



Midwifery 2020 Programme

**Measuring Quality Workstream
Final Report**

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1 Membership of the Quality Measurement Group

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2 Summary

This report presents how quality is currently defined and the policies underpinning measurement in the four countries of the UK. Principles for developing healthcare indicators for quality improvement are summarised and the current context is considered. Existing policy on measuring quality and sources of data are examined along with how current standards and guidelines can be used as quality indicators. Quality indicators which encapsulate the essence of quality midwifery care are considered.

3 The Vision: Measuring Quality in 2020

Midwives will be delivering innovative, cost-effective quality midwifery care across integrated health and social care contexts. There will be an increased focus on measuring quality of healthcare, including though the whole of the maternity pathway (from antenatal to postnatal care)

Measurement of quality will take into account:

- Person centredness;
- Safety;
- Effectiveness;
- Efficiency;
- Equity; and
- Timeliness (Institute of Medicine, 2001).

The best indicators of quality will be those which reflect these dimensions. The indicators will include process and outcome indicators and also the extent to which they are provided or achieved. The following are examples of quality indicators:

- Early access to a midwife, with booking within 12 completed weeks of pregnancy;
- Continuity of midwife-led care;
- Choice of having a home birth;
- Choice of giving birth in a birth centre;
- Access to participative birth preparation classes free at the point of delivery;
- 1:1 midwifery care in established labour;

- Normal birth rates;
- Reducing perineal trauma; and
- Uninterrupted skin to skin contact between mother and baby immediately following the birth.

Women's experience will be integral to objective measurement of quality, rather than their views being regarded as subjective and subsidiary. The focus will be on experience and satisfaction with care. Women's experience of care will drive quality improvement and this will result in an increased focus on social models of care.

Women value care that is personalised and provided by a midwife they know and trust. One to one support in labour results in better birth experiences (Hatem *et al*, 2008); this model of quality care will therefore become the norm for all women, including those with obstetric risks or complex social needs.

Midwifery services will be planned around offering choice of place of birth, and community-based services according to individual needs, risks and circumstances. Quality indicators will focus on women's wellbeing through pregnancy and in the postnatal period. This may involve extending the use of patient reported outcome measures (PROMs) to include midwifery care.

Indicators will be used to monitor and reflect on quality at an individual midwife level, at team/group level and at service management level.

The introduction of new maternity systems, which are not only focused on measuring outcomes, but also on measuring processes based on standards and guidelines; will streamline data on how care is provided, and whether it meets existing standards and guidelines.

A maternity dataset, using consistent definitions, which is common to all countries of the UK, will enable benchmarking and comparisons. The definition of quality will be widened to include equity and reduce variation in safety, effectiveness or value of care to women and their families because of age, ethnicity, area of residence or socio-economic status.

4 Introduction: measuring the quality of midwifery care in a changing world

The challenge for this workstream was to consider how the quality of midwifery care within maternity services could be defined, measured and improved in rapidly changing contexts.

The overall aims and objectives of the group were derived from the Midwifery 2020 UK Project Initiation Document as being to:

- Identify outcomes which can be measured to improve quality of midwifery as part of wider services;
- Include measurement of social outcomes and physical outcomes of care;
- Review the current and developing role of midwives in the UK within the context of evolving health-care provision, focusing on their contribution to improved outcomes as well as user expectations and experiences;
- Gather and use national and international evidence to set the appropriate direction for enhancing midwifery services across each of the UK countries;
- Take account of factors which will influence the healthcare landscape; and
- Contribute to the other Midwifery 2020 workstreams' objectives to scope and describe current and potential models of midwifery service provision.

The quality of care during pregnancy, birth and the neonatal period influences the chances of mortality and morbidity in babies, (Euro-Peristat Project, 2008) particularly for women with more complex needs who already have increased risk factors. In recent years in the UK there have been significant factors - some national or local, some global - which have had an impact on the capacity of maternity services and midwives to deliver high quality care. These include the considerable, and largely unanticipated, rise in the birth rate, alongside demographic and economic changes. This has meant larger numbers of people seeking maternity care who have clear social needs, and the greater ethnic diversity of the childbearing population.

A significant proportion of women using maternity care are now recognised as having some level of complex physical and/or social needs. These include, for example, women and families living in poverty; migrant women who do not speak English as a first language; teenagers; women who are misusing drugs and alcohol; women who are obese; and those who have long-term conditions such as diabetes. In addition the average age of first birth is

now 27.5 years compared to 26.3 in 1998 (ONS, 2009) and increased use of fertility treatment has meant a higher rate of multiple births.

In these circumstances maternity services are under pressure, and are faced with the challenge of providing and maintaining a quality midwifery service. Despite this difficult climate, providing quality healthcare is at the top of the health agenda, from both a political and a social point of view, with increasing expectations of service quality from the public and from those responsible for commissioning health care. Demonstrating the quality of midwifery care will become increasingly important for maternity services providers.

In theory, improvements in information technology should make the task of collecting data on midwifery services easier, but in practice this has resulted in undue administrative burdens placed on midwives, often without perceivable benefits. Future recommendations on measuring quality must not increase this burden, and should be directed towards using the results to inform practice and reward the provision of high quality midwifery care.

Midwifery is at a crossroads. There is clear recognition that:

- Women's and families' needs should be at the very heart of midwifery and maternity care;
- Women and midwives both prefer social models of care in which they can develop a trusting relationship and where a midwife known by the woman provides continuity
- Women with complex social needs, or who are at risk of obstetric complications, benefit as much from such models of care as women at low risk of complications; for whom midwife-led care is already advocated.

However, where intervention rates continue to rise, midwives are often required to act as obstetric nurses and administrators, meeting the needs of the organisation rather than meeting the needs of women (Hunter, 2005). In addressing this, the Midwifery 2020 Core Role of the Midwife workstream has identified that the future role of the midwife is likely to be more community-based. There is likely to be a focus on continuity of care and protecting opportunities for normality of pregnancy and birth, and providing continuity of care to women with social and medical complexity. Future measures of quality of midwifery care will take into account not only the safety and the effectiveness of care, but equity and also how women experience care.

This report describes how quality is currently defined, and the policies underpinning measurement in the four countries of the UK. Principles for developing healthcare indicators for quality improvement are summarised and the current context is considered. Existing policy on measuring quality and sources of data are examined, along with how current standards and guidelines can be used as quality indicators. Quality indicators that encapsulate the essence of quality midwifery care are considered.

5 How is quality in healthcare measured today?

5.1 Defining Quality in Healthcare

Quality healthcare has been defined by the Institute of Medicine (Institute of Medicine, 2001) as comprising six aspects:

- Person centred
- Safe
- Effective
- Efficient
- Equitable
- Timely

Delivering high quality healthcare is a stated policy for all the countries of the UK. The draft strategy document *Healthcare Quality Strategy for Scotland* proposes that these are the key foundation of their approach to healthcare quality improvement. They have chosen to focus improvement on three of these dimensions: person-centredness, effectiveness and safety (Scottish Government, 2009a).

This aligns with the approach set out in England by the report of the *Next Stage Review: High Quality Care for All*, which states that quality should include three aspects: patient safety, patient experience and effectiveness of care (Darzi, 2008).

In Wales, the document *Designed for Life* refers to five measures of quality: safety, effectiveness, patient focus, timeliness and efficiency (Welsh Assemble Government, 2005a). The subsequent *Healthcare Quality Improvement Plan* considers that a health service that scores well in these areas deserves to be described as good quality (Welsh Assembly Government, 2006).

In Northern Ireland the *Quality Standards for Health and Social Care* published by the Department of Health Social Services and Public Safety (DHSS&PS) included five key quality themes (Department of Health, Social Services and Personal Safety, 2006):

- Corporate leadership and accountability of organisations;
- Safe and effective care;
- Accessible, flexible and responsive services;
- Promoting, protecting and improving health and social wellbeing; and
- Effective communication and information.

5.2 Measuring for Quality Improvement in Healthcare

Systematic measurement of aspects of quality is vital to drive improvements and "we can only be sure to improve what we can actually measure" (Darzi, 2008). These challenges have been addressed in the four countries of the UK.

In Scotland, Local Delivery Plans (LDPs) set out the delivery agreement between the Scottish Government and NHS, based on Health Efficiency Access Treatment (HEAT) targets. These are performance measures which are designed to demonstrate progress towards service delivery which supports health improvement, efficiency, access to services and treatment (Scottish Government, 2009b). In future, HEAT targets will be aligned with the new Quality Strategy (Scottish Government, 2009a). This framework proposes using the definitions of quality (person-centredness, clinically effective, safe) to collect information from patients, staff and data collection systems (Scottish Government, 2009a).

In England, *High Quality Care for All* committed the DH and the NHS to developing a quality measurement framework at all levels of care (Darzi, 2008). This includes a national quality framework involving the use of national quality indicators based on clear standards and evidence. In addition, local NHS organisations are encouraged to develop further measures of quality to help them review local services. This is to be supported using clinical dashboards with both national and local measures of quality presented as a means of driving improvement in quality.

Local improvements in quality are to be rewarded through the CQUIN (Commissioning for Quality and Innovation) Scheme. These are locally agreed with the Primary Care Trust (PCT) and based on areas that need particular attention. Health providers will be accountable to the

public through the publication of 'quality accounts', which will include patients' own views on the success of their treatment (through PROMs) and the quality of their experiences. Improving patient experience is one of the national priorities of the NHS in England as set out in the Operating Framework for 2009/10 (Department of Health, 2009a).

In Wales, a different approach has been used focusing on the development of 'intelligent targets'. These are predominantly outcome measures but are patient-centred and developed in partnership with and owned by clinicians. Whilst achieving the outcome is important, there is also a proposed methodology associated with it, which is based on improving the quality of care. These differ from performance targets, where the way in which the target is achieved is not scrutinised. With intelligent targets, both the outcome and the process by which it is achieved are important (Gozzard & Willson, 2009).

In Northern Ireland, the Health and Personal Social Services (Quality Improvement and Regulation) (Northern Ireland) Order 2003 imposed a 'statutory duty of quality' on HPSS Boards and Trusts, and requires the DHSS&PS to develop standards against which the quality of services can be measured. This is monitored by the Regulation and Quality Improvement Authority (RQIA) an independent body responsible for monitoring and inspecting the availability and quality of health and social services in Northern Ireland.

5.3 Principles of developing quality indicators for healthcare

Recent NHS reforms have focused on measuring quality, and the work of the Midwifery 2020 Measuring Quality group has worked in the context of rapidly developing programmes for measuring and using data about quality of healthcare.

There are a number of issues which have to be considered when identifying processes and outcomes to measure quality of care. These have been described in detail in the Kings Fund report, *Getting the Measure of Quality* (Raleigh & Foot, 2010) and include the following points summarised from the report.

5.3.1 How will quality be measured?

Healthcare quality indicators have traditionally reported outcomes, usually being a quantitative measure of what happens to patients as a result of care. Outcomes are useful because they are direct measures that are easy to understand, often readily available, and can give measures of safety and effectiveness of care. Although they can demonstrate improvements

in outcomes as a result of better quality care, they may not measure quality or be helpful in showing how quality of care can be improved. They may also be prone to large variation when incidence of an outcome is low. Where outcomes are used as measures of performance, there should be reasonable evidence that they are related to the care provided.

Process indicators measure care that patients receive, and can indicate more accurately both the quality of care received and how the quality of care has been deficient. However, they tend to be more difficult to measure. Indicators which are measures of structure, such as staffing levels or equipment provision, may also be useful.

