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Birthplace qualitative organisational case studies: how maternity care systems may affect the provision of care in different birth settings Birthplace in England research programme. Final report part 6

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Executive Summary

Background

Maternity Matters proposed that women with straightforward pregnancies should be offered the choice of having their babies in a range of settings. High quality maternity care that crosses professional, institutional, geographical and temporal boundaries is predicated on developing women-centred, effective pathways of care for a range of women.

Organisational case studies enable exploration of the issues that may influence risk and safety in different birth settings, in particular the management of complications, escalation of care and transfer. There has been insufficient evidence about how safety and other features of high quality and safe maternity care are pursued and achieved *in different service configurations* where women give birth.

Aims

The primary aim of the organisational case studies was to describe and explore features of maternity care systems that may affect the provision of high quality and safe care in different birth settings. A secondary aim was to describe and explore professional and consumer perceptions and experiences of escalation of care when complications occur during labour and birth in different birth settings.

Methods

The research took place in four 'best' or 'better performing' NHS Trusts as identified by the Health Care Commission Review of Maternity Services in England in 2007 in different health regions in urban and rural locations, with differing socio-demographic populations in the following configurations of care: 1) obstetric unit 2) obstetric/alongside midwife unit 3) Split site obstetric units and freestanding midwife unit 4) obstetric/ alongside unit and freestanding midwife units. Data collection focused on Trust policies and practice, and the experiences of women and birth partners in their journey through the system of care from March through to December 2010. Interviews were conducted with service providers, managers and other key stakeholders including user-group representatives (n=86), service users and their birth partners (n=72). Other data included document analysis (approximately 200 documents) and observation of key 'nodes' in the service (n=50 transcripts).

Results

Choice of birthplace, information and access

There were variations in the number of women who had practical access to the full range of birth settings within their locality, as most women did not see travelling over a long distance in labour as a realistic choice. Choice was influenced by geographical, organisational, service culture and provider factors. Some women were not aware that choice of birthplace was possible, and lacked sources of evidence-based information on which to base choices. Women's views of safe care were influenced by what was locally on offer, their previous experience and that of other women that they knew. The prospect of intrapartum transfer was a major consideration when women made a decision around place of birth, and women often cited concerns about transfer distance as reasons for planning labour in hospital. Women who did exercise more agency had greater access to information, skills and confidence in asking for the choices they wanted, and had the support of family friends and health professionals in doing so.

There was considerable variation in service provision between and within sites due to geography, and the variation in the organisation of community midwifery services. In all sites, there were examples of service and information provision designed to reduce inequalities in access and choice for women with complex social needs, those from poorer socio-economic localities and women who needed English language support.

Delivery of care

The design of the environment was tailored in these sites to positively support midwife-led and active birth care for low-risk women, but proximity of the AMUs created specific issues around blurring of spatial and professional boundaries in all sites. Competition over birth rooms and staffing often overlapped with philosophical differences, which could undermine effective team working and safety. In contrast, FMUs although they appeared to have clear boundaries, were not viewed as financially viable. The cultivation of relatively positive and respectful relationships between and within professional groups, was the rule rather than the more 'embattled' relationships described in some studies.

Deployment of community midwifery staffing across distributed settings was a key challenge for managers in all sites. For example, coverage for women living in more rural areas, staffing free-standing units, and reducing variation in models and coverage of community midwifery services. Additional challenges at some time points were an increase in acuity resulting in some women finding difficulty accessing overcrowded units. These led to women and birth partners feeling psychologically unsafe, as well as posing potential clinical safety problems.

All sites demonstrated a commitment to multi-disciplinary training and included attention to emergency skills and escalation of care. However, more attention was given to the needs of FMU midwives and less attention to the needs of midwives working in AMUs or community midwives providing home births, some of whom attended very few births each year. Community midwives appeared to be less integrated in such processes, and some reported a sense of isolation and exposure when attending births at home.

In all sites this was mitigated in models of care where midwives worked across the continuum of care, and both in the community and hospital settings. For example within team/caseload models or where midwives rotated between community and the different units in order to maintain a range of skills as in the 'hub and spoke' model where an obstetric unit serving a number of freestanding midwife units. Midwives working in FMUs indicated the value of their working relationships in the unit, including the role of maternity support workers.

Guidelines were generally used as support to knowledge and decision-making, rather than as substitutes for these, and were used to drive service improvement and appropriate levels of care. Positive organisational culture factors included a learning climate, which incorporated commitment to audit and review as sources of learning and improvement. When problems arose between professionals, these were tackled openly, rather than ignored.

The management of complications, escalation and transfer emerged as a key issue. These include the management of physical, geographical, professional and inter-personal boundaries, not only when transfers of women or staff were needed, but also in terms of information, knowledge and resources. Effective and safe transfer was contingent on good communication systems, clear guidelines that were used appropriately to support decision-making, trusting and respectful relationships between staff groups, management of conflict over resources, and the confidence and competence of professionals.

Women's experiences of escalation and transfer

Although some women's experience of transfer and escalation was characterised by feelings of worry, disempowerment or disappointment, most women were prepared for the unpredictability of events in childbirth. Clear and careful explanation of events by professionals was a common theme that ran through women's *positive* narratives about escalation. Trust in professionals was an important aspect of feeling safe, physically and psychologically.

Some women described difficulty in being listened to when they raised concerns about complications they had noticed themselves, while concerns about medicalisation or previous negative birth experiences led women to

avoid intervention in some cases, or request it in others. A few professionals viewed service users as both 'risky' and 'demanding' and consequently were less open to listening to their views, which were often not seen as relevant to safety.

Sometimes speaking up was effective, and women's wishes were heard and acted upon, but the experience of speaking up and *not* being heard was also manifested as a safety issue. When women felt *unable* to ask about their options or challenge professional views they could experience feelings of frustration, self-blame or anger and felt this resulted in delay in the management of complications.

Conclusions

Childbirth is itself a state of transition, and maternity services are marked by organisational, professional and geographical boundaries. Providing a safe and high quality choice of birthplace adds to this context of complexity. Maternity services need to operate with resilience, in terms of coping with the wider context of service changes, but also with the dynamic changes which are inherent in pregnancy, labour and childbirth. Resilience, by definition, depends on the property of flexibility as well as the strength of a structure and may therefore be of crucial importance in supporting safety in the midst of such challenges. For example, the 'hub and spoke' model (obstetric unit serving a number of freestanding midwife units) that had been long established in one service covering a wide geographical area may offer a useful model for other services to provide a full range of birth settings while maintaining good quality and safe care.

1 Background

The Maternity Standard of the *National Service Frameworks (NSF) for Children, Young People and Maternity Services*¹ specified that 'Every woman should be able to choose the most appropriate place and professional to attend her during childbirth based on her wishes and cultural preferences and any medical and obstetric needs she and her baby may have'. *Maternity Matters* has consolidated a policy direction for maternity care which emphasises 'choice, access and continuity in a safe service'. This standard requires that service providers and Trusts ensure that '*...options for midwife-led care will include midwife-led units in the community or on a hospital site.*' Care is to be provided in a '*...framework which enables easy and early transfer of women and babies who unexpectedly require specialist care*'² (p30). In addition, the Public Service (PSA) Delivery Agreement challenged maternity service providers to ensure that services are accessible to all women, including the vulnerable and excluded, so that a risk assessment can be completed, women can make informed choices about their care, and appropriate care and services are put in place to help improve life chances for children³. The more recently published White Paper '*Equity and Excellence: Liberating the NHS*' has confirmed and re-emphasised the principle of consumer choice including choice of place of care.

Choice of place of birth in Midwife-led units (MLU) and at home is therefore relevant to the configuration of maternity services currently under consideration in England. They have the potential to increase access to community based maternity care, and deliver responsive care, that can also improve women's experiences of pregnancy and birth. However, the current development of midwife-led units in England is ad-hoc and poorly evaluated, with a lack of agreed quality standards and benchmarks.⁴

Current evidence summated in NICE guidelines for intrapartum care for healthy women regarding outcomes of home birth is equivocal, in that there is a lack of good-quality evidence relating to short or long-term outcomes for birth at home compared with hospital, and with no evidence on serious maternal morbidity and mortality. Limited low-quality evidence shows less intervention with a planned home birth compared with a planned birth in hospital.⁵

There is more evidence regarding alongside MLUs. A Cochrane review of randomised controlled trials showed that women who gave birth in alongside MLUs are associated with increased likelihood of spontaneous vaginal birth, reduced medical interventions and increased maternal satisfaction. However, no firm conclusions could be drawn regarding the

effects of variations in staffing, organisational models, or architectural characteristics of the alternative settings.⁶

Research into how women and their families make decisions about where to give birth has tended to focus on home birth. This research suggests that the following factors are consistently important to women: finding a balance between safety of the baby and the satisfactory birth experience of the mother, and the influence of friends, family and doctors, social class and cultural values.⁷ Other authors have identified that a strong moral agenda operates when women choose birth in a non-traditional setting and that women have to deal with accusations of irresponsibility⁸, or conflicting advice and 'cultural ambiguity' from a maternity service that in theory at least, supports home birth.⁹ This body of work has largely focused on 'home birth mothers' as a minority and exceptional group, and apart from a few exceptions¹⁰, more generally, there is an indication that the model of care on offer is an important factor.¹¹ Longworth found that women who had chosen a home birth valued continuity of care, a homely environment and the ability to make their own decisions about what happens during labour and delivery. In contrast, women choosing hospital birth placed a relatively high value on access to an epidural for pain relief and not needing to be transferred to another location during labour if a problem arose.¹² Overall, there is a gap in the evidence in relation to how mothers and their partners *generally* make decisions about a *range* of intended places of birth, particularly in the UK.

As health care becomes increasingly complex, delivered in a range of settings and healthcare providers, there is evidence that journeys through the health care system (especially for vulnerable users) can be problematic, particularly at the boundaries of organisations and professionals, resulting in failures in referral, handover and transfer affecting patient safety and quality of care. This is particularly in areas of care where critical incidents are frequent, and where the fragmented and distributed nature of healthcare leads to disadvantaged populations falling through gaps in services.¹³ There is evidence that increasing professional collaboration/continuity improves outcomes¹⁴, but care pathways developed to facilitate such processes may have unintended consequences.¹⁵

The '*patient's journey*' and *transition* in distributed health systems has been identified as a priority area for future European Research.¹⁶ Thus, a key issue in distributed care systems is how latent risk and escalation of care for the deteriorating patient are managed at a professional and organisational level.¹⁷ Currently there are no predictive criteria to determine who will have complications during childbirth, thus risk assessment is an ongoing process, and effective inter-professional teamwork is essential. The nature of obstetric emergencies places a premium on continual vigilance and may necessitate very rapid responses. High quality maternity care that crosses professional, institutional, geographical and temporal boundaries is predicated on developing effective pathways of care for a range of women.

Communication barriers and a lack of collaborative working between health professionals have been highlighted as contributory factors to deficiencies in safety.¹⁸ In addition, conclusions drawn from the *Confidential Enquiries into Maternal Deaths* show that a substantial percentage of direct maternal deaths had some form of sub-standard care (vigilance and/response to problems) affecting outcome, with the main factors being poor inter-professional or interagency communication or teamwork.¹⁹

Transfer rates during labour from freestanding MLUs were not clearly known at the outset of this study, but were estimated to be around 15%, and around 9% from home.²⁰ Transfer rates between home and hospital settings show great variation, and there has been limited research on women's experience on transfer from home²¹, and a need for further qualitative research to explore women's experiences of birth and their journeys through care from other settings.²²

It is also unclear to what extent the expansion of MLU and birth at home can help meet the needs of individuals and communities that have been traditionally under-served, or have lost consultant services. There is a need to investigate what kind of features work in practice to ensure equity of access. One of the challenges identified in reviews of the existing evidence on the outcomes of different birth settings, is the variety of care systems and contexts involved (heterogeneity) and the lack of research examining points of connection (or disconnection) within a service. Overall, there is little research on women's experiences, particularly in the UK system, and even less on women's experience when complications occur and care needs escalating occurs in a UK setting.

The sub-discipline of health geography is central to any work such as this, which makes a comparison between spatially differentiated case studies. Geography's interest in health began in part with a development of the concept of therapeutic landscapes that explored how and why certain places have been deemed 'therapeutic', a quality very relevant to women's choice of birth setting.²³ The health geographies literature has problematised the role of the 'home' as a desirable site for healthcare, suggesting that it may not enable 'patients' to retain control in the face of clinical practice in the home.²⁴ There is also a question as to how far we should assume that home is an inevitable place of safety, empowerment, autonomy or bodily control for women.²⁵

In recent years Health Geographers have been turning their attention to space and place in healthcare *organisations* e.g. ^{26 27-30}. This interest in the dynamics of space and place in organisations has occurred alongside a change in the wider conceptualization of place from simply an 'activity container' ^{31: 609} to complex phenomenon imbued with the meaning given to it by those who live or work within it.³² Different birthplaces such as FMUs, AMUs, OUs and home are not only spaces separated by physical barriers, but are spatial manifestations of fundamental ideological differences that

are played out across the unit boundaries.³³ However, the way that these ideological differences have implications for the safety of care, and impact on the experiences of staff and labouring women needs further exploration.

Our approach to these studies has also been informed by socio-technical systems theory, in which quality and safety of care are considered to be embedded in complex processes and systems, rather than being a simple product of individuals' knowledge, actions, omissions or decisions. This literature points to the importance of structural and systemic features of health care systems, and organisational culture as well as formal organisation. It suggests that issues of power and culture may be relevant to risk and safety and that inter-personal or professional issues may influence professional behaviour and decision-making.

Vaughan's study of healthcare organisation, for example, posited 'structural secrecy' – inherent barriers or resistance to communication – as an important source of danger in complex systems and Vaughan proposed that social organisation in itself (rather than merely the actions or omissions of individuals, or technical systems in isolation from social systems) forms a source of safety or danger.³⁴ Thus indicating a need to examine the environment and processes of care, looking at different areas of activity and different professional groups as part of a complex socio-technical system, rather than in isolation.³⁵

There is evidence from wider studies in health care that organisational and service delivery factors may impact on quality and safety.^{36 37} A series of fifteen US-based case-studies of healthcare organisation identified six key attributes of high-performing systems as: information continuity, patient engagement, care coordination, team-oriented care delivery, continuous innovation and learning, and convenient access to care. These attributes were supported by values-driven leadership, interdisciplinary teamwork, integration and aligned incentives (both at the organisational and provider level), accountability and transparency.³⁸ Inter and intra-professional relationships, communication and information channels, staffing models, skill mix and service ethos have been highlighted as potential factors in quality.^{39 40} Guidelines and protocols have been developed to guide escalation and transfers of care between levels as well as in attempts to standardise care delivery, to support evidence-based practice and as decision support systems. Evidence on the effects of protocol-based care suggests these are varied and that there may be unintended consequences. There is only limited evidence with respect to their impact on quality and safety of maternity care.⁴¹

There are four different levels for intervening in healthcare delivery 1) the experience of service users, 2) clinical microsystem ie team level 3) organisation, ie Trust level 4) regional, national and international policy. Clinical microsystems are the small, functional, front-line units that provide most of the health care to most people. They are the essential building

blocks of larger organisations and of the health system. They are the place where service users and providers meet. Nine success characteristics have been found to be related to high performance: macro-organisational support of microsystems, information and information technology, leadership, culture, patient focus, staff focus, teamwork, and process improvement.³⁷

A key concept is how individuals, teams and organisations develop resilience ie monitor and adapt and act on failures in high risk situations. Thus the focus is on 'how and why does it go right' rather than 'what went wrong'.⁴² A key issue in intrapartum safety is the management of complications, referral and transfer. Thus we focused on how these organisations and frontline staff supported and managed the process of handover of care between professional, geographical and organisational boundaries.

1.1 Aims and objectives

The **primary aim** of the organisational case studies was to describe and explore features of maternity care systems that may affect the provision of high quality and safe care in different birth settings. A **secondary aim** was to describe and explore professional and consumer perceptions and experiences of escalation of care when complications occur during labour and birth in different birth settings. For the purposes of this study we defined 'system' as the NHS Trust within which one or more maternity units and home-birth services operate, together with linked systems such as Primary Care Trusts and Ambulance Trusts.

The key objectives were:

- to describe organisational factors such as staffing, governance, guidelines for provision of choice in birth setting, and arrangements for escalation of care when complications occur during labour and birth
- to explore professionals' responses to provision of choice in birth setting, and management of escalation of care when women develop complications during labour and birth in different settings
- to describe users' (and birth partners) experiences of provision of choice of birth setting, and experiences of labour and birth if complications occur.

The case studies, therefore, enabled the Birthplace in England programme to understand in greater depth the ways in which different places of birth are able to support:

- an environment which is clinically 'safe'
- an environment which is safe in terms of meeting women's self-defined care needs

- an environment which is safe in terms of professional satisfaction and standards of care, intra- and inter-professional working relationships
- an environment which is conducive to supporting normal, physiological birth
- an environment which is accessible and supportive to women, including those from minority and socially excluded groups¹

¹ Although relevant to these aims, these case studies did not focus in depth on three areas covered by doctoral studies being conducted in connection with the Birthplace programme. The first is women's choices of different birth settings and what affects their choice. The second is on transfer from alongside midwife units to obstetric units - within hospital transfers - and from freestanding midwife units to obstetric units. The third is on the experiences of non-English speaking women.

2 Methods

The approach to the case studies involved a focus on systems of care as defined above. The study enabled exploration of the potential impact of various features of the care system on issues such as safety, quality and accessibility of care and the experience of service users and providers. This implies that the case studies should employ a model found in a range of evaluation approaches, which focuses on the relationships between context, processes and outcomes.^{43 44} The concept of '*journeys through care*' sits well within this model.

The case studies gathered information in relation to place of birth on:

- the overall configuration of the service
- how staff and other resources are deployed within that configuration
- the interfaces or points of connection within it
- theoretical or planned care pathways
- women's journey through the system (as experienced in practice)
- professional and other staff movements and interfaces within the system

2.1 Sampling

The selection of case study services used a 'best practice' approach, based on Hodnett and colleagues' study of practices relating to caesarean section rates in North American maternity units.⁴⁵ This approach proved valuable for identifying and illuminating the common features of units identified as delivering high quality care, and for forming an effective basis for practice development recommendations.⁴⁶ It has also been used in a study of the all Wales clinical pathway.⁴⁷

Four case study services were chosen that each represent different configurations of services, and together represent the diverse experiences of many other Trusts across England. This number was pragmatic, reflecting the need to balance depth of coverage with breadth of issues and contexts to be covered, using the resources available. The case study selection was based on level of quality of care, configuration, geography and level of deprivation in the community served.

Quality of care was assessed from findings of the Health Care Commission survey's scoring system to select better or best performing services. Scoring is based around three key areas of practice - woman centred care, clinical care, efficient care - each being a composite of a range of indicators

where '4' equals a high score. Every service configuration represented in England was represented and included OU, OU/AMU, OU/FMU, and OU/FMU/AMU. Each case study was an NHS Trust's maternity service, including all the maternity units within its remit. Geographical range included four different health regions which included two sites serving geographically remote communities, an inner city site, and a site serving a medium size regional town. Level of deprivation was assessed using the IMD level of Index of Multiple Deprivation and included sites serving populations with levels of high, moderate and low deprivation (see Table 1).

Table 1. Case study sampling frame

	Seaview	City	Hillside	Shire
Geography	Suburban	Inner city	Rural	Rural
Configuration	OU	OU/AMU	OU/FMU	OU/AMU/FMU
Deprivation level	low	high	moderate	low

2.2 Data collection

Data collection took place in the four case study services included in the Birthplace prospective cohort study between March and December 2010. Focusing on institutional and care provider issues, user experiences and women's journeys through care, the studies identified key dynamics, transactions and processes, paying attention to differences of context, design and use of space, staff deployment and skill-mix, roles and interactions.

The data collection had four main components:

- review of key documents (n=approx 200)
- observation of key 'nodes' in the service (n=50 transcripts)
- interviews with service providers and other key stakeholders (n=86)
- interviews with service users and their birth partners (n=72)

2.2.1 Documentary analysis

Key documents relevant to the study were obtained and analysed prior to site visits and interviews, where questions arising from the analysis could be followed up. The subsequent site visits identified further documents to be reviewed. A checklist of key questions was used to guide the analysis, which was used to provide an initial description of the background, configuration and organisation of the service, with a particular focus on birth settings, key questions and queries for discussion during site visits. These included:

- service planning, consultation and reconfiguration documents
- eligibility criteria for AMU, FMU and home-birth care
- unit and home birth protocols
- any formal care pathways or algorithms in use
- any transfer protocols in use (including for ambulance and flying squad services)
- any safety and risk management tools in use

Approximately two hundred documents (or sets of documents) were collected from the four sites. The two most substantial groups were guidelines and protocols, and service user information leaflets or booklets. Other materials collected – their variety far surpassing categories in the researchers' initial checklist – were hospital statistics, Trust and regional policy documents, audit tools, incident reporting forms, forms for transfer and other procedures, posters and meeting flyers, meeting minutes, Trust research reports and reviews, researchers' digital photos of sites and surrounding areas, news clippings and press reports, local National Childbirth Trust literature, pharmaceutical documents, and maps.

Documentary analysis was conducted in two ways, both commonly used in qualitative and ethnographic research: a) by researchers on-site from day to day, noting points that required follow-up through observation and interviews; b) in team meetings where key documents were shared and discussed for their illustration of differences and similarities across sites, and their relevance to Birthplace issues and debates.

2.2.2 Observation

The site visits included detailed observation of selected aspects of the service, at a range of sites and times. The observations were conducted before interviews with staff and service users, and informed the interview questions. However, where appropriate, selected observations were made to explore further issues raised during the interviews.

As the time available was limited, this observation did not take the form of a conventional (usually long-term and unstructured) participant observation. Instead, more structured and time limited forms of non-participant observation were used. Researchers observed for limited time slots at key locations, which represented points of interface and decision-making in the service. This approach has been used effectively and economically in work-sampling studies of maternity care, and has been used to study levels of supportive care.⁴⁸ A key focus was on transfer and handover points.

Key locations or points of observation included

- labour ward and midwife units – handovers and points of admission, including transfers
- meetings

Although limited in time frame, the case study fieldwork was ethnographic in terms of its holistic, interpretive approach, focus on organisational culture, social actors and their relationships, and ongoing use of observational data to frame new interview questions. Participant and non-participant observation sessions varied in length between an hour and a whole shift or day in the field.

Table 2. Organisational case study observations by Site

Site	Days/shifts observed
Seaview	11
City	19
Hillside	11
Shire	9
Total	50

2.2.3 Interviews

Service providers and key stakeholders

Interviews were conducted with a purposive maximum variation sample⁴⁹ to achieve a wide range of cases and variation on dimensions of interest of service providers and stakeholders, and included:

- midwives, maternity care assistants/support workers, general practitioners, obstetricians and neonatologists
- local service managers, key MSLC and user-group representatives, supervisors of midwives, commissioners, managers and personnel involved with transfer services and risk management

The interviews were in most cases individual, but for certain staff groups (such as midwives working in a particular unit) it proved more appropriate to arrange discussion meetings with a group of staff. Where group discussions were used, these were in peer-groups to facilitate open and balanced discussion. The interviews used a semi-structured approach, as they sought open views as well as responses to more focused questions developed through the earlier phases of the programme, including literature

review and documentary analysis. The interview questions were also guided by the observations conducted by the researchers. However, these included in all services (as appropriate to interviewee):

- recent history of service configuration, including consultations, service reconfigurations or developments and reasons for these
- details of service configuration and organisation, including workforce arrangements, skill mix, models of care and escalation/transfer services and protocols
- any current plans for change or development and reasons for these
- perceptions of facilitators and barriers to choice of place of birth in different settings for low-risk women
- perceptions of facilitators and barriers for professionals working in different birth settings
- training provision and needs for staff working in different birth settings
- management and staff support and development arrangements
- perceptions of any local, contextual or organisational factors impacting on quality of care and staff or user satisfaction

Service users

Obtaining women's, and their partners', views and experiences is important to an understanding of the meanings of the choices available and taken, experiences of service provision, what works in practice and what they themselves define as important. The aim was to understand how women access different types of care setting for birth, and how this impacts on women's perceptions and experience of care in labour and delivery, with a particular focus on cases requiring escalation when complications occur. Specifically, how do units compare in providing women with the sense of autonomy, control, respect and privacy that research studies have suggested they value.^{50 51} Qualitative interviews were conducted with a range of women including those recruited from hard to reach community groups via local networks and facilitated by local link-workers where necessary. saturation. The sample was drawn to ensure maximum variation of participants⁵², for example, women planning to give birth at home, in AMUs and in FMUs and those from minority and socially disadvantaged groups. The number of interviews carried out was guided by the research question and by the need for data saturation.⁵³

Women's experiences and pathways through care were explored using individual semi-structured interviews with women and (where appropriate) their partners. Women were encouraged to 'tell the story' of their maternity experience. However, to ensure key study questions are addressed, an interview topic guide and prompts included the following:

- women's pathways through care, including choices offered and made and any change of plans or referrals
- their experience of maternity care, with particular focus on the birth setting
- experiences of birth complications and escalation of care²

Table 3. Summary of interviewees by site

Type of Site/ interviewee	Women	Partners	Managers/ Service providers	Stakeholders	Total
Seaview	23	3	18	4	48
City	15	2	22	3	42
Hillside	18	1	25	2	46
Shire	10	0	8	4	22
Total	66	6	73	13	158

As the tables above show, of a total of 158 interviewees 73 were with managers and service providers (midwives, support workers, medical staff and trainees, consultants). Thirteen were with stakeholders: PCT and Ambulance Trust representatives, commissioners, staff of outlying children's centres and community groups, and user group representatives. A total of 66 postnatal women and 6 partners were interviewed. Most interviews were individual, but four women were interviewed together with their partners on their own request, and some were carried out with pairs (e.g. postnatal woman and partner, two midwives, two managers), and a few with groups of three to four midwives. These were not focus groups but semi-structured group interviews.

² A linked doctoral study is focused on the type and quality of information women received about birth settings, and their information sources, and what influenced their decision making about place of birth. Findings from the data analysis will be shared to inform the overall conclusions.

2.3 Data analysis

All interviews (service users and providers or stakeholders) were audio-taped, with permission and transcribed in full. Three postnatal women did not wish to be recorded but agreed to notes being made during the interview and used in the study: these too were transcribed. Researchers digitally recorded their written fieldnotes and additional comments, and these 50 recordings were also transcribed. This enabled quotations from fieldnotes to be incorporated in the case study report.

A framework approach was used, where prior research questions are used to guide the focus of analysis, but the framework may be amended in the light of themes emerging from the data.⁴⁹ The analysis process involved cross-sectional analysis of data to identify codes and emergent themes, which were compared with our prior framework of questions and issues. The concept of saturation of themes emerging from the data guided the numbers of interviews and observations conducted in each site.

Qualitative data analysis software (NVivo version 8) was used to support systematic and rigorous organisation and analysis of the data. In a process lasting several weeks, we commenced deductively from the four main areas identified for the case studies, as set out below. These areas were established as Tree Nodes into which all relevant data could be coded. In a second stage of coding, each researcher started developing a) sub-themes of the four basic areas and b) additional Free Nodes on new topics that proved to be important, thus allowing for expansion of qualitative understanding of Birthplace issues. In a third stage, the multiplicity of nodes developed were consolidated in an enriched set of Tree Nodes that were then used by all to group and analyse study data along agreed lines. Data is presented in the report identified with site code and the ID number of the respondent. In a few quotes, the site code has been replaced with (X) where the possibility of identification may occur. The resulting thematic tree is included in Appendix 4. The study received NHS Research Ethics approval (09/H0803/143), and Research and Development approval. The study was adopted by the National Institute of Health Research Clinical Research Coordinated System for gaining NHS Permission, and the Clinical Research Network Portfolio (NIHR CSP Reference 36084).

