Factors influencing utilisation of 'free-standing' and 'alongside' midwifery units for low-risk births in England: a mixed-methods study

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Scientific summary

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Background

Government policy for maternity care in England since the early 1990s has promoted women's choice of place of birth. These choices are hospital obstetric-led units (OUs), midwifery-led units (MUs) and home. MUs are classified in two ways: (1) attached to OUs [alongside midwifery units (AMUs)] or (2) geographically separate [free-standing midwifery units (FMUs)]. MUs are recommended for women assessed as being at low risk of complications, who constitute approximately 45% of all pregnant women by the end of pregnancy. In 2012, only 11% of women gave birth in MUs, with 87% in OUs and 2% at home. This is despite strong evidence that MUs reduce caesarean rates by two-thirds, are very safe, improve patient satisfaction and are 20% cheaper than OUs. The reasons why most 'low-risk' women give birth in OUs when there is no clinical indication and where care is more expensive required investigation.

Place of birth choices are affected by the lack of MUs across England, where one-third of all maternity services have no MU of any kind. Where MUs do exist, they are underused. In some maternity services, $\geq$ 20% women deliver in MUs, whereas in other services the figure is $\leq$ 10%. In addition, some services opened MUs that have subsequently closed. Identifying the barriers to and facilitators of a high percentage of MU births and developing potential guidance for developing and sustaining MUs to facilitate greater use would improve women's clinical and psychological outcomes and be more cost-effective for the NHS.

Research objectives

- To describe the configuration, organisation and operation of MUs, both AMUs and FMUs, in England.
- To build an understanding of the key issues and barriers to uptake of MUs (including why some maternity units have closed FMUs).
- To explore why some maternity services in England have no MUs.
- To identify why some maternity services in England have $\geq$ 20% of all births in MUs.
- To identify why some maternity services in England have MUs but are running at substantial undercapacity ($\leq$ 10% of all births).
- To convene a national maternity care stakeholders' workshop to discuss appropriate interventions and service guidance to inform future maternity service commissioning and provision regarding improving the availability and utilisation of MUs.

Methods

Mixed methods, incorporating a mapping survey and comparative case studies, were used to answer these aims and objectives. Following a mapping of the organisation of maternity services nationally and an analysis of local media coverage of FMUs that had been closed, we chose six sites to study in depth. In each site we gathered information from women who have used maternity services, midwives and NHS managers and commissioners, using interviews and focus groups. The analysis consisted of both a 'within-case' and a 'cross-case' focus, including application of the Consolidated Framework for Implementation Research, which helped us to identify why some services were successful in opening and promoting MUs and others were not. At a stakeholder workshop we discussed a set of priority actions to help services to increase the provision and uptake of MUs.

Results

Our mapping showed that there are now more MUs than ever before and that the growth has been in AMUs rather than in FMUs. There has been an associated increase in the percentage of births in MUs in England, from 5% in 2011 to 14% in 2016. However, the growth in MUs is unequally distributed across the country, there remains a minority of trusts without any MUs and the provision of FMUs is limited compared with AMUs despite the evidence that these units are clinically and economically optimal. In addition, the utilisation of MUs is extremely variable, with the majority birthing < 20% of their total population. The best available evidence suggests that this figure could be as high as 36%, but only one trust in our survey exceeded 30%. The stagnation in FMUs is concerning, given their better evidence base than AMUs in terms of both clinical effectiveness and cost-effectiveness.

One can extrapolate from these results that many low-risk women continue to birth in OUs in which the risk of caesarean and other birth interventions is increased, maternal satisfaction is lower and care is more expensive. Potentially, this could represent around 45,000 low-risk women per year in England who could give birth in a MU but currently have no access to one or are not using existing units.

The mapping exercise also described suboptimal organisational processes within maternity services, with the frequent movement of staff out of MUs to work on OUs and their regular closure as a consequence. Access to MUs was frustrated by the absence of a streamlined care pathway during pregnancy and inadequate mechanisms for service users to obtain information and exercise choice about and for them.

Local media analysis of a recognised cycle of opening and closing of FMUs revealed how dominant discourses of safety and austerity resist the competing discourse of women's choice regarding place of birth. In fact, it co-opts the choice discourse by repositioning it as evidence that women do not want to give birth in FMUs. Interviews with senior midwifery managers in sites where a FMU had closed revealed that these safety and austerity discourses were broadly accepted by them.

The case study analysis helped illuminate why MUs are still not available in some trusts and underused in many. The OU model has had decades to establish itself as the default, overwhelmingly dominant place of birth in England. Home birth and FMU have existed alongside it over those decades, but in a marginal way, consistently accounting for < 3% of all births. AMUs are a relatively new phenomenon, yet they have seen an exponential increase in use over the past 6 years that, in itself, could reflect a bias to an OU model, as AMUs are co-located. Our analysis revealed the potent influence of a number of factors. Medicalisation has contributed towards the dominant status of OUs, which draw staff away from MUs, leading to their intermittent closure. Financial constraints within trusts limit plans for the development of MUs and, in some cases, results in pressure to close FMUs even though economic evaluations of them are favourable. All of these factors contribute towards protecting the status quo. Managerialism in large host trusts, emphasising organisational control, a centralised hierarchy and performance management, can result in the marginalisation of smaller, detached organisational units, such as FMUs, which become a soft target for closure.

Based on the findings from all three phases of the study, we have discussed a range of potential strategies to increase the access and utilisation of MUs within current English maternity services. These are relevant for providers, commissioners, educational institutions and service users. Within provider organisations (NHS trusts), the potential strategies apply to trust and maternity service management, professional groups, clinical leads and organisational processes within maternity units. This 'whole systems' approach is required to address the powerful underlying mechanisms shaping current service provision.

