** Previous reviews have shown that postnatal care is the area where women are least satisfied. There are differences in the level of contacts midwives have with women and this indicator will provide trusts with a view on whether the service they have is meeting women's needs in terms of contacts.



Percentage of women receiving a postnatal check-up of their own health

- 23** Women’s physical and emotional health should be checked prior to discharge from hospital and again at around six weeks. The six-week checks are often undertaken by GPs. Women should be aware that they need this check, and where significant proportions of women have not received this check, maternity service providers need to identify how to address this issue.

