

Institution: City University London
Unit of Assessment: 3 Allied Health Professions, Dentistry, Nursing and Pharmacy
Title of case study: Where to Be Born? Evidence about the quality and safety of birth in different settings to support optimal outcomes and women's choice about place of birth
<p>1. Summary of the impact</p> <p>This case study is based on a series of major studies by academic staff at City University London relating to quality, safety, choice and organisation of birth in different settings. Their research has been widely cited and debated by policy, professional and user groups, nationally and internationally. The key impact has been on national and international guidelines for commissioning and on reconfiguration of services to include Midwife Units, to tackle the rising rates of intervention in childbirth and to underpin informed choice for patients. The research is being used by policy-makers, commissioners and managers to plan future services and by midwives to support informed choice discussions.</p>
<p>2. Underpinning research</p> <p>A series of research projects and reviews undertaken over a long period at City University London culminated in a major programme of research to evaluate the quality and safety of birth in different settings:</p> <ol style="list-style-type: none"> 1) Research by Macfarlane from the late 1970s to the 1990s using routine data and reviews of small studies to investigate safety of different birth settings, with major policy impact, forms the background and foundation of this case study. 2) The Birthplace in England Programme, commissioned by the Department of Health Policy Research Programme and the National Institute for Health Research (NIHR), investigated the quality and safety of different birth settings to provide internationally-robust evidence to inform government policy (2007 to 2011). The Programme included five research projects conducted by a large collaborative team from the University of Oxford, City University London and King's College London, plus key stakeholders. Christine McCourt (Professor at City since 2010) was lead researcher for the organisational case study component of the programme and co-investigator on the whole programme. Alison Macfarlane (Professor at City since 2001) was a co-investigator on the whole programme. Dr Juliet Rayment was a member of research staff (at City since 2010) working on the programme. 3) The Barkantine Birth Centre Evaluation (2009 to 2011). This study, funded by NIHR Research for Patient Benefit and led by Alison Macfarlane with a team at City, included a survey of women's experiences of birth in midwifery or obstetric units, cost-effectiveness and clinical evaluations. 4) The Organisational Study of Alongside Midwifery Units (AMUs) (2010 to 2012): This study, funded by the NIHR Service Delivery and Organisation (SDO) was led by Christine McCourt. It investigated emerging issues relating to provision of care in AMUs including professional deployment, training and experiences of working in midwifery or obstetric units, user experiences of the service and organisational challenges to development and sustainability. 5) A follow up study funded by the NIHR SDO programme is analysing further the Birthplace Cohort Study data (2012 to 2013). Professors McCourt and Macfarlane are co-investigators. This analysis is addressing key questions concerning the impact of organisational, contextual or patient characteristics on outcomes and the patterns and implications of transfer from out-of-hospital settings during labour. <p>The Birthplace Programme examined clinical outcomes of birth planned at home, midwifery or obstetric units; cost-effectiveness; organisational and professional factors impacting on quality and safety; and user and provider experiences of care; and also mapped provision for choice nationally. Comparisons for a sample of 65,000 low-risk women found no overall difference in adverse neonatal outcomes, but a higher rate of adverse outcomes for first births planned at home, along with higher rates of positive maternal outcomes and of cost-effectiveness in midwifery units and home. The</p>

Organisational Case Studies highlighted women's positive experiences of birth in out-of-hospital settings, but identified staffing, training and organisational challenges to quality of care, inequalities and deficiencies in information and choice.

The Barkantine study identified that planning birth in an inner-city freestanding birth centre offered women more choice in the care given and greater continuity of carer compared with hospital care, higher levels of cost-effectiveness and satisfaction with care.

The AMU study identified challenges to quality and safety, sustainability and scaling-up of this rapidly growing model of care. They included professional tensions, resource conflicts, poor quality of information for women, training, management and staff deployment issues.

3. References to the research

Birthplace in England Collaborative Group (2007). Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ* 2011(343) d7400 [10.1136/bmj.d7400](https://doi.org/10.1136/bmj.d7400)

McCourt C., Rance S., Rayment J. & Sandall J. (2012). Organisational Strategies And Midwives' Readiness To Provide Care For Out Of Hospital Births. *Midwifery*, 28(5), 636-645 [10.1016/j.midw.2012.07.004](https://doi.org/10.1016/j.midw.2012.07.004)

Birthplace in England Collaborative Group (2012). The Cost-Effectiveness Of Alternative Planned Places Of Birth In 'Low Risk' Women *BMJ*, 2012(344), e2292 [10.1136/bmj.e2292](https://doi.org/10.1136/bmj.e2292)

Rance, S. McCourt, C. Rayment, J. Mackintosh, N. Carter, W. Watson, K. & Sandall, J. (2013). Women's safety alerts in maternity care: is speaking up enough? *BMJ Qual. Saf.* 2013(22) 348-355 [10.1136/bmjqs-2012-001295](https://doi.org/10.1136/bmjqs-2012-001295)

McCourt, C., Rayment J., Rance, C. & Sandall J. (2013) An Organisational Study of Alongside Midwifery Units: A Follow-on Study from the Birthplace in England Programme. NIHR library <http://www.nets.nihr.ac.uk/projects/hsdr/10100835>

Indication of quality of the research: The British Medical Journal is ranked in fourth place in the international rankings of the most influential general medical journals in the world, (<http://tinyurl.com/kfze8n2>) (2012). *Midwifery* is a leading international journal in midwifery and maternal studies, published by Elsevier and employing a double-blind peer review process.