New data sources can be developed to provide quality indicators, but this can be costly and take time. Existing data sources can be used where appropriate quality indicators are already being collected. When developing new indicators, these can be introduced into existing systems of data collection, for example added to existing or replacement national datasets, or a new strategy can be devised for collecting them, such as the English indicators for quality improvement identified by the Information Centre (NHS Information Centre, no date a). Existing standards and guidelines can also be used as a starting point for choosing indicators. These are usually areas which have been identified as being important to delivering safe or effective care.

In the future, there will be an increasing emphasis on measuring patient experience as part of the overall measure of quality. Several documents give guidance on how patient experience can be measured and used to improve quality of healthcare services (Coulter *et al*, 2009; Picker Institute, 2009; Department of Health, 2009b).

5.3.2 What are the aims of measurement?

Quality measurements can be used to benchmark services, informing public or patients about services, or to research aspects of care; judging performance or for driving quality improvements. The characteristics of indicators for different purposes may differ. Those which are linked to performance targets or rewards will often stand alone, and will act as a definitive marker of quality. It has been recognised that performance targets do not always improve quality (Gozzard & Willson, 2009), and may even be subject to manipulation and unintended consequences. Indicators designed for quality improvement, as opposed to performance measurement, are likely to be for internal use and be considered in context.

Conflicts may arise where the same indicators are used for both quality improvement and as a performance measure, particularly when they are part of a service delivery reward structure. This has been addressed in Wales by the development of intelligent targets which measure both performance targets and the processes by which they are achieved.

5.3.3 Who will measure quality?

Quality indicators may be developed locally, regionally (in England through the Quality Observatories) or centrally; and data collected can also be analysed and used locally and centrally.

Information which is developed and produced centrally (for example, the Hospital Episode System (HES) data in England or Patient Episode Database Wales (PEDW)) can use consistent definitions and format for presentation and can avoid costly duplication. However, centrally produced information may take longer to generate than locally produced data. Local indicators can be tailored to local needs, and have the advantage of using locally collected data.

The Department of Health in England has envisaged a 'quality pyramid' (Fig. 1) where quality is measured at all levels of the healthcare system.

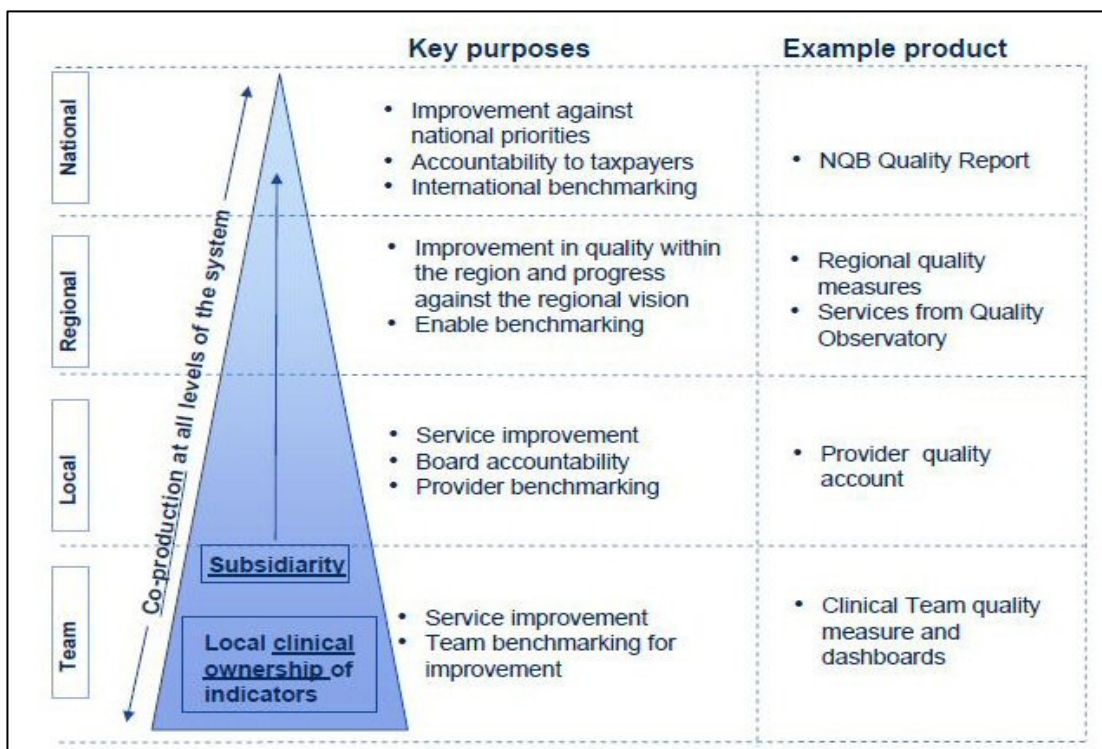


Figure 1: Overview of quality indicators framework (Department of Health, 2009b)

5.3.4 Who is the audience for measures of quality?

Clinical teams, commissioners, patients and the public may all be audiences for information about quality of healthcare. This may be presented in the form of quality accounts for the public, or in a more complex way for health professionals, to improve the way they organise themselves to deliver care.

6 Quality in Midwifery care

High quality maternity care is a stated aim of health services throughout the UK (Department of Health, 2004; Scottish Executive, 2001; Welsh Assembly Government, 2005b). The principles of delivering and measuring quality in healthcare can be applied to maternity care, and where this is provided primarily by midwives, the principles of measuring quality applied directly to midwifery care. High quality midwifery care can be defined as care delivered by midwives which is safe and effective, and results in a positive experience for women. Women's experiences of care may include their own view of the safety and effectiveness of that care. Midwifery care which is unsafe, or has poor and avoidable outcomes, is therefore not high quality. By the same token, care which women themselves regard as unsafe, ineffective or resulting in a negative experience, is also poor quality care; regardless of the clinical outcome.

6.1 The role of midwives in delivering high quality care

In all the countries of the UK, midwives, both individually and collectively, are responsible for delivering high quality care. This important role of midwives has been recognised in England: "nurses and midwives are fundamental to high quality healthcare" (Department of Health, 2010) and "the renewed focus on high quality care puts nurses and midwives in pole position to improve health outcomes, the quality of care and the experiences of service users" (Prime Minister's Commission on the Future of Nursing and Midwifery in England, 2010). As part of the *High Impact Actions for Nursing and Midwifery*, 'promoting normal birth' was identified as the evidence-based, cost-effective action for midwives to drive up quality (NHS III, 2009).

In Wales, one of the aims of *Designed to Realise our Potential* is to ensure that care by nurses and midwives is of the highest quality and uses the individual experiences of patients/clients as one measure of quality (Welsh Assembly Government, 2008). The *Keeping Childbirth Natural and Dynamic* (KCND) initiative in Scotland is part of the Quality

Improvement Scotland's strategy for delivering safe, effective, women-centred care (Scottish Government, no date). *The Standards for Improving the Patient and Client Experience* (2008) in Northern Ireland aim to monitor, and continually improve, the standard of care given to patients and clients (Department of Health, Social Services and Public Safety, 2008).

For individual midwives, the provision of high quality care and quality improvement will be supported by:

- Appropriate education, training and continuing professional development, as described by the Midwifery 2020 Education and Career Progression Workstream;
- Use of evidence-based guidelines to inform practice;
- Use of reflective practice;
- The system of statutory supervision of midwives; and
- Feedback of information collected about the care women receive from each midwife.

For example, midwives may, using feedback collected from women, reflect on the extent to which their interactions with a woman in labour match those recommended in the NICE Intrapartum Care Guideline (see Table 1), whether or not that woman was known to them during pregnancy (National Collaborating Centre for Women's and Child Health, 2007).

Table 1: Communication between women and healthcare professionals: NICE Intrapartum Care Guideline (National Collaborating Centre for Women's and Child Health, 2007)

All women in labour should be treated with respect and should be in control of and involved in what is happening to them, and the way in which care is given is key to this. To facilitate this, healthcare professionals and other caregivers should establish a rapport with the labouring woman, asking her about her wants and expectations for labour, being aware of the importance of tone and demeanour, and of the actual words they use. This information should be used to support and guide her through her labour.

To establish communication with the labouring woman, healthcare professionals should:

- Greet the woman with a smile and a personal welcome, establish her language and communication needs, introduce themselves and explain their role in her care;
- Maintain a calm and confident approach so that their demeanour reassures the woman that all is going well;

- Knock and wait before entering the woman's room, respecting it as her personal space, and ask others to do the same;
- Ask how the woman is feeling and whether there is anything in particular she is worried about;
- If the woman has a written birth plan, read and discuss it with her;
- Assess the woman's knowledge of strategies for coping with pain and provide balanced information to find out which available approaches are acceptable to her;
- Encourage the woman to adapt the environment to meet her individual needs;
- Ask her permission before all procedures and observations, focusing on the woman rather than the technology or the documentation;
- Show the woman and her birth partner how to summon help and reassure her that she may do so whenever and as often as she needs to. When leaving the room, healthcare professionals should let her know when they will return; and
- Involve the woman in any handover of care to another professional, either when additional expertise has been brought in or at the end of a shift.

6.2 The role of service providers and commissioners in delivering high quality care

Whilst midwives can be responsible for the safety, effectiveness and woman-centredness of the care they deliver on a daily basis, this needs to be underpinned by systems and infrastructure which are designed to increase the quality of care. The organisation of midwifery care may be outside the sphere of influence of an individual midwife. It will, however, have a dramatic effect on the care she is able to give a woman; for example whether she is able to give continuity of care throughout pregnancy, labour and birth, and the postnatal period, or offer a choice of place of birth.

Responsibility and accountability for improving the quality of midwifery care cannot therefore lie solely with the individual midwife, but with those responsible for planning and managing care. In England, the organisation of maternity care is determined by service contracts, negotiated between the commissioning PCT and by NHS managers and Heads of Midwifery in the Trust providing the services. In the other countries of the UK, where there is no separate commissioning, local health boards will be responsible for setting out the delivery agreement and organising midwifery care.

6.3 Measuring quality of midwifery care

In England, the report *Delivering High Quality Midwifery Care* (Department of Health, 2009c) identified that indicators needed to be developed that measure clinical outcomes for mothers and babies, and also the experiences of the women using midwifery services. These could be used to help improve care. This report identified the role that Maternity Services Liaison Committees (MSLCs) should play in monitoring quality. MSLCs already provide the framework for service-user involvement which would be reported and monitored at board level. This could be enhanced by linking with the 'seldom seen, seldom heard' users and connecting them with other groups where women and local communities could feedback their experiences and be asked for their ideas.

The report from the Prime Minister's Commission on the Future of Nursing and Midwifery identifies that progress in the development of quality metrics for maternity has been made, including the concept of the clinical dashboard (Prime Minister's Commission on the Future of Nursing and Midwifery, 2010). It notes that qualitative data such as patient-related outcomes are an important element of most maternity dashboards, and further work is needed to identify midwifery performance indicators that have the biggest impact on outcomes and service user satisfaction.

6.4 Existing indicators which could be used

As developing new indicators can be costly and take time, it is helpful to identify existing sources of indicators. These indicators can be outcome, process or structure measures and may take the following forms:

- Indicators collected routinely at a national level (e.g. maternity datasets);
- Indicators collected periodically at a national level (e.g. national surveys); and
- Indicators identified but not collected at a national level (e.g. standards and guidelines).

Appendix 1 shows a selection of sources of indicators for each of the four countries of the UK.

National datasets are advantageous because they collate information in a standard form using definitions consistent over time and between units. In England, Scotland and Wales,

maternity data from individual Maternity Units, Trusts and Boards are made available annually in the form of statistical bulletins, which are accessible online. Birth registration data including demographic information and related deaths are collected and published by the four countries of the UK. Information specifically about perinatal and maternal mortality is also collected.