Conclusions

Embedding MUs into the existing hospital-based OU model is very challenging and may require whole-systems change, as dominant societal and institutional discourses underpin the current status quo.

Thus, potential strategies to address this have to be targeted at the numerous maternity care stakeholders, representing commissioner, provider, service users and educational institutions. If this change does not occur, childbearing women's access to MUs will continue to be compromised.

Implications

The analysis indicated that clear leadership from commissioners is vital. Commissioners require a thorough knowledge of the evidence base of both FMUs and AMUs, both their clinical and financial benefits. They also need to know the clinical and organisational differences between them and their relative merits for service users and midwives. One approach that may promote knowledge at the regional level is identifying a clinical lead for maternity services within Clinical Commissioning Groups (CCGs).

Joint commission of FMUs could be explored across geographical and commissioning boundaries so that FMUs are an option for women wherever they live. Issues around tariffs, sharing maternal records and maintaining clinical continuity would need to be resolved to make this seamless.

The development of local maternity systems provides a potential future route for leadership and support for development and utilisation of both AMUs and FMUs.

The following possible strategies from the stakeholder workshop, aimed at providers and commissioners of services, were suggested to address the current low status and priority that MUs occupy compared with OUs, so that MUs become an integral part of overall maternity service provision.

Heads and directors of midwifery could be encouraged to operate at a strategic level to include trust boards, local maternity system boards and CCGs in which they can inform and champion MUs. Trusts with > 900 births per year in their MUs may find the appointment of a consultant midwife to oversee that provision a helpful strategy. In addition, MUs could explore having a designated midwifery and obstetric champion, and having a MU manager at an equivalent level in their organisation to those responsible for OUs.

Methods to raise the profile of MUs among commissioners, primary care health professionals and the local community could include social media platforms and local media outlets. Local women's support groups (e.g. Friends of the Birth Centre) could be encouraged for each MU to help raise their profile and celebrate their achievements. Providing information to all women about MUs as a place of birth option in accessible language that communicates their evidence base is likely to be beneficial. Discussion about birthplace could be raised by community midwives in early pregnancy and revisited throughout the pregnancy, especially at 36 weeks, as part of a birth options discussion and again at onset of labour. This is supported by Hinton *et al.* (Hinton L, Dumelow C, Rowe R, Hollowell J. Birthplace choices: what are the information needs of women when choosing where to give birth in England? A qualitative study using online and face to face focus groups. *BMC Pregnancy Childbirth* 2018;**18**:12). It is worth considering the adoption of the principle that MUs or home are the most suitable setting for birth for low-risk women, as recommended by the National Institute for Health and Care Excellence. An opt-out model for accessing AMUs has advantages, and this could be explored for FMUs as well. Visiting an AMU or FMU, and attending antenatal clinics and antenatal education in them, is to be encouraged for all women considering them as a place of birth. Audit data related to MU use and women's experiences, as well as outcomes, are important priorities. All of the above could be embedded in a midwife-led care pathway that is standardised across the entire service and addresses criteria for referral from midwifery to obstetric services and the process of referral.

Addressing the frequent movement of staff out of MUs to OUs was considered key in maximising MU utilisation (which all the other measures are seeking to address). This could be addressed by robust triaging at the point of labour admission, so that women labour in the appropriate setting for their risk status. Transfer of midwives from AMU to OU is sensible in the context of accompanying a woman who has

developed complications to ensure continuity of carer, although this was uncommon in our case study sites. Arguably, implementing case load models would be the most effective way of ending frequent staff movement, as then a midwife would follow the woman she is caring for according to the woman's clinical need. This is also in line with current maternity policy priorities.

The stakeholder discussion also proposed that the nurturing of skills for working in MUs be addressed through incorporating a range of normal birth skills as part of mandatory training requirements for midwives and for obstetricians. These could include examining decision-making processes using actual case scenarios, especially where there is clinical uncertainty. The maintenance of emergency skills drills, already mandatory, could be augmented by random emergency skill drills in FMUs, which were highly valued by midwives in one of the case study sites. This has been supported by previous studies.

The discussion also highlighted that, to help avoid divisions between staff groups and location settings (OUs and MUs), multidisciplinary education and review meetings could be considered.

Finally, the stakeholders emphasised that trust finance managers may benefit from being provided with detailed but accessible information about the evidence base and wider health economic implications related to utilisation of MUs.

Free-standing midwifery units in some of the case study sites were used for a variety of day and evening clinics and/or education purposes for local childbearing women. This served the dual role of maximising the usefulness of the space and countering negative perceptions held by some women that FMUs were closed if they were not being used for births. Stakeholders identified that another potential use is as a community hub, envisaged in *Implementing Better Births, A Resource Pack for Local Maternity Systems* (NHS England. *Implementing Better Births: A Resource Pack for Local Maternity Systems*. London: NHS England; 2017) and, depending on services using them, this has the potential to increase income for and uptake of the maternity service.

Recommendations for future research

Our recommendations for future research relate to further evaluation and explication of MU provision and the appropriate combination of mixed methods for examining major organisational change.

- Examine optimum staffing models for MUs, including case load, integrated community and hospital midwives' models and the core staff model.
- Undertake a comparison of adjacent and different floor location of AMUs to ascertain optimum functioning.
- More detailed mapping of MU organisational processes to embed appropriate pathways for women with healthy pregnancies, so that they are normally routed towards MU care and that women with complications are also referred back to the midwife-led pathway if complications resolve.
- Action research to examine best practice at the MU/OU interface.
- Examine how best to integrate, value and sustain FMU provision within the envelope of other maternity service provision.
- Explore rural settings in which multiple small FMUs exist in order to investigate how appropriate models can be developed and sustained.
- Explore the barriers to and facilitators of black, Asian and minority ethnic women accessing MUs.

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