4. Details of the impact

The findings of this body of research support a policy of mother's choice of place of birth that has been taken up by the UK Department of Health and internationally. The findings provide evidence that professionals are now using to inform and advise women with uncomplicated pregnancies on choice of birth setting. Managers are using the findings to inform decisions about organisation and delivery of maternity services and commissioners are using them to inform service planning and reconfigurations. This is reflected in major recent UK policy documents which quote the research as a basis for service design and organisation and the 'choice' policy. The UK Government's 2012 White Paper: '*Liberating the NHS: No decision about me, without me*' cited the research as evidence to support the policy of choice of care setting. The NHS Commissioning Board's 2012 guidance document '*Commissioning Maternity Services*' cited the work as supporting evidence for service improvement to include the policy of offering healthy women with low risk pregnancies a choice of birth setting.

International impact is reflected in the replication of the Birthplace Study by a national research team in Australia and in the Brazilian government's maternity policy. The *Rede Cegonhas* (Stork Network) has been set up to improve maternity care across Brazil, including the development and roll-out of 180 midwifery units nationally. A postdoctoral fellow was based at City in 2013, funded

by the Leverhulme Trust, to work on replication of our AMU study with a case study in Brazil and McCourt has been invited to provide expert advice on implementation issues and on evaluation of the implementation and outcomes of the development. A petition has been developed citing McCourt *et al* as evidence to support the introduction of midwifery-led maternity care in Switzerland.

Locally, the Barkantine Study has been used by commissioners in decision-making about future service configuration: a second Fetal Medicine Unit (FMU) has now been opened and new AMUs are being designed. A NIHR-funded doctoral fellowship is following up the work, investigating the skills and practices of midwives working in midwifery units and the potential for transfer to other care settings.

The prior research by Macfarlane raised questions about the evidence base of previous UK and other national policies that all women should give birth in hospital. Policies on place of birth had been changed in the past decade in the UK in line with the 'choice' agenda, but this had been challenged as there had been no previous systematic research on midwifery units in the UK and there was a lack of robust evidence internationally comparing safety and quality across different settings. Existing research had major limitations in terms of sizes of samples, reliance on routine and retrospective data, controlling for levels of risk, whether the care setting was planned and on the impact of transfers of care. Earlier research by McCourt indicated that women wanted choice in maternity care and that better evidence was needed to inform it.

The first findings from Birthplace in England were published in November 2011. They are already highly cited and have been the subject of commentaries by the Minister for Health, the Royal College of Midwives, the Royal College of Obstetricians and Gynaecologists (RCOG) and the National Childbirth Trust. They have been circulated to NHS managers through the NHS Confederation Research Digest. The RCOG commentary on the Birthplace Study states:

'Overall it found that childbirth is generally very safe which is reassuring, however, it showed that first-time mothers wishing to deliver at home have an increased risk of poor outcomes for their babies. The study also showed that first-time mothers have higher transfer rates from freestanding and adjoining maternity units, therefore raising questions about the best place for this group of women to give birth. It is clear to us that for low-risk mothers having their second or third child, there was no increased risk if they chose to give birth at home, so an expansion of midwifery-led care would improve women's choices and ease pressure on hospital units.'

There have been several letters to the British Medical Journal in response to the clinical and economic study articles and discussions on user forums and in professional networks debating the implications of the findings. The implications for design and delivery of future maternity networks under the new NHS arrangements are currently being discussed, but early impact is reflected in a very rapid rise in the number of midwifery units opened in England. An update of the NICE Intrapartum Care Guidelines was delayed to await the publication of the Birthplace Programme findings. The updated guidelines are now due to be published in 2014.

The Birthplace Study also received wide press coverage, featuring in a range of national newspapers including *The Guardian*, *Independent*, *Times*, *Daily Mail*, syndicated local newspapers and the Radio 4 Today Programme. The press coverage generated considerable public and professional responses and discussions on press websites. The economic study was featured on breakfast television. The findings were also featured as a summary on the Netmums website, the major consumer maternity discussion forum in the UK and generated a considerable number of responses and discussion.

The study was also covered in a *Guardian* roundtable debate: Home or hospital? A *Guardian* roundtable debate on where to give birth: *'Despite recent research which shows home births can be just as safe as those in hospitals, many mothers-to-be in England are not offered a choice'* Joanna Moorhead, *The Guardian*, 11th July 2012.

Macfarlane, McCourt and Rayment have provided feedback to service commissioners and managers nationally as well as locally and are being invited to present the results at major national and international conferences and workshops. Further research has been commissioned to investigate questions arising from the research to date on key issues such as arrangements for transfer of care between settings, professional training and preparation.

5. Sources to corroborate the impact

1. **Liberating the NHS: No decision about me, without me** - Further consultation on proposals to secure shared decision-making, London, DoH. 23 May 2012.

2. NHS commissioning Board's guidance document '**Commissioning Maternity Services. A Resource Pack to support Clinical Commissioning Groups**' July 2012.

3. **NHS confederation Digest:**

www.nhsconfed.org/Publications/digests/Pages/birthplace-in-england.aspx.

4. **NHS choices:** Summary of the programme reports.

5. **Royal College of Obstetricians and Gynaecologists (RCOG) policy statements:**

- <http://rcogwomenshealth.wordpress.com/>
<http://tinyurl.com/c48jds6>.

6. NIHR SDO Programme digest of the research to aid managers, professionals and commissioners in decision-making.

7. NCT Q&A briefing for NCT practitioners and parents. The Birthplace in England Research Programme – what have we learned?

8. Information on the petition for the introduction of midwifery-led obstetrics in Swiss Hospitals:

Individual users/beneficiaries who can be contacted by the REF team to corroborate claims:

President of the Royal College of Midwives
 Head of Research and Policy, National Childbirth Trust
 Lead Maternity Commissioner for NHS South of England
 United Nations Population Fund (UNFPA) Technical Advisor, Brasilia
 Manager, Barkantine & Barking Birth Centres, Bartshealth NHS Trust