The results of the cohort study were not available to the authors during the data collection and analysis or the drafting of this report, however some cross-references to the cohort study have been made in this report where appropriate. We have highlighted throughout the report, where quotes are illustrative of common themes and where they represent what is termed a 'deviant case'. Deviant case analysis allows refinement of the analysis until all available data can be incorporated.⁵⁴

3 Results

The results are presented in four main areas which address the key objectives of the study. These include case study features, choice of birthplace, information and access, delivery of safe and quality care, and women and families experience of complications, transfer and escalation of care.

3.1 Case study features

In this section, we describe organisational factors such as geography, demography, configuration, staffing, leadership, governance, commissioning and challenges to providing choice, good quality and safe care.

First, we provide a brief description of each of the case study sites, focusing on particular features of interest for the study in each. More detail is available in the Appendix 1 regarding: configuration, geography, demographics, staffing, governance, and formal arrangements for transfer or escalation of care when complications occur during labour and birth. Table 4 provides a summary of all four services. All services scored well on 2007 Health Care Commission (HCC) rating of quality, but varied in the level of deprivation in the area served and size. Thus, City (pseudonym, as are the three names of services that follow) has an AMU and is located in an inner-city location serving a socio-demographically mixed population. Seaview originally had only an OU, introduced an AMU during the study period, and serves an urban and suburban population. Hillside has split site OUs and one FMU, is located on two sites and covers a wide geographical socio-economically poor rural area. Shire has an OU, an AMU and 4 FMUs and serves a very wide geographical area.

Table 4. Case study sites key features

Service Site	Seaview 1	City 2	Hillside 3	Shire 4
Configuration 2011	OU 82% AMU 13% Home 5%	OU 80% AMU 18% Home 2%	2 OU 98% FMU 1% Home 1%	OU 75% AMU 10% 4 FMU 13% Home 2%
Number of births	4,000	6,500	3,000	5,000
Geography	Urban/ Suburban	Urban	Rural	Rural
Ethnicity % BME	10%	47%	2%	3%
Delivery rooms				
OU	6	9	10	11
AMU	4	8 LRDP*	LRDP+6	2
FMU	-	-	- 1	FMU 1:4 rooms FMU 2&3:1 room each plus one side room FMU 4:1 room
Midwives (whole time equivalent)	117 wte	211 wte	73 wte	174 wte
Births/wte midwife				
Dec 2010	34	32	44	30
Index of Multiple Deprivation 2007	17 Less deprived	33 Most deprived	21 Moderately deprived	PCT 1** 16 PCT 2 22 Less/moderately deprived
Healthcare Commission 2007	Best	Better	Best	Best

All figures are rounded to whole numbers

**Labour Delivery, Recovery and Postnatal rooms*

*** Score for the relevant Primary Care Trust*

Seaview is in a coastal urban setting. Services for almost 4,000 births were provided through an OU and latterly an AMU and community midwives working through GP surgeries. The Trust ranked as "Best Performing" in HCC 2007. The historical evolution of a community midwifery home birth service resulted in large variations in services, and an AMU had been opened in 2010 to increase choice. Despite concerns about the AMU affecting the high home birth rate, after less than a year the Trust reported that home births were increasing, reaching over 7% in January 2011. A fifth of all births were occurring in the AMU and there was a slight trend towards reduction in caesarean section rates, which remained above the national average. At the start of 2010, midwife recruitment was problematic with 23 vacancies. Pressures on space and human resources were forcing the OU to close on occasion. By the end of 2010 midwifery staff reported becoming used to the new arrangements for the community and almost all vacancies had been filled.

City was a large inner city Trust. Services for over 6,500 births were provided through an OU with 9 delivery beds, an AMU with 8 LDRP rooms, and community midwives working with a combination of models. City had a home birth rate of 2%. The Trust ranked as "Better Performing" in HCC 2007. Midwifery managers promoted choice and normal birth across the system, but caesarean birth rates remained high. High levels of acuity (complexity of casemix)⁵⁵ reduced time for one-to-one and woman-centred care. Maternity staff pursued excellence in terms of formal assessment, however HCC user surveys expressed dissatisfaction regarding everyday modes of care and communication. There was relatively high turnover of personnel due to stress, mobility/migration, and high living costs.

Hillside's good performance in the 2007 HCC assessment was all the more impressive, considering the significant challenges it faced because of its rural location, split site and the particular geography and socio-economic characteristics of the local area. The Trust supported two small obstetric units providing 3,000 births that were perceived to be relatively costly to run. Efforts in the past to centralise the service in one obstetric unit in order to save money and improve staffing levels had been met with protests both from staff and the local communities. The distance between the two sites, the poor standard of the road connecting them and lack of reliable public transport in the area had meant that concerns of access and safety were at the forefront of the campaign. Similarly, providing options for place of birth were challenged by the geography of the area, with potentially long travel distances for women to reach an FMU or OU, and potentially long travel times for

community midwives attending home births, as well as high transfer distances. Local challenges were also reflected in a rate of 'BBA' (Born Before Arrival) unattended births outside hospital for women who had planned hospital births that almost equalled the planned home birth rate.

Shire Trust was formed from the merger of two trusts in 2003 and provided acute services for approximately 500,000 people, carrying out approximately 5,000 births per annum across five sites. The freestanding and alongside midwife-led units had been in operation for many decades, had been General Practitioner (GP) Units, and were well integrated into the service. The service achieved intervention rates considerably lower than national averages. Shire Trust's main challenge was maintaining its midwife-led services in the face of financial pressure from the Trust. Ironically, the financial pressure came about in part because the Primary Care Trust's payment for the small numbers of births in the FMUs did not cover the rent of the FMU buildings paid to the PCT itself. Like Hillside, the Trust also had difficulty providing adequate transport for women, and in particular babies, across the large region it served.

To summarise, these four case study services each represented different configurations of services but together they represent the diverse experiences of many other Trusts across England. Seaview had reconfigured community midwifery services and developed an AMU with little additional resource. City managed their OU and AMU under staffing and space pressure, magnified by the demands of caring for a diverse and clinically demanding population. Whilst much attention has been focused on the difficulties facing urban inner-city maternity services, the research carried out at Service Three (Hillside) and also at Service Four (Shire), made it clear that it is not only city Trusts that have complex organisational needs.

Hillside had in-hospital bed space but struggled to keep their FMU running as its birth rate fell, a trend accelerated by withdrawal of overnight staffing and hence postnatal facilities in response to financial pressures. It faced the complexity of providing community based services across a large area populated by small, isolated communities, with considerable areas of deprivation. Shire Trust, whilst providing women with its hub and spoke system of OU, AMU and multiple FMUs, struggled to continue to provide women choice of place of birth in the face of financial pressures to close midwife-led out of hospital services.

These services together represent different social, geographical, and organisational configurations and cultures, and like all Trusts in England they faced significant challenges to providing an equitable, safe and

high quality service for women, wherever they chose to birth. Those challenges were in many cases individual to each Trust, in the light of their very different circumstances.

3.2 Choice of birthplace, information and access

In this section, we explore professionals' and women's responses to provision of choice in birth setting, focusing particularly on how provision and providers influence women's choices. We then discuss inequalities in choice and access, what women say they need to make informed decisions about place of birth and how this is informed by women's understandings of safe and high quality care.

3.2.1 How provision influences women's choices

The four case study services demonstrated some good practices in offering choice of birth setting, but they also illustrated the unevenness of provision of choice nationally, and the degree to which it is contingent on geographical, organisational and social factors. Social and cultural factors here do not only refer to the women's and their partners' knowledge and expectations, but also to the impact of professional assumptions and ways of providing information on what choice is offered, and how it is offered.

Configuration of services

The differing configurations of the four case study services aptly illustrate the potential impact of organisation and configuration on the practicalities of choice. Only one site (Shire) offered a full range of birth setting options to women and even here, this was constrained from women's viewpoint by geographical issues of travel time.⁵⁶ While this reflected our own study selection criteria, it echoes the results of the Birthplace Mapping Study, which found that only 14% of Trusts offered OU/AMU and FMU, while the majority (45%) continued to offer only OU or home birth, although this figure has declined since 2007 when it was 66%. Debates about choice and safety were mentioned by interviewees across all four Trusts studied, and it reflects a wider shift in views regarding national maternity services and how they compete with other commissioning priorities. For example, one City commissioner observed that debates around place of birth and home birth had a higher priority in the media than in previous years. However, he anticipated that competing priorities for commissioners were likely to direct their attention away from maternity in the next few years:

*I think that's been, you know, very much a strategic aim
commissioning maternity services over the last three years, to improve*

things like the home birth rate and choice of location of birth, but I think that from a commissioning perspective they'll... commissioners probably won't have the time to support that work in future. [S2-IV-31-Stakeholder]

City was at the cutting edge of adjustment to funding cuts, demographic pressure, and growing complexity of maternity cases. Delivery of choice was being re-evaluated with reference to resource constraints. Home birth and home visits were construed by some managers as no longer viable in terms of finance and equity, and as with FMUs, out-of-hospital birth was widely perceived by commissioners and professionals in different sites to be an unaffordable burden on Trusts:

Having a home delivery is shockingly expensive. ... I don't think we can afford it. (...) ... it's just too expensive in manpower terms, isn't it? [S2-IV-19-Manager]

We have, what we believe is a good model of care, which supplies locality based, locality based obstetric practice, so patients are seen and can be delivered close to their homes supported by a central hub. But that style of practice has some major economic disadvantages. So one of the main issues is about maintaining the style of practice in an economic environment that's challenged [S4-IV-.45-Obstetrician].

I do think it is, you know. I don't think we've ever fully been able to offer it, we try. Um, on the community we manage to do our home births but if for instance there were two home births at the same time, one woman wouldn't get the choice. [S2-IV36-Midwife]

Seaview had the highest home birth rates at 5%, but this appeared to be largely contingent on the professional preferences and self-organisation of a small number of community midwives. Some midwives worked in pairs to provide 24-hour cover and continuity for women planning home births. This service was said by a range of providers, users and stakeholders to have attended a great proportion of the Trust's home births, providing "five star" 24-7 care to women living in affluent suburban areas and doing so in what was felt to be an unsustainable fashion. Seaview midwifery managers expressed concern about this uneven provision and inequality of access, and viewed an AMU as a compromise solution to the challenge of ensuring equity:

We have had the luxury of two midwives that worked in a totally different way from all the other midwives. They actually carried a much smaller caseload and they did 24-7 cover. They're probably the two that are struggling with the changes the most, because they see everything we're doing at a cost to the care they're giving to the women. Their women will not get maybe such intense care, but it's at ... from my point of view, it's at the improvement of some of the other girls who have got huge caseloads, actually being able now to give their ladies more time, because they're not going to be as stretched as they are [S1-IV-7-Manager].

The process of setting up the AMU in Seaview also demonstrated how organisational change may create tensions. Community midwives did not want to give up their flexible on-call arrangements to do night shifts in the new AMU. They resented having less community contact time on days resting after AMU night shifts, and felt that the change would limit women's choice and access to continuity of carer. We spoke to one woman and were told of three others who had been unable to have home births as planned. They were told when in labour to come into the hospital because there was no midwife available to go out and see them:

But now it's - obviously they're based in the hospital, there's going to be... That day there was ... the woman from Middlesea that ended up going in, and there was another lady that had to go in, she had nobody come out to her, she had to go in by ambulance in the end to hospital because there was no one to go out to her. So that's three home births that night that were spoiled. So, you know... [Postnatal woman S1-IV-13-HP]

In one exception to this trend, another woman we interviewed was told the same, but she refused to go in to hospital and gave birth at home:

... They said, 'Oh, there's no midwife, you're going to have to come in.' And [husband] said, 'No, [X]'s said she's having a home birth, we've been told by our midwife we are entitled to a home birth, you need to send somebody out.' Um... and er... she said, 'Oh well, call us back in half an hour, or...' you know. (...) ... when [husband] then phoned again, they said, 'We haven't got anybody.' He's like, 'No. You're sending somebody out.' Um... I'm trying to think what time they then said that they were sending someone - she was just getting her kit together and packing up some stuff. [S1-IV-13-Postnatal woman]

Despite fears expressed by Seaview midwives about the potentially negative impact of the AMU on home birth provision, by January 2011, the home birth rate was 2% higher than in the same month of the previous year.

In Shire Trust, staff perceived that they had a high home birth rate, but it was in fact close to the national average at about 2%. This perception was possibly linked to their high rates of out-of-hospital birth overall, attributed to the provision of free standing midwife units. These units were long established, and despite a feeling of continual financial threat, it was clear that commissioners and managers saw this model of provision as effective and were committed to it. The number and length of establishment of these FMUs and the AMU meant that midwife-led care with choice of locations for birth was normalised within this service.

In contrast, at Hillside, the single FMU had been directly affected by funding pressures. A shift away from 24 hour staffing to save money had meant the withdrawal of postnatal overnight stays and a

consequent reduction in numbers of women choosing the unit. The midwives attributed that fall to local (and national) cultural expectations about postnatal care that meant women were choosing to travel either to Central OU or another FMU 40 minutes drive away in a different Trust that provided an overnight stay.

Culturally these girls' mothers are used to four or five days in hospital, and thought we were absolutely wonderful and it was like a hotel and they loved it and they very much felt cherished and that was the service [Midwife S3-IV-21]

At an MSLC meeting at Hillside's FMU, women explained that many believed the unit was closed completely at night and also cited midwives' use of the language of 'risk' as reasons local women were not choosing to birth in the Unit: 'They tell you all the things that could go wrong' [Postnatal woman, S3-Fieldnotes-12].

In 2010, the future of the FMU continued to be under review, however the midwives working there had become somewhat inured to the threat of closure following many years of periodic threats and reprieve, which they attributed to public pressure to keep it open, despite the fall in birth rate. This suggested that the opportunity for choice of place of birth was very important to local women, whether or not they exercised that choice. It also highlighted that provision of midwife-units may be about care close to home from the women's viewpoint, as the more homely environment and facilities of such units were preferred for postnatal and antenatal care too. The FMUs at Shire were used to hold obstetric clinics closer to women's homes and women were encouraged to transfer to the FMU for postnatal care, even if they had birthed in the obstetric unit. It is possible, however, that their role as a community base for antenatal care and their provision of postnatal care did not have a high profile and did not therefore contribute to their viability.

It is important to note the qualification of patient experience and choice of birthplace as potentially "more fluffy" considerations, from a commissioning perspective:

I think it's kind of an unprecedented period of change for NHS commissioning, perhaps not so much for NHS providers. Um, and in [urban Trust] particularly we've been asked to accelerate the management cost savings (...) so we're anticipating 50%, um, workforce reductions within the next six months. So within that context you can see that, you know, people's eyes will really focus on the absolute must-dos, and achieving kind of key performance with financial balance over the next six months. And some of what might be considered the more fluffy things like, you know, patient experience and supporting choice of location of birth, will probably not be heard strongly over that transitional period. [Stakeholder S2-IV-31-S]

This theme re-emerged at various points during our study: a perceived disjuncture between hard (indispensable) matters of finance and risk and safety, and soft (more dispensable) issues of choice and women's experience. However, reports on services where serious incidents occurred have shown that conceptualizing safety and patient experience as separate is misleading. *Not* paying attention to patient experience has been found to be a safety hazard in its own right.^{57 58}

Organisational culture and ethos

Shire Trust offered the widest choice of place of birth to women. This material provision of choice was also accompanied by an ethos in which choice of place of birth, or the practical possibility of an out-of-hospital or midwife-unit birth was embedded and consistently supported, so that it was normalised rather than regarded as an unusual or risky choice. Even those senior clinicians who expressed reservations about birth outside hospital, on safety grounds, appeared firm in their support for choice of birth setting:

It's a quality service. I think when you run clinics in the peripheral hospitals and you realise how much quality they provide, quality service they provide, and, you know, for the women it's just a ... you know, it's just a lovely environment to give birth
[S4-IV-28-Obstetrician]

It means we can offer women more choice. The local geography makes it difficult for people to get to the OU out of hours so the local units are crucial. [S4-IV-4-Obstetrician]

We've got an Obstetrician that goes out to [FMU], so he provides a consultant clinic at [FMU], so it's basically taking a consultant unit, if you like, to the community, to where the patients live, rather than them having to travel all the way in [S4-IV-47- Midwife Manager]

Obstetricians in the Trust were vocal in their support for the existence of the freestanding midwife-led units. Midwives were comfortable allowing obstetric clinics in the FMUs, something that they may have been more wary about if they had felt the units were under threat from medical colleagues.

Geographical factors

In Hillside, whilst women in the region had the formal choice of birthing in an obstetric unit, a freestanding unit or at home, the physical distances between the sites meant that women in the area did not functionally have a choice of place of birth. In some cases women were not aware they had a choice at all:

I didn't know there were options, I didn't realise that you could pick where you wanted to have your baby. [S3-IV-16-Postnatal woman]

Almost all of the women interviewed chose their local unit because it was close to home, and would not have considered travelling to another unit to use its facilities (for example, the opportunity to use a birthing pool) because they did not want to make the long journey in labour:

I knew that once I had my baby, I just wanted to go straight home, and [town] was obviously home. So that was another reason for picking [Central OU] over another...I just didn't want the hour's journey. For visitors as well, in case I was kept in. So I just wanted to be at home. [S3-IV-16-Postnatal woman]

[The FMU is] just a bit far...I don't think I'd have handled an hour's journey, [laughs] I'd be on the roof! And as well I've got all, like my mum lives round the corner so as soon as I had the baby she come in. So it made it better. [S3-IV-11-Postnatal woman 1]

I just wanted to be able to have all the options there that I needed and then if there was any sort of complication I was just in the right place. So it was just a no-brainer to me [S3-IV-11-Postnatal woman 2]

In other cases, choices were restricted by a lack of equipment or services. One woman with severe Symphysis Pubis Dysfunction was booked for an elective caesarean section because the Trust could not guarantee her the necessary opportunity to labour and birth in water to aid her mobility. On the other hand, some women in Hillside did choose to go against the norm of choosing hospital birth for a number of reasons. For example, these two women cited the influence of relatives' choices and the benefit of a birth that could be integrated into family life:

Woman: My sister had hers in London.

Partner: Home births.

Woman: Three of her four at home. And she loved it, she's a huge advocate of it, and sort of listening to her experience and my sort of need of control I thought home birth would be a really good idea. [S3-IV-32-Postnatal woman]

She was actually a planned home birth. Because I turned round and said I wanted her at home, and she's due round about Christmas onwards, I want to be at home with the other kids, I wasn't missing Christmas with the other kids. I know they'd have a nice present, a little sister (...)

INT: And the different people you saw, were they OK about that or did anybody give you problems about it?

Nobody cared. [S3-IV-31-Postnatal woman]

The women birthing in Shire were unusual in having access to an OU, an AMU, FMUs and homebirth. However, their choice of place of birth was still hampered, as in Hillside Trust, by the distance between the units and a desire to birth as close to home as possible. This woman explained her decision to plan her birth in the AMU:

Well I don't want to have a home birth. And, um, originally because our doctor's was [in a town with an FMU] we were [booked in that FMU], which I've heard is ... a really, really lovely unit, but because our family are in [another town] and we actually live now in [the town with the OU] it just seemed ridiculous that even though we've heard it's a lovely unit to go all the way over there. Um, and then [the other FMU] doesn't have the birthing pool ... facility. And I suppose if anything goes wrong, in [the AMU] you can be transferred quite easily [S4-IV-49-Woman].

Demographic Factors

"The demographic" was a term used by managers and staff in all Trusts studied to signal a combination of social, cultural and clinical features that have undergone rapid change, locally and nationally in recent years. It was used to explain intervention rates and outcomes and included the following: increased population and pressure on services, higher birth rate, stretched resources, ethnic diversification, cultural and linguistic difference, urban poverty, social problems, growing complexity of maternity cases, and increased need for medical intervention and equipment.

In City some staff viewed the clientele as challenging in terms of level of risk and the choices that women made (seeking interventions as well as wishing to avoid them), but argued that medical complexity was the real challenge faced by the Trust. This position was represented by this doctor:

It's not just the demographic, if it was just the demographic that would be easy. (...) It's the medical and obstetric complexity (...) and having worked at [other inner-city site] as a registrar and here as a registrar, I thought [other inner-city site] was going to be really bad (...), this is far worse. (...) And I've worked in a number of units (...), this is the most complex place I've ever worked in my life. [S2-IV-2-Medical]

At Shire Trust, in contrast, obstetricians saw the characteristics of the population itself – being rural – as contributing to the high out-of-hospital and normal birth rates. One obstetrician, for example, described the local women as being resilient and having more knowledge and experience of natural processes than women elsewhere.

Um, I think there ... our population here, I've worked in inner London, I've worked in a rural population, and a lot of our population are fairly, er, conversant with the concept of reproduction. Um, and so they will have knowledge of the process of birth, um, which they'll have seen in animals not necessarily in humans, and so they'll have a completely different approach to childbirth. Um, whereas you often find with an inner-city group of individuals who have no knowledge of reproduction that the events around childbirth are very new, very frightening, very uncertain, and so ... in themselves they have major issues about sort

of accepting what's happening to them, and often medicine offers a resolution. So if, er ... so we have a low Caesarean section rate, and I think part of our low Caesarean section rate is because our patients want it to be low because it's a natural process. [Obstetric consultant S4-IV-45-ME]

3.2.2 Inequalities in choice and access

In all four Trusts, examples were provided of inequitable provision of access around the range of birthplace choices said to be available in a particular location. This sometimes mirrored postcode differences, as well as the ability of certain groups of women to negotiate the system. In City, for example, a commissioner said:

... we have to look at what we can offer to every woman and be equitable. Because otherwise it is a postcode lottery, it's women who live in that particular area, or are clever enough to get themselves in there. [S2-IV-34-Stakeholder]

In Seaview, a small number of community midwives operated an informal caseload midwifery approach, but this was concentrated in more affluent areas, which indicated inequity of access to local services:

... the whole area is very mixed. You've got kind of [outlying urban area] which there are some very affluent places, very nice roads. And then you've got kind of a road next to it that's really not great, bedsit land, maybe... council properties, that sort of thing. And then you've got the other side which is [suburban area], which is extremely affluent and kind of City people... [S1-1V-33-Stakeholder]

... and other people do things differently (...) ... the information wasn't given to them, like, um, at no point did one of my friends who lives in [urban zone], at no point was she even offered a home birth. [S1-1V-22-Postnatal woman who had home birth]

At City Trust, whether women received full information about choice of birth setting, or were able to enter a caseloading practice with one-to-one care, depended to some extent on "luck" – being in a relevant area – but also on their knowledge of how to play the system. Although this Trust had caseload practices that were specifically set up to provide care in the more deprived neighbourhoods the Trust served, midwives felt that some women were quicker to gain access to this popular form of care:

... at the moment it's luck of the draw, mostly, who comes to which team. Some people who have lots of friends in the area who've got children know about [name of team], and they will actually say, 'You want to make sure that you get with [that team]. Tell your doctor when you go to see your GP.'

So they... so they'll actually - their referral will actually come through with a note from their GP saying, er, 'Wants care with X Team.'

INT – Right. Who is informed enough to do that?

Hm! [Laughs] Well, um... it's going to be the, um... the articulate middle classes, the NCT lot, um, definitely. Ones that... that are pretty quick off the mark in requesting, er... We take the first three or four referrals for that month per midwife, so we will... It's a... probably not a great system in a way, because caseloading care's particularly good for people with problems and with extra needs - but the first, the people who tend to book early are not necessarily these people.
[Midwife S2-IV-35-MI]

This inequality was also found by a patient involvement facilitator working for the PCT covering City who consulted groups of parents about their perceptions of local differences in access:

We found lots of women didn't know the difference between group midwife practices, hospital midwives, who you went to if you wanted a home birth or, you know, it was quite random, how women had found out. (...) There were an awful lot of women, um... unhappy with (...) the inequities of what treatment women get. There is no doubt that there are certain women who know all about which group practices will visit you at home and... basically give an altogether different service from the women who have to wait for hours in [Site X]. ... one woman would say, 'Oh I had a [Site Y] midwife, she was great,' and they'd go, 'Who are the [Site Y] midwives? I thought, you know, are they attached to the hospitals?' 'Oh no, it's attached to my GP practice, that's where they're based.' So suddenly those sort of inequities, where another woman in the group would say, 'Well my GP practice doesn't even have a dedicated midwife, I have to go to a GP practice the other side of [Site Z] just to see a midwife, and you had somebody... that came to visit you at home!' So I think there was, um... there were definitely inequities on that. [Stakeholder-S2-IV-31-S]

A maternity commissioner at City visited parent groups to hear about inequality issues first-hand. As a result of this linkage, one phone number was established for all women to call for information about availability and access to a range of maternity services:

... this phone number that is given to all women that will explain their options, you know, as in which hospital they can give birth in, the options if they want to choose home birth, where they can book in with a midwife, you know, and what some of the differences might be.
[Stakeholder-S2-IV-31-S]

Organisational response

At both Hillside and City, multidisciplinary teams supported women who required special types of care. Vulnerability could be associated, for

example, with young age of the mother, domestic violence, substance abuse, mental health problems, or homelessness. Safeguarding took account of complexity with interwoven social and medical conditions. Regular meetings between specialist midwives and local Health Visitors at Hillside ensured that women received extra support and were not lost in the system. Individual community midwives had good relationships with local Health Visitors and Barnardo's, Connexions and local Children's Centres were all involved in intervention services for women in need.

At City, a special team providing continuity of care for young mothers operated from the clinic of a voluntary organisation. For some teenage mothers, this system worked well, as this woman explained:

I think if anything I got more support because I was [a] young mum than other mothers would have. I think at [City] they do understand that when you are younger that sometimes things can hit you a little harder because like you are still growing emotionally. So, yeah, but, I had the same midwife all the way through my pregnancy. I had like constant support and help. [S2-IV-28-Postnatal woman]

However, teenage mothers were particularly susceptible to a lack of information to make decisions about place of birth and other options within the maternity system. This was not offered evenly across the board, and it seemed that for some, "luck" determined whether they received the necessary support:

I... I wasn't given any, I wasn't made aware of my options and choices until my aunt said to me, 'you don't... you can refuse any medical intervention.' I wouldn't have known that if she hadn't have told me. [S2-IV-23-Postnatal woman]

Teenagers were not the only group of women who were apparently more likely to experience marginalisation within services. A recent influx of migrant women to the Shire and Hillside areas presented the two Trusts with the challenge of providing specialised care for them without a supportive infrastructure. Staff at Shire and Hillside Trust had relatively little experience of working with migrant women who did not speak much English or who had different cultural expectations of pregnancy and birth. Interpreters were often not available and some midwives described non-English speaking women regularly missing appointments, which suggest difficulties engaging them in their maternity care. A Shire midwife manager explained their difficulty accessing interpreters:

Sometimes we rely on a doctor that we know speaks Polish, that happens to work in such and such a department, but then you know, it's expensive paying them to come for an hour. But our guidelines say that we can't have families, rightly so because of domestic violence

and, you know, we shouldn't. Sometimes they used to bring their children in, do you remember, years ago, the Asian people and the child would interpret, but you can't do that, obviously. So, um ... I think we definitely need an interpreter [S4-IV-46-Manager].

Similarly, at Hillside there was evidence that some midwives were unused to working with women who did not speak English. Two hospital clinic midwives described their experiences of caring for such women:

They [the midwives] say it's difficult [working with women who don't speak English] because you're talking to them but you don't know if they understand. You're not necessarily getting informed consent. Working with women who don't speak English takes a lot of time [S3-IV-30-Midwives].

Examples of good practice, such as antenatal classes targeted at Polish women in Hillside, were implemented by individual community midwives rather than being embedded throughout the service.

In City Trust however, staff were used to communicating with women and their families from a variety of backgrounds and nationalities. Women from other countries who birthed at City, reported excellent relationships, particularly with their community midwives:

Woman: Oh, how lovely midwife [name]! My God! This is, this is the best. I love her, really. Best of the best! Like friend.

Partner: Yeah.

Woman: All the best!