Reviews of services carried out by regulators from time to time at a national level can yield detailed information about the quality of maternity services. This information includes structure, process and outcomes measures relating to safety, effectiveness, and women's experiences of maternity and midwifery care (Health Care Commission, 2007). Midwifery is unique in having the framework of statutory supervision to underpin quality care. Annual reports compiled by each Local Supervising Authority and submitted to the Nursing and Midwifery Council provide clear summary of quality relating to professional standards for midwives (Nursing and Midwifery Council, 2009).

Existing work has already identified standards and guidelines that can be used to measure the safety and effectiveness of maternity of care. For example, standards and measurable outcomes in maternity care have been considered in detail in the working party report published by the RCOG, *Safer Childbirth: Minimum standards for the organisation and delivery of care in labour* (Royal College of Obstetricians and Gynaecologists *et al*, 2007). The recommended minimum standards include a mix of different types of indicators of safety relevant to midwifery care. For example:

- Structure: Midwifery staffing levels are calculated and implemented according to birth setting and case mix categories to provide the midwife-to-woman standard ratio in labour (1.0–1.4 WTE midwives to woman);
- Process: Women in established labour receive one-to-one care from a midwife; and
- Outcomes: preventable intrapartum stillbirths, normal births without intervention.

Clinical guidelines make recommendations based on evidence in order that care provided is clinically effective. The extent to which care follows such guidance is not routinely collected as part of national datasets, and therefore currently measuring this aspect of quality has largely been done by audit and surveys.

7 What is the future direction?

7.1 *Future indicators of quality*

7.1.1 Characteristics of quality indicators

The best indicators of quality of midwifery care will be those that measure care which evidence shows is:

- Safe;
- Effective; and
- Results in positive experiences for women.

Appendices 2 to 5 set out how evidence of midwifery practices which are safe, effective and valued by women can be used to develop meaningful quality measurements for the future. They are intended to illustrate approaches to developing quality indicators and are not exhaustive:

- Appendix 2 shows that there is evidence that skin to skin contact between mother and baby, immediately following the birth, is safe and has positive benefits for both mother and baby; such as increased breastfeeding rates and better long-term bonding between mother and baby. In addition, mothers feel that their birthing experience is greatly improved by the opportunity to have uninterrupted time for skin to skin contact with their babies;
- Appendix 3 explores the current English quality indicator relating to early access to antenatal care. Whilst there is evidence that this improves safety, reducing maternity mortality, there is a lack of direct evidence at the moment that this leads to improved outcomes for mothers and babies, or of women's experience of early booking;
- Appendix 4 presents evidence that a variety of midwifery practices reduce perineal trauma and are also safe, effective and result in better experiences for women. Perineal trauma rates, and these related midwifery practices, could therefore potentially be used as future quality indicators; and,
- Appendix 5 describes midwifery practices which increase the normal birth rate have been shown to be safe, while reducing interventions and improving women's birth experience. Such practices include: providing midwife led care; offering choice of place of birth to include home and a birth centre; providing one-to-one midwifery care

in established labour; and supporting women to labour in upright positions or in water for pain relief. These are another potential pool of quality indicators.

7.1.2 Intelligent targets

Intelligent targets are “predominantly outcome measures, but other process and balancing measures will be required to aid in their delivery” (Gozzard & Willson, 2009). Measuring normal birth is an example where ‘intelligent targets’ could be introduced. The Normal Birth consensus statement recommended that maternity services should aim to increase their normal birth rates towards a realistic objective of 60% (Maternity Care Working Party, 2007). This has been interpreted in the press as a performance target which will be achieved at the expense of women’s preference and experience of birth (The Times, 2009). However the statement itself stresses the processes which support women to have a positive experience of pregnancy and birth, which are integral to the objective of increasing normal birth rates.

7.1.3 New datasets

Although many outcomes are already measured by existing datasets, it is more difficult to measure care that women actually receive. This has been recognised in the development of new maternity datasets in England and Wales.

In England, an entirely new maternity dataset has been devised, coordinated by the NHS Information Centre (NHS Information Centre, no date b). The ‘business requirements’ (i.e. what needs to be measured) for the dataset were drawn up using national maternity standards and guidelines. An example of a business requirement would be “How many women have midwife-led care?”. These business requirements were then translated into ‘information requirements’ – for example, “Number of women whose lead carer at booking was a midwife” together with “Number of women for whom lead carer is different at delivery than at booking”.

To use these statistics as a quality measure, it will of course be essential to take into account the reasons that women transfer from midwifery care. However, once the dataset is in use, this would allow the routine collection and publication at a national level of the extent to which recommended standards and guidelines are followed. This information can also be fed back to individual NHS trusts for quality improvement.

In Wales, the Department for Health and Social Services is conducting a maternity information project. Relevant business and information requirements have been identified by a range of stakeholders, and these have been mapped onto existing sources of data. It is hoped that

systems can be linked together to make this information more widely accessible (Langley, personal communication 2010).

7.1.4 Measuring women's experiences of care

Birth has been described as a 'transformative experience' (Misago *et al*, 2001). How a woman experiences this will depend on a number of factors including her personal history, biological and physiological factors, the environment in which she labours and the attitude and response of her caregivers (Downe & McCourt, 2004).

Understanding and improving a woman's experience of midwifery care will become increasingly important as it is now regarded as an integral component of the quality of care. In the past women's views of care have largely been collected by satisfaction surveys but these are now regarded as only providing a limited amount of information which is not helpful for quality improvement. Experience measures will become more widely used as they are easier to interpret and provide more practical results (Department of Health, 2009b).

Although 'patient experience' is one of the criteria for defining and measuring quality in healthcare, it is recognised that women will also have a view on both the safety and effectiveness of their care.

7.1.5 Women's views of safety

In maternity, women's views of the safety of maternity care have been researched using qualitative methods. In one study, women who were interviewed in depth revealed that they viewed care as unsafe not only when there was a lack of staff, poor monitoring and inadequate information, but when they were left alone and worried, or when they did not know who was looking after them, or were not receiving the full attention of their midwife (Magee & Askham, 2007).

7.1.6 Women's views of effectiveness

That the experiences of the people who use health services count have been clearly articulated in health policy, "...just as important [as clinical effectiveness] is the effectiveness of care from the woman's own perspective which will be measured through patient reported outcomes measures (PROMs)" (Darzi, 2008). In England, PROMs are measures of a patient's health status or health related quality of life. They are typically short, self completed questionnaires, which measure a patient's health status or health related quality of life at a

single point in time. They are innovative within the NHS because the focus is on health and wellbeing rather than illness. At the moment they have been introduced for certain types of surgery but they are being extended to include further medical procedures and conditions (King's Fund, 2010; Department of Health, 2008). However, this way of measuring effectiveness of care could be incorporated into measuring the quality of midwifery care and accords well with the concept of 'salutogenesis' or the creation of wellbeing in childbirth (Downe & McCourt, 2004).

7.1.7 Collecting women's experiences of midwifery care

There has been recent development of guidance on a variety of patient feedback methods. Tools for doing this are described in the King's Fund report, *The Point of Care - measures of patients experience in hospital: purpose, methods and uses* (Coulter *et al*, 2009) and the Picker Institute guide *Using patient feedback* (Picker Institute, 2009). In England, guidance has been set out in the publication *Understanding what matters: a guide to using patient feedback to transform care* (Department of Health, 2009b).

Surveys of women's experiences have been used successfully to collect information which can inform improvement of midwifery care (Healthcare Commission, 2007; Redshaw *et al*, 2007). Questions from these surveys can be used to collect local information on a more regular basis, for example, using real-time patient feedback techniques. The Picker Institute has analysed correlations between women's satisfaction with care and their responses to specific questions in order to develop key indicators of quality. They discovered that the strongest indicators of a positive experience were related to interactions with staff. This included communication, explanations and support, involving women with their care, and being treated with respect, dignity and kindness. Care received during labour and birth were strong indicators of the overall care rating. Further work needs to be done, but useful key indicators for quality can be developed in this way.

Data routinely collected in local maternity data systems may also be a source of useful information. For example, analysing the duration of antenatal clinic consultations may give some indication of the quality of the interaction between a midwife and a pregnant woman. Very short consultations may indicate that the service is not organised in a way which encourages a women to feel supported and nurtured.

7.2 Other considerations for the future

The Quality Chasm Committee (Institute of Medicine, 2001) proposed six aims for improvement to address key dimensions in which today's health care system functions at far lower levels than it can and should – quality indicators for midwifery will take these into account. The Committee states that Health care should be:

- Safe: avoiding injuries to patients from the care that is intended to help them;
- Effective: providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding under use and overuse, respectively);
- Patient-centred: providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions;
- Timely: reducing waits and sometimes harmful delays for both those who receive and those who give care;
- Efficient: avoiding waste, including waste of equipment, supplies, ideas, and energy; and
- Equitable: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

7.2.1 Widening the definition of quality to include equity

In England, Wales and Northern Ireland, the definition of quality does not include the concept of equity. It is included in the Scottish definition, but is not of primary focus. Equitable care means that it does not vary in its safety, effectiveness or value to women and their families because of age, ethnicity, area of residence or socio-economic status. Services should be accessible to all women and be designed to take full account of their individual needs, including different language, cultural, religious and social needs or particular needs related to disability (Department of Health, 2007).

The importance of care for pregnant women with socially complex factors is recognised by NICE who are developing guidelines for women who misuse substances; women who are recent migrants, refugee or asylum seekers, or who have difficulty reading or speaking English; women aged under 20 years; and women who experience domestic abuse (National

Institute for Health & Clinical Excellence (NICE), 2010). It will be important to use information about midwifery care provided to women with complex social factors in order to further improve the quality of care.

7.2.2 The 'burden' of data collection

The need to collect data on quality may result in an additional administrative burden for midwives. The creation of the role of 'I.T. midwife' should be avoided and can be mitigated in some part by measurements of processes being taken up in new national maternity datasets. These will streamline collecting data on how care is provided and whether it meets existing standards and guidelines. In addition, skilful planning and management of maternity support workers, and administrative support for labour-ward co-coordinators and group practices would mitigate this.

7.2.3 UK wide dataset

Currently, some maternity data is collected on a UK wide basis (for example, maternal mortality), some jointly between three countries (for example, perinatal mortality in England, Wales and Northern Ireland), some between two countries (for example, birth registration information in England and Wales) and some on an individual country basis (maternity data).

A maternity dataset common to all countries of the UK, using consistent definitions to benchmark and compare services should be developed and implemented.

8 Glossary

Antenatal care	Professional care provided to a woman and her partner to support them and their baby through the pathway of pregnancy and to help achieve the best possible health, psychological and social outcomes for the mother, baby and family.
Care pathway	A pre-determined plan of care for patients / women with a specific condition / specific situation
Clinical governance	<p>A system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish</p> <p>England – Care Quality Commission</p> <p>Scotland – NHS Scotland Performance – HEAT Targets (See below)</p> <p>Welsh Office: Quality Care and Clinical Excellence</p>
Clinical Negligence Scheme for Trusts	<p>The scheme that manages all clinical negligence claims against member NHS bodies where the incident in question took place on or after 1 April 1995 all NHS Trusts (including Foundation Trusts) and Primary Care Trusts (PCTs) in England currently belong to the scheme. http://www.nhs.uk/Claims/Schemes/CNST</p> <p>In Scotland -- NHS Quality Improvement Scotland. Will be known as Health Improvement Scotland in 2011.</p>
Commissioning	<p>The process local authorities and PCTs undertake to make sure that services funded by them meet the needs of the clients and patients.</p> <p>England – Strategic Health Authorities / PCTs</p> <p>Scotland – Health Boards</p> <p>Wales - Healthcare Inspectorate Wales</p>
Health Boards	NHS Boards in Scotland are responsible for health care services in 14 local areas, 3 Island Boards and 11 Territorial. The Special Health Boards are: NHS 24, NHS Quality Improvement Scotland,

NHS Education for Scotland, NHS Health Scotland, NHS Golden Jubilee (National Waiting Times Centre Board), Scottish Ambulance Service, State Hospital and National Services Scotland.