Partner: Yeah exactly. I mean, she... she's really lovely, very kind...

Woman: Very open.

Partner: Yeah, very open. [S2-IV-Postnatal woman and Partner].

[The midwife]...was really good, she helped me a lot. If I needed her I used to call and text her [S2-IV-Postnatal woman].

Language services were used on some occasions, although many women were said to prefer interpreting done by partners or family members (a practice which was officially discouraged for reasons of clarity and confidentiality).

Nonetheless, across the study sites there was evidence of inequalities in choice and access influenced by a combination of women's access to networks of information, their expectations and confidence to seek out or ask for choices. This woman's comment illustrates this experience:

INT: When did the issue come up of where you were going to give birth? From what moment in the pregnancy did you start thinking and talking about that?

Woman: Quite late. Um... it never, it was never really brought up. I think, um... someone asked me... um... it was never, my options were never discussed. I was asked what I wanted to do, and um... my opinion was, um... I needed, really needed as much support as possible and, um, wanted to be around the professionals, so I thought, you know, the best option would be to have the baby in hospital. [S1-1V-35-Postnatal woman]

In some cases, professionals tailored information in response to their assumptions about the decisions women would make and this compounded women's relative lack of information. The following two examples from City and Hillside Trusts illustrate cases where such information was and was not delivered in a proactive and positive way by different professionals:

... so not only did we have the same midwives throughout, every visit we went to I either saw [X midwife] or [Y midwife], so you built up a relationship with them. They were also at our antenatal classes, giving out all the relevant information we needed for our birth. And um... gave us the choice, you know, wherever possible, as to where we would like to have our children. So, um... I have to say at the beginning I never, ever thought of having a home birth, it wasn't even on my... it wasn't even on my radar, in fact I think one of my friends had had one a few years before and I thought she was barking, absolutely barking mad. But I didn't have all the information, in terms of, um, you know that people could have home births and that, you know, if everything was straightforward in your pregnancy then there's no reason why you can't, basically, which was, um... which was a message which we were given. (...) I think we were very, very lucky because we had... [X] and [Y] are exceptional midwives and the information they give for people to make a choice, because it doesn't always go how it should go, but, you know, if you've got your information then a woman can make a choice accordingly, really. [Postnatal woman S1-1V-22-W]

[The midwives were saying]: 'But, bear in mind if you do get into difficulties you've got that half an hour journey in the ambulance, you'd be uncomfortable and ... you won't get as much pain relief.' And yet I knew the facts, you know, I'd read myself on the internet that you don't get the same pain relief at hospital, but it was very much sort of pushed at me, you know, 'You won't get the same pain relief ...' [at home]. (...) They sort of painted the picture that it would be a hell of a lot harder for everyone concerned to have it at home, some of them ... not all of them, you know, the ... but some of them were quite ... sort of ... erring on the side, well warning me, it felt like I was being warned about having her at home. [Postnatal woman S3-IV-32-W]

In seeking routes through the maternity system, women drew upon social, cultural and professional sources of transformative agency.⁵⁹ Groups in community settings such as children's centres enabled women to learn of possibilities for choice. Women heard about each other's

experiences and realised that some were being privileged and others excluded. For example, one woman living in a low-income area heard about the option of a home birth at an antenatal group meeting quite late in her pregnancy. Only then did she realise that her midwife had presumed she would be giving birth in hospital and had not suggested other options:

... I think she probably assumed that it would be hospital so they just circled that bit on the front of the, um, the notes, and that was about it. Until we started talking about it at the antenatal classes, and then I brought it up at one of the meetings with the, the midwife. But that was quite late on. (...) Um, I just said that I'd been considering a home birth, um... and they were really positive about that, they thought that was a really good idea, which I was quite surprised, I thought it would be more sort of... oh we prefer hospital... (...) It was literally from the antenatal class when we talked about it, and um... one of the girls in the antenatal group had had a home birth... [S1-IV-42-Postnatal woman]

Making informed decisions was more viable for women accustomed to using the internet and other channels to keep up to date with research and guidelines relevant to their care. Seaview staff often found themselves dealing with women who had done their homework and were able to challenge their recommendations, such as this woman:

... it did help I think that I'd written all the research all over my maternity notes, so it was very clear that I knew what we were talking about, that I hadn't just sort of thought, oh it would be nice to have it at home. I'd actually looked at the research of doing a - you know, what a VBAC delivery was and what the risks were. [S1-IV-31-Postnatal woman]

At Hillside, continuity of community midwifery care helped women to make choices about their care. Some midwives provided all the community midwifery service in one small area and this helped to facilitate women's engagement with the local maternity services. Whilst women from more deprived areas of the Hillside region did not readily access GP services, it was accepted behaviour within communities to contact the midwife when first pregnant and a local maternity commissioner explained that early uptake of maternity services was high:

Within the county they have a very stable workforce; some of the community midwives have been known for generations of families. This is the same across other staff groups too. This continuity creates stability and whilst some of the more complex families, particularly in [some parts] of the county, might not be good at accessing healthcare such as GPs, they will virtually always book to see the midwife [S3-IV-3-Commissioner].

Proposals to reconfigure the service made those midwives worried about the implications for the loss in continuity, particularly in urban areas where women's engagement with the service depended on them

knowing local midwives and support workers. The midwives felt that continuity of carer not only improved the quality of care but also their capacity to detect clinical abnormality in individual women and any changes in their social circumstances:

The woman, if she's got a problem, and because she knows you quite well (...). It could be a worry or a concern, it's like...or a relationship problem, she's going to tell you much more about it. She's not going to tell you, she's not going to tell just someone who she's just met that day [S3-IV-7-Community Midwife]

Women also expressed concern about the effects of a loss of continuity:

Yeah it's quite, we were quite happy with the GP there and, er... really nice woman and... The midwife was a little bit annoying because we always had someone else, so it was... always somebody else, and er... it was just more for the check-up thing (...) Every time I had a different one which was not really... but I wasn't really bothered with it because I didn't really have... prob-, problems during the pregnancy, it was just... so that was OK. So. [Postnatal woman S2-IV-20-W]

I mean one, one thing that struck us both I think was that there didn't seem to be... a senior nurse or a matron or someone in that position who... had full oversight of [his wife] and [baby]. Um... and... it would just have been helpful to have a single point of continuity, um... someone to provide a bit of perspective so that when you're seen by a separate doctor they're not starting again... from the beginning. Yeah. [Partner S2-IV-24-P]

... I've only had one appointment with [midwife], who's lovely, she's ... I'm really, really pleased we've ended up with her. Um ... but yeah, just like, well I've seen someone different every time, so ...

INT – What are the implications for you for seeing someone different all the time?

I think it's just the feeling of continuity and sort of knowing that ... because it's my first I think you're just a bit panicky that ... not that people don't know what they're doing, of course they do, but ... that somebody who's seen you before and ... just silly stresses that you just feel like you have to go over and over and over again.[Postnatal woman S4-IV-49-W]

To summarise, in all four Trusts, examples were identified of inequitable provision, either through aspects of structural provision such as the location of units or the coverage of community midwifery, or through professional preferences or assumptions made about women. In all sites, staff and stakeholders recognized that inequalities existed due to a range of factors including organisational, provider influence and women's agency. Each site had attempted to address this issue either through community service re-organisation, a telephone helpline or special services for particular language groups or needs.

3.2.3 How providers influence women's choices

Choice was shaped not only by organisational constraints and women's experiences and sense of safety, as described above, but also by provider attitudes and ways of giving information. At times these reflected professionals' own perceptions about safety of different birth settings, as well as their preconceptions about appropriate candidates for out-of-hospital birth.

Home birth

Whilst all the Trusts studied offered homebirth, our observations and interviews suggested that only a few community midwives *proactively* informed women about homebirths as an option:

I mean, we do have quite a high home birth rate here in this area. A lot of that was down to our - well, is down to our two midwives who provide that sort of 24-7 (care), although all the community midwives do offer home births in the area. [S1-IV-7-Manager]

Many of the community midwives attended very few births, although some split their time between the community and the hospital. In Hillside, for example, one community midwife said that in the previous year she had attended only four homebirths, which was higher than the usual two:

I asked [midwife] how many births she does per year on average. She said last year she did four, which was about average across the team: she doesn't do more just because she's particularly interested in homebirths. Four is quite a high number and sometimes they only do two. [S3-IV-5-Community midwife]

Other midwives described difficulties with on-call systems, travel and demands of high caseloads:

... since this reorganisation's taken place I do work full-time, but I've done the same area for eight years before that and I've seen a lot of people a lot of times, and I find now I'm doing a totally different area with a lot different client group and different needs really, and I've been doing it for five months now and I'm only starting to be able to put some names to faces now. So I'm having to check, it's harder work for me, I'm having to check information all the time, I can't just tell you off the top of my head whereas I used to be, and I find that incredibly frustrating. (...) But fundamentally I think it's very difficult to give women good care when you have different people (...). I mean I've always felt that. [Midwife S3-IV-7-MI]

Sometimes I would have to travel [...] an hour and a half to get to a delivery if the woman called. So what we tend to do is whoever lives the closest geographically will go to the woman first, and then send for the second midwife. But yes, and if it's an area where you're both sort of out we tend to travel together, because some areas are really

remote. But then once you're there, is it worth coming back? So if it's such as [remote town] and we go down we've got arrangements we can stay in the hospital at [remote town], if the woman's not in that much labour or, you know, but she's not ... we don't feel safe to go all the way back an hour and a half and then an hour and a half back that way. And sometimes mobile signals are a bit of a problem in areas. [Midwife S3-IV-15-HP]

In Hillside the on-call requirements for homebirth were reported to be onerous, and one midwife explained that she thought midwives dissuaded women from booking homebirth because of the increased workload they brought. One woman interviewed, who planned a homebirth, received mixed messages about the benefits of homebirth from the midwives she saw for antenatal appointments. Her experience supported the idea that women's choice of place of birth was influenced by the preferences, experience, workload and attitude of individual healthcare professionals:

... it would depend which midwife I saw. Some of them would wheel off all the hazards of having a home birth, you're so far away, and some of them sort of painted a more gloomy picture, and I think if I hadn't have been so adamant in my own mind that I was having it at home, I probably would have let that influence me more.

I mean I did still try and go ahead with it, but ... yeah, it ... I mean, again, the main midwife that I should have seen, she was great. None of that from her, she was all very factual, you know, 'Have you thought about the distance?' But she'd back it up with that it was positive, you know, 'But you are in your own home, you'd be comfortable.' You know, um ... you know, there was never just the whole list of negatives thrown at me from her, (...) I felt much happier after seeing her than some of the other midwives. Her attitude was very much, why not have it at home, you know, encouraging... (...) ...and unfortunately she wasn't [there for the birth!] [Laughs] Because you don't, you don't get your pick, which is ... you know, you don't get to stick to one midwife. [Postnatal woman S3-IV-32-W]

Staff attitudes did not seem to stem from a moral objection to homebirth or, necessarily, worries about safety, but were rather a consequence of a lack of confidence or lack of organisational support for homebirth in some instances. The community midwives in Hillside, for example, reported that the traditional on-call system whereby community midwives worked for a day and were then on-call the following night, left them exhausted. This had the potential to negatively affect both the safety (over-tired staff) and the quality (restrictions of choice, unavailability of homebirth) of the service. In contrast, in Shire Trust, which had a high out-of-hospital birth rate, in order to maintain their skills, all midwives worked a rotation between

the obstetric unit, the midwifery units and the community midwifery teams:

What they do with our midwives, it's ... the community midwives are seen across the piece, across the whole lot, so they'll rotate, and they'll rotate between [the OU], [the larger FMU], and the [other] units, and they have this constant rotation [S4-IV-43-Commissioner].

We don't make people come in, do we? Certain people seem to think – and I find that it's the people that have delivered elsewhere in other counties that we seem to have the most problem with subsequent pregnancies, I don't know whether you'd agree – but they seem to have it in their head that we're not allowing them to deliver at home. But you can't do that, you know, it's their choice, and all you've got to do is give them their options and give them, you know, (...) the information as much as you can, but at the end of the day it's up to them if they chose to come in or not, but they'll say, 'The midwife says I wasn't allowed,' or, you know, whatever. [Manager S4-IV-46-MA]

Midwife-led units

AMUs were perceived by service providers to be a compromise option that would provide more equality of choice of birth environment, by being available to larger numbers of women. In all three sites offering AMU birth, women arriving in labour were admitted by default to the AMU rather than having to make an active choice to go there. This meant that the AMUs, unlike FMUs were operated as an 'opt-out' system so the women interviewed who had birthed in the AMU had not chosen it for reasons of clinical or personal preference. This woman's story was representative of this situation:

The midwife said, looking at my notes she said there's nothing about me that would make her think that I'd be high risk, so she booked me onto the midwife led unit, and she said obviously have a think about it, if I do want to be on the consultant unit or have her at home or anything like that then we'll talk about that as the pregnancy went on. But she booked me onto the midwife-led unit just as a matter of course I think. [S4-IV-51-Postnatal woman]

Despite an apparently routine pathway routing low-risk women to the AMU at Shire, and senior clinicians' support for the Midwife-led Units at an organisational level, some obstetricians were wary of suggesting that women they saw give birth there:

If the woman doesn't enquire about the midwife-led units, [the obstetrician] says she would default to suggesting that the woman deliver in the OU. Why? I asked. She said it might have something to do with her own practice experiences. Whilst she was a Registrar in a different Trust, a woman was diverted to birth in their AMU because the OU was busy and the baby had a poor outcome. The baby recovered but there was a report which suggested deficiencies in the

care and the woman made a complaint. Therefore, if women who see her now are ambivalent about where they want to birth, then there are more resources in the obstetric unit. [Notes on telephone interview with obstetric consultant S4-IV-1-ME]

This story illustrates how personal experience can influence professional judgment, even in a service with historically low intervention rates and provision of choice of birth setting.

3.2.4 Women's views about safe care

Elements affecting women's choices – when they were given the opportunity to discuss them – included safety (often associated with a medical model of risk), security of being able to arrive at the hospital in time for the delivery, the possibility for one-on-one care, staff response and continuity, and a comfortable and agreeable environment spanning intrapartum/perinatal and postnatal care. Women's choice of place of birth was strongly influenced by their beliefs about the safest place to give birth. For example, they appeared to take clinical safety, the availability of equipment, pain relief, support and the skills and training of the staff in their local obstetric unit for granted:

Woman: They ask me (...) maybe you want it at home or hospital, and I says, 'Of course hospital,' it's... it's...

Partner: More safe.

Woman: Yeah, more safe.

INT: Can you explain that to me? Why should it be more safe?

Woman: Because in... at home, OK, it's midwife, but don't have this all apparatus... the apparatus...

Partner: Instruments.

Woman: Instrument, if something happened, of course it's better in hospital because it's a lot doctor, more midwife, more professional.

Partner: Yeah (...) And we mentally feel more safe [Postnatal woman and partner, S2-IV-WP].

Whilst this attitude was mirrored across all four sites, it is possible that women at Hillside, who had little choice where they birthed, needed to have particular faith that their local unit was safe. Women interviewed there and at Shire consistently spoke about childbirth in terms of its risk to both them and their babies. Many believed that the presence of medical technology and expertise lessened this risk, but also spoke of concerns around transfer distances in case of complications developing:

Um... well I... I come from a nursing background myself, and um... have... I suppose my career has been, um, looking after children,

particularly neonates and, you know, babies requiring surgery. And so I had always really - I sort of took a lot of comfort in knowing that when I have my baby, that there'd be a Special Care Unit very close by, and that's what I wanted, that was what was important to me. ...I had a great deal of faith in [large urban hospital where she had 1st birth] um... because it's just wonderful, the standard of scans was so good, sort of superior to a lot of other places, and I was really worried... (...) I was just really worried about going to a much smaller hospital that perhaps didn't have the same level of medical expertise and that sort of thing. And um, it was something that I was really concerned about. [Postnatal woman, S1-1V-17-W]

I just always assumed [Central OU] was the best and closest place; [that] it was safe to have the baby there. It had the best facilities. If something was to go wrong I think ... you would be dealt with more quickly than in [FMU], for example, who would have to send you to [Central OU]. And that 20 minutes' journey, if it would be that, could make the difference between life and death, for a child, or mother. So ... that's principally why I chose [OU] [S3-IV-16-Postnatal woman 1]

I definitely didn't want to have the baby at home, I just thought if anything goes wrong and you're at home it's like ... although I only live like 15 minutes, 10 minutes away, it's still the thought that when you're in hospital you've got all that help at hand, right there, and obviously being my first baby not knowing what to expect I wanted to make sure that for me and for her that we had the best like care right on hand, rather than at home, I just thought it would be a bit, like a bit of a risk. [Postnatal woman S3-IV-11-W]

This position was also taken in Seaview by women living in low-income areas who spoke of family histories of pathology, risk and obstetric complications. This woman's grandmother and mother had both lost babies born in hospital. She still felt that a hospital birth would be safer for her baby:

The most important thing for me... to be honest, was [baby's name], and to make sure that he was going to come out safely. My grandmother had bad experiences; my mother had bad experiences as well, when they gave birth, so to me I was so scared there'd be a lot of problems. And so to me it was safety, that's why I felt no question, I wanted a hospital birth. (...). [S1-1V-26-Postnatal woman]

Women who chose out of hospital settings also drew on notions of safety and dimensions of quality care that were important to them. Women and their partners cited a range of considerations, and individual women often weighed up a mixture of several issues. Women's choices were not simply made in ideological terms - such as women's belief in the right to and rightness of natural birth - our data suggest that it could be attributed to considerations such as comfort and relaxation and desire for more control, as well as interest in a

healthy lifestyle. Some women were also responding to what they felt were poor experiences of previous hospital births:

I was upset with the way we'd been treated in hospital and the way we'd had to ask for the information, and the way... it just hadn't gone how I wanted to. So I wanted to try at home. Because I didn't feel that I would be... fiddled with. And I know... I knew from labouring... before that I need to, I need to move in order to deal with pain, and I couldn't do that, I can't do that strapped to a bed. If I'm strapped to a monitor one side and to a drip the other side, that's impossible... to manage labour like that. [Postnatal woman, S1-IV-31-WP]

And this is no offence to the hospital itself. Um... but like most people I don't particularly like hospitals, you know, they don't... I don't have a... you know, I haven't had positive experiences of them - just, you know, in terms of where my grandma died and stuff like that, not any mistreatment or anything. Um, but it's just normally associated with people being poorly, isn't it? And um... and my husband and I went on an organised tour at the hospital, which actually [partner] did as well, and it was absolutely fine. Um... but she showed us the high-risk rooms first, I don't know if that was a strategy, and that scared me quite a bit [laughing]. And it just, you know... just the lack of homeliness really, the... you know, the chairs that look like they're in an old people's home, you know, wipe-clean not... and, um... I don't know, lots of equipment and all very sterile. [Postnatal women, S1-1V-15-W]

Personal and family history was also apparent in this woman's story:

And also, the experience my mum had when she had me, um... In '82 there was a laundry strike at [X] Hospital. They didn't have enough blankets, so I was put in the nursery because I was cold, and picked up a bug, which caused breast abscesses. So I had to be operated on, and so did my mum, but it was only after sort of being rushed in. Because she called out a doctor on Sunday, and he called her a "neurotic mother", and if she's still worried to go back in on the Monday, to the doctor's. Two hours later I'm in an ambulance going into hospital to have an operation. So, trust of doctors... have been put in place, or knocked out of place, when I was born. Um... (...) so er... yes, I wanted a home birth - be in your own home. And the fact that you then get your two midwives, you get - I think you get better care. You hear horror stories of, you know - there's one midwife running between three women in labour at hospitals, and they're really busy, and stuff. So we wanted to go for a home birth. It's a bit more natural. [Postnatal woman S1-1V-13-HP]

Sometimes decisions were made on a positive basis, and sometimes with the desire to *avoid* a certain place or situation. This woman gave the following explanation about a combination of negative and positive factors that influenced her decision to have a home birth:

... and then there was the fact that the ambulance, I'd be taken in my ambulance and it would take ten minutes, pretty much, from here, whereas... by car it would be longer [laughs], and... and you'd have to worry about parking! I mean it sounds like a silly thing but... but in a way I'd be here, be in hospital quicker, um... that way. If I needed to go. I think he [husband] was convinced by all of that, and by my confidence in, and... and the fact that... um... all this stuff we'd heard about... about, um... love hormones and [laughs] (...) making it all cosy, needing it to be cosy to have a good birth. (...) So... all that combined. Yeah. [Postnatal woman S2-IV-17-W]

When women considered choice of birthplace, they drew on their previous birth experiences (if any), the accounts of other women in family networks or antenatal groups, and orientation received in classes and visits. For example:

... I think I'd never have considered it before my sister had, but because she had such a great experience and it was really positive, and I think for her and the baby it was, they both had a sense of calm that perhaps going into hospital they hadn't... that other people I knew hadn't had. You know, they had the baby, the baby was there that night, [sister] was able to sleep in her own bed and have the recovery for both of them, and I just thought that sounded like quite a nice way to do it.[Postnatal woman S1-1V-23-W]

Across the four sites, aspects such as supportive social networks with experience of out-of-hospital birth emerged from women's accounts as facilitating such choices; for example:

My mother had her, had us all in hospital. Um... [5 second pause] And, but some friends had had home births and said it was... really good. (...) I decided, in my mind, I'd... you know, why not actually have a home birth, it's not too, maybe it's not too late to change my mind. And um... and I talked to the teacher about it, and she said... you know, 'It's... you're keeping your options open by deciding that. You can still have... you can decide at the last minute that actually you'd rather be in hospital... um ... but it just means that you can stay at home if you want to. Whereas if you decide to have a hospital birth you can't decide to stay at home.' [Postnatal woman S2-IV-17-W]

Um... I think we sort of always said, even before I fell pregnant, 'Oh I'd like to have a home birth.' A friend of mine's had three home births, um... two in the birthing pool. And then another friend who's a midwife, she had a home birth, and they'd all had really positive experiences, and they said how lovely it is. And everyone you talk to, they always say, 'So glad I had a home birth, you're more relaxed, you're more comfortable.' (...) I feel sorry for the other ladies that had to go in. Because I then feel, well I had the midwives, so technically I've stopped them having a home birth - so you kind of feel a little bit guilty almost over that. Because of the job, I'm... a people person, children person - you then feel for them, that they haven't had what I had. And I think that's sad.[Postnatal woman S1-1V-13-HP]

Other women reported the influence of other information sources. For example:

So I started to read more widely and... I picked up a Sheila Kitzinger book in the... in the library, and I remember a section there where she talks about her own, one of her own labours and she thought, I can do this. And I thought, yeah, I can, there is no reason why I can't do this. You know, I've always been fit, I've always been athletic, I... you know, I've already had an absolutely enormous baby in less than six hours, there's no reason to believe that this won't be a really positive experience.[Postnatal woman S1-1V-25-W]

To summarise, information about birthplace choices including home birth was generally given by midwives, in antenatal classes and to a more limited extent by GPs. Many women's interviews reflected that out of hospital birth was no longer a norm in UK society. This issue applied particularly for women who may not have had access to broader networks of information, and who lacked personal or social contact with women who had given birth outside hospital settings.

Although women and their partners reported examples of good practice in terms of giving evidence-based information their accounts also indicated that midwives at times showed tendencies towards protective steering of women⁶⁰ and some professionals demonstrated an emphasis on 'informed compliance' rather than informed choice.⁶¹ Not all women had access to networks with reliable information, they wanted health professionals who were knowledgeable about evidence and presented it in a way they could make sense of and find useful. This required sufficient skill and confidence on the part of professionals and sufficient time to attend to communication and information. Information also needed to be evidence based and unbiased, rather than being influenced by organisational, professional and personal considerations, and by assumptions made about what women wanted or needed.

Drawing on the accounts of women, their partners and professionals, several factors were important for women to make informed decisions about place of birth. These included: available and equitable provision of services, access to accurate and unbiased information from informal/networks and formal/authoritative sources, proactive information provision by health professionals about options which women may assume are not available, or not approved.

3.3 Health system risks to safety

Several factors were reported across all four sites that they regarded as risks to providing safe care around place of birth. These were an increase in acuity, inadequate IT systems, care provision for 'higher risk'

women who choose low risk birth settings, and disputes over birth territory.

3.3.1 Acuity

All the four Trusts were experiencing an increase in medical complexity and social need amongst their local population, a rising birth rate and in some sites, staff shortages and high staff mobility. The cumulative effect of all of these factors was an increase in acuity, which had an impact on their capacity to provide a safe and high quality service. In addition, a shortage of staff and beds meant women could not always be admitted appropriately once labour had begun.

Urgency on the OU tended to be a cultural feature of the environment as well as a medical occurrence. This was particularly acute in City Trust, but one of the unintended consequences of developing midwife-led settings is that the acuity in obstetric led settings may increase. A number of women interviewed reported considerable distress because of problems accessing OUs when in labour, suggesting this effect did not only impact on staff, but also had an effect on women's experiences:

I kept on calling the hospital and they're like; "No you can't come in yet. You can't come in yet. You have to wait. Go to sleep. Have a shower" and I am like "the baby's coming can I come in now?", and they're like "no, no". Then finally my foster mum called an ambulance and we went there [S2-IV-27-Postnatal woman].

This woman's story was one of a number that showed how receptionists acted as gatekeepers and protocols were sometimes cited inflexibly, without due regard for a woman's state or case history. She later had her baby at home, before a healthcare professional arrived:

[The midwife said] I should go home again, because I was fully closed still, and she said it takes at least ten hours because every centimetre takes an hour, so I should go home. But I was already in pain, really in pain, I said to my boyfriend, 'I really don't want to go home.' I don't know, I just felt, I was like I just don't want to stay [?], and she said, 'Sorry, but you can't stay, you have to go home.' She's like, the only thing I can do is walk around the hospital, and I was like, 'I can't even sit properly!' And, er, yeah, she said, yeah, 'You have to go home because it takes at least ten hours.' So...

INT – Did you like discuss that more with that person? Was there any sort of...

Not really, she's like there's no way we can stay, that's... and I said to [partner], my boyfriend, he talked to her as well, and she was like, 'No, we can't keep you here because you're still not... you are closed down there and also you have to [?] contractions...'

INT – And that was understood by you and your partner?

Yeah, because we really thought it might take ten hours or longer, so... we had no choice, it was like... And so we took a taxi home again.
[Postnatal woman, SX-IV-20-W].

However, clinicians felt it was in women's interests to avoid early admission to the labour ward, indicating a fine balance depending on clinical judgment, which is not always easy over the phone:

The more you can keep in the community the more you can keep them out of hospital, the more you can keep them at home, the more you can keep them out, the better [S2-IV-1-Obstetrician].

If you could get the midwife to go out and see [women in early labour] at home and say, 'Well actually you're fine, you're OK,' or you know, 'You can stay at home, do this, do that,' and keep them out of the hospital, because once you get into the hospital as well the intervention rates go up, especially for people who've been here for a long time [S3-IV-19-Manager].

A number of women who gave birth in one OU also complained that lack of space for partners to stay overnight added to the problems experienced with busy staff and very limited postnatal support:

We had to ask a few times because I wanted [partner] to stay with me overnight so we had to ask like I think five, six times if they can give him a mattress, make him sleep on the floor [S2-IV-20-Postnatal Woman]

Partner: [OU] nobody can stay, isn't it. So I just sleep on the floor (...) but I was scared all the time that maybe they come and says, 'OK, you need to go.'

Woman: I can't move my leg, I don't feel my leg, because after this epidural and how can I care daughter is not easy, that's why... my husband stayed.

Partner: (...) So when I sleep on the floor one midwife, one midwife maybe came and when... that time I didn't realise, yeah? [S2-IV-35-Woman and Partner]

The combined effects of increased medical and social need, coupled with shortages of staff and bed space at all sites, had increased the Trusts' experiences of acuity, particularly in the obstetric units. The fast paced environment required flexibility on the part of staff to accommodate constant interruptions and regular emergencies: what Ruth Wodak calls "disorders" as part of the normality of hospital life.⁶² Such interruptions are known to be a key factor in unsafe practice not just in emergencies, but also when errors are made in routine care:⁶³

So in the space of an hour or so we'd had two emergency buzzers, one of which had then proceeded straight to theatre, and this was a baby who'd been quite flat on delivery so immediately got the neonatal team, resuscitated the baby and recovered very quickly. So the mixture of emergencies interspersed with routine work, creates a risk that things are missed because there isn't the time and space to proceed through that in an orderly fashion, they're constantly having to react. [S2-Fieldnotes-9]

I think mainly when things are missed, it's one of those days where it's chaotic, you know, a day like today where they're on the brink of closing, there's nowhere to move women, they can't take women, there's not enough staff [S2-IV-3-Midwife].

In other sites, midwife shortages meant that sometimes home births could not be attended and women had to transfer in.

They'd told us that there weren't enough midwives available that evening to have a home birth, which I think for [woman's name] was a little bit disappointing [S1-IV-20-Partner]

Well, I certainly worry about the fact that - like last night, it's our first night of opening [the new AMU], and we have been in here since 9pm. We haven't had a break because there's no one to relieve us, because the other side were busy. So if we'd have both been delivering at the stage where a home birth rang in, there was no one to go out anyway. So I think this is the first time we'll see in this maternity unit patients (who) would have been told, 'I'm sorry, there's no one to come out and see you, you'll have to come into hospital.' Definitely that would have happened. [Midwife S1-IV-10-MI]

3.3.2 Care for 'higher risk' women who choose low risk birth settings

A number of staff in Shire independently drew attention to women who chose homebirth despite having risk factors that fell outside the criteria. One midwife commented: "... there have been 13 women this year so far who have at least tried or succeeded to birth against medical advice". An obstetrician reported recently having seen a woman who "had risk factors but really wanted to birth on the [freestanding] unit". A manager recalled noting about 20 cases yearly of higher risk women choosing to birth in low risk settings, out of 5,000+ births attended by the Trust:

They come in batches. There could be nothing for a month and then all of a sudden you'll get five or six for that one area. [Manager S4-IV-46]

These women were a significant concern for clinical and managerial staff, despite the small number of cases. The Trust's patient safety advisor suggested that this concern stemmed from the professional

vulnerability of midwives in particular and her theory was supported by midwives' discussions of similar cases at other Trusts:

[She thinks] they have a high home birth rate, and more and more women she thought were thinking about it, and they were very open to it as a Trust but it also 'frightened the life out of us,' as she said. And she referred to the meeting in which one of the community leads had been quite adamant on a number of occasions about the danger of doctors recommending home birth and putting midwives in a very vulnerable position for women who were outside the criteria. She said home birth wasn't without risks, and they were trying to build supportive systems for midwives who were left in vulnerable positions, caring for women in the community or at home who had risk factors. She said they were one of the first Trusts to develop a pathway for women who choose home birth against professional advice, and that providing support for midwives was a really big thing to enable home birth to happen [Patient Safety Advisor, S4-Fieldnotes-4]

This was a source of tension between the doctors and midwives, and not in the way one would expect. This obstetrician explained:

Recently [the obstetrician] saw a woman who had risk factors but really wanted to birth on the unit at [FMU]. "The senior midwifery staff feel it is inappropriate for us to be facilitating women who don't fit the criteria into birthing at an MLU" the obstetrician said]. Unless they're requesting it, it would be safer for them to birth in the OU.

INT: Why do the midwives think the doctors shouldn't be facilitating this?

[The obstetrician replies that] by law, the midwives have to attend women in places where they shouldn't be birthing. "They're on the front line of this and they feel we should be more vocal in supporting them". [S4-IV-1-Obstetrician]

Shire, having several freestanding midwifery units, had considerable experience in managing criteria for inclusion and exclusion. The Trust developed a detailed plan for evaluating each challenge to professional advice:

... in our guideline we've got a green light category that are suitable for normal low risk care, we've got an amber category that might need looking at and second opinions, and then we've got a red category where, um ... the obstetricians will say, not ideally suitable. However, we do have a growing number of women that want to deliver in our midwife-led units or at home against professional advice. Now we have got another guideline for that, that again was written collaboratively between consultants and ourselves, and we've just had an update (...). And basically an individual plan of care is drawn up for those women.(...) We then obviously document all that on this plan of care, and then the woman signs to say that she's happy to take that responsibility. (...) Now what we've found is that, just recently, these plans of care perhaps haven't been made towards the end, because a

lot of the time we don't worry about where they're going to book until you get to about 36, 37 weeks. So we've just made the decision, if you like, to do these plans of care a lot earlier so the women are clear as to where they're going to end up delivering, and yes the plan can be changed at a later date. [Manager S4-IV-47]

These professional concerns were not confined to the issue of birth setting, but applied to complications and escalation of care in all settings. These examples illustrate the complexity of decision making for professionals, and of factors influencing their feelings about birth in different settings, that are then played out in the ways in which women are informed about birth options, and the kinds of support or steers they are given.^{60 64}

At City, women falling outside certain criteria could arrange antenatally for an appointment with the consultant midwife to discuss the possibility of labouring on the AMU. An "out of guideline" clinic existed for midwives to consult about borderline cases for AMU admission, such as planned VBACs or women with high BMI. Midwives seemed to have support for developing confidence to exercise this flexibility to a greater extent than medical staff, especially juniors for whom intuitive use of clinical judgment was not the norm:

... you know, at the end of the day policies and guidelines, they're there to help you, they're not supposed to dictate clearly what you do. And that comes with experience. [S2-IV-5-Midwife]

We used to have guidelines for midwife-led units, and we used to have protocols for Labour Ward, but now we've gone down the line of writing them all as guidelines, because there has to be a certain amount, if you like, of give [Midwife Manager, S4-IV-46-MA].

I think the European Working Time Directive is the number one issue as far as training of surgeons is concerned, because... if they don't spend enough time doing the actual work, they will never become good surgeons. So that is the number one problem. But it remains to be seen whether it will affect patient safety - I don't think there's any doubt on that. (...) But I think subjectively, we do find this as consultants - that our junior colleagues are not as confident and um... experienced as we would expect them to be at that stage of training. [Obstetric consultant S1-IV-9-ME]

In City Trust, some midwives expressed feelings of uncertainty and professional vulnerability around home births. This was exacerbated when skills and experience were uneven across community teams, or when women opted for home birth against professional advice. In such situations, managerial support could be protective of the hospital's and the woman's safety, without necessarily taking into account the strain on a midwife responsible for home birth care:

... when someone has decided absolutely that this is what they're going to do we have - we have an obligation to provide them with care... (...) And we do, it's just an absolute, you have to support them... for all sorts of reasons: you don't want them to deliver by themselves, er, you don't want to have any situation arise where they're not going to listen to you because the relationship is so bad. (...) ... during the pregnancy I was actually asked to take her by, um, by my manager anyway. Um... specifically sort of... it was, um... I think because we've done so many home births and... And as the constant in the team I've probably, you know, I don't know how many home births I've done, but it's a lot, so I think that they felt that if, they felt quite happy asking me to look after her. But I think that the support, um... it always feels to me - I might be imagining it - it always feels to me as if there's an awful lot more about insurance and safety of the hospital and money than about, 'How do you feel about looking after this woman?' ... er, I mean I supported the other midwife with, with, who had the less... because it was one of her first home births, she hadn't seen many before, um... and, um... and the support was, it was OK, it was, it was... reasonable. It was reasonable. Yeah.
 [Community Midwife S2-IV-35-MI]

In Shire Trust, however, it was perceived that guidelines and managerial support in such situations protected women and midwives, as much as the service:

If you have a member of staff required by a patient directive to deliver in circumstances that they feel are beyond their professional capability, then that member of staff is very exposed. (...) The midwife, is an expert in normality, she is a secondary player when abnormality comes about, the expert in abnormality is the medical practitioner, who is not there. And so that midwife is now being exposed to circumstances that she cannot control. And so part of it is about our own midwives and protecting our midwives from circumstances which are frankly wrong for them to be the lead professional in. But also to identify to the patient the risk reduction techniques we can put in place. [S4-IV-45-Obstetrician].

One midwife manager suggested that women choosing to birth 'against professional advice' was indicative of the choice women were already getting from the Trust:

We seem to have an unprecedented amount of women choosing to deliver against professional advice. And I think that's possibly down to, because patients have so much choice anyway, they know that they've got the midwife-led units, they know they've got the obstetric units, they know they can deliver at home and they know they can have a water birth, so it's kind of pushing those boundaries a little bit further, isn't it [S4-IV-47-Manager].

3.3.3 IT and data-management systems

Whilst all the sites were committed to communication and to the use of guidelines, audit and review, these good practices were compromised by their IT and data-management systems.

Hillside and Seaview had been unable to implement an effective electronic records system, and much of the data entered had to be duplicated by hand across different systems. In Shire, IT system challenges had also contributed to a drop in the service's CNST rating in the past year due to the changes in level of information requirements introduced. In preparation for the CNST assessment, a senior midwife redrafted the clinical guidelines required by the assessors. This meant that for a while, the unit was operating with two sets of clinical guidelines. Although the level of information management clearly served the service well, with a high level of attention to guidelines and protocols, as this commissioner commented, the service was seen as poor in terms of information provision, because, as he saw it, it did not prioritise information in the format needed for financial planning and external needs:

I think they're a great service and I think they do a great job when it comes to working with ... about to be mums and new mums. But ... from a commissioning perspective we have all sorts of trouble with them in terms of just collecting data, in terms of having some idea of the finances associated with them delivering their services.
[S4-IV-34-Commissioner]

In addition, at a number of sites, staff gave examples of the impact new IT systems had had not only on their commissioning or governance procedures but also on their clinical practice. A City obstetrician commented:

I sit with a woman in the clinic and I have four different computer systems to look up ... two computer systems for the results another computer system for the electronic record and another computer system for the archived records. You know this isn't ... that's four different passwords that we have to change every month. You know this is not supporting the clinical care, it is just imposition of one good idea over another but nothing connecting up [S2-IV-1-Obstetrician].

At Shire, midwives were no longer able to book women at home, because of the demands of the new data management system:

Manager 1: Whereas the midwives used to book the woman in the home we'd have 100% [attendance], they've [the women] now got to catch, as I say, a couple of buses to get to [town] where there's an IT service so that the midwives can put them on the computer (...)

INT: And that's simply down to the computer system?

Manager 1: Yeah.

Manager 2: Yeah. Because it has to be over a secure network and they haven't got a computer package that will enable us to take the laptop to the house to input the data [S4-IV-46-Managers].

Whilst new IT systems at City and Shire meant they largely no longer collected statistics by hand, as was the case at Hillside, the new systems had brought some unintended consequences for healthcare professionals and commissioners alike. As these comments suggest, the Trusts' complex information demands were, at times, found to be in tension with the priorities of the maternity services.

3.3.4 Birth territory

In all sites, significant attention was given by staff to the boundaries of birth settings as well as to their internal function. In some cases this attention was directed at the movement of women across the borders during transfer, as discussed below. In other cases it related to the movement of staff between the obstetric unit and the midwife-led units. However, the boundaries between obstetric units and midwife-led units, both alongside and freestanding, were not only physical delineations of space across which staff and women moved. They were also, in some cases, manifestations of ideological differences and philosophy of care between the two types of unit, and some of the tension articulated by staff was in relation to the preservation of, for example, normal birth within midwife-led spaces.

Debates continued on the pros and cons of the City AMU's proximity to the OU and several interviewees – mainly AMU staff, but also some obstetricians – thought the City AMU should be moved to another floor of the hospital building or further away, not just for protection of normal birth but for safety considerations:

Midwife: I think it would be absolutely a lot better if it was in a totally different building, not even in the same building.

INT: So what difference would that make?

Midwife: It would make the difference that we we only transfer the women that we need to transfer in between the two. (...) So the AMU doesn't become a pit stop for the in-between women. (...) Creating potential er... not very safe situations. [S2-IV-9-Midwife]

Other OU staff, for example this City doctor, approved of the co-located arrangement because they felt it offered a guarantee of safety should things go wrong:

Things can hit the fan at any minute. And, it's nice having the AMU, and if there are a problem they can, come and see us, then we're on

the same floor as, if you're out at home births then it's more difficult. But patients should be aware that you can only say everything's normal in retrospect. [S2-IV-32-Medical]

Two of the rooms in the City AMU were described by providers and users as a "grey area" to which women were sent when the OU was full, and there was frequent movement of women between the units in order to manage space or facilities:

We were in a private room. Um... really lovely, just... we were actually in... so even though we were part of the [OU], we were in one of the [AMU]'s rooms. Um, they'd sort of said there's kind of a grey area at the end of the ward where if they spill over they take those rooms, and then if the AMU needs it back [S2-IV-18-Postnatal woman].

Resources – beds and staff – became commodities for borrowing, taking and filling, and women could even be construed as material getting "dumped" in the process.⁶⁵ This midwife's remark illustrates this difficult relationship between the OU and AMU:

We've never got any postnatal beds, and so [the AMU is] used as a postnatal dumping ground because we can't keep everyone labouring here. So then we take their staff, we fill them up with postnatals, then we get the low risk labourers in and they come to the high-risk area. So it doesn't work... [S2-IV-6-Midwife]

Language alluding to territory and conflict emerged in our observation notes and interview data. Resentment built up on both sides, with OU midwives feeling that their midwife-led unit counterparts were having an easier ride, even when sticking to agreed admission protocols:

We are always short-staffed, and so we always borrow staff from them. (...) ... they come to work in the morning and there's three or four of them on, they're so better staffed than we are, um, and they know they're not going to stay there and that's really horrible, and then they get pulled to the [OU]. [S2-IV-6-Midwife]

I think it [the AMU] should be taken away. I think we should have a Labour Ward (...). I hate this dividing line, absolutely hate it, and when we're busy and they have three rooms [free], we have to struggle with being busy, because... [they say] 'we're [the AMU], you can't come in. I loathe that with a passion [S2-IV-19-Manager].

In an effort to mitigate against a similar encroachment of the OU onto the AMU, when Seaview introduced an AMU in 2010, they did so with a clear spatial separation between the two areas. Again metaphors were used i.e. 'to protect normal birth from undue medical intervention'. The language used by this Healthcare Assistant demonstrates the cultural division between the two sides:

"If we're on this side", meaning the medicalised side of the labour ward, (...) we'll have nothing to do with that. At all". (...) "No doctors

allowed round there. If there are problems, the women have to be transferred to the labour ward". (...) ... the Maternity Support Workers are all going to be low-risk. (...) They like the natural approach. Because they feel the doctors intervene too readily. This will be a no-go area. This is our low-risk area". [Healthcare Assistant, S1-Fieldnotes-11]

A midwifery manager at Seaview described the strategies they planned to use to 'keep doctors away' from their new AMU, in the light of their previous experience of opening an AMU that subsequently failed:

The consultants find it very hard that there are women in labour, and they had... they couldn't not stay, they had to keep going into that side. So we're trying very hard to have some definite barriers. Obviously the patients that are on that side, they won't be on the notice board that we have on the high risk side. So the consultants won't be aware of the women that are labouring on that side. We are doing as much as we can to make it feel like a very separate unit. But I don't know how it will actually pan out when we open it [S1-IV-7-Manager].

This Seaview midwife also reiterated the role of an AMU in maintaining a *professional separation* between midwives and obstetricians:

[When you had an AMU] there was the opportunity for midwives to be 'completely midwifery'. Sometimes I think that's what's hard: midwives, you know, we're trained to be practitioners in our own right. But there seems to be this protection bit as well, so you want to keep the doctors at bay [S1-IV-2-Midwife].

In contrast to the picture at Seaview and City, where boundaries and territorial battles created potential risks to safe high quality care, Shire had longer established midwife units, which were normalised within the service. Clear guidelines were followed and these were widely supported and valued and whilst there was tension over the use of AMU beds by the adjacent postnatal ward, the low-risk/high-risk boundaries at Shire were not as stark or as carefully protected by midwives as they were at other Sites. This was in part because inter-professional relationships were particularly good, with obstetricians as well as midwives pro-active in supporting normal birth. The midwives acknowledged that normal birth did not need to only happen on the midwife-led units but the attitude of the staff on the Labour Ward meant that normal births were perceived to be just as common there too. A number of midwives on the Shire Delivery Suite made this position clear:

They tell me they have good relationships with the obstetricians and they keep them out of the rooms. Would it make a difference to them if there was no AMU I ask? 'No' they reply, 'you can have normality on a consultant unit. You treat other people as you would like to be treated'. [Midwife, S4-Fieldnotes-10]

The obstetricians were also explicit in their belief that keeping low-risk women away from the obstetric unit would maximise their chances of a normal birth:

Because we keep low risk women away from a consultant unit, away from doctors, all right, there's no doubt that you reduce the likelihood of unnecessary intervention [S4-IV-2-Obstetrician].

We shape our service for normality, so we have GP midwifery-led units delivering 28% of our ... so we shape ourselves on the assumption that normality is going to be the outcome [S4-IV-45-Obstetrician].

3.4 Delivery of safe and high quality of care

In this section we explore how services aim to deliver high quality and safe care across a range of birth settings, and organise the management of escalation of care when women develop complications during labour and birth. We address staffing, governance, and formal arrangements for transfer or escalation of care. We also explore professionals' responses to escalation of care when women developed complications during labour and birth in different settings.

Ensuring the safety of women and babies at all sites was contingent upon the proper function of organisational systems. These took the form of formal processes such as staff training, risk management and clinical guidelines and the promotion of good staff relationships, teamwork and leadership.

3.4.1 Staff relationships and teamwork

Problems in communication and professional relationships within and between professional teams have been consistently highlighted in safety enquiries as undermining the quality and safety of care.^{57 58} For two Trusts (Hillside and Shire), rurality produced particular problems. Attempting to concentrate resources or re-allocate staff threatened continuity of care (in itself a contributor to quality), led to travel distances which felt unsafe to both staff and women and impacted on communication between staff groups.

In Hillside, two obstetric units were run separately and the staff on the two sites had little to do with each other. This, coupled with the history of plans to centralise the obstetric services, had led to a poor relationship, and misunderstandings between them. A Hillside manager's explanation of the differences between the two sites illustrated how administrative attempts to bring the two sites together as one Trust struggled in the face of powerful different cultural norms of practice within the two units:

[Central] was always a very different culture to [Hilltop]... I love them all, but you can't budge [Hilltop] midwives to do a course: 'I've got my women to look after; I can't go and do a course. I've got to do my clinic,' where [Central] midwives will drop the clinic and go on the course and batter their colleague to get on the course... Very, very different cultures. [S3-IV-17-Manager]

Similarly, an obstetrician explained the cultural differences between the Central and Hilltop obstetric units and attributed the difficult relationship between staff from the two sites to a lack of communication:

I think in Hillside people tend to be very home-grown, and the nursing staff particularly don't move around because they don't have to move around like we do with our training and so habits can be set up that aren't always good habits. Someone once said to me that when you drive towards Hilltop it feels like you're going through a Dr Who time warp! ... You do feel sometimes you're going into a – well it's certainly a different way of being, a different pace of working, but I think equally they feel that we don't understand [them]. [S3-IV-13-Obstetrician]

At Hillside, there was also evidence of productive working relationships between midwives and obstetricians, founded on an understanding of, and recognition of their different roles. Senior obstetricians were supportive of their juniors and promoted training opportunities whenever they could. This was particularly apparent during formal obstetric handovers and at the weekly case review meetings, which were well attended by all professional groups. Ensuring clinical safety required the staff to understand the service as an interconnected system. A Consultant Obstetrician gave the example of the training of doctors in grading caesarean sections, where good communication between obstetricians at different levels and with anaesthetists helped to ensure lessons were learned about when to call for support, or not, to ensure appropriate attention to high risk cases:

We had a problem towards the end of last year when one or two of our new Registrars thought it was good in the middle of the night to grade something as a Grade 1 section rather than Grade 2 section because that would get things moving a bit faster. Well of course if they wrongly grade, that then loses the trust of everybody else, so you have to go back to those individuals and say, 'Look, I know it's frustrating waiting, but you've got to be honest about this, because you're going to basically cry wolf, and then when you do have a genuine Grade 1 people will go, "Oh, it's so-and-so, it probably isn't"... That was a learning thing from their point of view... to realise that there is a structure in that unit which actually means the obstetricians do talk to the anaesthetists, and we do all talk to each other. [S3-IV-13-Obstetrician]

Another spoke about how good inter-professional relationships helped to promote the safety of patients:

I think we recognise each other's strengths, and weaknesses, and play to that in emergency situations and things, which is a really good feature of the unit. (...) In an emergency situation (...) I know the staff and I know their strengths and weaknesses and they know mine, and we've done it before, we've done drills together but we've also done the real thing together plenty of times, and that really helps support us in an emergency situation, we've got this mutual respect of each other's strengths, which really helps. And obviously benefits the patients as well. [S3-IV-18-Obstetrician]

This good teamwork was also described by the Hillside community midwives. The midwives working at the Hillside FMU in particular, valued the close working relationships they had with their support workers. One support worker described the benefit for safety of such close working relationships:

Support Worker: You would learn to sneak out the room without the patient actually knowing that you'd disappeared, because you knew by ... especially two of the midwives' faces I knew that we were in for either a hell of a delivery or something was potentially going to happen, without even doing a VE or anything. But that was physically working with those specific people for such a long time you would know what they needed, they didn't have to ask you unless it was something that wasn't the normal sort of thing. [S3-IV-21-Healthcare Professionals]

Similarly, at Shire Trust, the safety of the service was underpinned by the mutually supportive relations observed between the obstetricians and the midwives. The obstetricians trusted the competence of the midwives working in the outlying FMUs, which meant there appeared to be little of the professional boundary maintenance and protectiveness seen in some maternity services. They played a key role in advocating for the FMUs at a Trust level. This demonstrated how the FMUs at Shire were sustainable because they were understood to be a central part of the maternity system as a whole within the Trust and not just viewed as a midwifery interest. This obstetrician's comment illustrated this common position:

Every time we have financial problems within our unit the first thing they look at is the midwife-led unit, because if you look at it by cost and the amount of deliveries you actually perform there, and the amount of midwives you need to staff it safely, then it, on the face of it, it looks like an easy way to save some money. (...) We will argue [however] that the long-term benefit of having the midwife-led units is financially neutral. (...) I mean we still have a pretty busy consultant labour ward, if you then threw in another 1500 deliveries, which is what it would mean, you've got this teeming labour ward with doctors

running around trying to just keep everything, and then you've got these normal women but you kind of always worry that they might do something, because they're on your board. You know, just the whole culture changes [S4-IV-2-Obstetrician]

3.4.2 Leadership

Leaders were influential in setting the tone for relationships between staff at all levels. Midwifery leadership at Seaview was firm, managed difficult transitions sensitively, had a capacity to listen and learn from staff, but nonetheless gave a strong drive to get changes through effectively. For example, to deal with midwives' concerns during the development and transition to a new AMU, midwifery managers initiated a diary kept in the AMU office, where staff on night duty could write about their experiences and make suggestions and requests for support. This practice exemplified the management style and commitment to communication that helped make things work at Seaview, despite differences of opinion. Managers opened up channels for receiving negative as well as positive feedback, and this was coherent with a local organisational culture of dealing with conflict openly and early to prevent it escalating:

Patient safety is the first thing we look at, you know, and so that's when we have to be frank about our discussions, so sometimes all kinds of aspects of patient care can be, will be discussed, when, when there's an adverse outcome. (...) So that the culture we try to engender is that we are frank, we are open, and we try and have learning outcomes from these, er, from any unexpected incidents, for example, or any negative adverse outcomes. [S1-IV-40-Manager].

Midwifery managers at City set a positive example and maintained practice credibility by maintaining regular clinical shifts. They were thus in touch with issues on the shop floor:

I think managers are quite supportive, or I've found that they're quite supportive, and we do have a bit of an open door policy so that you can go, and I mean [Manager] is on the [OU] a lot and I mean, she's the manager here and she's very good. And then [Clinical Director], I mean she works clinical shifts most Mondays (...) and I think that is really good from the midwives' point of view [S2-IV-6-Midwife].

Leaders' positive example in communicating with colleagues also helped the department's relationship with the rest of the Trust:

I still think that the relationship we have with sort of other teams is quite good here. And I think we're quite...I do, I think we're quite open, I do think we do talk quite a lot. I think ... because the consultants are very good here, and the relationship that we all have together I think then sort of helps with the relationship we have with the outside hospital [S2-IV-6-Midwife].

All four of the study services showed examples of good leadership. However, some concerns were raised, for example at Hillside, about senior staff communication with those lower down the organisational hierarchy. One obstetrician described the impact of poor communication on the progress of the complex and politically sensitive reforms that had been proposed within the Trust:

I think, personally I think that communication could be better between management and front line staff (...) within sites as well as across sites. Yes. I think that it's not always ... people at the front line are sometimes the last to hear the changes that are going on (...). I think if people feel involved and informed then they're much more likely to be positive about changes than if they're not [S3-IV-18-Obstetrician].

3.4.3 Staff deployment

This section describes the methods the Trusts used to help maintain staffing levels and appropriate deployment. In the urban services, problems of staff shortages were associated with rising birth rates and complexity of care. At City in particular, staff (and sometimes labouring women) were moved between different settings in attempts to manage the demands on people and space. AMU staff were particularly vulnerable to being asked to cover obstetric staff shortages because of their proximity to the obstetric unit:

It's not safe when we're poorly staffed here. If we were at [other hospital] we wouldn't easily be asked to go to [the OU] because they would have to arrange transport and things like that, so ... It is so easy to say, 'Can we borrow a midwife for four or five hours?' where if we were out in the community that wouldn't happen. And I think they would, it would be prompted to address the issues. Where it's easy, I think, to cover – not cover it up, but overcome them by just borrowing a midwife here or there [S2-IV-10-AMU Midwife].

We [the OU] are always short-staffed, and so we always borrow staff from them [the AMU]. And so that is really so counter-productive, because their actual low risk ladies can't be looked after down there [S2-IV-6-OU Midwife].

In rural areas, the deployment of community midwives presented the biggest challenge. Midwives at Hillside were stretched across a wide area, following a previous merger of two rural NHS Trusts, and there were ongoing debates about provision of more centralised versus local care. Proposed plans to rotate community midwives in order to improve teamwork across the region were unpopular with the midwives, who worried that the continuity they provided within local communities would be threatened. Continuity of care has itself been associated with safer care⁶⁶, and so the Trust was required to negotiate the relative

benefits of initiatives such as rotation for both continuity and cost savings. One manager described an instance in which the drive for cost savings from Trust administrators was set in tension with her basic requirements for a safely staffed service, a situation that illustrated a tension experienced by service managers in all the Trusts:

[A manager] and I had a run-in when she first got the job and she said to me, 'What systems have you put in place to save the overspend? Have you said no bank?' I said, 'No, I haven't, because that's dangerous.' ... I said, 'I have a legal duty to provide a midwife to a woman.' She said, 'You've a duty to this Trust.' I said, 'I take that very seriously, but I take the law more seriously'. I cannot have a labouring woman without a midwife, end of crack, and I'd bring the whole army in, not a bank, if necessary. And I'll stand by that, I'll definitely stand by that. [S3-IV-17-Midwifery Manager]

In both rural Trusts, moves had been made towards introducing integrated midwives, who rotated between the hospital and the community service. Whilst this system was well established at Shire, Hillside was in the early stages of change and were hoping to use the new system to save money:

If you by natural wastage replace Band 7 midwives with Band 6 integrated then you make an actual saving [S3-IV-17-Manager].

But also to improve community midwives' intra-partum skills:

I think it will be great if the other midwives in [the region] could come and work at [the FMU] because I think it would help their intra-partum skills. (...) I think community midwives, if you're doing home birth then you should have good intra-partum skills, more so than someone on delivery suite because you've no one to call. You can just press a buzzer in a hospital and people come to you; when you're in a community, a home birth, there's nobody. So you need to be really good at your intra-partum skills, and in other areas, you know, those midwives haven't delivered a baby maybe for three or four years and I'm not sure that's the safest care that we can be giving women [S3-IV-19-Manager].