Health Inspectorate	Healthcare Inspectorate Wales is the independent inspectorate and regulator of all health care in Wales http://www.hiw.org.uk
Health Efficiency Access and Treatment (HEAT)	The performance management system sets out the targets and measures against which NHS Scotland Health Boards are publicly monitored and evaluated.
Home birth	This is usually a planned event where the woman gives birth at home, with care provided by a midwife. Should complications arise, all NHS home birth services are provided within a functioning, swiftly responsive, and well understood local network of emergency services and transfer arrangements
Intrapartum	Pertaining to the period of labour and birth.
Known/lead midwife	A named, registered midwife who is responsible for providing all, or most, of a woman's antenatal labour and/or postnatal care
Local Supervising (LSA)	<p>The body which provides a framework to ensure the statutory supervision of midwives, Authority required in the Nursing and Midwifery Order (2001) and the Nursing and Midwifery Council's Midwives rules and standards (2007) is exercised to a satisfactory standard within its geographical boundary.</p> <p>In England, the LSAs are the Strategic Health Authorities; in Northern Ireland, they are the Health Boards; in Wales, the Health Inspectorate; and in Scotland, they are in Consortiums North, West, and South East.</p>
Midwife	A responsible and accountable professional who works in partnership with women to give the necessary support, care and advice during pregnancy, labour and the postpartum period to

conduct births on the midwives own responsibility and to provide care for the newborn and infant.

Midwifery The profession, which leads on normal pregnancy and labour, birth and provides expert care to mother and baby during pregnancy, childbirth and the postnatal period within a family centred environment.

Midwifery care Care, usually where the midwife is the lead professional. Midwifery care is provided to the majority of women during pregnancy, labour, birth and post natal period, including women who have episodes of complexity requiring additional care from a wider team of professionals. Also referred to as Midwifery practice.

Maternity Dashboard Supports maternity units to plan and improve their services. It serves as a clinical performance and governance scorecard to monitor the implementation of clinical care

Midwifery-led units and Birth centres

A facility (either free standing, alongside or within a maternity hospital) managed and run by midwives which provides a comfortable and safe home-like environment for women and partners who anticipate a straightforward birth. As with home births, all midwifery services must be provided within the safety net of a functioning local network providing prompt emergency transfer when required

National Childbirth Trust (NCT)

The National Childbirth Trust is a charity supporting parents through pregnancy, birth and early parenthood

National Institute for Health and Clinical Excellence (NICE)

A special health authority producing guidance for the NHS and patients on medicines, medical equipment and clinical procedures

National Service Framework (NSFs)

National Service Frameworks set national healthcare standards. They are designed to improve the quality of health services and ensure that everyone gets the same level of care. The two main roles of NSFs are to set clear quality requirements for care based on the best available evidence, and to offer strategies and support to help health organisations achieve these standards. Each NSF sets a target for improving the standard of care and the associated healthcare outcomes related to that care.

Next Stage Review	<i>NHS Next Stage Review: A High Quality Workforce</i> , published by DH June 2008 and sets out how the findings of <i>Darzi: A High Quality Workforce</i> (June 2008) the future of the NHS workforce will be taken forward.
Neonatal care	Medical care for newborn babies within high and low risk settings.
Nursing and Midwifery Council (NMC)	Organisation set up by Parliament to protect the public by ensuring that nurses and midwives provide high standards of care to their patients and clients. To work in the UK all midwives must register with the NMC.
Postnatal care	Professional care provided to meet the needs of women and their babies up to 6-8 weeks after birth in the context of their families
Public Health	The Department of Health is responsible for health protection, health improvement and health inequalities issues in England, including pandemic influenza, seasonal flu, patient safety, tobacco, obesity, drugs, sexual health, and international health NHS Health Scotland provides health improvement and health promotion leadership. It works with other NHS and voluntary partner agencies to reduce health inequalities. It provides a Public Health observatory service.
Public Service Agreement (PSA)	Sets out what organisations agree to deliver in return for funding. PSAs set out the key improvements that the public can expect from

Government expenditure. They are three year agreements, negotiated between the Department and HM Treasury during the Spending Review process. Each PSA sets out the department's high level aim, priority objectives and key outcome-based performance targets

Royal College of Midwives (RCM)

The Royal College of Midwives is a trade union professional organisation led by midwives which represents the interests of midwives in all four UK countries. It promotes excellence, innovation and leadership in the care of childbearing women, the newborn and their families, nationally and internationally.

RCOG

Royal College of Obstetricians and Gynaecologists

Social care

The range of services that support the most vulnerable people in society to carry on in their daily lives.

Stakeholders

DH has a wide range of stakeholders that all share an interest in its work, including patients and the public, local and regional NHS organisations, local authorities and social care providers, charities, and the voluntary and community sector.

Trust

An NHS body (in England) that provides secondary care or hospital based healthcare services from one or more hospitals, also referred to as an Acute Trust.

In Northern Ireland, there are five Trusts providing health and social care services to the Northern Ireland public. Services are provided locally and on a regional basis.

In Scotland health care is provided by integrated Health Boards which partner across acute and primary care settings.

WTE

Whole time equivalent is a way to measure a worker's involvement in a project. A WTE of 1.0 means that the person is equivalent to a full-time worker, while an WTE of 0.5 signals that the worker is only half-time. Also referred to as FTE (Full-time equivalent)

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Appendix 1: Existing sources of maternity indicators

Source of indicators	England	Wales	Scotland	Northern Ireland
Datasets:				
National maternity datasets	Hospital Episode Statistics (HES) dataset ¹	Patient Episode Database Wales (PEDW) dataset ²	Scottish Morbidity Record (SMR02) ³	Hospital Inpatient System (HIS) ⁴ / Northern Ireland Maternity System (NIMATS)
Birth registration data	Office for National Statistics (ONS) ⁵	Office for National Statistics (ONS)	General Registrar for Scotland (GRO-S) ⁶	Northern Ireland Statistics and Research Agency (NISRA) ⁷
Perinatal Mortality	Centre for Maternal and Child Enquiries (CEMACE) ⁸	Centre for Maternal and Child Enquiries (CEMACE)	Scottish Stillbirth and Infant Death Survey ⁹	Centre for Maternal and Child Enquiries (CEMACE)
Maternal Mortality	CEMACE ¹⁰	CEMACE	CEMACE	CEMACE
Surveys and Reviews:				
Reviews of maternity services	Healthcare Commission: review of maternity services ¹¹ ¹²	Health Inspectorate Wales: All Wales Maternity Services Review ¹³		Audit of acute maternity services ¹⁴
Surveys	National Perinatal Epidemiology Unit: national survey of women's experiences of maternity care ¹⁵			
Standards and guidelines:				
	Nursing and Midwifery Council: Midwives Rules and Standards ¹⁶	Nursing and Midwifery Council: Midwives Rules and Standards	Nursing and Midwifery Council: Midwives Rules and Standards	Nursing and Midwifery Council: Midwives Rules and Standards
	RCOG et al: Standards for maternity care ¹⁷	RCOG et al: Standards for maternity care	RCOG et al: Standards for maternity care	RCOG et al: Standards for maternity care
	RCOG et al: Safer childbirth: Minimum standards ¹⁸	RCOG et al: Safer childbirth: Minimum standards	RCOG et al: Safer childbirth: Minimum standards	RCOG et al: Safer childbirth: Minimum standards
	RCOG: Maternity Dashboard ¹⁹	RCOG: Maternity Dashboard	RCOG: Maternity	RCOG: Maternity

Source of indicators	England	Wales	Scotland	Northern Ireland
			Dashboard	Dashboard
	Clinical Negligence Scheme for Trusts (CNST) standards ²⁰	Health Care Standards for Wales ²¹	NHS QIS National Standards: Clinical Governance and Risk Management ²²	HSC Safety Forum ²³
	UK National Screen Committee standards ²⁴	UK National Screen Committee standards	UK National Screen Committee standards	UK National Screen Committee standards
		All Wales Clinical Pathway for Normal Labour ²⁵	NHS Quality Improvement Scotland: Keeping Childbirth Natural and Dynamic ²⁶	
			NHS QIS Clinical Standards: Maternity services ²⁷	
	NICE Guidelines ^{28,29,30,31}	NICE Guidelines		NICE Guidelines (from 2006) ^{28,29,30}
Toolkits:				
	NPSA Intrapartum toolkit ³²	NPSA Intrapartum toolkit	NPSA Intrapartum toolkit	
	Department of Health: Toolkit for high quality neonatal services ³³			
	NHS Institute: Toolkit for normal birth and reducing caesarean sections rates ³⁴			
Other recommendations:				
	Maternity Care Working Party: Normal birth consensus statement ³⁵	Maternity Care Working Party Normal birth consensus statement	Maternity Care Working Party Normal birth consensus statement	Maternity Care Working Party Normal birth consensus statement
	King's Fund: Safer births initiative ³⁶			
	NCT policies ^{37,38,39,40}	NCT policies	NCT policies	NCT policies
	WHO Baby Friendly Initiative ⁴¹	WHO Baby Friendly Initiative	WHO Baby Friendly Initiative	WHO Baby Friendly Initiative

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Appendix 2: Skin to skin contact as a measure of quality of midwifery care

Evidence of skin to skin contact (SSC) as a measure of quality

1. Safety

A Cochrane review of early skin to skin contact for mothers and healthy newborn infants found no adverse effects of SSC (Moore et al 2007).

2. Clinical effectiveness and outcomes

A Cochrane review of early skin to skin contact for mothers and healthy newborn infants (Moore et al 2007).found the following positive effects early SSC:

- Improved breastfeeding initiation;
- Improved infant temperature control;
- Reduced infant crying;
- Improved maternal affection and touching early postpartum;
- Improved confidence and reduced anxiety of mothers at hospital discharge;
- Increased breastfeeding at one to four months;
- Longer breastfeeding duration; and
- Increased affectionate touching and interaction with infant one year post-birth.

3. Women's experience

A qualitative study of six multigravid women explored, through interviews and audio taped diaries, the experiences of women of SSC with their baby, starting within 30 minutes of birth and lasting at least one hour (Finigan 2004). The birth experiences of the women included vaginal, caesarean and instrumental deliveries.

The women used powerful and emotive language to describe their experiences of SCC and five themes were generated:

- Immediate feelings of bonding with their baby;
- Touching and stroking;

- The 'gaze' and getting to know the baby;
- Natural 'instinctive' behaviours; and
- Not wanting to let go of the baby.

The women felt it was instinctive to bring the baby to the breast and breastfeed when they were left alone with their baby. All women in the study said they would have appreciated a longer period of uninterrupted SSC. The time was spoken of with pleasure and had an important bearing on a woman's recollection of the whole birth experience. Describing previous births where they had not had the opportunity of SSC, the women used words such as 'robbed' and 'cheated' and referring to a birth experience without SSC as being 'clinical'.

One woman's description of the effect of SSC was:

" I can only describe it as being totally elated, to such a degree that I've never felt before... Even now, I'll lie skin to skin. It helps us grow together. I think it stems from the initial time he was placed skin to skin, when he first lay upon me, he looked up at me and that melts my heart every time."