With a homebirth rate of only 1.5%, the Hillside community midwives who did not work at the FMU attended very few births per year. This may have had an impact on some community midwives' level of intrapartum skill and confidence, which were sometimes observed by women and their partners to be lacking in homebirths:

... they weren't, they didn't seem to be game for the home birth, you know what I mean, they didn't seem to be ... of that persuasion. (...) I don't know, maybe they'd just become desensitised a little bit probably. It's probably a natural thing when you've worked at that full-time. But they just sort of ... um, I don't know. I think it was the fact that they were telling stories which ... didn't have happy endings,

if you know what I mean, and ... (...) Yeah, they were grim in sort of ... grim in the sort of attitude towards the whole thing, really, I thought. (...) I don't know what they'd say now, but I think they were like, in some ways flustered by it all, weren't they? I don't think they were ... I don't think they were like, um, they didn't know what ... I think part of it they didn't quite know what to do. [Partner of postnatal woman S3-IV-32-W]

In addition to considerations of geography and skill, deploying midwives to provide out-of-hospital births required demanding on-call obligations for midwives. Each of the FMUs at Hillside and Shire devised their own on-call system and had a high degree of autonomy to arrange their staffing. Units were staffed by a combination of midwives and Maternity Support Workers. At one Shire FMU, for example, one midwife and one Maternity Support Worker staffed the unit during the day and night, with an additional community midwife on duty from 9-5 each day dedicated to home visits. The community midwives based at the Hillside FMU had developed an on call rota that ran from midnight to midnight, which meant they never attended births all night having worked all day. This Hillside FMU midwife explained how the system not only benefited their working conditions, but also improved the safety of their practice:

I think this actually is another reason why I like our call system, because you get new eyes. And new eyes see things differently. If somebody has been with somebody for a long time, and you get tunnel vision, don't you, you want to do what this woman wants, without taking another view back and looking at the picture. And a new midwife coming in looks at the picture [S3-IV-21-Community Midwife].

In a separate interview, the Hillside FMU Manager also explicitly contrasted the FMU midwives' experiences of co-working with the experiences of midwives attending women at home, alone for long stretches of time:

At [FMU] they like the on-call system that they've got, because from a risk perspective, some women who've been at home should have been transferred in sooner, but the community midwives have been with them and I think sometimes get too involved in what's going on in the home and sometimes forget their focus, and they probably should have been transferred in sooner. And another midwife comes in and thinks, why is this woman still at home, she hasn't done this, done this, progress is slow, and they transfer them in [S3-IV-19-MA].

A midwife at City also raised the issue of community midwives working alone and the extra effort that they needed to make to get help from colleagues as compared with those midwives working in obstetric or midwife-led units:

If you work in the community you are a lot on your own. You don't have all the colleagues around you giving you the second opinion,

people to reflect with. You are very alone out there in the community. But my argument is that (...) if anything doesn't look normal to us you are not totally alone on this earth, you've got a telephone, you call the birth centre. You call your community manager or whoever is appropriate for that time being. You call switchboard and you ask them to beep the obstetric registrar.(...) It's not as easy as walking out of the room and asking somebody. But you can ask somebody
[S2-IV-7-Midwife].

3.4.4 Training

The challenge of deploying staff effectively, as described above, was not only a matter of having the right *numbers* of staff in the right place at the right time, but also having staff who were appropriately skilled to work in a particular clinical area.

At Shire, with a long-established model of single OU and outlying FMUs, plus AMU and home birth, training in emergency drills was uniform across the Trust, and new initiatives were rolled out from the furthest FMU in towards the OU to ensure those who needed the skills the most had them first. Training to support normal birth was also well established and was service-wide rather than seen as only relevant to midwife units. The Trust's reputation for expertise in normal birth also meant they were involved in devising training in normal birth for qualified midwives across the entire local region into other Trusts' areas:

Eight midwives did this piece of work. They came to work at [Shire's] OU for a while using the low risk care pathway, and then the idea was that they then go back to their home Trusts and implement something similar, or at least try and change the way they work. So [Shire] was used as a way to expose them to normal midwifery care when they were coming from Trusts where they didn't do so much of that. [Midwife, S4-Fieldnotes-4]

Doctors were not offered this normal birth training, and a Shire obstetrician suggested a connection between the reduced expertise and skill of trainee doctors and an increase in medical intervention:

Our units are now staffed, run by registrars who don't have the same level of experience as they did ten years ago. I mean that's just the way it is. So they will intervene unnecessarily; they will see something they perceive as a problem, they will start intervening, start putting up drips, start putting up syntocinon, start fetal blood sampling, not getting a sample, and ending up saying I'll have to do a Caesarean section. And that's how your Caesarean section rate climbs.
[S4-IV-2-Obstetrician]

In Seaview, doctors' training was said to be negatively affected by the change to European Working Time Directive-compliant rotas, which were perceived to be detrimental to their acquisition of experience:

We don't have the same kind of emphasis on training any more. (...). I think our doctors are working very few hours now. They're not having the same kind of experience, and this will translate into problems later on unless it can be rectified. (...) I think the European Working Time Directive is the number one issue as far as training of surgeons is concerned... [S1-1V-9-Obstetrician]

A Seaview consultant spoke of doing ward rounds alone, as there was no-one on duty available to accompany him. He found this to be problematic for medical training, continuity of care, and patient safety:

If they're on a night shift, for instance, they won't be there in the morning. Which means that they won't be attending the ward rounds with the consultant; which also means that they may have started off seeing a patient, but they don't know what happened, there's no follow-through, which is not... which is not really in the best interest of the patient. That potentially affects patient safety, because you get more handovers and so on, and it's not in the best interest of the doctor. [S1-1V-9-Obstetrician]

This was also cited as a safety concern in emergencies, as explained by this Seaview midwife:

The middle grade doctors that are the ones that you're relying on to deal with the emergencies that crop up. Some of them are coming in needing supervision, you know, they may not be able to do a Caesarean section unsupervised. So that is a worry. [S1-IV-2-Midwife]

Whilst doctors' training was affected by the EWTD and other initiatives, mentoring and training were done proactively at Seaview, and junior staff were encouraged to take on new responsibilities. A consultant obstetrician highlighted the value of case-by-case training, rather than lecturing:

It's our job to train them... (...) Not lecture, it's case by case. (...) Train junior doctors so they say appropriate things to patients. Give juniors postnatals, but train them so they learn from you." [Obstetrician, S1-Fieldnotes-10]

Whilst doctors' training programmes gave them regular opportunities for learning, supported by the senior clinicians, one community midwife at Seaview suggested that community midwives in particular, struggled to make time for Continuing Professional Development:

If I'm working as a hospital midwife I'll just get released for the one or two days a week for the study and my working, most of my working week, I'll just make up my hours working on the Unit whenever I need to. I won't have a caseload to worry about, I won't have, you know,

visits to worry about organizing and that sort of thing, as well as study and everything. [S1-IV-12-Midwife]

3.4.5 Guidelines

There was a high level of attention to guideline development, audit and review (particularly in City and Shire Trusts), with multi-disciplinary participation and involvement of senior and junior staff. The strong emphasis on audit and case review at all sites was utilised not merely as a 'box ticking' exercise to achieve external results, but to bring staff together and promote dialogue and learning. City's quality and safety scores were frequently checked for comparison with those of similar Trusts. This sharpened managers' and staff's awareness of a competitive drive not to fall below past standards, or those of other services in the area. One obstetrician described the effect particularly clearly:

I think this is the hottest place on guidelines both operational and clinical that I've ever, ever worked in, I've never seen so many guidelines (...) ... and I think also, it's actually a sign-up by everybody that we want to practice in a way that is safe and... has women's safety, holds it as paramount importance. [S2-IV-2-Obstetrician]

Risk meetings were frequent and efficient, and followed a sequence of reviewing cases at different levels until they were resolved and closed. The rigour of this process, and regular morbidity and mortality meetings with case presentations, acted as constant stimuli to staff to maintain detailed documentation for accountability and follow-up. In Shire, guidelines provided clear guidance on vaginal breech birth, vaginal birth after caesarean (VBAC) and External Cephalic Version, which helped to keep the caesarean rate low and there, as at City, guidelines were intended to be flexible and their use to incorporate professional judgment and evidence. This midwife's comment on the use of guidelines was representative:

You're an independent practitioner, you are responsible for your own actions, you have to take your... make your decisions based on research evidence. The guidelines are guidelines; it doesn't mean they have to be right. If you have a good reason to do something outside the guidelines, so long that it's backed up by valid research, then that's fine. [S2-IV-7-Midwife]

All the services had guidelines for admission to, and transfer between the different birth settings they provided. Rowe's study of guidelines identified quality issues around such guidelines nationally⁶⁷, but observation data also highlighted the degree to which even clearly written and formally agreed guidelines were subject to 'grey' areas and professional debate in practice. The enactment of guidelines could be

influenced by women's own preferences, but also professional views and judgment and the pressure of managing time and space in extremely busy maternity services. These organisational influences were often not perceived to be in women's best interests. For example, this obstetrician from City Trust-expressed concern about decision-making and late transfer:

What I am bothered by is when women are not managed appropriately (...). That's the, that would be the only bother that I have is that when you can see that a woman has gone way off the plan in terms of normality and she's way off and when you finally plot the partogram she's now going onto the second one, that I find really, I find it distressing because it means that this woman has been mis-managed and if she had been transferred earlier then we could have done something possibly that would have helped her achieve a vaginal delivery without suffering. And some women when they come back and you're talking to them about that kind of labour they've really suffered. [S2-IV-2-Medical]

One obstetrician at Shire explained how guidelines and protocols were used to promote safe birth in the peripheral units. His comment echoed those of many other staff at the Trust:

The protocols are really tight, so if a woman breaches, you know, the guidelines for delivering in a low risk unit, let's say not achieving a good progression in labour, then there's no argument, she's transferred in. And you know, you could look at it and say, oh sometimes there's a low threshold for transfer into the consultant unit, but you know, you balance that against the safety. So you've got to have a good balance so that you don't end up running close to the wire in the midwife-led, it's just not worth it. (...) I think that's why the outcomes are good. [S4-IV-2- Obstetrician]

In practice, the implementation of the guideline for transfer was inevitably not so clear-cut and depended on a variety of factors, including the experience and confidence of the attending midwife:

We've got a set of guidelines for home birth, but some people, maybe more experienced people, might leave somebody a little longer. (...) Some have a higher threshold than others, yes; and I think maybe sometimes that's influenced by where you are, because if you think it's half an hour to the hospital then you might think, oh well, I'll just give her a little bit longer, see what happens. But then it can work the reverse way and other people can say, well I'm going to do a VE soon because if we have to transfer... [S3-IV-19-Manager].

Shire had a particularly strong culture of governance and their preoccupation with managing risk across the health services meant that the guidelines functioned as a license for allowing the FMUs to remain open. They were described by this obstetrician in a way that suggests

they were tightly controlled and the style of others' discussion support this:

INT: I was just wondering what you as a Trust put in place to ensure that those units are safe.

Yeah, guidelines. Just loads. (...) We've just got loads of guidelines that tell you what to do and the things that you can't have. (...) If this happens, she is transferred; if this happens, contact the midwife on the Consultant Unit. So almost every issue there's a ... something written about it. Which, as I say, in some ways you end up transferring more in than may be necessary. But that's, that's why our outcomes are good. [S4-IV-2-Obstetrician]

If they [the midwives] step outside those guidelines they have to have a very good reason to step outside those guidelines, because at the end of the day those guidelines are those that support them in court. And we keep obviously all the guidelines dating back for years and years and years, so that if any litigation in the future does come up we can say, OK, what guideline were we following at that time? We can pull it off the shelf and say, 'there's our evidence, that's what she did, that's what's documented in the notes. She's followed that guideline; no issue.' So that's how it works really [S4-IV-47-Manager].

In summary, guidelines that had been systematically developed and implemented as a multi-disciplinary tool reduced variability in practice, facilitated clear professional jurisdictions around consultation and transfer from out of hospital and established a safe arena for midwife led care. They functioned as a support to decision making for junior staff and in some Trusts they were formally regarded as guides for clinical decision-making.

3.4.6 Audit, review and organisational learning

At Shire, governance meetings were held regularly. The meetings were well attended, although mostly by hospital-based staff, and involved lengthy discussion of cases by different healthcare professionals. Everyone contributed to the discussion and the team appeared willing to admit shortcomings. The meetings were chaired by a senior member of staff, never cancelled and always had a consultant obstetrician, the culture of which is exemplified by the following comment:

We also do high risk cases, so if we think it might be a risk that may end up as litigation then we would make sure that all the midwives that were involved in that case are invited to a high risk case review meeting where, it's never done in a threatening way, it's not supposed to be a blame thing, it's supposed to be, you know, what's allowed us to look after that woman in that way, type of thing, and what could we learn from it, what could we do to prevent it from happening again? [S4-IV-47-Midwife Manager]

This level of commitment was unlikely to just be due merely to Trust or external pressure. Rather, it appeared to be the result of a leadership commitment to risk governance, which also ensured attention to processes and wider learning, rather than a simple focus on individual incidents:

We've tried to stay ahead of the game, not behind the game. So we've tried to develop our governance processes that other people will be at in about three years' time. And so we spend a long time looking at process, um, and a reflection of governance is that usually it's not bad decision-making by individuals, bad care by individuals, it's usually a process issue, and it's to try and understand process.

[S4-IV-45-Clinical Director]

At Shire, junior doctors were also encouraged to carry out audits of the service under the supervision of consultant obstetricians. There were seminar afternoons at which doctors presented their findings in a supportive environment. Meetings were congenial and supportive with senior trainees teaching and assisting junior staff. Questions were rapidly fired at junior doctors and the teaching sessions demanded them to recall facts and learn fast. Positive engagement with audit and review at Shire was reflected in midwives being keen to fill in risk incident forms, encouraged by receiving feedback on the result of reported incidents:

I actually feed back to the midwives, whoever sent them, to say thank you for your Datex, this is the outcome. However, if they take the reference number they can now track them, and find out what's happened to them. So if they're interested to know what happened to their Datix they can follow it. (...)

INT: How do you encourage midwives to fill out those forms?

Manager: We don't need to, they're brilliant at filling them out. (...) I think it's because we ... instilled with the paper copies, when we used to have the paper copies, the fact that they filled them in. We used to go round as senior midwives in the morning and say, 'Right, that lady's had a third degree tear, have we had the risk form?' Yeah? So it's triggers, we've also put triggers now, because we haven't got that facility to do that now everyday [S4-IV-47-Manager].

Risk and governance meetings at Hillside showed similar characteristics, but appeared less securely embedded in the everyday work of the service. Instead, the success of these meetings appeared to depend on the facilitation expertise of an individual clinician, and raises the question of how far Trusts can help such meetings to be so productive, without relying on the expertise, commitment and good will of individuals. Weekly debriefing meetings were held to review untoward incidents from the previous week, to identify both good and poor

practice and share lessons learned. These meetings were attended by a mixture of medical, midwifery and community staff, depending on the cases scheduled. The more formal, Trust-wide Critical Incident Review group met every two months to review significant incidents resulting, for example, in severe morbidity, massive haemorrhage, fetal trauma or neonatal encephalopathy. One obstetrician expressed some concern about the time delay between the incidents occurring and their review at this higher level and there did not seem to be the same particularly high level of commitment given to governance as had been observed at Shire:

We have quarterly risk meetings, which are, in my view, should be the focal point for the risk management structure. (...) Unfortunately my view of those meetings is that they've currently become quite dysfunctional, and I was for example very disappointed when I looked at the agenda for this week's meeting to find that not only was the agenda weak, but the actual material that had been sent out with it referred to the period of time from September to December of last year, when really it should be dealing with January to March of this year. (...) If they were major issues in there they should have been picked up and dealt with by now [S3-IV-13-Obstetrician].

Senior staff at Hillside produced regular staff newsletters, which included information on recent administrative and clinical incidents, as well as reminders, notification of changes in guidelines and feature articles on matters of interest. Despite this, some midwives were still concerned about the flow of information down from the top of the organisation. Such frustration and anger was mostly focused on proposed changes to staffing and a perception amongst Trust midwives that they were not consulted on high level plans to reconfigure the deployment of community staff:

Community Midwife: It's all very up in the air. You'll hear a Chinese whisper about this and then something else about this, and ...

Support Worker: And it makes you uncertain, doesn't it, so you're uncertain in your job, aren't you, you're a bit, oh God, what are they going to do today? You know, if I go on holiday do I come back in two, three weeks time and something else is different?
[S3-IV-15-Healthcare Professionals]

FMU Midwife 1: I know in the future a midwife will be a midwife I think everywhere, won't they? As time moves on again. (...)

FMU Midwife 2: But we have people that are happy with community settings and we have people that are happier with acute settings.

INT: Why do you think they're doing it then?

Midwife 1: Because there's an agenda somewhere. But that's what [Manager] told us, isn't it? There's something... 'there's an agenda that

we don't know anything about'. Well tell us about it! (...)_ Whenever we've questioned it it's been: 'there's a big agenda that you don't know anything about' [S3-IV-21-Midwives]

At Seaview, in contrast to Shire and City, people were observed to arrive late at audit and risk meetings, and leave early. Some meetings were sometimes scheduled at too short notice to be properly prepared. These problems were picked up by a manager with experience in larger urban Trusts, and she introduced new procedures to increase participation in risk governance:

... we don't wait until there's a serious untoward incident, if something is fairly big we will do a look-back review. And again, I've changed how we do that, I do AARs, After Action Review. Um... so we look at what should have happened, what did happen, what was the difference, and what can be learned? So again it's changing the positive spin on it. So people wouldn't turn up when we had reviews, and now because they know it's not about... when we discuss the incident they actually say, 'Cor, did I really not write in her notes... for 45 minutes?' They see the problems, they come up with the solutions, rather than oppose it. [Manager S1-IV-39-MA]

At City, which prided itself on its governance achievements, teaching in risk and mortality meetings repeatedly returned to record keeping in the midst of emergencies. Standards of documentation were reported to be generally high and at risk meetings staff would alternate between concerns about audit - 'We've got no leg to stand on to say we've done our job properly' [S2-Fieldnotes-21] – and expressions of empathy with affected users: 'Putting yourself in their position: they are parents' [S2-Fieldnotes-5].

3.4.7 Organisational strategies for listening to women

When a woman had severe complications or suffered an incident, women reported that it was especially important for staff to keep them informed and discuss, at the time and afterwards, the effects on their own condition and that of their baby. The Supervisors of Midwives in Hillside ran a popular listening service that was advertised throughout the unit for women who wished to speak to someone about their birth.

There is a service that is run for women who are traumatised by their birth, I see a certain proportion of women post-natally and there's a little team of midwives who see them, and the key women that come back to that are the ones that have had difficult OP labours, and they've had inadequate pain relief, and they've ended up with a full dilatation Caesarean section. [Consultant obstetrician S3-IV-4-ME]

The Trust appeared to be proactive in contacting women who they perceived had had difficult births, and meeting with couples who had experienced serious incidents such as a neonatal death.

Of course, you know, you meet with the parents with SUIs, we lost a baby and you met with the parents, and they come up with things. Because they always say, don't they, 'I don't want this to happen to anybody else. I just need to ...' That's the one thing everybody says. And sometimes you can't fix it, can you. But it's nice for them, they suggest something and you can assure them that that's something you're going to look at and review. [Manager S3-IV-17-MA]

Like Hillside, Shire had implemented a listening service for postnatal women who wanted to talk about their birth experience, run by the Patient Safety Advisor in conjunction with the consultant obstetricians. The Patient Safety Advisor believed that the key to the success of the service was their ability to acknowledge what had happened to women:

What women want is someone to acknowledge what happened to them, someone to explain it, someone to say sorry, really, and someone to recognise how shit it was for them and do something about it. Does this prevent litigation? I don't give a stuff. They should be doing it out of a genuine human concern for someone else. [Interview with Patient Safety Advisor, S4-Fieldnotes-1]

Another strategy was staff visits to talk with women on the ward, as done by a Seaview manager who enjoyed contact with women and "making things happen":

.. I don't talk to them on labour ward because it's too soon, but on the other wards I try and talk to at least six patients a day on each area. (...) ... so I'll go and talk to them, make sure they, you know, talk about their care and how is it, and how have they found the whole experience so far, what are we doing right, what are we doing wrong? So when they're a neonatal admission I can talk about the maternity, so I can talk about the whole package. [S1-1V-38-Manager]

In the same constructive spirit, Seaview midwives were able to engage with one woman's complaint and take it as "ammunition" to argue for an overdue change of practice:

There was a theme regarding family not being allowed in, and particularly out of hours. So that was in the background bubbling away, we knew that was an issue. In a way, from my point of view, when this complaint came it was: oh great, we've got more ammunition now to actually say, 'Well look, we've got to change the practice.' It was discussed at the managers' meeting and everyone agreed, yes, we're going to do this. [S1-IV-2-Midwife]

Giving this kind of acknowledgement to the importance of women's voices, and being proactive in contacting women was an indicator of services which were willing to listen and learn in order to improve safety-promoting processes.⁶⁸

3.4.8 Management of transfer

Effective management of transfer is clearly integral to providing good quality and safe care across a range of birth settings. Team working and transport issues were key factors that staff and stakeholder respondents felt were key in the management of transfer.

Team working

The cases of emergency transfer from FMU to OU that we observed were marked by a high level of co-operation involving well-prepared and briefed staff, and good telephone communication. Women were transferred effectively to the OU with midwives in attendance and staff prepared and ready to respond on arrival. This FMU midwife describes during the transfer of a woman with a prolapsed cord from the FMU to the Central OU:

[The senior OU midwife] kept, you know, in touch the whole time. She put the phone down then she would ring back, and we would ring her. And then, you know, it was ... we were talking to each other all the time. And the paramedics were sent for. (...) We rang [the OU] to say we were turned onto the motorway. (...) We rang again then and said, 'we won't be a minute.' And then ... so we were straight upstairs and we went straight into theatre. All of us [S3-IV-14-Midwife].

The smooth transfer processes from FMUs to OUs that were observed appeared to be supported by the positive commitment to teamwork, inter-professional respect and communication that was described in previous sections, and the use of clear, evidence-based guidelines that were widely supported:

[The OU midwives] say the unit is safe because they have protocols and they are rigid with sticking to them: 'they are there for basic safety' [OU Midwives, S4-Fieldnotes-10].

[A group of doctors and midwives carried out some research into] the safety of the midwife-led units. And the reasons for the safety of them are ... you've got experienced midwives, you've got good guidelines, um ... you've got good relationships with consultants, you haven't got any issues with referrals. Um ... and I suppose the midwives knowing the guideline know what type of women can deliver within those settings [S4-IV-47-Manager].

'You know the cut off point for transfer' and might call and talk through your quandary with the Shift Leader on Labour Ward at the

OU. Sometimes she has called the ambulance and made the wait outside because she thinks they're going to transfer but then it's been ok and she's sent them away. There are rules how long you can hold them on stand-by. She's held them and cancelled three times and transferred five times [FMU midwife, S4-Fieldnotes-5].

While use of guidelines was clearly important, professional experience and positive working relationships were seen to be of value when professionals experienced more 'intuitive' concerns that something wasn't right. Hillside FMU midwives, for example, discussed as a group feeling able to recommend transfer on this basis without censure from colleagues:

I think [midwife] and I often keep ladies where I know ... other midwives wouldn't have kept. [midwife] and I will. Don't we? We do, don't we? Yes. But then other times I'll go, 'Oh no, I don't like this one!' And they'll say, 'Why?' I say, 'I just don't know, I just don't. I've got a gut feeling there's something not right here!' [S3-IV-21-healthcare professional group]

When community midwives were experienced and skilled, this was positively recognised by OU staff, who gave them credit for transferring wisely when needed for the woman's or baby's safety:

[The Trust data on transfer] showed that our community midwives are very skilled in selecting women that are very low risk and are OK for a home birth. It also showed that if an incident occurred in the birth, then they were more than willing to transfer women in [S1-IV-1-Midwife].

While transfer between AMU and OU did not present problems of transport or distance, our observations and interviews indicate that other factors complicated such transfers. Some staff suggested that the proximity of the AMU to the obstetric unit meant that midwives were more likely to transfer women earlier than they might from an FMU or from home, which may account for the higher rate of transfer from AMUs found in the cohort study:

Perhaps knowing that we're so near, then it, it sort of taints the midwives and the midwives know and they know they can just transfer a lady, so perhaps ladies get transferred too quickly [S2-IV-6-Midwife]

In addition, although our case study services were characterised by commitment to communication, teamwork and respect between professional groups, disagreements between staff of the AMUs and OUs could still engender problems during transfer:

... usually they [AMU] are quite strict in their admission criteria. Like this woman who was over 24 hours (...), and although she was quite advanced, and she had her baby five hours after she arrived. They

didn't want her. But to be honest, when they get so much other stuff, muddy stuff, that is not supposed to be there anyway, I am thinking, "Why couldn't she be there?" [S2-IV-7-Midwife]

At City, midwives working on the AMU prepared themselves for possible situations of escalation and transfer, and tried to guard women's safety pre-emptively as well as attending to apparently tranquil normal birth processes, as reflected in this discussion between a group of midwives working on the AMU:

Well a lot of the time I think, because you're, even though you're right next door to them, you're still the [AMU]. So the midwives, all of us, Band Sixes and Sevens, are all always looking, it's, you know, forward planning is sort of, you know, the key really isn't it? That you can either pre-empt something or act on it very quickly if you know it's likely to happen.

(...)

So there's that part of it that you do as anticipatory planning; and then those, there are those decisions, do you, transfer now or give her a chance type situations; the other thing is, if we did want to transfer, is there a bed next door? Is there a midwife next door who can take over? How many women are waiting in the waiting room? How many people are in the day unit who are labouring? All those sorts of things kind of affect us ... [S2-IV-4-Midwife].

There was discussion about midwives accompanying women in transfer from low to high-risk units. A formal limit was put on the time midwives should be absent from the AMU when doing this, but it was sometimes contested with reference to the woman's best interests - receiving continuity of care and with a midwife experienced in midwife-led care:

If a woman needs to come over she needs to come over and that's that. If there's a room she comes over. Now, if it's to do with midwifery staffing then really the midwife who's been looking after her all that time on the [AMU] should, in my mind she should come over and stay anyway, because it's the journey of the woman and not the area. But that doesn't happen, and they should go back, within policy it says that they should go back within the hour. (...) I think the idea behind it is this, they want to maintain the ethos of that's a low risk area, separating it. [S2-IV-5-OU Midwife]

Transport

Despite these cases of smooth transfer, an Obstetrician at Shire said that transport presented real challenges to their more rural service:

The voluntary transport service [by air] is not really set up for a maternity service so we can't really transport neonates safely and there are issues about transporting pregnant mothers. So it kind of, it's not really properly integrated into what we need for rapid transfer. [S4-IV-45-Obstetrician]

Staff at Hillside also reported that the regional centralisation of ambulance Trusts meant that transport service staff were now often unfamiliar with the local area:

Since the control centre for the ambulances moved out of [town] it's been harder with the phone calls because no one knows where you are [S3-IV-29-Manager].

It's not always easy to get an ambulance, and you need a paramedic ambulance, and the ambulance headquarters used to be at [Central town], now their control centre is in [a town a long way away] and they don't know the area, you know the same people, you know, go round the houses when the local controller would have known exactly where to send the crews [S3-IV-19-Manager].

There was a potential case for developing transport protocols specific to the needs of maternity care. The merging of a number of smaller ambulance services into a large Ambulance Trust had made communication between the Acute Trust and the Ambulance Trust at Hillside, for example, more difficult in recent years. The Trusts used to work closely together, contributing to the training of midwives and paramedics, but with the merger the size of the new Ambulance Trust prohibited small-scale local engagement. There was also concern that the specific needs of such a rural area were lost since the merger, as the rest of the region was very urban, for example the need for rural paramedics to carry certain drugs because of the time to transfer into hospital. A number of community midwives complained that ambulance call centre staff stuck rigidly to a script that was inappropriate for use with healthcare professionals, illustrating again the loss of flexibility that came with the creation of the new large Ambulance Trust:

The biggy, I've got to say to you, was ringing 999, because they kept taking me away from the emergency for pathetic details. Now I know they've got to do it, I know the ambulance is on its way, as soon as you log that call it's an obstetric emergency, the ambulance is on its way. I object to this, you've said who you are, 'Do not touch any part of the baby.' I'm the midwife. 'Look, I'm going to have to go, you're taking me away from the emergency, my colleague's on her own.' And this went on, and it just seemed forever, I kept trying to walk off. [S3-IV-14-Midwife]

Similarly, midwives at Seaview described transfers from home hampered by slow response from the ambulance service and a rigid script:

Here they [Community Midwives] have to go through, they're treated the same as a member of the public: 'Is the patient unconscious?' you know. You've got a cord prolapse, you need... this is life or death, and you're having to go through that. That to me is an issue [S1-IV-38-Manager].

To summarise, the provision of safe and high quality care required staff to negotiate a number of significant and complex challenges in their daily working lives. Relationships with colleagues, the organisation of human and material resources, the management of work-spaces and practical arrangements for transfers, in addition to the characteristics of the women being care for, all presented difficulties for staff.

Despite these challenges, healthcare professionals and managers at all four sites generally demonstrated: good relationships with colleagues based on mutual respect for each others' roles and effective team working during transfer; a culture of openness amongst staff, particularly when discussing poor outcomes; the promotion of training opportunities, although these were not equally available to all; the use of guidelines to support midwife-led services.

However, Trusts continued to struggle to effectively deploy appropriately skilled staff, especially in community settings. Staff deployment was challenged particularly by the rise in acuity experienced by all four sites in recent years. Community midwives appeared isolated from their hospital-based colleagues and from training and other learning opportunities such as audit and review processes, although there had been a shift towards integrating community and hospital-based services in some Trusts.

Services struggled to use IT systems that were arguably not fit for purpose. The demands of data management were reported not only to affect behind-the-scenes management of services, but also the nature of clinical contact.

Practitioners' interest in managing the borders and boundaries of birthplaces, particularly AMUs, was a symptom of the differences in 'philosophy' between the two areas and the effects of shortages of staff and beds on the OU. Both of these factors impacted on the running of the AMU and the transfer of women from the AMU to the obstetric unit.

3.5 Women's experiences when complications occur

In this section we explore women's (and birth partners') experiences of labour and birth when complications and escalation occurred across a range of settings. This section is organised under three key areas: the potential for women and their families to contribute to their care, their experiences of escalation when complications occurred, and experience of transfer.

3.5.1 The potential for women and their families to contribute to their care

Staff could often facilitate communication, but when they did not, it was often up to women and their partners/families to take the initiative. Women felt more able to speak up if they were supported by information they had researched, their own professional or social status, a partner or family members' presence, or an assertive personality, as in this example:

Well you had to be quite insistent, you had to be confident enough to say, well I do need something and I will press that buzzer, and... not be put off if they are... sort of impatient, or short with me. Just stand your ground and say... um... 'I need to... I was meant to have the result of this test and I haven't heard anything, and what's happening?' Or, 'When is my catheter going to be taken out?' Or, you know, that kind of thing. 'What's going on?' Because at that point I felt rather... that everything took a long time, all the processes seemed to take a long time, and you'd have a test in the morning... (...) So I felt powerless, because... because I didn't know. I didn't know... [Postnatal woman, S1-IV-21-W].

Another woman who had researched her condition noted that:

... I'd done a lot of reading about it and the next day when a paediatrician actually finally came and spoke to me, and I could say, 'Why are we being kept, you know, why hasn't the baby been discharged?' And she said, 'Well we need to monitor the baby.' And I said, 'Well, do you think there's something wrong with the baby then?' And she said, 'No, we need to keep the baby here to monitor her, because of your Group B strep.' And I said, 'OK, so what form would this monitoring take?' And she said, 'Well, um... we would need to take the baby's temperature and... monitor the baby.' And I said, 'OK, so you're going to check whether she's got a strep infection by taking her temperature, are you?' and she said, 'Yes that's right.' And I said, 'Well I came onto the ward at five past one last night and that's the last time that the baby's temperature was taken.' And I said, 'It's four o'clock now: if there was anything wrong with her, you know, she hasn't... um... you wouldn't have been able to tell that from, you know, taking her temperature.' [S1-1V-37-Postnatal woman]

Some women armed with their own research negotiated with staff for their chosen birth options on fairly equal terms, as this couple recalled:

Postnatal woman: I looked up all the research and, um... I was quite confident having looked at the research that I'd be all right.

Partner: Well yeah because they seem to paint a picture that this scar rupture thing was going to be like a really big deal, and when you looked at the actual numbers...

Postnatal woman: (...) You're more likely to go out and get run over by a car than you were to have, you know, scar rupture.

Partner: Yeah, and when you think that [Site 1] did nearly 4,000 births last year, and we just thought, well, yes we are taking a risk but we're playing the numbers basically, the risk is really small and we know what it is. So, I think [postnatal woman] was, you were tooled up with that kind of research. [Postnatal couple S1-1V-31-WP]

Having supportive family present encouraged women to voice their needs or concerns to staff. One very young woman had learned from her sister who advocated for her:

I asked if anything had changed for her between the first and the second births. She said, 'Me. A little more confident. I would advocate a bit more. My sister was there with me,' she said, 'when I had the baby, and she pointed to the state that I was lying in the hospital, and she said, "My sister's not lying in that bed, there's someone else's blood all over it".' [S1-1V-3-Postnatal woman]

The presence of a partner, birth partner or relative could be crucial in giving women moral and practical support to get through challenging experiences including birth unattended by professionals, as was the case with this woman waiting for community midwives to arrive:

Postnatal woman - 'Get me mam, get me mam, get me mam now.' Mam was here within what, five, ten minutes?

Partner – I think she took about five minutes to answer the phone.

INT – Does she live quite close then?

Partner – Round the corner.

INT – Oh right. That was handy.

Postnatal woman – At the time she came round she says, 'How often are they coming?' I just turned and looked at her like, she says, 'Get down on there, now.' 'I need to push.' She goes, 'Well push then.' I goes, 'I can't.' 'Why can't you? You know what you're doing, you've had them before, just calm yourself down, because the midwife ain't here. And you know what you're doing.'

INT – Oh, so you were kind of hanging on for the midwife.

Postnatal woman – 'You know how to read your body. If your body's saying the baby's coming out, then go with it, I'm here. [Partner]'s here.' [Postnatal woman S3-IV-31-W]

Having a confident personality and the presence of a supportive ally made it easier for users to broach problems with professionals. Those who perceived themselves more at risk from a family history of maternal and neonatal morbidity/mortality, and medical/obstetric conditions that signified risk in pregnancy and birth understandably

found it harder to negotiate their needs. Interrelated factors contributed to one woman's difficulty in voicing her concerns or obtaining enough support to make informed decisions (she was offered specialist antenatal care for her epilepsy but not for her hemiplegia which signified reduced anaesthetic options for her in labour):

The... [4 second pause] issues of my disability were never raised, so I just assumed there wouldn't be a problem. Um, the problems only arose when I was in the delivery room [laughing]. (...) The problems basically were that I wasn't, I wasn't able to have an, I wasn't allowed to have an epidural, um, because of my disability. I've got a hemiplegia, um, and the midwife who, midwife on, um... in charge at the time said that she didn't feel that, er... an epidural would be suitable for me because they wouldn't be able to tell what, um, I was in control of and what... what the, um, disability was... um, affecting. (...) Um... and that was all, that was all, um, discussed literally when I was on... literally, um, in the labour ward, so yeah, ready to give birth, and they were like, 'Oh. Um... well. That's not going to be an option.' Um... um... so that... I felt... I felt that that should have been discussed before. Um... yeah, before I went into labour, or, you know, at the midwife stage really, when I was visiting. [Postnatal woman S1-1V-36-W]

3.5.2 Staff response to women's concerns

On all sites there was a strong sense of community midwives inviting, listening, and responding to women's views. In Hillside, with community midwives rooted in local, often very deprived communities, women from a range of backgrounds felt able to discuss their care with them, even though they were often more deferential to medical staff. Women often felt able to display their doubts freely with them, and obtain answers to their questions. This quality of dialogue made it easier for women to raise issues of concern in a timely way:

Ah, she was just ... I don't know, easy-going, you know, you didn't feel on edge. The midwives were like that though as well, you know, you felt like you could come out with the stupid questions, you know, and you wouldn't feel silly. [5 second pause] I don't know, just ... you felt comfortable, totally at ease with them. It's quite a shame that you don't see them any more! [Laughs] [Postnatal woman S3-IV-23-W]

When women felt *unable* to ask about their options or challenge professional views – for social, cultural or personal reasons – they expressed feelings of frustration, annoyance or regret:

... I knew in my heart that I didn't want to be cut, that was one of the things I'd known, and I knew that I'd wanted to be as mobile as possible, so I felt a little bit restricted. But again, I'm not a doctor or a nurse so you have to take the guidance that you're given at that time. So um, so anyway, I had my legs up for the stitching, which was fun...

um... there were, and... there was a little bit of a problem, basically they stitched me up and then it became clear that they'd, that it had been - there was a problem with what had happened, I think they'd done it a little bit incorrectly. So they had to bring in another nurse, or midwife, to do it. So it ended up my stitching took almost as long... [laughs] as long as the labour, well it felt like it anyway!But I mean obviously I was so elated at that point you don't really think, you don't really think about these things. So it's only with hindsight that you start thinking, that was... yeah, that was a bit of a... [laughs] clearly something went a little bit wrong and you start getting a little bit more irritated about things like, did they have to cut me, and did I have to be lying down? [SX-1V-23-Postnatal woman]

Reflecting on such events, self-blame or anger could creep in, as the same woman said:

... I have been thinking quite a lot about, I was almost like, (...) should I have done that? But obviously in the height of it all you don't... you don't... you can't really think it through. And probably it's my fault that when I went in in the morning I should have been more, 'This is my birth plan, if things start kicking off...' But I think because I thought it wasn't going to kick off, I'd have more time to fight my corner or be coherent enough to... [laughs] have that! But it all just happened so quickly in the end that I lost that window of opportunity. [SX-1V-23-Postnatal woman]

This account expresses one woman's sense of having lost a small chance – glimpsed retrospectively - to change the course of events and resist an unwanted medical intervention for which she expressed self-blame.

Other women and partners also referred to fighting and standing their ground as they attempted to defend their choices, sometimes placing midwives in difficult positions:

... But then about two and a half hours later she [midwife] came and she said, 'They're really putting pressure on me in the [AMU]- in the [labour ward] that you go into the [labour ward]. They're really putting pressure on me for that. And, um, I've really tried to be your advocate. Um, but you know, um... I think you need to speak to the consultant obstet-, in the... you know, the obstetrics consultant.' And I sort of, I just... my boyfriend was saying, 'Hold out, hold out, hold out,' he was ready to fight for me. [Postnatal woman SX-IV-23-W]

[Partner] ... but I don't think the midwives that we had at that time were strong enough to fight your corner for you.

[Postnatal woman] – No. No.

[Partner] – So they, whether they read the birth plan or not we don't know, and if they...

[Woman] – No. They probably did.

[Partner] – Yeah, and if they did they should have been a bit more... on your side, and saying, 'Look, this is... she's obviously come from a point where she wanted this and she's at the total opposite in the spectrum. [Postnatal couple SX-1V-31-WP]

Other couples reported concerns when they perceived staff were not listening to their worries:

We realised all the Entonox bottles that we'd brought, only two of the four were full, the other two only had a little bit left in them. (...) And I panicked straightaway, and I said, 'Can you please get more?' I said, 'Because I ... I'm really worried we're going to run out of ... run out of Entonox,' because it would take them 20 minutes to get to [local town] Hospital, however long it took to get the Entonox and 20 minutes to come back. 'Oh we won't need any more.' You know, fair enough, you know your job, but, I said, 'I really would feel happier if one of you went and got me some more Entonox.' (...) But I just panicked. I panicked like mad, and um, they were still insistent that they weren't going to get any more. [Postnatal woman SX-IV-32-W]

Women reported that this variability of response – sometimes good, sometimes poor or evasive – had a direct impact on their experience and memory of the birth. For example, one couple who had a severely disabled baby reported how their attempts to raise alerts in pregnancy had been ignored by staff with devastating consequences for them:

... signs of distress were dismissed or ignored (...) with my son... (...) Four days prior to his delivery, my blood pressure had gone up at that point as well, and... [K, midwife] just wanted (...) a blood test, nothing else, just to rule out pre-eclampsia. And so my husband and I went up to the Hospital ... and... they refused to do the blood test, they said it was unnecessary, they'll just hook me up to a monitor (...) for an hour, and then see then if they think I still need to have the blood test. And during the time that I was strapped up to the monitor, the baby's heart rate was going down from sort of 130, 140 down to sort of 60, 70, and it was only when the baby then moved that it went back up. And this happened several times during the hour that I was monitored.

We brought it to the attention of the midwife on the ward, and the response we got was, 'Oh don't worry about that, the machine does it sometimes.' (...) Um... but all our questions were met with really vague answers, sort of very... [3 second pause] reluctant to give us any response at all to questions - this wasn't the midwifery service, this was in the Special Care Unit. The nursing staff were quite good but the consultants... er, rather evasive in their responses. (...) And then we were told the day before he was discharged that he's got cerebral palsy and epilepsy, so that's how long we had to prepare ourself. [Postnatal woman SX-1V-18-W]

Sometimes speaking up was effective, and women's wishes were heard and acted upon. At other times women found their written or spoken requests were ignored, sometimes with physical or emotional

consequences. In this case, the woman subsequently had postnatal depression, and made a formal complaint to the hospital. She was not happy with the response:

This is the bit that affected me. They gave the baby to my husband, not to me. I just saw a bit of the back of a towel. This baby miles away, no skin to skin, not even looking at him. I was given him in recovery.'

When we made this complaint after 18 months, in the hospital they said that they'd changed - but it wasn't true. She didn't like the language in which she was responded when she made a complaint. For example, (the letter of response to her complaint said) "I'm sorry that you felt that ..." - she said - 'As if I was neurotic.' [SX-1V-6-Postnatal woman – notes on interview]

3.5.3 Escalation

Sometimes, women's experience of escalation was sometimes characterised by feelings of worry and disempowerment or disappointment. For example:

... my labour, it didn't want to at all the way I plan it. I didn't want a cut and I had a cut; they have to like to give me an epidural. I didn't want it, actually, when I had pain I didn't even take gas and air. I didn't need anything. I was fine I was coping. I was just breathing in and out. So I was fine but in the end when they said I have to give me epidural, I was so sad, but at the same time like they said they couldn't do the stitches without putting in the epidural cause the cut is really deep. [Postnatal woman S2-IV-29-W]

In contrast to the more critically informed approaches taken by several women in Seaview and City Trusts, women in Hillside and Shire were more likely to take the skill and knowledge of health professionals for granted, and assume that their decisions were timely and appropriate.

Um ... I don't know really, I just kind of, I didn't really know what to expect so it was kind of ... I would go in and ... I didn't have any specific things that I really wanted, like ... I just wanted my mum there and my husband there and that was it really. I just wanted to ... I think I just wanted to be in hospital just, just in case, and so that they kind of knew what they were doing because I wouldn't have a clue! So yeah. [Postnatal woman S3-IV-8-W]

... and I think for me, personally, part of it was I could trust the medical staff, and ... so I was quite happy that they knew what they were talking about. Because they know more than me. [Postnatal woman S4-IV-51-W]

Other women expressed relief:

I didn't want to have in my mind a specific plan or want it to be like this, because you just never know. Um, so you know, when it was a case of ... you know, we're going to have to do a Caesarean, it wasn't, you know, oh no I'd really rather try and have a go, it was just do whatever, you know, if you think that that's what you need to do then do it! So and I mean the next day the ... my surgeon came and saw me, the consultant came and saw me and explained everything that had happened and why they'd gone down that route, which was really fantastic. (...)

INT – What did you want from them when you were in that situation?

Um ... probably just the fact that they were calm and knew exactly what they were doing.... [Postnatal woman S3-IV-10-W]

Women appeared to mirror the emotional response of those around them. Doctors and midwives who remained calm, composed and encouraging, even during dramatically escalating scenarios, enabled women to stay calm and this could leave them with positive memories of the birth.

But they were excellent, really really good, and they just really just encouraged me to keep going, keep going, and then after a while I was like, I'm going to have to get, I'm going to have to have some help, because I've been going for so long and ... The doctor came in and decided that they'd use ... ventouse to help get him out, because he was really, really near, and I almost, almost got him out on my own, but I just needed that extra help at the end. [Postnatal woman S3-IV-11-W]

Clear and careful explanation of events by healthcare professionals was a common theme that ran through all of women's *positive* narratives about escalation. Adequate information, support and follow-up could lead even women with very difficult birth experiences to retain trust in staff and confidence in their care:

I didn't know what it's about cause I had never had a baby, so it was my first time so, I didn't know after what was going to happen anything about so, whatever they told me like this don't know anything. I was thinking like they have been delivering babies for long time so they know what they are doing so whatever they told me to do like they are doing so it's o.k. just do it. That's all.

But, afterwards I was like why did you say "yes" cause I don't know, like, cause the cut was like really bad and I wasn't happy with it. My back passage.. if I have to open my bowels, like, I have to stay there like for two hours like waiting and they say "you can not push". I could not push or anything and then one day basically I did push.. the stitches came off so.... and then afterward I was, like, why did you

say yes. But it is fine. My baby is fine and I am fine so... I think the place is going to heal..so (...)

Did you feel well supported with this or [how] do [you] feel?

Yes I do. I do feel supported because now basically after my baby now is 6 months they still send me appointments and have to see me they ask me questions I have to see physiotherapist. Yes, they will help me. (...) [Postnatal woman S2-IV-29-W]

Trust in professionals was an important aspect of feeling safe, physically and psychologically. Most women were prepared for the unpredictability of events in childbirth, which was something that had been emphasised in antenatal classes and conversations with midwives:

INT – And when you were pregnant did you have ideas about how you wanted your birth to go?

Um ... not really. Um, I kind of, it was one of the things that I just ... I probably was the most relaxed about, it was just whatever has to happen will happen. I didn't want to have in my mind a specific plan or want it to be like this, because you just never know. [Postnatal woman S3-IV-10-W]

The emotional effect of escalation was also expressed by some:

... I was kind of like upset that the whole thing had gone that way. You just expect to deliver your baby and then be walking around and the whole C section thing, but the more I think about it the more, um ... I know that was probably the best thing that, you know, that did... Because my midwife at the time, she said, she was there during the birth, and she said, 'To be honest, K, when they done ... when they cut you, um, the baby's head wasn't really down in your pelvis,' so you know, I could have gone the full ten centimetres dilation and had to have an emergency Caesarean anyway. And the cord was all round his neck and ... there was a multiple things that, you know. So ... I've kind of got over it. At the time I was like, oh no, I don't want it to be that way, but you know, when I look back I think, well ... you know, he's well and that's it really, yeah. [Postnatal woman S3-IV-25-W]

Generally, women accepted the need for escalation and provision of information that was clear and easy to understand, timely and appropriate, particularly in an emergency, helped to make the experience more positive:

... [they] explained a bit about what it was they needed to do but weren't going into the absolute nth degree, because you're not in a position to take in loads and loads of information... I didn't need them to kind of wax lyrical about absolutely everything that was going on, it was a case of, if you need to do it then let's do it. [Postnatal woman, S3-IV-10-W]

With good staff support, women could experience escalation in a positive way, keeping calm (mirroring professional calmness) and collaborating with emergency interventions. This was illustrated by the following woman, who had a spontaneous vaginal birth for twin 1, then needed a caesarean section for twin 2:

... the anaesthetist there was really nice. [Name] I think he's called, he was dead nice, he was chatting away to me and he was like, 'God you're so relaxed!' [Laughs] Because I was just, because I mean I had like one midwife with a monitor on doing the monitor, and sat with a cushion over me while somebody else was doing my back, he's trying to find a line, which I think he put in my wrist in the end, because I'd had them in both hands and in both elbows or something, and I'd had ... so he ended up putting a ... IV in my wrist there. (...) I'm just doing whatever they told me to do. He's like, 'Oh you're so laid back, so relaxed,' like you know, he said, 'You're calm in a crisis.' (...) but I didn't see the point in getting ... worried over anything, you know, because I mean, it's got to be done hasn't it, you know, so I just, I just done whatever they told me to do. [S3-IV-20-Postnatal woman]

We have noted that some women viewed the presence and use of medical technology as a marker of the safety of hospital care, particularly when considering choices of birthplace antenatally. It should not be assumed, however, that the use of technology necessarily enabled women to feel safe.

But for... for many years I have been aware of the relationship between, um, induction and the cascade of intervention, as it's termed, and thence emergency Caesarean. And so I was so aware of this, that I really didn't want to have an emergency Caesarean. So that was why I was avoiding the induction... [Postnatal woman S2-IV-23-W]

Postnatal woman - Um, but then the thing that was strange, and... and I don't know, I'd have to - I'd have to have someone... tell me this, but... the machine that was monitoring my contractions wasn't working properly. So having been sold the huge value of the monitoring, then the monitoring machine wouldn't measure the, the contractions, the bigness of the contractions.

INT - How did you know the machine wasn't working properly?

Postnatal woman - Because the midwife kept having to write, draw a line with a ruler on the piece of paper when the contraction came.

INT - Did you discuss that with her?

Postnatal woman - I said to her, "What are you doing?" and she said, "Well the machine's not measuring the contractions so I have to put them in". So it was a little bit more human error, you know, and you couldn't measure the size of the contraction, because there was nothing to do that. She just measured where they came, just... the heart rate was fine, baby's heart rate was going, was being monitored fine. But it was one of those things where I thought, if she hadn't have

had to been occupied with that, would she have known sooner that the baby was facing the wrong way, because she would have been more occupied with my body rather than the machine? [Postnatal woman S2-IV-23-W]

Several young women interviewees described feeling unsafe rather than a sense of safety during medical interventions: feeling uninformed, scared, and invaded by technologies they did not understand. For example:

After that the baby still wasn't coming out so they pressed the crash button and I didn't know what was going on no one explained anything to me and I was just like what's going on what's going on and by that time everybody came all the midwives and doctors and then they took me to the theatre and they had to top-up the epidural and help me have a forceps delivery, basically.

INT - *Did you feel sort of anxious at any time or scared?*

Yeah I did because after um they gave me the epidural and they pressed the crash button So many people came and I wasn't explained to what was going on cause I just so many people were sticking needles inside of me and I was really scared and no one could explain to me what was going on. My sister had to tell them all to stop that, let them basically explain to me cause I was telling them no one should touch me cause I didn't know what was going, because I was really scared and I was like what is going on with the baby and what is going on with me cause by that time I was so numb from basically from my neck all the way down and I didn't know what was going on.

INT - *Did anyone explain after?*

After they explained to me what was going on and how why they had to do it. It was alright but I could have thought they could have explained to me before everybody started sticking needles inside of my body because at end of the day it is my own body..... Yeah. [S2-IV-27-Postnatal woman]

A few women also reported poor experiences on behalf of their partners, such as being left alone with little information after the woman had been taken to theatre, as in these two cases:

... well I'd been induced because I had pre-eclampsia so I ended up, I was induced and then when I'd been in labour for how many hours our heart pressure went up or something and that's when I got rushed in. But to me it's just, it wasn't that bad. I had had a lot of drugs, but to [Partner] it was like (whispers) horrifying, you know, being in the theatre and getting whisked away and what have you. And then when the baby arrived obviously I didn't get to see him or anything, [Partner] got taken away with baby and he didn't know where I was or anything. (...) [partner] keeps saying to me how I nearly died, but to me it didn't feel like it because I'd had so many drugs and everything.

He and I have a total different story of like our birth experience [laughs]. [S3-IV-16-Postnatal woman]

... they just sort of said I was having an emergency Caesarean, they didn't have time to explain. (...) it wasn't really that well explained really, you know, why it had happened or ... (...) I think the worst thing for [partner], he was left in the room on his own, nobody even came to explain to him, at all. He was in there for like 45 minutes on his own, not knowing what had happened to us or anything at all. I always say it must have been harder for him, because I didn't know nothing. [S3-IV-28-Postnatal woman]

One man's collaboration with the midwife went well during the home birth. However, when his partner was transferred to hospital to suture a tear, his experience was far from positive, and his role shifted to one of advocate for the woman's discharge after a series of delays:

Well... [R, his partner] was taken away very quickly to have the tear stitched up, um, and I was... so I was just left with [baby], who in fact was asleep. (...) well, she went onto the... emergency... ward... and... (...) I couldn't visit her, um, until she was transferred back onto the general postnatal ward, and the visiting hours... are, were restricted... so that... you had to leave at ten o'clock at night, for instance... um, and visiting hours started... I can't remember what time they started in the, in the morning (...) It was... frustrating... to be there and... I have to say I felt sort of somewhat disempowered. (...) I had a distinct role in getting [R] out of hospital. (...) ... there were long... long, long gaps, so we were there for much longer in fact than we needed to be. (...) I mean I remember indicating very strongly that... we were going to go home. I mean this was at a stage where we'd been told that... someone would come and see us at sort of six o'clock in the evening and would no doubt discharge us, and in fact we... waited around till one o'clock in the morning for someone on the night shift to come by, which they did, and they then sort of indicated that although someone else had said it would probably be all right to go, they weren't sure and they thought that... probably... um, [R] ought to stay in another day. And at that stage I remember saying, 'Well actually no, we're going home.' Um... and we did! [Laughs] [Partner S2-IV-24-P]

In another case, a woman felt angry with her husband for *not* having supported her when she was obliged to have an unwanted intervention:

I felt really let down, really, really let down, and I directed a lot of that anger at him because I thought, you know, he's supposed to be my advocate, he was supposed to have stopped that from happening... and um... and it caused... it did cause problems within our relationship. [S1-1V-25-Postnatal woman]

3.5.4 Transfer

In the cohort study, 16% of women transferred during labour or after birth across all settings, including planned OU birth, where the transfer rate was, as expected, very low (1%). Transfer rates from non-OU settings were around 26% from AMUs, 22% FMUs and 21% from home. (Note - all figures rounded to nearest whole number.) In the cohort study, the main three reasons for transfer were delay in the 1st stage of labour, signs of fetal distress and delay in 2nd stage. Repair of perineal trauma was the main reason after birth. The prospect of intrapartum transfer is a major consideration when women make a decision around place of birth and concerns about transfer distance were often cited by women as reasons for planning labour in hospital. For other women interviewed, the possibility of transfer had been anticipated, especially if they had previous birth experience or had done research on their case:

I was disappointed to transfer in, but I knew it was safer to do that because if they broke the waters here it could end up with cord prolapse or, um... some other complication. (...) I knew once I transferred in that I would be expected to have a cannula in, that's why I didn't argue that one. [Postnatal woman S1-1V-31-WP]

Despite this awareness of the need for flexibility, the need for transfer could be deflating, as the partner of a woman who transferred from home to hospital reflected:

Well I... a... because I didn't know exactly what to expect at that stage, I thought that the blood was perfectly normal, until [the midwife] said that there'd been... a tear that she was not able to repair, and that [Y] needed to go into, into hospital, and she called the ambulance very promptly.

INT – How did you feel about that?

Disappointed. Um... because everything had gone so smoothly up till then, and we were really looking forward to just having [baby] at home and having her stay there without the need to go into hospital and to have, you know, go through... go through that process. I mean having... having decided that we wanted a home birth, we very much wanted to, um... it sort of felt like a retrograde step then had to have to go back to hospital, and so we, we sort of hadn't managed to avoid it after all.