4. Contribution of midwifery care to increasing skin to skin contact

Midwifery care immediately post-birth will influence directly whether women are able to have a period of uninterrupted SSC with their baby. By routinely facilitating SSC and creating a calm and unhurried environment in which this can take place, midwives will be encouraging bonding and breastfeeding initiation. They will also be enhancing women's views of their birth experience and over a longer period as they continue to breastfeed and interact positively with their baby.

Ashmore (2001) has considered how skin-to-skin contact can be implemented in the immediate postnatal period as part of the UNICEF Baby Friendly Initiative (World Health Organisation 1989). She notes four main barriers to encouraging SCC are usually cited:

- Health professionals are too busy;
- There is not enough space to allow SSC;
- Other procedures such as monitoring, weighing, bathing, suturing are seen as more important and incompatible with SSC; and
- A perception that the mothers in their unit do not want SSC.

However their evidence suggests that the main barrier is that it requires a significant change in health professional routines. Although midwives may be overworked, and maternity units are understaffed. SSC does not in fact require input from a midwife and can therefore free her to do other tasks, as long as mother and baby are safe. Where SSC has become a normal part of labour ward practice, Baby Friendly assessors find that very few mothers choose not to have it, and it commonly receives an enthusiastic report about how special it makes their birth experience (Ashmore 2001).

5. How information on SSC can be measured

Space should be included in maternal notes to record the incidence and duration of SSC. Regular audits should be undertaken to monitor progress.

Surveys of women's experience of birth (real time feedback, postal surveys, telephone interviews) should include a question about incidence and duration of SSC in addition to eliciting women's views of the experience. For example:

- Was she given privacy and a calm environment?
- Was the duration of SSC cut shorter than she would have liked?
- Could anything have been done to improve her experience of SSC?

The results of audits and women's views should be communicated to relevant staff to show positive achievements and to drive improvements.

- Improvements in SSC can be implemented by:
- ensuring midwives are aware of the benefits and that they communicate these to mothers during the antenatal period; and
- identifying local obstacles on the labour ward and revising policies to reflect the need to encourage SCC

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Appendix 3 Early access to antenatal care

1. Current indicator

The percentage of women who have seen a midwife or a maternity healthcare professional, for health and social care assessment of needs, risks and choices by 12 completed weeks of pregnancy (HM Treasury 2007).

2. Safety

A systematic review identified that “there is a general lack of both quantitative and qualitative research, based in the UK, which addresses the phenomenon of late antenatal attendance or non attendance. Although the quantitative findings suggest that perinatal morbidity/mortality may be increased for those women who fail to attend for antenatal care, or attend late, they are limited by the lack of good quality UK papers” (Lavender et al. 2007).

However the report ‘Saving mothers’ lives’ (Lewis 2007) identified that around 20% of the women who died from direct or indirect causes either first booked for maternity care after 20 weeks’ gestation, missed over four routine antenatal visits, did not seek care at all or actively concealed their pregnancies. Vulnerable women with socially complex lives who died were far less likely to seek antenatal care early in pregnancy or to stay in regular contact with maternity services.

A disproportionate number of the women who died were from vulnerable or more excluded groups. Refugee and asylum seeker women accounted for 12% of the maternal deaths. Women from a number of black and minority ethnic groups had significantly higher rates of maternal mortality. Women living in families where both partners were unemployed were up to 20 times more likely to die than women from the more advantaged groups. Single mothers were three times more likely to die than those in stable relationships. Women living in the most deprived areas of England had a 45% higher death rate compared to women living in more affluent areas (Lewis 2007).

Around 16% of all pregnant women, including many of those under 18 years of age, delay seeking maternity care until they are five or more months pregnant, thus missing the crucial early days of maternity care. These women and their babies have worse outcomes than those who access maternity care at an earlier stage of their pregnancy (Department of Health 2007).

It can be concluded that encouraging women to book for antenatal care sooner rather than later, particularly for women with complex social needs is likely to reduce maternal mortality rates.

3. Clinical effectiveness and outcomes

NICE guidelines on routine antenatal care recommend that the first antenatal appointment need to be ideally by 10 weeks (NICE 2008). This allows for sharing of information relevant to early pregnancy and discussion for women who may benefit from the earliest screening options (sickle cell, thalassaemia). It also provides an opportunity for a comprehensive assessment of needs and risk. It also allows midwives or other agencies the opportunity to work with a family to reduce the risks of infant and maternal mortality for those who fall into groups with increased risks. Due to the large volume of information needs in early pregnancy, the guideline recognises that two appointments may be required for completion of booking.

4. Women's experience

A systematic review showed that there are a number of reasons why women fail to access antenatal care (Lavender et al. 2007). Some women failed to realise they were pregnant, or were denying it to themselves or to their social networks. Some women did not see any benefit to antenatal care. Women were more likely to access care and continue to access it throughout pregnancy when it was easy to reach, where they felt culturally, emotionally and physically safe and where the staff has excellent communication and interpersonal skills.

5. How early access can be measured

In England this is already being measured by PCTs and is publicly available.

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Appendix 4: Reducing trauma to the perineum during a vaginal birth

Recent statistics for England show that 80% of women having a forceps birth and 67% of women having a ventouse birth have an episiotomy and a further 28% of women having an instrumental delivery have perineal lacerations (NHS Information Centre 2009). According to the Healthcare Commission maternity services survey of women's experiences, nearly 24% of women having a vaginal birth had an episiotomy (range between NHS trusts:12% to 41%) and 53% had a tear (range: 38% to 69%). The percentage of women who had an intact perineum following a vaginal birth ranged from 3% in one NHS trust to 45% (Healthcare Commission 2007).

1. Women's experiences of perineal trauma

Accounts of women's experiences of having perineal trauma as a result of a vaginal birth show that women with an intact perineum experience far less pain than those with either an episiotomy or a tear. In one study, women were asked if they were distracted from breastfeeding by perineal pain (Kitzinger & Walters 1993). Only 8% of women with an intact perineum were distracted, compared with 32% of women with a perineal tear and 57% of women with an episiotomy. The women who suffered most pain were those who had both an episiotomy and a laceration (63%) (Kitzinger & Walters 1993).

"I used to watch the clock and the baby for the end of the feed to come so that I could move.. only lying on my side was comfortable" (Kitzinger & Walters 1993).

"It brought tears to my eyes to sit and feed the baby." (Kitzinger & Walters 1993).

The same study found that 78% women with episiotomies had pain with intercourse. This lasted longer than 3 months for 22% of them.. Women with an intact perineum were much less likely to experience this pain (36%) with only 2% having pain that lasted longer than 3 months. The study concluded that episiotomy causes women pain, can interfere with breastfeeding and the mother-baby relationship and can adversely affect couple's sexual relationship (Kitzinger & Walters 1993).

In general, women found the pain following an episiotomy to be greater than the pain from a perineal tear. Women who suffered both an episiotomy and a tear were mostly likely to suffer extreme and prolonged pain (Kitzinger & Walters 1993).

2. Using reduction of perineal trauma as a measure of quality

Given the negative effects of perineal trauma on women's lives, practices which have been shown to reduce its likelihood can be used as measures of quality if they are also shown to have no adverse side effects. Practices which reduce the likelihood of an episiotomy may be preferable for women even if they result in a commensurate increase of first/second degree perineal tears (Kitzinger & Walters 1993).

Because instrumental birth increases the likelihood of an episiotomy, any practices which reduce the rate of instrumental delivery in favour of spontaneous birth may also reduce women's negative experience of perineal trauma. These may also be used as a measure of quality if they are otherwise safe and have good outcomes.

3. Evidence of reducing trauma to the perineum as a measure of quality

There are a number of midwifery practices which can reduce trauma to the perineum during a vaginal birth.

3.1 Restrictive episiotomy

Existing recommendation

The NICE guideline for intrapartum care recommends that routine episiotomy should not be carried out during spontaneous vaginal birth (National Collaborating Centre for Women's and Children's Health 2007).

Safety

A Cochrane review showed no differences in babies' Apgar scores or admission to neonatal care between a policy of routine episiotomy versus restrictive episiotomy (Carroli & Mignini 2009).

Effectiveness

The Cochrane review authors concluded that restrictive episiotomy policies appear to have a number of benefits compared to policies based on routine episiotomy. There is less posterior perineal trauma, less suturing and fewer complications, no difference for most pain measures and severe vaginal or perineal trauma, but there was an increased risk of anterior perineal trauma with restrictive episiotomy (Carroli & Mignini 2009).

The NICE guideline for intrapartum care states that there is considerable high level evidence that the routine use of episiotomy is not of benefit to women either in the short or longer term, compared with restricted use. It recommends its use only if there is a clinical need such as instrumental birth or suspected fetal compromise (NICE 2007).

Conclusion

The practice of restricting episiotomy is safe and beneficial to women, reducing the incidence of perineal trauma. The extent to which the use of episiotomy is restricted to situations where there is a clear clinical need such as instrumental birth or fetal indication can be used as a measure of quality of midwifery care.

3.2 Upright positions for second stage

Existing recommendation

The NICE guideline for intrapartum care recommends that women should be discouraged from lying supine or semi-supine in the second stage of labour and should be encouraged to adopt any other position that they find most comfortable (NICE 2007).

Safety

Although a Cochrane review reported that blood loss over 500ml was increased for women giving birth in upright positions, this seems to be related to use of a birth chair or stool, rather than upright positions per se and may be due to the collection of blood in a receptacle rather than estimates of blood loss (Gupta & Hofmeyr 2004; NICE 2007). No other adverse effects of upright positions have been reported. A beneficial effect is that they may reduce fetal heart rate abnormalities (Gupta & Hofmeyr. 2004).

Effectiveness

There is high-level evidence that remaining supine in the second stage of labour increases vaginal instrumental birth (NICE 2007) and the use of episiotomy. (Gupta & Hofmeyr 2004). However there is no difference in the proportion of women who give birth with an intact perineum (NICE 2007) due to an increase in the incidence of second degree perineal tears. A further benefit is a reduction in pain felt by women during second stage (NICE 2007).

Conclusion

Encouraging women to give birth in upright positions that they find comfortable can reduce the likelihood of having an episiotomy. Although there is an increase in the amount of second degree perineal tears, women tend not to find these as painful as episiotomies (Kitzinger & Walters

1993). Therefore the extent to which women give birth in an upright position can be used as a measure of quality of midwifery care.

3.3 Advising nulliparous women of the benefits of antenatal perineal massage

Existing recommendation

There are no existing guidelines on antenatal perineal massage.

Safety

A Cochrane review on antenatal perineal massage did not identify any adverse outcomes (Beckmann & Garrett 2006).

Effectiveness

The Cochrane review concluded that women having their first vaginal birth who had practiced antenatal perineal massage were less likely to have an episiotomy. No differences were seen in the incidence of first- or second-degree perineal tears or third-/fourth-degree perineal trauma (Beckmann & Garrett 2006). A further systematic review found that antenatal perineal massage reduced the need for perineal suturing for women having a first vaginal birth (Eason et al. 2000).

One study looked at the views of women who practised antenatal perineal massage. They generally had positive views; 79% of women would do it again in another pregnancy and 87% would recommend it to another pregnant woman (Labrecque et al. 2001).

Conclusion

Antenatal perineal massage can reduce perineal trauma during a first vaginal birth. The extent to which women planning a first vaginal birth are advised by midwives during the antenatal period to practice perineal massage before the birth can therefore be used as a measure of quality of midwifery care

3.4 Offering birth at home or in a birth centre

Existing recommendation

National policy in Scotland and England recommend that women should be offered the choice of where to give birth (Scottish Executive 2001) including planning birth at home or in a birth centre (Department of Health 2007; NICE 2007).