Um... having said which, um... you know... although... although I was disappointed, the overriding feeling was one of sort of joy and relief that the baby had come out and seemed fine. [S2-IV-24-Partner]

Good information provision and confident decision-making was key for women who might be disappointed about need for transfer. When this was lacking, transfer and escalation could be a particularly difficult time

for women and also for their partners, as described by this couple who requested transfer from planned birth at home:

Postnatal woman - [to partner] And you had to say to them [midwives], didn't you, 'No ...'

Partner – Yeah. Well ... at first they were like, 'Well, let's ... keeping trying,' and then I think ...

Postnatal woman – I was adamant I didn't want to.

Partner – They [had to?] ask me and I had to make the decision. And I sort of ... I knew you didn't want to do it so I said, 'No, let's go to the hospital.' (...) The thing is at that point, I think it would have been patently obvious for about half an hour that there was ... based on how far she was progressing ...

Postnatal woman – I wasn't progressing.

Partner – [I had to do?] some maths for them based on ... she's using a bottle of Entonox every half hour or something, you know, it was pretty obvious that there was no way she could have given birth here, we had to move to the hospital. [Partner in joint interview S3-IV-32-W]

Transfer from low to high-risk hospital units could also be disappointing, and this was resisted by some women who wanted to avoid medical intervention:

At one point they - my blood pressure was really high and the midwife who was on duty said, you know, 'We want to put you in the high dependency... area so that we can monitor you,' and I really didn't want this, I just thought this is just everything that I don't, that I don't want. And I said, and I just dragged my feet about it, you know, I just was really uncooperative, I wasn't in any fit state to actually... you know, argue or anything like that, so I just dragged my feet until they phoned [S, midwife] who was on duty and [S] said, 'I'm sure that her blood pressure's high because she's stressed out because she spent the last night in hospital, stick her in the birthing pool...(...) and I'm sure her blood pressure will come down.' And it did, and [S], as soon as she'd finished her... the clinic that she was doing came straight along to the hospital and she actually delivered [baby]. [Postnatal woman S1-1V-25-W]

Whilst most women who birthed at home were pleased they had made that decision, one woman described feeling unsafe at home, where she had expected to feel relaxed, safe and supported, because of lack of confidence in the community midwives attending her, who, in her view had resented being called out and displayed their own lack of confidence by recounting 'horror stories' of home births. This woman reported that she would plan a hospital birth in future, because the care provided had not made her feel safe:

I said, 'Right, I want you to call the ambulance then, because I'm not staying here. I'm not going to go through this' (...) and they ... they refused to call the ambulance on my say-so, they said, 'No, no, we'll stay.' [To partner] And you had to say to them, didn't you, 'No ...'

I just didn't want to stay at home any more. Because I just felt like everything, all the control had gone, I didn't feel safe.

[S3-IV-32-Postnatal woman and her partner]

Whilst this woman's experience was unusual, it demonstrates that feelings of safety are not necessarily a direct or automatic function of place but may depend on professional behaviour and manner. It also shows the significant impact on women of midwives who lack confidence in attending women at home.

Transfers between AMUs and OUs sometimes also occurred for organisational rather than clinical reasons, (in either direction), because of staffing or bed pressures. Some women on AMUs described being moved around between wards or rooms as a depersonalising experience. This was likened by one woman to hot-desking in an office.

I think that they should cater a little bit better for people that are in hospital more than a day or two. They just seem to be... you were just pushed... I mean I was in there in the day, then I had to pack up all my stuff and take it to the other ward for the night time, I'd be backwards and forwards, which is very unsettling. ... You know, it's like say... you could be working in an office and not have a permanent desk.. [Laughs] [S1-1V-34-Postnatal woman]

Such moves could affect women's overall experience of care, as in the case of a teenage mother who associated them with being discriminated against by staff because she was young:

... I just felt judged by most of the midwives because after my birth they moved me, was it, I was still at the birth centre, but they moved the rooms and they put me in some tight hot room with a newborn baby, so the other midwife moved me to one of the open rooms and another midwife came and said they should move me back into the hot room and I'm like I am not moving because my legs were numb and I was numb from the neck all the way down and my baby was crying and he was hot, so and then we got into a big argument me and the midwife and then she said that um... "what do I know about kids after all I am young and everything else" so I just felt really judged and so throughout the whole experience, I just felt judged.[Postnatal woman S2-IV-27-W]

Another woman described similar experiences of being moved around, but also accepted this as being down to the pressure of service provision:

So, they moved me over to the other side, stitched me up; they then needed that room because they – I mean it's obviously just a very

busy day [laughs] – they then needed that room so they moved me back, um... onto the low risk area, um, where I managed to quickly grab a shower, um, and get baby dressed, and they needed that room so they wrote up my notes very quickly and sent me home. (...) ... I did feel a little bit, having planned a home birth this was, although not a medicalised birth in so much as, um... there wasn't drugs involved and there wasn't, you know, it was a bit being moved from pillar to post having just given birth. So I mean I was home here by, I think it was quarter to eleven, having moved rooms three times! [Laughs] (...) So I mean, as I say, it wasn't that... the staff themselves were all obviously, you know, under pressure and doing their very best and I couldn't, I really, really couldn't and wouldn't want it to come across at all as a criticism of their care, it was a case of what they had to work with and, you know, [Postnatal woman S1-1V-21-W]

4 Discussion and conclusions

4.1 Summary of main findings

The primary aim of the organisational case studies was to describe and explore features of maternity care systems that may affect the provision of high quality and safe care in different birth settings. A secondary aim was to describe and explore professional and consumer perceptions and experiences of escalation of care when complications occur during labour and birth in different birth settings.

A key issue for provision of choice of birth setting, and for intrapartum care is how escalation of care is handled when complications or other problems arise. This is also a key factor in service users' and providers' considerations around safety. Consideration of the escalation pathway draws attention to each element from women through to response of staff in the tertiary centre. Our analysis suggested that several key conditions are needed to support good decision making around provision of a safe service around place of birth. These are: Physical environment and infrastructure; Organisational culture; Staffing and deployment; and Management of escalation and transfer.

The physical environment and infrastructure includes features of design, layout of units and transport between them, and geographical considerations. For two services, geographical considerations were primary, in that women and midwives could be required to travel long distances to reach a midwifery or obstetric unit. However, one service had a considerably higher rate of out-of-hospital birth than the other. This could be attributed partly to a well-established 'hub and spoke' model with a single fairly centrally located OU and a set of FMUs serving the outlying areas, with an effective emergency transport service between them. For the other service, activity in the FMU was low and this service, like other FMUs with low numbers, was 'at risk' financially. For AMUs, the primary consideration was the physical relationship between the adjacent units and how the boundaries or flows between them were managed. For two services, the potential for tensions to arise around how the demands of space and resources were managed, and the potentially conflicting priorities required a clear *boundary* between adjacent units, and a clear *flow* or pathway between them, to ensure that care is tailored effectively to needs.

Organisational culture has been described in essence as 'the way we do things around here'.⁶⁹ Weick and Sutcliffe in their analysis of the Bristol

enquiry identified a mindset in which poor outcomes are explained away by patient demographics, rather than focusing on the health care system.⁷⁰ Features of a safe culture include openness and fairness, learning and a culture of resilience, particularly response to unexpected crisis and change. These refer to an environment in which decisions are made based on good knowledge and experience, incorporating clinical and social judgment of needs, rather than on concerns around professional interaction, tensions or territory. The case study services were characterised by strong commitment to communication and to teamwork and inter-professional working. Each site demonstrated strong and positive leadership with a shared multi-disciplinary vision, despite variations in personal style of leaders. Leadership modelled respectful relationships, commitment to open communication, and to continuing review of practice that attends to learning from experience, and promoted professional accountability, rather than attempts to avoid tackling problems, or to do so by blaming individuals. Problems were recognised as relating to system and process as well as the actions or omissions of individual practitioners.

A strong commitment to the use of guidelines, audit and review was not only regarded as an externally imposed requirement to be met (to save money or to meet targets) but also an opportunity for service-wide learning and development. Despite their differences, each service also featured an approach to leadership and organisational learning that involved obstetricians, midwives and other relevant professionals. Any perceived fault-lines were observed to be between the maternity services leadership and wider organisational (such as NHS Trust or PCT) imperatives.

The inevitable difficulties and tensions which can arise between professionals were tackled, rather than avoided, and they felt supported by the service, even in conditions of very high acuity, size and complexity, such as those of the City service.

Although these sites demonstrated a high level of commitment to shared working and to provision and genuine support for different birthplace options, we nonetheless identified contradictory attitudes amongst staff who, while committed to providing choice, expressed concerns around safety issues and around the resource limitations of their service. These contradictions were often revealed also in the ways in which women were given information about the options available to them and the manner in which care was given.

Guidelines and protocols were forming an increasingly important aspect of ensuring quality and safety of care. As expected, given their high HCC audit scoring status, these sites showed high commitment and

attention to guidelines. We observed that where such commitment was well embedded and coupled with attention to learning (rather than simple compliance) there was a positive potential for guidelines to be used to support both quality and safety. With a focus on continual learning, guidelines were used as supports to knowledge and decision-making, rather than as substitutes for these. Guidelines used by Shire Trust provided a safe space within which care in FMUs was provided. However, with limited research to date on the use of protocol-based care in maternity services, questions remain about the long-term impact on the learning and decision-making competence of individual professionals and professional teams.

Staffing and deployment includes getting the right mix and level of staffing, in the right places, at the right time. The four services each experienced particular challenges in ensuring coverage of midwives, obstetricians (and in certain cases neonatologists or anaesthetists) was adequate and suitable to offer choice of birth setting. We observed managers grappling with ensuring that labour ward, community and midwife-units were adequately staffed, and a number of iterations and changes of rotas and arrangements were being tested in attempts to manage staff numbers and skill mix over disparate areas, and to comply with European working time directives. Managing community midwifery provision was a particular challenge. Designing on-call rotas were described as a major challenge for providing adequate home birth cover, as well as for staffing of AMUs and FMUs.

The case study services were characterised by a high level of positive commitment to learning and development. Learning was considered to be continual and not confined to formal educational provision. Guideline development, audit and review were utilised as opportunities for learning, on a multi-professional basis. A learning-focused environment was modelled and actively encouraged by managers in midwifery and obstetrics. However, it was not clear that this environment was fully extended to community midwifery, since audit and review meetings were more likely to be attended by hospital-based staff.

However, we did not observe much evidence of attention to the additional learning needs of community midwives attending births, moving from a very low level of birth attendance in recent history to a higher level in attending home births and staffing midwife-units, or to the needs of midwives adapting to provision of midwife-led care. While formal midwifery education should equip midwives with the competence on qualifying to assess deviations from normal labour, and to provide care at an autonomous level, questions have been raised within the midwifery profession about how effectively these skills are consolidated

in complex modern labour wards. Midwives adapting to work in midwife led units, whether freestanding or alongside, may have additional learning needs and these may be recognised and prioritised more readily when FMUs are developed, as compared to AMUs, where attention to training has not been so explicit, and to community midwives' learning needs for home birth care. In two of our sites, Hillside and Seaview, MUs were staffed by community midwives who, at the current rate of home or MU births, have limited opportunities to consolidate, maintain and update their birth skills, and skills in handling escalation of care.

Despite the positive conditions that we identified, as described above, and the positive approaches to tackling service provision challenges, we identified particular concerns around the relationships between AMUs and OUs in particular. Concerns raised by our analysis included a tendency to regard proximity as ensuring safety, little evidence of attention to the training needs of staff of AMUs, and tensions around the allocation of staff and other resources between AMUs and OUs. This created organisational pressures on staff to use areas 'out of guidelines', which if not carefully managed, could encourage territorial behaviour and negatively affect clinical decision making. Despite staff worked to counter such pressures, frequent movement of women and midwives occurred according to organisational pressures and imperatives, rather than based on clinical decision making.

Our study sites showed very strong features in terms of commitment to equity, access and choice, again, in the face of considerable service challenges and pressures. Managers' roles involved a continuing negotiation of such challenges in the attempt to balance equity, choice and quality. These services also demonstrated a strong and well-embedded commitment to supporting normal birth, and this was particularly evident in the case of Shire Trust. This discernable commitment, with a strong leadership steer across midwifery and obstetrics was clearly important, but despite this, a number of service challenges mitigated the level of access in practice.

In three of the four sites, there was evidence that notions of quality, safety and choice were highly attuned. The principle of a women and community-centred service seemed highly integrated with the principles of offering choices. In City Trust, which experienced particularly high pressures in terms of staffing, birth numbers and complexity of work, concepts of quality and safety were observed to be in greater tension. Strong leadership ensured that attention was given to feedback from patient surveys and complaints, but these were often experienced as burdens by hard-pressed staff, rather than as learning opportunities.

Within this complex and demanding service situation, the practice credibility of midwifery and obstetric managers was observed to be of considerable importance – with leaders seen in practice, and perceived as in touch with the demands of practice. We identified key conditions for providing equitable choices as follows: organisational conditions, geographical conditions, women's access to information and knowledge and attitudes and confidence of professionals.

While all four services offered choice of birth setting, only one – Shire – offered the full range of options. While this was inherent in our site selection criteria (to include the variety of service configurations in England) it was echoed in the Birthplace Mapping Study findings, where out-of-hospital birth provision remains a minority. The majority of low-risk women in these services continued to give birth in obstetric units. Three of the four services (by the end of our study period) offered AMU birth to 'low-risk' women, and this was becoming established as a standard pathway for women without medical complications. However, we identified a range of organisational challenges which mitigated against access to AMU birth in practice, in addition to the potential quality and safety considerations. Seaview, with the newest AMU development, showed considerable promise as a model for integrating 'low-risk' births across community and hospital settings, and for providing community midwives with adequate opportunities to hone their birth support skills, while also offering greater equity of access to midwife-led birth.

We identified challenges and concerns in particular around provision of adequate community midwifery coverage to provide equitable and safe access to home births. These challenges were particularly acute for services in rural areas, with long travel distances for midwives as well as women, and with midwives attending relatively low numbers of births. Interviews with women and midwives identified concerns around midwives' willingness and confidence to attend home births, and to provide full and unbiased information to support informed choice around birth settings.

Service managers were attempting to organise and staff the service to provide choice of birth setting with little support in terms of information about how other services manage staff deployment, or about the economics of different birth options. Each service had experimented with different staffing models in an attempt to meet quality and safety considerations within limited staff resources. Attempts to engender efficiency in terms of deploying midwives across birth settings tended to clash in practice with other considerations such as provision of community based care and continuity of care or carer. The Cochrane

review of evidence demonstrated that both *midwife-led* care and *continuity of midwifery care* contribute significantly to quality and safety, as well as to user and staff satisfaction, and cost savings.⁷¹ Managers lacked access to economic modelling to support service planning, and a range of assumptions about costs were reported in our interviews, with out-of-hospital care generally perceived to be prohibitively expensive, and AMUs closely watched for bed-usage, while midwives and women were frequently moved between units in attempts to manage resources, rather than such movements being primarily led by clinical considerations and women's preferences and feelings of safety. While AMUs were generally assumed to be more economically viable, particularly in services managing rising birth rates and high demands on hospital beds, economic pressures often appeared to influence decision making about how the AMU facilities were used. Attempts to economise to increase the perceived viability of FMUs, in the two sites that offered these, were counter-productive in that, in one site, withdrawal of 24-hour staffing led to a decline in use of the unit, and loss of its valued postnatal facilities, while in the other the rental costs of the unit to commissioners outweighed the income from those commissioners. Costs of provision of out-of-hospital birth remain a challenge in a service that remains essentially oriented towards hospital-based provision.

Additionally, the modelling of staff costs has limitations in terms of considering impacts which are difficult to predict and to measure. Provision of MUs may have other service benefits in terms of staff retention and motivation, and this is not always easy to predict. The case of Seaview's new AMU was instructive in that it raised initial concerns about the impact on community midwifery, having adopted a model of staffing by community midwives, while within a year of its opening staff recruitment and retention had improved, with community midwifery and home birth services being maintained. Whether development of AMUs enhances provision of 'low-risk' midwife-led care across the service, or undermines this on a community basis, or with the OU may be difficult to predict.

Our analysis showed that obstetric support for midwife-led services was crucial to their success. Where obstetricians were supportive they helped keep units open and boundary work was minimised. In Shire Trust, for example, the consultant obstetricians were central to the preservation of the FMUs in the face of funding pressures. They argued to the Trust management that keeping the FMUs open enabled savings to be made because the FMUs helped keep levels of intervention, such as caesarean section, low. Obstetricians in the Trust had confidence in the skill of their midwifery colleagues and supported keeping 'low-risk'

women out of hospital where, one suggested, obstetricians tended to meddle unnecessarily. The midwife-led units were very longstanding within the Trust and this helped normalise midwife-led care both amongst the staff and the service users. The AMU was operated on an 'opt out' basis so the women interviewed who birthed there had not chosen it but were booked there by their community midwife. Almost all of those we interviewed were unconcerned whether they had birthed in the AMU or in the OU. As a result of all of these factors, approximately 25% of women birthed in midwife-led services or at home which is contrary to the pattern noted in most English maternity services.

While more urban services such as City and Seaview faced challenges of complexity of care, the primary challenge facing more rural services such as Hillside in the provision of choice of place of birth was in caring for a population that was thinly spread across a very wide rural area. Although the Trust had two obstetric units and a freestanding midwifery unit, in practice women did not have a functional choice of place of birth. The evidence from fieldwork was that almost all women defaulted to give birth in their local unit, because of the distances they would have to travel to birth elsewhere. The provision of homebirth was also hampered by the distances community midwives had to travel to women's homes and concerns about the safety of transfer in an emergency from the most remote corners of the region. By offering a number of small FMUs in different local areas, Shire was able to offer more realistic choices to women, yet these units, despite firm support from midwives and obstetricians and in principle commitment from both Primary Care Trust (commissioners) and NHS Trust (providers) the economics of provision were considered to be a continual threat to their sustainability.

A major area of concern identified from our interviews and observations was also around equity of access across social diversity. We noted a tendency of busy midwives working in fragmented services to rely on assumptions about what women want, and what is suitable for them. The resulting inequalities of access to information were compounded by differences in women's own access – social and cultural capital, and sources or networks of information.

Women often explained their choice of birthplace with reference to a desire to *avoid* certain situations, risks, types of care/treatment, known or reported negative experiences, including transfer. This was applied, by different women, to both hospital and out-of-hospital birth settings, depending on their experiences and knowledge sources. Women from better-off social groups reported speaking out more and acting as protagonists of their own care and safety. Women in lower-income

groups tended to represent themselves more as recipients of care who were subject to staff decisions and actions. A challenge for service providers, therefore, is to consider how choice and safety can be construed and supported more positively when informing women about their birthplace options and the advisability of transfer.

In interviews, women described their concepts of safety more broadly than those concepts espoused by many professionals, in terms of comfortable and relaxed environment, the presence of professionals who are competent and have expertise that is reflected in a calm and professional manner, and being able to maintain both caring and competence. They also focused on the role of birth companions such as their partner or mother, rather than exclusively on professionals.

These concepts could potentially be present in any birth setting, depending on how the setting is designed and managed. We noted a contrast, for example, between the environment of the City OU – busy, high stress, and presenting difficulties in terms of feeling supported – and the smaller OUs based in towns within a largely rural setting, which women often experienced as friendly and caring, and offering a comfortable and relatively low-tech feeling environment. The smaller size and the location of these OUs also meant that for many women, these were perceived as community-based services, and they were literally closer to home than a distant FMU in another part of the region. A number of women's narratives suggested that where the quality and environment of an OU is perceived to be good, choice of setting is less important to them, and care close to home matters.

What makes for feeling comfortable and relaxed also varied with women's own experiences and networks of information. For some, the presence of technology and experts was perceived as a source of comfort. Many women had the view, obtained from professionals, media and their own social networks that technology forms a central aspect of safety in childbirth, and birth in an obstetric unit is now widely normalised in our culture, with MU or home birth commonly seen as *alternative* and as *risky*. The degree to which birth outside the home has become more marginal within our UK culture was reflected in the number of women who were simply unaware that home birth or MU was an option, and the number who cited its *riskiness* as a primary reason for not giving birth at home.

When incidents occurred and harm was caused to women, their babies and families, inequalities also played out in difficulty of access to information about channels for complaint. Women who did decide to complain reported approaching a series of different bodies, but there

was a general vagueness about procedures and a lack of support for debriefing and processing difficult experiences.

Women living in low-income areas were more likely to represent themselves as recipients of care who were subject to staff decisions and actions. This was not just a question of taking a passive or compliant stance because of feeling subjugated, or limited in their access to information. These women also referred in their accounts to situations they had experienced – sometimes linked to socio-economic disadvantage – that would make them more cautious about birthplace decision-making, such as an obstetric legacy of maternal and neonatal morbidity or mortality, a health condition that could signify risk in pregnancy, or a small and crowded home that would not make a home birth easy. A series of combined factors contributed to woman's expectations of a need to rely on professional expertise and institutional birth settings.

In a related way, some midwives working in low-income areas became accustomed to caring for women in situations of disadvantage whom – for the reasons given above, or others – they would consider or assume to be less apt for the choice of a home birth. It seems that sometimes, midwives would not go through a full range of locally available choices of birthplace with low-income women, and that they jumped ahead to a supposition that these women would want hospital births. Conversely, women from affluent areas and with higher educational and professional status were somewhat more likely to consider themselves to be apt for home birth and able to elicit information from professionals, to research and negotiate for their choice of birthplace. These contrasting tendencies appeared to be mutually constructed patterns that acquired a habitual nature in institutions, drawing some groups of women towards home births, and steering others away from them. We did not find that midwives were more likely to offer such choices, or more consistently so, than obstetricians.

In Hillside, for example, there was evidence that community midwives, who were well known and trusted within the local communities, were influential in women's choice of place of birth. During observation at one antenatal clinic in an inner city community centre, at each appointment the midwife referred briefly to other units but each woman declined in favour of the local unit. No mention was made of homebirth, and it may be that community midwives' lack of skill and confidence in attending homebirth was perpetuating the low rate locally. Data from women's interviews suggested that midwives would support women's choices if the women themselves asked about home birth, but this was not consistent between midwives, and initial positive responses about the

existence of choice would often be countered by reservations of the suitability in that woman's case. Similarly, in Seaview, we described evidence that choice of home birth was given in a selective and uneven way, across different local areas, different women and individual community midwives. The known and trusted roles of the community midwives in services like Hillside were, nonetheless, a potentially important feature of safety in terms of engaging relatively deprived women with the maternity services. This was particularly important given the value reported by women and their partners of trust in the expertise and professional competence of health professionals.

We also found examples of good practices in some parts of the services. They provided specialist services for vulnerable women, for example young parents, women who didn't speak English or who had issues with domestic violence or substance misuse and they also engaged with other local voluntary and public sector services.

Similarly, as we have discussed under cultural and organisational conditions, staff in some services experienced difficulty in construing women's expressed concerns as being really relevant to quality and safety. Women and their partners particularly valued one to one care, continuity of carer or care, and staff responsiveness. Our interviews revealed cases where staff failure to listen to women ignored the potential for service users to contribute to the quality and safety of their care, although we recognise there are wide variations in how much service users wish to do this ⁷². We also heard reports from women and their partners which indicated that the clinicians desire to ensure timely admission to labour wards may be complicated by organisational consideration of staffing and bed/space pressures, coupled with a lack of community-based support for women in early labour at home. A number felt that entry to labour wards was being 'policed', with access extremely difficult, while conversely some women planning home birth experienced difficulties in securing timely attendance of midwives at home. The women's and partners' interviews raised questions as to how safety and quality can be managed when resources are limited. They also raised questions about how staff can be encouraged to maintain a responsive approach to women and their partners' wishes and concerns.

Our analysis highlighted a number of issues potentially impacting on the effectiveness with which transfers were managed. As described above, boundary guarding and professional differences could have negative or distorting effects on decision-making and processes around transfer and escalation. This was a particular issue between the AMU and OU, which affected both the safety and the experience of women and their babies.

Ambulance services play a key role for out-of-hospital transfers, and also for care of women who do not reach hospital in cases of planned hospital birth³. Concerns were raised about the centralisation of ambulance Trusts, leading to loss of local geographical knowledge and communication with maternity services. The need for a specific protocol for midwife-led care was raised, as an alternative to the protocol for public emergency calls, which was in current use in all the sites.

The benefits of good teamwork, communication and understanding, underpinned by clear protocols where community and hospital based staff were able to work efficiently and co-operatively in emergency situations were evident from transfer cases that we observed. Delay in detection, recognition and escalation has been identified as a recurring influence on poor outcomes, and human factors such as communication and team work have been identified as a major contributors. A recent report from the Centre for Maternal and Child Enquiries (CMACE) concluded that *'the early detection of severe illness in mothers' remains a challenge to all involved in their care. The relative rarity of such events, combined with the normal changes in physiology associated with pregnancy and childbirth, compounds the problem'*.⁷³

Currently only 19% of maternity services report regularly using any form of obstetric Early Warning Scores (EWS) and only 6% a system specifically modified for women in labour.⁷⁴ Based on the 'successful introduction' of Early Warning Scores into other clinical areas, CMACE recommendations for improving care include the routine use of a national Modified Early Obstetric Warning Score (MEOWS) chart in *all* pregnant or postpartum women who become unwell and require either obstetric or gynaecology services. However there are concerns that there is little 'gold standard' experimental evidence of their effectiveness in general healthcare and at present the heterogeneity of safety tools, implementation strategies and social contexts makes it difficult to recommend specific models for practice.⁷⁵

The prospect of intrapartum transfer is a major consideration when women make a decision around place of birth and concerns about transfer distance were often cited by women as reasons for planning labour in hospital. Overall, there is little research on women's experiences, particularly in the UK system, and even less on women's experience when care needs escalating or a near miss occurs in a UK setting. Transfer and escalation was a particularly difficult time for

³ Women who planned hospital birth but did not reach hospital were not included in the cohort study, so data on their outcomes are not available.

women's partners. Although some women's experience of transfer and escalation was characterized by feelings of worry, disempowerment or disappointment, for many women, this was an anticipated part of labour and birth. Their strategy for coping was generally to defer to the 'greater knowledge' of the healthcare professionals and trust that they had her best interests at heart. The clear and careful explanation of events by healthcare professionals was a common theme that ran through all of women's *positive* narratives about escalation. Trust in professionals was an important aspect of feeling safe, physically and psychologically, and most women were prepared for the unpredictability of events in childbirth. Good information provision and confident decision making was key for women who might be disappointed about need for transfer.

Teamwork at its most successful could involve women themselves actively collaborating with staff to promote their safety and that of their baby. Sometimes speaking out was effective, and women's wishes were heard and acted upon. At other times the voice was not enough, and women found their written or spoken requests were ignored, sometimes with physical or emotional consequences. The experience of speaking up and *not* being heard also manifested as a safety issue. When women felt *unable* to ask about their options or challenge professional views – for social, cultural or personal reasons – they could experience feelings of frustration, self-blame or anger. The presence of a partner, birth partner or relative encouraged women to voice their needs or concerns.

4.2 Strengths and weaknesses

Many of the limitations of the Case Studies are in common with all case study research of this kind. Best practice indicators such as those used by the Health Care Commission (now the Care Quality Commission) are not fool proof and attempts to define best practice in this way are restricted by the information available. Only four case studies were chosen, and whilst these were carefully selected to provide maximum variation of service configuration, size, geographical location in England and rural and urban locations, generalisations can only be made from such specific cases at a theoretical level. However, a substantial amount of data was generated at an organisational, service delivery and service user level. In addition, data from stakeholders, staff and users enabled multiple viewpoints to explore the lived experience of the providers and service users.

4.3 Conclusions

Childbirth is itself a state of transition, and maternity services are marked by organisational, professional and geographical boundaries. Providing a safe and high quality choice of birthplace adds to this context of complexity. Maternity services need to operate with resilience, in terms of coping with the wider context of service changes, but also with the dynamic changes which are inherent in childbirth. Resilience, by definition, depends on the property of flexibility as well as the strength of a structure and may therefore be of crucial importance in supporting safety in the midst of such challenges. For example, the 'hub and spoke' model (obstetric unit serving a number of freestanding midwife units) that had been long established in one service covering a wide geographical area may offer a useful model for other services to provide a full range of birth settings while maintaining good quality and safe care.

Maternity professionals make decisions about pathways of care and escalation of care in highly complex contexts with high levels of unpredictability. Professional clinical judgment, which is based on formal, experiential and embodied knowledge takes place in relationship with normative and environmental factors, and to a variable degree in relationship to service user views and preferences. Early Warning Scores have not been closely examined in order to illuminate the underpinning professional, socio-cultural, political and technological drivers that have shaped their utilisation.⁷⁶ The normative and environment factors include formal systems – such as protocols, guidelines, written pathways and criteria, resource factors such as time and space, and 'cultural' factors such as service ethos and established ways of doing things. Each of these areas may have an influence on the others, and may impact on quality and safety of transfer. Effective management of 'Failure to Rescue', would include promoting cultural norms such as 'mindfulness' and use of training programmes to improve skills in recognition and response to critical illness, as well as implementation of standardised systems, rules and operating procedures such as the EWS that are designed to enhance organisational reliability.⁷⁷

All four case study services demonstrated resilience in the face of considerable stresses. A number of service challenges and areas of potential concern were also observed. This is illustrated in the variable access to choice of birthplace with good quality, safe care that the women, their partners and local communities experienced. Particular challenges included the effective deployment of community midwifery staff to cover a range of needs, including home birth provision, and integration of community midwives with established systems of training,

audit and review. Tensions between quality as a woman-centred principle, or a more audit-oriented principle were also evident in City Trust, which experienced the highest demands in terms of time and space, and complexity of service user needs. However, the four study sites, which were all selected to represent a variety of configurations and settings, amongst 'better' or 'best performing' services as rated by the Health Care Commission showed *features of resilience* in the following ways: commitment to learning, inter-and intra-professional trust, respect and mutual support, commitment to openness of communication, commitment to team-working, positive leadership, focus on development of clear and evidence-based guidelines, use of guidelines and protocols as *intelligent* systems, commitment to audit and review as an opportunity for learning, engagement of staff with audit and review at all levels, capacity to raise questions and openly air and discuss areas of dissent or disagreement. They demonstrated a focus on professional accountability and justice, rather than blame-culture or lack of professional responsibility for quality and safety, with problems understood as process and system located rather than simply individualized. While achievement of this varied in practice, all showed institutional commitment to women-centred approaches.

These features, which were emergent from the data analysis, echo the features described by Jeffcot et al as being characteristic of resilient systems in healthcare: *top-level commitment, just culture, learning culture, awareness, preparedness, flexibility and opacity*.⁴² Our analysis supported a 'resilience' model of organisations, rather than a 'high reliability organisation' approach to quality and safety of care, since maternity services need to operate with resilience, not only in terms of coping with the wider and longer term context of changes in the health services, but also with the everyday changes, disjunctures and upheavals which are inherent in childbirth. Our analysis suggested that how well the service overall functions to ensure good practice in each setting and to bridge disjunctures between different parts of the service is crucial.

4.4 Key messages

Service managers

- Out-of hospital birthplaces functioned best when they were embedded into the system of maternity services, supported by all staff, and not just seen as a midwifery concern.
- Variations existed at Trust level in support given to out-of-hospital births, including training for safety and teamwork across the maternity

workforce. The deployment and resourcing of community midwifery was especially variable across Trusts, and those providing such support took a systematic approach to staff deployment to underpin women's choice of birth setting.

- The presence of an AMU sometimes highlighted contrasts in birth philosophies across units. There were also some cases of strong leadership for promotion of normal birth across the maternity system.
- The presence of an AMU appeared to intensify the workload in the adjoining obstetric unit where service providers struggled to support normal birth.
- The working relationships between midwives, and between midwives and maternity support workers in midwife-units were valued highly and these may have particular benefit for midwives working in FMUs
- Midwife units may offer a setting in which community midwives can maintain higher levels of experience of attending births, involvement in skills development and support from colleagues

Health professionals

- Strong midwifery and obstetric leadership and a culture of mutually supportive professional teamwork appeared to be central features of Trusts where midwifery led and obstetric services functioned well.
- Audit and review were sources of organisational learning and improvement. These were promoted by leadership and staff involvement, and a 'learning and accountability' rather than a 'blame' culture, with attention to system processes and structures as well as individual professional practices.
- In some Trusts, community and birth centre midwives who had a low volume of births, and only attended 'low risk' births appeared to benefit from periodic rotation into settings in which they could gain experience of higher risk births. In well-integrated services, midwives working on obstetric units were also periodically rotated into low risk settings.
- Early labour assessment at home appeared to provide an opportunity for accurate clinical assessment and women's informed decision-making about the safest place to give birth.

Commissioners/policy makers

- Concerns around transfer distance meant that many women did not feel they had any realistic choice of place of birth. Travel distance to OUs was an equal concern for women living in more rural areas.

- In order to make choices about place of birth, women required up to date balanced and evidence-based information about their local services including transfer rates, in order for them to make a realistic appraisal of where they felt safe.
- Professional and commissioner perceptions of costs of different birth settings are powerful but lacked access to systematic evidence to date.

Women/user organisations

- Access to good quality information often differed across social groups. Variations existed in how services and professionals provided such information in order to deliver equity of access and choice.
- In order to make choices about place of birth and a realistic appraisal of where they felt safe, women required up-to-date, balanced and evidence-based information about their local services, including transfer rates.
- Concerns around transfer distance meant that many women did not feel they had any realistic choice of place of birth. Travel distance to OUs was an equal concern for women living in more rural areas.
- Women's concerns about their safety and that of their baby (or babies) were expressed but not always listened to by staff. Being heard and receiving timely support was aided by continuity of carer and/or presence of a birth partner or relative.

4.5 Implications for policy and practice

- Strong midwifery and obstetric leadership and a culture of mutual professional teamwork appeared to be central features of Trusts where midwifery led and obstetric services functioned well alongside each other.
- Attention needs to be given to the skills and training of midwives working in different settings. For example, community midwives who may assist at a low volume of births and only attend 'low risk' births may benefit from periodic rotation into settings in which they can gain experience of births, including higher risk births.
- Attention needs to be given to staffing models in units with an AMU and OU.

4.6 Recommendations for future research

Current findings suggest that the following research questions will be important:

How should services be provided to improve equity in service quality, choice and safety for 'socially disadvantaged women'?

- What is the potential for women and families to be involved in their own safety and what is the role of health systems in listening to women and facilitating this?
- What are the barriers to ongoing dynamic assessment of risk and early detection and referral?
- How can transfer rates be kept low, without increasing the risk of adverse outcomes for women and babies?
- How should services listen to and learn from women and families who have experienced harm or distress, and what is most helpful for them?
- What is the level of long-term harm, both to women and their families when near-miss events occur?
- Further evidence of the predictive value, effectiveness and acceptability of early warning scores and SBAR (Situation, background, Assessment, Communication) tools is needed.
- Further research is needed on whether models which provide continuity of midwifery care across geographical, professional and organisational boundaries are safe, woman-centred and cost-effective in regard to place of birth.
- How can care in early labour be better managed?
- The impact of AMUs on their adjoining obstetric units should be explored in further research, including the impact on high or low risk women labouring in an OU.
- How can the quality of care be improved for women at 'low risk' giving birth in OUs?
- What factors influence women birthing against professional advice out of hospital and how services should be provided?
- How can models of community midwifery be developed to provide effective support to midwives, including appropriate staffing rotas, training, experience and professional support when attending home births?

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Appendix 1 Case study service details

Service 1: Seaview Trust

Seaview is in a coastal urban setting. Services for almost 4,000 births were provided through an OU and latterly an AMU, and community midwives working through GP surgeries. In 2010 Seaview was reported as having a home birth rate of 7%, one of the highest in the region, and in one year the third highest in England. The Trust ranked as “Best Performing” in HCC 2007.

Demography

The majority of Seaview’s population were white British, with a recent trend towards diversification and immigration. There was a socio-economic divide between more affluent suburban residents and lower-income families in central urban zones.

Service configuration

At the start of 2010, there was just an OU with 6 delivery beds. In 2009, in response to a regional health authority directive that all Trusts should provide AMU facilities, Seaview introduced an AMU with 4 LDRP rooms (Labour, Delivery, Recovery, Postnatal). This change was accompanied by organisational steps to ensure European Working Time Directive (EWTD) compliance.

Community provision

Community midwifery was organised through a combination of “Community Team” and “GP Attached” models. Some midwives working in pairs provided 24/7 cover and attended a great proportion of the Trust’s home births. Following a community review in 2009 to distribute community midwifery caseloads more evenly, four teams were set up to cover the area and community midwives worked two nights per month on the AMU. Some came into the AMU at other times accompanying women for ‘*Domino*’ births. In 2009-10 a specific protocol was developed for midwife-led intrapartum care at home, in the AMU and on the OU. This included detailed indications for planning a home birth, admission to the AMU, intrapartum transfer, and management of birth in all settings.

Leadership

Maternity services were led by the Clinical Director of Obstetrics and Gynaecology and by the Head of Midwifery, with a strong focus on woman-centred care. Governance and audit was a priority for managers and staff, and audit and mortality meetings were run in a relaxed way. Discussion of incidents was primarily focused on learning from experience. Staff morale and well-being, as well as the wellbeing of the women, were an everyday concern for managers who realised that excessive pressure would result in poor outcomes as well as loss of experienced staff.

Commissioning

Maternity was reported by PCT staff to be a low priority for commissioning compared with other targets. Areas provoking concern by PCT staff included the high caesarean section rate, insufficient consultant cover, and the use of Payment by Results (PbR) funds generated by maternity for other hospital areas.

Service 2: City Trust

City was a large inner city Trust. Services for over 6,500 births were provided through an OU with 9 delivery beds, an AMU with 8 LDRP rooms, and community midwives working with a combination of models. City had a home birth rate of 2%. The Trust ranked as "Better Performing" in HCC 2007.

Demography

City catered for a broad and ethnically diverse population (50% Black and Minority Ethnicity (BME) in one borough served by the Trust). Travel distance was not raised as an issue. The varied demographic features of the population presented challenges in terms of size, inner-city location, social diversity and mobility of the population, and their exposure to social problems of all kinds. Although the number of women under 19 who continue with a pregnancy has dropped nationally and in City, areas served by the Trust had some of the highest teenage pregnancy rates in the UK.

Service configuration

The configuration of City's hospital maternity services – an OU and adjacent AMU – dates from 2002. Before this there were OUs on two sites, each with a Labour Ward where low and high-risk women were not separated. Since restructuring, the number of births attended by the Trust has increased from 5,000 to nearly 7,000.

Community provision

In City's standard community model, received by approximately 70% of women, a number of midwives and GPs provided shared care. Community midwives staffed antenatal clinics and provided postnatal visits within a geographical area. Hospital midwives provided labour support. Community based team midwifery care was received by about 10% of women, with antenatal, intrapartum and postnatal care provided by a group of midwives. A further 20% of women received community based caseload care through a model introduced in 2006. Each midwife had an annual caseload of 36 women of mixed risk in a postcode-defined area. These midwives worked in partnerships and within group practices to provide 24/7 labour cover.

Leadership

Midwifery leadership at City was especially strong, with a midwife at service directorate level. Managers maintained regular clinical shifts, keeping in touch with shop floor issues and providing firm leadership in risk governance. Changes have been introduced to promote normality across maternity services, with one manager responsible for coordinating both AMU and OU.

Governance

City's quality and safety scores were frequently compared in a competitive way with those of other local Trusts facing similarly challenging conditions. Financial cost of failing in CNST ratings, or being liable for litigation, was often emphasised. Efforts to maintain and advance Trust status made for rigorous risk governance with intensive staff training in reporting and use of safety tools, guidelines and protocols and a strong commitment to circulating and sharing information about reviews. Risk meetings were frequent and followed a sequence of reviewing cases at different levels until they were resolved and closed. Regular morbidity and mortality meetings emphasised importance of detailed documentation for audit and follow-up with a weekly news-sheet of key points emailed to all staff. There was a strong focus on learning from experience and on establishing professional accountability, through a system of 'fair blame' (moving on from the 'no blame' culture that previously predominated).

Commissioning

A priority in past years was instating AMUs across all Trusts in the area. Current commissioning priorities were achieving the 12-week antenatal access target (also a national issue); capacity issues and flows of patients; and supporting the most vulnerable women. Local cost savings

were to be brought forward from 2013 to March 2011, with 50% management workforce reduction anticipated by April 2011.

Service 3: Hillside Trust

Whilst much attention has been focused on the difficulties facing urban inner-city maternity services, the research carried out at Site Three (Hillside) and also at Site Four (Shire), made it clear that it is not only city Trusts that have complex organisational needs. Hillside's good performance in the 2007 HCC assessment was all the more impressive, considering the significant challenges it faced because of its rural location, split site and the particular geography and socio-economic characteristics of the local area.

Geography

Situated in a very rural area with a widely spread population, Hillside's maternity service was shaped by the geography of its local area. Difficult terrain, poor roads and little public transport in the area created particular problems, and a significant proportion of families in the more deprived areas of the region had no access to a private car, making it difficult for them to access midwifery services in the towns.

Demography

The challenges of providing a service for a thinly spread and often isolated population were not only logistical. Rural deprivation was a significant problem in the area following the demise of heavy industry and rural deprivation brought with it higher levels of social problems within these communities.

Service configuration

Hillside Trust was created from the merger of two previous Trusts in 2001 that came together to give the Trust two obstetric units and a freestanding midwife-led unit in three separate towns. The larger of the two obstetric units, termed here 'Central' was situated in a PFI (private finance initiative) funded hospital in the largest town in the region. The unit ran with an integrated Labour, Delivery, Recovery, Postnatal ward (LDRP) design which had 10 spacious and well equipped rooms, serving a birth rate of 1800. There was a combined antenatal/postnatal ward, used for antenatal admissions and postnatal women staying more than 24 hours and an outpatient department shared with gynaecology. 'Hilltop' OU was situated in a hospital building built in the early 1960s in a smaller town just over one hour's drive from Central OU. Unlike Central OU, the hospital building was tired and old and was undergoing major refurbishment during the fieldwork period but there remained

uncertainty over its future. The unit had a Delivery Suite with 6 rooms, catering for around 1300 births per year, including one with an integrated birthing pool, and a postnatal ward. The FMU was situated in a small community hospital and had seen its birth numbers fall from a peak of over 100 per annum in recent years. It only had just over 40 births in 2010 with a further 15 homebirths in its local area.

Community provision

One of the main challenges facing the Trust was the deployment of community midwives across a wide geographical area something made particularly difficult by the long driving times for midwives to travel from one area to another. Hospital midwives staffed the two obstetric units, whilst community midwives provided community clinics, worked in the FMU and attended home births. Community midwives worked in small teams of 3-5 midwives providing a traditional community model and did not rotate to work in the hospital. Most teams worked two nights per week (pro rata) on-call.

Leadership

Clinical leadership came from well-respected senior clinicians who worked to support the education of junior staff, particularly in obstetrics. Obstetric leadership was strong and set the tone for positive inter-professional relationships although a divide persisted between those doctors who specialised in Gynaecology and those in Obstetrics. The Head of Midwifery was also active in supporting midwifery staff, but a perceived allegiance with one side of the divided Trust caused some difficulties in managing staff across the region.

Commissioning

Children and Family Services had traditionally been low on the local Primary Care Trust's (PCT) agenda, with changes to services in maternity driven by senior midwives, without wider strategic input. However in recent years, cases such as 'Baby P' had raised the profile of maternity along with the rest of Children and Family Services and the PCT had begun to take an interest in commissioning maternity services in the region. The Trust was a member of a consortium of Acute Trusts in the region that negotiated contracts collectively and so Hillside no longer had direct contact with the PCT.

Service 4: Shire Trust

The Trust was formed from the merger of two Trusts in 2003 and provided acute services for approximately 500,000 people, carrying out approximately 5,000 births per annum across five sites. The

freestanding and alongside midwife-led units had been in operation for many decades, had been GP Units, and were well integrated into the service. The service achieved intervention rates considerably lower than national averages.

Geography

The Trust covered a wide, predominantly rural area that was difficult to navigate in bad weather. The population served by Shire Trust was divided between those from urban areas and those living in small rural towns, villages and farms. Unlike Hillside, the road network in Shire was well maintained and it was a relatively affluent rural area without so much of the significant rural deprivation found in Hillside.

Demography

The urban part of the area suffered from many of the common problems of urban deprivation, which contrasted markedly with the relatively wealthy rural communities. The numbers of women from BME communities was very low and, like Hillside, staff were unused to working with women from minority ethnic groups or who did not speak English.

Service configuration

The maternity service at Shire was characterised by strongly established community-based services. The historical commitment to devolved care had left them with the infrastructure available to do this across a wide area, which other Trusts, such as Hillside, had found more difficult. This community-based service was provided out of four freestanding midwife-led units and two further community midwifery bases that were recognized as providing a high quality, local service. Like Hillside, Shire's history as two separate Trusts left it with a legacy of a separation between the two former Trust areas. In the case of Shire this was preserved by the separate PCT commissioning of each side; at Hillside it was the cultural division between the two geographically distant sites.

Community provision

In order to maintain their skills, all midwives worked a rotation between the obstetric unit, the midwifery units and the community midwifery teams. New training, for example in advanced neonatal life support, was rolled out to all midwives, starting with those working in the most distant FMU and working inwards to the OU. The safety of the FMUs in particular was supported by the use of extensive and detailed guidelines respected by both professional groups. The comprehensive guideline for midwife-led care included guidance on timing of transfer, and the

system for transfer between midwife-led units and the OU was well rehearsed.

Leadership

Midwifery managers and obstetric clinical leaders had been instrumental in keeping the FMUs open in the face of financial pressure from the Trust to close them. Leadership within the Trust was strong, with well-established senior clinical staff who were invested in keeping the units going. The Clinical Director was strongly committed to clinical governance and this was reflected in the amount of time all the senior clinical staff spent on governance, risk and case reviews.

Commissioning

The services provided at Shire Trust were commissioned by two separate PCTs. The split commissioning produced a disparity, described as a 'postcode lottery' within the region whereby the two PCTs responded to the different needs in the two PCT areas, one of which is significantly more deprived than the other. At the time of the fieldwork there was a lot of uncertainty around the new commissioning process whether the local GP consortium would be commissioning maternity services or not. Local commissioners felt that the Trust did not provide adequate data for them to commission or fund it effectively and the apparent breakdown in communication between Acute Trust and PCT had financial and organisational impact.

Appendix 2 Interview schedules

Sample questions for interviewees/discussion meeting participants, by group

Service users

Women (especially those who already experienced escalation of care and/or transfer)

- What's special for you about the place where you gave birth, compared to other places you have known or heard about?
- How far do you feel you chose to give birth there, and who or what influenced your decision?
- How was the birth experience for you?
- How far were you able to follow your birth plan, and what do you think about that now?
- Is there anything you wish had been different about the care you received?
- Have you talked to anyone in the maternity services about your experience?

Partners/fathers/birth supporters of women in such situations

- What do you think about X's choice of place to give birth, and how it turned out in the end?
- What was it like for you, accompanying her in the pregnancy and birth?
- Is there anything you wish had been different about the care X received?

Women at different stages of pregnancy

- Where are you planning to give birth?
- How did you come to decide on that place, and who did you talk to about it?
- What do you think about the other possible places where you could give birth?

- What were the most important things for you in deciding where to give birth?

Partners/fathers/birth supporters of women in pregnancy

- What do you think about X's birth plan and the place she has chosen to give birth?
- What do you think about other possible places she could have chosen?
- What has it been like for you so far, accompanying X in the pregnancy?

Service user representatives

MSLC lay representatives and other Committee members

- Who participates in the MSLC here, and how is it coordinated?
- What main issues has the MSLC discussed over the past year?
- If you've participated for longer, how have the issues changed over time?
- How has the issue of transfer between birth places come up in discussions?
- What do you see as the strengths and weaknesses of the maternity services in this Trust?

NCT reps and members

- What is the local NCT branch like here, and who participates?
- Have you seen that change over time, and how?
- What do you see as the strengths and weaknesses of the local maternity services?
- What's been your experience as a user of the services?
- How is the question of women's transfer between birth places managed by the services here?

Midwife-managers and consultants

Head of Midwifery

Matron/ward managers and supervisors

Unit managers for MUs

Directorate Managers for Obstetrics and Gynaecology or equivalent

Birthplace manager

Women's Clinic managers

Risk manager

Clinical governance lead

Consultant midwives

- How does this birth centre/unit differ from others you know of?
- How have you seen maternity services change in this Trust, over time?
- What do you see as the strengths and weaknesses of the Trust's maternity services?
- How is the question of women's transfer between birth places managed by the services here?
- Can you give me some examples of that?

Midwives and MCAs/HCAs

Hospital and Community Midwives at Bands 5, 6 & 7 (including regular Shift Leaders, particularly those who led the shifts which were observed)

- How are the maternity services in this Trust, compared to others you know of?
- How have they changed over time, as far as you know?
- What do you see as the strengths and weaknesses of the Trust's maternity services?
- How is the question of women's transfer between birth places managed by the services here?
- Can you give me some examples of that?
- What's it like being a midwife (other provider) in this Trust?
- For MCAs/HCAs- tell us about your role within the service
- Are there any areas you think specially need reinforcing, in services or training?

Obstetric and neonatal teams

Clinical Director

Senior obstetricians

Neonatology lead

Registrars

Junior doctors

- How are the maternity services in this Trust, compared to others you know of?
- How have they changed over time, as far as you know?
- What do you see as the strengths and weaknesses of the Trust's maternity services?
- How is the question of women's transfer between birth places managed by the services here?
- Can you give me some examples of that?
- What are the main challenges for obstetric/neonatal teams at the present time?
- Are there any areas you think specially need reinforcing, in services or training?

External contacts and stakeholders

Lead PCT Commissioner for maternity services

Ambulance Trust lead for maternity services

- How are the maternity services in this Trust, compared to others you know of?
- How have they changed over time?
- What do you see as the strengths and weaknesses of the Trust's maternity services?
- How is the question of women's transfer between birth places managed by the services here?
- Can you give me some examples of that?
- What are the main challenges for the Trust's maternity services at the present time?
- Are there any areas you think specially need reinforcing?

Appendix 3 Ethical approval

NHS
National Research Ethics Service
Wandsworth Research Ethics Committee
South London REC Office (1)
Room 1.14, Jenner Wing
St Georges University of London
Cranmer Terrace
Tooting, London
SW17 0RE
Telephone: 020 7188 2259
Facsimile: 020 7188 2258

30 October 2009

Professor Jane Sandall
Professor of Women's Health
King's College, London
Department of Public Health
42 Weston Street
London SE1 3QD

Dear Professor Sandall

Study Title: Birthplace in England Research Programme:
organisational case studies, exploring quality and safety
of care in different birth settings

REC reference: 09/H0803/143

Protocol number: 1.0

The Proportionate Review Sub-Committee of the Wandsworth Research Ethics Committee
Research Ethics Committee reviewed the above application at the meeting held on 28
October 2009.

Ethical opinion

Favourable Opinion with Additional Conditions

The Staff Participant Information Sheet needs to be amended to include the process of how
a participant can opt-out if their consent isn't taken.

Jargon in the PIS needs to be explained in plain English e.g. escalation of care, birth
settings, ethnographic, organisational case studies etc.

The members of the Committee present gave a favourable ethical opinion of the above
research on the basis described in the application form, protocol and supporting
documentation, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to
management permission being obtained from the NHS/HSC R&D office prior to the start of
the study (see "Conditions of the favourable opinion" below).

This Research Ethics Committee is an advisory committee to London Strategic Health Authority
The National Research Ethics Service (NRES) represents the NRES Directorate within
the National Patient Safety Agency and Research Ethics Committees in England

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>. Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
REC application	1.0	18 October 2009
Protocol	1.0	18 October 2009
Investigator CV	1.0	
Participant Information Sheet: Interviews with Postnatal Women and Partners	1.0	18 October 2009
Participant Information Sheet: Ethnographical Observations - Women and Partners	1.0	18 October 2009
Participant Information Sheet: Ethnographical Observations - Staff	1.0	18 October 2009
Participant Information Sheet: Focus Groups with Healthcare Professionals	1.0	18 October 2009
Participant Consent Form	1.0	18 October 2009
Participant Consent Form: Women & Partners	1.0	18 October 2009
Evidence of insurance or indemnity	1.0	05 August 2009
Letter from Sponsor	1.0	07 October 2009
Advance notice of observation on [NAME] ward	1.0	18 October 2009
Key Investigator / Collaborator CV - Prof Christine McCourt	1.0	
Letter from National Perinatal Epidemiology Unit	1.0	28 February 2006
Letter from Sponsor	1.0	30 September 2009
Participant Consent Form: Staff Consent Form	1.0	18 October 2009

Membership of the Proportionate Review Sub-Committee

The members of the Sub-Committee who were present at the meeting are listed on the attached sheet.

The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

09/H0803/143

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely


Mr Roy Sinclair
Acting Vice-Chair

Email: samantha.roper@gstt.nhs.uk

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments*

"After ethical review – guidance for researchers"

Copy to: Keith Brennan, R&D, King's College London

The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Appendix 4 Thematic nodes and codes

Birthplace

- AMU
- FMU
- Home
- Home-like spaces
- OU

Boundaries borders transfers

- AmbulanceTrusts & services
- AMUs
- Centralisation and closure
- Escalation and transfer

Low-risk High-risk boundaries

- 'Birthing against professional advice'

Not admitting women and unattended birth

- Unattended births
- Not admitting women

- Quotes - Critical birth experiences and transfers
- The Geography
- 'Us and Them'

Equity Access Info Choice

- Entering the system & booking

Equity

- Comparative experience, (in)equality and (dis)advantage
- Ethnic allusions or stereotyping

Information, choice & antenatal discussions

- Healthcare professionals' influence over choices

Management - leadership

- C section rates and management
- Experiences with admin (overload)
- External stakeholders

Finance
Inductions and management
National and Trust policies & guidelines

Role of Managers, Supervisors of Midwives and Consultants

Midwifery Supervision
Role of Consultants
Role of Management

Targets, audits, budgets & performance indicators

Organisational culture

Environment

Norms and issues about noise

Local institutional history & culture S3
Local institutional history & culture S4
Local institutional history & culture S2
Local institutional history & culture S1

Re-configuring Users and Providers

Re-configuring Providers

Different kinds of knowledge

Re-configuring Users

'Doing well'
'The Demographic'

Risk

Governance
How system is supposed to deal with risk, transfer, escalation
Low risk-high risk
'No blame' culture
Tools, equipment & measurement

Understanding risk and promoting safety

How staff understand & promote safety
How users understand risk & promote safety

Staffing, skills and training

Organisation of the services

Staffing for homebirth

Staffing

Staffing, rotation, skills and training issues

Time - use of, lack of

Support staff

Training

Doctors' training

Midwives' training

Teamwork and professional relationships

Handover of information

Professional roles, boundaries and relationships

Relationships between midwives

Staff voice, morale and complaints

Street level bureaucrats

Team working, power relations & managing conflict

Woman-centred care

A specially valued service

Continuity

I thought, I would have said, I was thinking...

I wouldn't fault them (but...)

Postnatal care and breastfeeding issues

User voice

Staff response to users speaking up

Users (not) speaking up

Addendum

The Birthplace in England Research Programme combines the Evaluation of Maternity Units in England (EMU) study funded in 2006 by the National Institute for Health Research Service Delivery and Organisation (NIHR SDO) programme, and the Birth at Home study in England, funded in 2007 by the Department of Health Policy Research Programme (DH PRP). This document is part of a suite of reports representing the combined output from this jointly funded research. Should you have any queries please contact Sdoedit@southampton.ac.uk