Safety

A number of studies have compared the safety of birth planned at home or in a birth centre compared with planning for a hospital birth. Observational studies suggest that for women at low risk of complications, birth is equally safe in each setting (Gyte & Dodwell 2008; MIDIRS 2008; Hodnett et al. 2005; Stewart et al. 2005; Walsh & Downe 2004).

Effectiveness

Studies have shown that women having a home birth are less likely to have an episiotomy (Chamberlain et al. 1997) and more likely to have an intact perineum (Ackermann-Liebrich et al. 1996; Janssen et al 2009). Meta-analyses of RCTs showed an increase in the number of women with intact perineum for women planning to give birth in alongside midwife-led units compared with obstetric units (NICE 2007). There was also a significant increase in the proportion of women who had an intact perineum, with planned birth in a standalone midwife-led unit (NICE 2007). Planning birth outside an obstetric unit seems to be associated with an increase in women with an intact perineum. (NICE 2007).

Conclusion

Planning birth at home or in a birth centre reduces the likelihood of having an episiotomy and is associated with an increase in the numbers of women with an intact perineum. The extent to which women are offered the choice of birth outside an obstetric setting can therefore be used as a measure of quality of care.

4 Other practices which increase normal birth rates

Other midwifery practices which increase normal birth rates tend to increase spontaneous vaginal births and lower episiotomy rates. These practices (including midwife-led care, one to one care in labour and support to use natural aids for pain relief) are considered in detail in Appendix 5, and can also be used as measures of quality of midwifery care.

5 How information on perineal trauma can be measured

In England, Scotland and Wales information about episiotomy and perineal laceration is routinely collected. In England and Wales it is published annually, analysed according to method of delivery. In England information about rates of episiotomy for spontaneous vaginal birth is published for each NHS trust (NHS Information Centre 2009). Trusts and NHS boards should ensure this data is available locally and is fed back to midwives.

Surveys of women's experience of birth should include a question about women's experiences of perineal care. Examples of questions (some taken from the Healthcare Commission survey of women after birth (Healthcare Commission 2007)) include:

- While your baby was being born were you given an episiotomy (cut)?
- While your baby was being born did you have a tear?
- Was this a serious tear which involved your back passage (third or fourth degree tear)?

Other questions may provide information about midwifery practices which influence rates of perineal trauma. For example:

- What position were you in when your baby was born?
- At the start of your pregnancy did you have a choice of having your baby at home, giving birth in a birth centre (either in a hospital or at some distance to a hospital) or in a hospital maternity unit?
- Were you given information about the benefits of antenatal perineal massage?

Women's experiences can be gathered in more depth using patient feedback methods such as those described in the King's Fund report, 'The Point of Care - Measures of patients' experience in hospital: purpose, methods and uses' (Coulter et al. 2009) and the Picker Institute guide 'Using Patient Feedback' (Picker Institute 2009). The results of audits and women's views should be communicated to relevant staff to show positive achievements and to drive improvements.

Reductions in perineal trauma can be implemented by

- ensuring midwives are aware of the practices which reduce episiotomy and that
 - they communicate these to mothers during the antenatal period
 - are familiar with their use during second stage of labour
- identifying local obstacles and revising policies to reflect the need to reduce perineal trauma.

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Appendix 5 Normal birth as a measure of quality of midwifery care

(This text is an excerpt from NCT publication "Normal birth as a measure of the quality of care: evidence on safety, effectiveness and women's experiences" (Dodwell & Newburn 2010) and is copyright NCT. Permission has been given for use by the Midwifery 2020 Programme)

1 Background to normal birth

1.1 Defining normal birth

The term 'normal birth' is shorthand for a vaginal birth without any of the medical procedures that require hospital-based care, and are usually carried out by a specialist hospital doctor, including induction of labour, epidural or spinal anaesthetic, and the use of forceps, ventouse or caesarean section. The idea behind the term 'normal birth' is that it is the kind of care that can be provided either at home or in a birth centre by a midwife, though it is also possible in a hospital setting.

In England the formal definition of normal labour and birth (termed 'normal delivery' for statistical purposes by the NHS Information Centre) is delivery without induction, the use of instruments, caesarean section, episiotomy and without general, spinal or epidural anaesthetic before or during delivery. From 2003-06, normal delivery rates were published annually in England by the NHS Information Centre (formerly by the Department of Health Statistics Division). Technical problems have prevented them being published for more recent years.

A similar definition is in use in Scotland, termed normal birth, which is the proportion of live births without induction, the use of instruments, caesarean section, episiotomy and without general, spinal or epidural anaesthetic before or during delivery. (Scottish intervention rates are all calculated as a proportion of live births, rather than of the number of mothers delivered as in England and Wales.) Normal birth rates for Scotland have been made available to the voluntary organisation BirthChoiceUK for the years 2001-08.

The definition used in Wales is 'deliveries without induction, instrumental delivery or caesarean section'. This differs from the English definitions of "normal delivery" because of the lack of available data on use of epidural (or episiotomy) at an all-Wales level. Normal delivery rates for Wales based on this definition are available for the years 1997 to 2009.

There are wide variations in normal birth rates between different maternity services providers. For example, in 2006, normal delivery rates in obstetric units in England ranged between 31% and

59% (Richardson & Mmata 2007), averaging at 47%, and from 32% to 49% in Scotland, averaging at 41% in 2008 (BirthchoiceUK 2009).

1.2 Policy focus within the UK

In all four countries of the UK, maternity policy is directed towards offering women access to midwife-led services, with a focus in England, Wales and Scotland on promoting normal birth and reducing interventions.

In England, the Department of Health's National Service Framework (Department of Health 2004) stated that "*for the majority of women, pregnancy and childbirth are normal life events requiring minimal intervention*". In Wales, the All Wales Clinical Pathway for Normal Labour was developed as a response to the increasing levels of intervention during labour (NHS Wales 2004). The Welsh Assembly Government's document 'A framework for realising the potential of midwives in Wales' aimed to develop "*Policy and practice that reflects birth as a normal physiological process for the majority of women*" and recommended that "*Maternity service policies should be reviewed and developed to ensure that they minimise intervention for women with normal pregnancies*" (Welsh Assembly Government 2002). In Scotland the Scottish Government Health Directorates has established the 'Keeping Childbirth Natural and Dynamic' programme which aims to maximise opportunities for women to have as natural a birth experience as possible (Scottish Government 2009). In Northern Ireland, community midwifery units are being developed, both alongside hospital labour wards and community based (standalone) units.

2 Evidence of normal birth as a measure of quality

NICE recommends that once labour has started, clinical intervention should not be offered or advised where labour is progressing normally and the woman and baby are well (National Collaborating Centre for Women's and Children's Health 2007). The Maternity Care Working Party further recommends that maternity services should set in place a strategy for supporting women to have a positive experience of pregnancy and birth and increasing normal birth rates (Maternity Care Working Party 2007). This reflects the principle that midwifery practices that facilitate normal birth start much earlier in the maternity care pathway than the beginning of labour.

2.1 Safety

Birth is a normal physiological process and most pregnant women are fit and healthy. With appropriate support, the majority of healthy women are able to have a straightforward vaginal birth with minimal assistance. Medical interventions have been introduced primarily to increase the safety of birth for both mother and baby. The RCOG have stated that "promoting normal birth is

an important philosophy of maternity care, with intervention only if necessary for the benefit of the mother or child”(Royal College of Obstetricians and Gynaecologists et al. 2008). Most women prefer to avoid interventions, provided that their baby is safe (Thomas et al. 2001) and they feel they can cope (Green et al. 2003).

Clinicians may be concerned that a focus on normal birth could compromise the safety of birth. However the RCOG acknowledges that ‘normal birth should be integral to a quality maternity service’ provided that ‘the recognition of an ill mother or infant is paramount’ (p50, Royal College of Obstetricians and Gynaecologists et al. 2008). The multi-disciplinary development of evidence-based clinical guidelines is contributing to a shared understanding of the appropriate use of interventions such as induction, instrumental delivery and caesarean to ensure the safety of women and babies (National Collaborating Centre for Women's and Children's Health 2007; National Institute for Health and Clinical Excellence 2008; National Collaborating Centre for Women's and Children's Health 2004). In ensuring quality, an appropriate balance needs to be struck between maximising safety for the mother and for the baby, in the current and in potential subsequent pregnancies, with achieving a range of other optimal health outcomes and ensuring a positive experience for the woman and a positive start in life for the baby.

The caesarean rates of different maternity service providers vary according to a number of factors (Thomas et al. 2001). Although an optimal rate can be difficult to determine, it is known that both underuse and overuse will have a negative effect on safety (Deneux-Tharaux et al. 2006; Pallasmaa et al. 2008; World Health Organization 2009). It has been suggested by clinicians that maternity units applying best practice to the management of pregnancy, labour and birth will achieve safe minimum caesarean rates consistently below 20% (NHS Institute for Innovation and Improvement 2006). Maternity units are increasingly demonstrating that the application of evidence-based recommendations and innovative models of care can lead to lower caesarean rates without evidence of any reduction in safety (Chaillet & Dumont 2007). For example Leeds Teaching Hospitals NHS Trust reduced their caesarean rates from 24-27% to 18-20% between 2003-4 and 2005-6 (NCT 2008). Professor Walker has identified the value of multi-disciplinary development and implementation of clinical guidelines, joint monitoring of performance, and reviewing mistakes and near-misses to identify ways of preventing them happening in future (NCT 2007; Walker 2007). In other settings, reduction or lower rates of medical interventions seem to be linked a focus on supportive care, monitoring progress, multi-disciplinary training and supervision, building good teams with respect, support and mutual responsibility (Biringer et al; NHS Institute for Innovation and Improvement 2006).

Women themselves also have their own view of safety of maternity care which includes their perception of the skills and professionalism of those caring for them. For many women, trust in their midwives enables them to feel safe. In one qualitative study exploring women's views of safety of maternity care, "individualised attention from supportive, caring and experienced midwives mattered more than anything else" (Magee & Askham 2007).

2.2 Clinical effectiveness and outcomes

There is a range of evidence to show that women who are otherwise healthy who can avoid medical procedures during labour and birth generally have a greater chance of starting motherhood fit and healthy which may make them more able to cope with the demands of a new baby. For example, women who have had a spontaneous vaginal birth are less likely to suffer from pain after childbirth than women recovering from a caesarean (National Collaborating Centre for Women's and Children's Health 2004). Women who have an epidural for pain relief during labour are more likely to have an assisted delivery (Anim-Somuah et al. 2005) which in turn is likely to result in an episiotomy (NHS Information Centre 2009) and therefore more painful perineal trauma than having a spontaneous vaginal birth (Johanson et al 1993; Kitzinger & Walters 1993). Women who have a spontaneous birth are more likely to initiate breastfeeding than women who have had a caesarean birth (National Collaborating Centre for Women's and Children's Health 2004).

2.3 Women's experiences

For all women including those who are vulnerable or disadvantaged, the opportunity for having a well-supported normal birth can be empowering and reassuring (Demilew 2005; Rosser 2003). There is some evidence that women's perceptions of their birth experience and long-term well-being are negatively affected by having an operative birth. A prospective longitudinal study found that for first-time mothers having a caesarean, forceps or ventouse birth there were 'significant psychological risks', including an increased risk of 'grief reaction, post-traumatic distress and depression'. In particular, women who had a caesarean birth were found to have diminished self-esteem after childbirth, whereas women who had a spontaneous vaginal birth generally had a pronounced increase in self-esteem following birth (Fisher et al 1997).

A well designed comparative UK study looking at the management of labour and birth, women's experiences and psychological outcomes in both 1987 and 2000 showed that in both time periods the majority of women valued giving birth with a minimum of drugs, though the use of epidural anaesthesia had increased dramatically (from 19% to 59% of primigravidae) (Green et al. 2003). Women in 2000 had more anxiety about pain and a reduced faith in their ability to cope with labour. This change particularly affected first-time mothers. The study emphasised the

importance for women of feeling in control of themselves and their environment. This affected their satisfaction, fulfilment and postnatal well being (Green et al. 1990) suggesting that alongside working to minimise obstetric interventions it is vital that midwives listen to women, find out about their hopes and respect their wishes, focusing on providing emotional support and encouragement rather than withholding access to wanted pain relief. Generally, the study found that women who had avoided interventions during labour reported higher satisfaction scores compared with those who had had labour induced or augmented, an episiotomy or an epidural (Green et al. 2003). It has been suggested that more ready access to epidural anaesthesia for pain relief during labour is associated with a reduction in post traumatic stress disorder (Birth Trauma Association 2010). However, Ayers' review suggests that several factors can be responsible for traumatic stress, such as lack of support, feelings of loss of control or violation of expectations, as well as uncontrollable pain (Ayers 2004). As Walsh has discussed, "in the context of a fragmented model of care, with little continuity and patchy provision of one-to-one support in labour, in a clinical environment with little resemblance to home, it is understandable that epidurals are a welcome relief." He continued: "it is important not to confuse system failure with women's preference" (Walsh 2009).

Women's own stories show the importance of birth in their lives, both the positive nature of normal birth and the negative effect that interventions can have when they diminish a woman's sense of autonomy and control during labour. When one unwanted intervention is succeeded by other invasive and/or unwanted experiences the cumulative effect can be severe:

"The fact that I was surrounded by people who cared about me and ... that inside of my head a voice was singing 'I did it!' made the first moments of being that child's mother confident (ones)" (Beech & Phipps 2008).

"The induction sent me into immediate and very scary labour, with labour pains close together from the start... The baby became distressed, I was given a painful episiotomy and she was taken out with a ventouse. I then went into shock... I loved her immediately but the trauma of the birth, followed by a very painful internal infection, took a very long time to recover from" (Beech and Phipps 2008)

"The birth was a hugely empowering experience and after the birth I felt simply wonderful – my self-esteem was restored and I have noticed a huge improvement in my general wellbeing... The way a woman gives birth can affect the whole of her life – how can that not matter?"(Beech & Phipps 2008).

3 Midwifery practices which may increase normal birth rates

Certain midwifery practices have been identified which increase the opportunities for normal birth by promoting circumstances in which the physiological process of birth is supported and pharmacological and surgical interventions are kept to a minimum, particularly for women at low risk of complications (Maternity Care Working Party 2007; NHS Institute for Innovation and Improvement 2006). These practices tend to involve building confidence in the physiological birth process and women's ability to give birth, so that they emerge feeling enriched rather than traumatised (Kennedy 2006). In particular they focus on midwives offering women more personalised care allowing them to form continuing relationships, where the women feel valued, listened to and more in control (Hatem et al 2008; Anderson 1997). They also focus on ensuring that the environment for birth is optimal, avoiding disturbance of the neuro-hormonal processes which are necessary for optimal progress of labour and also enhance a woman's ability to cope with pain (Leap 1997).

Where there is evidence that these strategies and practices are safe (or not significantly less safe) and effective forms of care, and that they enhance women's experiences of pregnancy, birth and the postnatal period, these forms of care can be used of measures of quality. This section considers the evidence about a number of midwifery practices and assesses their value as quality indicators.

3.1 Continuity of midwife-led care

The NICE Antenatal Care guideline recommends that 'there should be continuity of care throughout the antenatal period (National Collaborating Centre for Women's and Children's Health 2008). A multi-disciplinary working party report on standards for maternity care states that women, including those at high risk of complications, benefit from the support and advocacy of a known midwife throughout their pregnancy (Royal College of Obstetricians and Gynaecologists et al. 2008). In England there is a policy commitment to every woman being supported by a midwife she knows and trusts throughout her pregnancy and afterwards so as to provide continuity of care (Department of Health 2007).

Safety: A Cochrane review identified no adverse outcomes from midwife-led care and found no differences in fetal loss, neonatal death, low birth weight or admission to neonatal care (Hatem et al. 2008). Midwife-led antenatal care is regarded as being as safe as obstetrician-led care with no significant difference found for a number of outcomes including postpartum haemorrhage (Villar et al. 2009).

Outcomes: Midwife-led care results in a reduced use of regional analgesia, fewer episiotomies and fewer instrumental births and increases the chance of a spontaneous vaginal birth.(Hattem et al. 2008) Women having midwife-care are more likely to start breastfeeding.(Hattem et al. 2008)

Experience: Women prefer social models of care which recognise birth as an important life event and which allow them to develop relationships of trust with their caregivers (NCT 2009b). For women who are particularly anxious or vulnerable, it is especially important that they have the opportunity to really get to know the midwife who will be with them in labour, so that they can build up a trusting relationship. Midwife-led care improves women's experiences, providing them with more personalised care during pregnancy, increasing the likelihood that they will be cared for in labour by a midwife they know and will experience feelings of control during labour (Hattem 2008).

"I would have preferred to have just one or two midwives looking after me whilst pregnant. Instead, there was a team so I just saw whoever was on duty on the day of my appointment. It didn't give me a chance to get to know them and vice versa, so there wasn't one/two midwives who knew everything that was going on in my pregnancy" (Redshaw et al. 2007).

"I was very pleased with the care I received before and after my baby was born. I saw two midwives mainly and came to think of them as my friends" (Audit Commission 1997).

Summary: Evidence shows that providing midwife-led care is safe, effective and results in a positive experience for women. The extent of access to midwife-led care can therefore be used as a measure of midwifery care quality.

3.2 Offering the choice of giving birth at home

NICE and government departments in Scotland and England have recommended that women should be offered the choice of where to give birth (Scottish Executive 2001) including planning birth at home (Department of Health 2007; National Collaborating Centre for Women's and Children's Health 2007).

Safety: A number of studies have compared the safety of birth planned at home compared with planning for a hospital birth. Observational studies suggest that for women at low risk of complications, birth is equally safe in each setting (Gyte & Dodwell 2008; MIDIRS 2008a).

Outcomes: The NICE guideline on caesarean section recommends that healthy pregnant women with anticipated uncomplicated pregnancies should be informed that delivering at home reduces the likelihood of caesarean section compared with planning a hospital birth (National Collaborating Centre for Women's and Children's Health 2004). Planning for a home birth also reduces the likelihood of women experiencing an instrumental delivery or an epidural (Chamberlain et al. 1997) compared with broadly similar women booking a hospital birth. According to one large study undertaken in the UK, the rates of caesarean and instrumental delivery were halved for women who planned to have a homebirth (Chamberlain et al. 1997)

Experience: Having a baby is a physical and emotional challenge as well as a major life event and it is important for women and their partners to be able to choose a setting which feels safe, comfortable and welcoming. Women who plan birth at home are more likely to be assisted by a midwife they know (Chamberlain et al. 1997), to have a greater sense of control (Davies et al 1996), have more privacy, be able to avoid separation from their family and personal space, experience less disruption caused by travelling during labour, and avoid the need to go into a large public, institutional environment which may be perceived as uncomfortable. (Edwards 2005) For some women, these factors enable them to feel more relaxed and secure (Chamberlain et al. 1997; Davies et al. 1996; Janssen et al 2006) and this increased sense of control and empowerment has been linked to better emotional outcomes (Green et al. 2003).

“Being in my home meant I was more comfortable and relaxed. For me, knowing I had that choice to give birth at home was really empowering” (NCT 2009a).

“It was hard to believe. There, in my husband’s hands was a little slippery baby girl! That, without a doubt, was the most magical moment in my life. Everything was suddenly so peaceful and so perfect. The three of us were together in our warm, quiet home, in dim lights; it was a truly magical night. If we have more children in the future we will definitely opt for a home birth again.” (Anna, pers comm)

Summary: Evidence shows that for women at low risk of complications, giving birth at home is safe, effective and results in a positive experience for women. The extent of choice of place of birth and consistent access to birth at home for low risk women can be used as a measure of midwifery care quality.

3.3 Offering the choice of giving birth in a birth centre

Government departments in Scotland and England and NICE have recommended that women should be offered the choice of where to give birth (Scottish Executive 2001) including planning

birth in a midwife-led unit or birth centre (Department of Health 2007; National Collaborating Centre for Women's and Children's Health 2007).

Safety: A number of studies and reviews have compared the safety of birth planned in both alongside and freestanding birth centres and the evidence was considered in the NICE intrapartum care guideline (National Collaborating Centre for Women's and Children's Health 2007). Hodnett et al's meta analysis, based on six RCTs, three of which took place in the UK, did not identify any statistically significant difference in perinatal mortality for women planning birth in an alongside birth centre compared with birth planned in an obstetric unit (Hodnett et al 2005). Poorer outcomes in a Swedish trial from 1997 (Waldenstrom 1997) raised concerns about a possible increase in overall perinatal mortality in alongside units compared with obstetric units. However, the most recent study from Ireland (not available for the 2005 Hodnett review) did not identify any difference in perinatal mortality between planned midwifery-led care in an alongside unit and that planned in an obstetric unit (RR 1.00, 95% CI 0.18 to 5.46) (Begley et al 2009). A synthesis of UK trials alone showed no statistically significant difference in perinatal mortality rates for babies born in alongside units compared with obstetric units (RR 1.52 [95% CI 0.77 to 3.0]) (National Collaborating Centre for Women's and Children's Health 2007). However both this analysis of the three UK trials, and the larger meta-analysis, including all six eligible international studies (Hodnett, 2005), were underpowered to differences in perinatal mortality.

Outcomes: Planning a birth in a birth centre increases the likelihood of having a straightforward labour and birth (National Collaborating Centre for Women's and Children's Health 2007; Saunders et al. 2000). Where the birth centre is alongside a hospital obstetric unit, there are lower rates of epidural use and episiotomy (National Collaborating Centre for Women's and Children's Health 2007). Where the birth centre is at some distance from an obstetric unit, there are also lower rates of instrumental and caesarean births and of induction (Saunders et al. 2000). In Scotland, where community maternity units are often at some distance from the district general hospital, a recent audit found that of all 1686 women admitted to a midwife-led unit during labour, 88% had a spontaneous (cephalic) birth and outcomes were generally positive (Hogg et al. 2007).

Experience: It is important for women and their partners to be able to choose a setting which feels safe, comfortable and welcoming. Evidence suggests that women who choose to give birth in a midwife-led unit or birth centre are more likely to be satisfied with their care than women giving birth in hospital (Saunders et al. 2000). One study, which used a randomised controlled design, suggests that this also applies to women who agree to be randomised (MacVicar et al. 1993). Women who plan to use this birth setting tend to have greater continuity of care than those planning a hospital birth (Turnbull et al. 1999) and also have positive views about aspects ranging

from the home-like environment, receiving personalised treatment from a midwife they know and trust, to having a sense of control over the labour and birth (Saunders et al. 2000)

"I went to see the birth centre, and it was beautiful. I projected myself with [partner] immediately in that situation, and it was perfect because I wanted to go in the pool... [It] is a more familiar environment than hospital. I could see myself there immediately" (Newburn 2009a).

"I really liked the atmosphere, it's calm and the midwives are trying to do it as naturally as possible" (Newburn 2009a).

Summary: Evidence shows that for women at low risk of complications, giving birth in a birth centre is safe, effective and results in a positive experience for women. The extent of choice of place of birth and consistent access to birth centre care for low risk women can be used as a measure of midwifery care quality.

3.4 Opportunities for birth preparation classes

NICE recommends that pregnant women should be offered opportunities to attend participant-led antenatal classes. (National Collaborating Centre for Women's and Children's Health 2008)

Safety: A recent review of antenatal education did not find any adverse outcomes associated with participant-led antenatal courses (Schrader McMillan et al 2009).

Outcomes: Women should be encouraged and helped to move and adopt whatever positions they find most comfortable throughout labour (National Collaborating Centre for Women's and Children's Health 2007) yet women are less likely to try out positions during labour which are unfamiliar to them. Antenatal preparation can offer women the opportunity to try out a variety of positions (MIDIRS 2008b). Health-led parenting interventions in pregnancy can improve a range of outcomes such as adjustment to motherhood, maternal psychological well-being and parental confidence. (Barlow et al. 2008) The social support developed during antenatal courses may improve women's well-being (Gjerdingen & Chaloner 1994) and can have a protective effect against postnatal depression (Muller & Newburn 2009; Robertson et al. 2004). This is some evidence that breastfeeding initiation rates and breastfeeding duration can be improved by antenatal education (National Collaborating Centre for Women's and Children's Health 2008).

Experience: Women view birth preparation courses as being helpful and informative, even though other forms of information are available (for example, internet, television, health education leaflets). They value the opportunity to interact directly with a group facilitator with specialist knowledge and to explore issues and prepare for new experiences alongside other parents at the same life-course stage as themselves (Nolan 2008a, 2008b, 2008c). Even though there are a number of factors influencing outcomes, reviews of evidence about antenatal education have concluded that, where antenatal preparation is participative or client-led, there is evidence that women may feel more satisfied with their birth experience (National Collaborating Centre for Women's and Children's Health 2008; Schrader McMillan et al. 2009; Muller & Newburn 2009, 2010).

"I just feel much calmer and more confident about the whole thing compared to before I started coming [to classes]. I feel more in control," (National Childbirth Trust 2007).

"[The classes] gave me the knowledge and confidence to have the labour and birth I wanted," (Nolan 2008a).

Summary: Evidence shows that providing participative birth preparation classes is safe, effective and results in a positive experience for women. The extent to which women can access participative birth preparation courses through their maternity services provider can therefore be used as a measure of quality of maternity care. Where these courses are facilitated by midwives it can be used as a measure of quality of midwifery care.

3.5 One-to-one midwifery care in labour

NICE intrapartum care guidelines recommend that women in established labour should receive supportive one-to-one care (National Collaborating Centre for Women's and Children's Health 2007). This recommendation has become an agreed standard for maternity care (Royal College of Obstetricians and Gynaecologists et al. 2008).

Safety: No adverse outcomes have been identified from providing one-to-one midwifery care (Hatem 2008).

Outcomes: Providing continuous, one-to-one personal support during labour reduces the need for medical interventions, including caesarean, forceps/ventouse and epidurals (Beake et al 2001; Benjamin et al. 2001; Hodnett et al. 2007).

Experience: Women have a need for support during labour to attend to their physical and emotional needs and provide information where necessary. Current research shows that a key factor affecting how well women cope during labour and birth and how they feel afterwards is the level of support they perceive they have had. Being well supported during labour results in higher satisfaction of women giving birth and reduces feelings of trauma (Ford & Ayers 2009; Hodnett et al. 2007; Page et al 2001). Great comfort can be gained from the security of receiving care from one or two known midwives who are experienced, calm, confident and empathetic (NCT 2009b).

“I had no support at all. My labour progressed very quick and midwives didn't believe me, and treated me like I was a drama queen. Was left alone during most of labour and when a midwife did come to check me very reluctantly, I was 10cm dilated and the baby was coming. This was a very scary and painful time and still gives me nightmares” (Redshaw et al. 2007).

“Being allowed to trust my instincts about where I wanted to be and when I wanted to push was important...I had a midwife with me throughout labour. I needed the comfort and support of a caring and qualified female presence” (Newburn & Singh 2003)

Summary: Evidence shows that providing one-to-one midwifery care in established labour is safe, effective and results in a positive experience for women. The extent of provision of one to one midwifery care in established labour can therefore be used as a measure of quality of midwifery care.

3.6 Supporting the use of natural and low-technology comfort aids for pain relief

NICE makes the following recommendation about using aids for pain relief (National Collaborating Centre for Women's and Children's Health 2007):

- women should be encouraged and helped to move and adopt whatever positions they find most comfortable throughout labour;
- the opportunity to labour in water is recommended for pain relief;
- women who choose to use breathing and relaxation techniques in labour should be supported in their choice;
- women who choose to use massage techniques in labour that have been taught to birth partners should be supported in their choice;
- the playing of music of the woman's choice in the labour ward should be supported; and

- acupuncture, acupressure and hypnosis should not be provided, but women who wish to use these techniques should not be prevented from doing so.

The RCOG recommends that maternity services research the 'working with pain' framework suggested by Leap (RCOG 2001; Leap 2000).

Safety: There have been no adverse safety outcomes identified from women choosing to use non-pharmacological methods of pain relief (National Collaborating Centre for Women's and Children's Health 2007). However as the most appropriate use and safety of some complementary therapies has not been established (Chitty, 2009); advice for midwives on their use is provided by their regulatory body, the Nursing and Midwifery Council (NMC, 2009).

Outcome: Upright positions can help women feel more comfortable and also speed up labour (Simkin & O'Hara 2002). A study carried out by the NCT showed that women who had a vaginal birth had had better access to a wide range of valued facilities (e.g. privacy, space to walk around) and active birth equipment (e.g. a birth pool) than women who had had an emergency caesarean (Newburn & Singh 2003). Helping women use equipment such as birthing balls, pillows, beanbags, floor mattresses and furniture of varying heights lets women choose a variety of positions to help relieve pain (MIDIRS 2008b). It has been shown that immersion in water also provides effective pain relief, so encouraging a woman to get into a warm bath or birthing pool will help reduce the pain of the first stage of labour, and mean she is less likely to need an epidural (National Collaborating Centre for Women's and Children's Health 2007). Upright positions in second stage of labour can reduce pain and instrumental delivery rates (National Collaborating Centre for Women's and Children's Health 2007). A recent Cochrane review of complementary and alternative therapies reported that using acupuncture and self-hypnosis showed a decreased need for pain relief, including epidural analgesia, and greater satisfaction compared with controls (Smith et al 2006).

Experience: The way midwives support and guide women through their pain can allow them to feel confident and positive about their ability to cope (Halldorsdottir & Karlsdottir 1996; Lundgren & Dahlberg 1998). This support can be even more important to women than the actual level of pain (Hodnett 2002) and the attitudes of midwives can have a profound impact on how women feel about their labours in the longer term (Kitzinger 2000). In one study women who received more suggestions about coping with pain from their midwife rated them more highly than those who made few suggestions (Newburn & Singh 2005). A systematic review indicated that, despite varying effectiveness in relieving pain, the majority of women felt positive about using acupuncture, massage, transcutaneous electrical nerve stimulation (TENS), hypnosis, relaxation

and breathing, and the use of music (Simkin & Bolding 2004; Simkin & OHara 2002). Increasing comfort, privacy and non-disturbance can be addressed in all birthing environments (Brodie & Leap 2008; Newburn 2009b).

“Being stuck on the bed with the monitor, I found it very difficult to manage contractions. I don’t feel I had any control over my birth experience, it was a terribly lonely day where I tried the best I could, but I felt there was nobody who listened to my needs or gave me support.”(Newburn & Singh 2003).

“The only way I managed to have such a positive birth experience was by being totally focused on what I was doing... The room was large and spacious, so I was able to move about freely and change positions. There were various different seating / squatting / lying options available (e.g. beanbags, mats, chairs, tables, beds). There was calm music playing, calm colours and calm lighting. The midwives had a very personal, flexible approach – I led, the midwives followed.” (Newburn & Singh 2003).

Summary: There is evidence that supporting the use of some natural and low-technology comfort aids for pain relief is safe, effective and results in a positive experience for women. The extent to which midwives:

- encourage women to move around and use upright positions during labour; and
- offer access to immersion in water for pain relief

can therefore be used as a measure of quality of midwifery care.

4 Implementing a measuring midwifery care quality programme

4.1 Monitoring normal birth rates

Normal birth rates should be measured and audited by using the definition set out in the Maternity Care Working Party’s *Normal birth consensus statement* (Maternity Care Working Party 2007). A clear definition is necessary in order to be able to monitor trends. Normal birth rates should be published by all maternity units regularly and discussed by all those involved in their improvement, including the labour ward forum and maternity services liaison committee. Normal birth rates should be fully accessible to the public.

Other measures of birth without specific medical interventions can be used (for example, spontaneous vaginal birth or physiological birth (Downe et al 2001)) as long as they are clearly

defined to avoid confusion. They may not be comparable between trusts, but can be useful to benchmark particular aspects of care.

4.2 Finding out local women's views and experiences

Women can be asked about their experiences of elements of midwifery care known to influence normal birth rates. Examples of questions (some taken from the Healthcare Commission survey of women (Healthcare Commission 2007)) include:

Midwife-led care

- If you saw a midwife for your antenatal check-ups, did you see the same one every time?
- During your pregnancy did you have the name and telephone number of a midwife you could contact if you were worried?
- Had you met any of the staff who looked after you during your labour and the birth before you went into labour?
- Did you have confidence and trust in the staff caring for you during your labour and birth?

Choice of place of birth

- At the start of your pregnancy did you have a choice of having your baby at home, giving birth in a birth centre (either in a hospital or at some distance to a hospital) or in a hospital maternity unit?
- Did you get enough information from a midwife or doctor to help you decide where to have your baby?

Birth preparation

- During your pregnancy did you attend any antenatal classes provided by the NHS?

1:1 midwifery care

- Altogether, how many different midwives looked after you during your labour and the birth of your baby?

Support for coping with pain

- During your labour, were you able to move around and choose the position that made you feel most comfortable?
- Did your midwife make suggestions of ways you could cope with the pain of labour without using drugs?
- During your labour, were you offered immersion in water for pain relief?

- During your labour and birth, did you feel you got the pain relief you wanted?
- What position were you in when your baby was born?

Women's experiences can be gathered in more depth using patient feedback methods such as those described in the King's Fund report, 'The Point of Care - Measures of patients' experience in hospital: purpose, methods and uses' (Coulter et al. 2009) and the Picker Institute guide 'Using Patient Feedback' (Picker Institute 2009).

4.3 Improving normal birth rates

Improvements in normal birth rates can be implemented using strategies identified in 'the NHS Institute Toolkit: Focus on normal birth and reducing caesarean section rates' (NHS Institute for Innovation and Improvement 2006). This sets out practices which can usefully be considered when working to promote normal birth and reduce caesarean rates to a safe minimum, without compromising women's positive experiences of birth. A multidisciplinary team, including commissioners and user representatives should address the attitudes and practices which affect levels of medical intervention during labour and birth by using the NHS Institute toolkit to identify where improvements could be made to existing practices and behaviours. The effect of these improvements on the normal birth rate should be monitored.

5 Conclusion

Normal birth is a useful quality indicator for maternity care in general and midwifery care in particular. Evidence from a range of sources suggests that it fulfils the criteria to be a useful measure of the quality of care, the criteria of safety, effectiveness and positive 'patient' experiences.

The following practices have been identified as ones which are likely on past evidence to increase opportunities for normal birth without compromising safety:

- providing continuity of midwife-led care;
- offering birth at home or in a birth centre;
- providing birth preparation classes;
- ensuring one-to-one midwifery care for women in labour; and
- supporting the use of some natural and low-technology comfort aids for pain relief.

There is evidence that these practices increase the quality of care by improving health outcomes and making care more personalised and responsive to the physiological, social and emotional needs of women and their families.

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