

<b>Institution:</b> City, University of London		
<b>Unit of Assessment:</b> 03 Allied Health Professions, Dentistry, Nursing and Pharmacy		
<b>Title of case study:</b> Midwifery-led Units: improving choice, uptake, quality, and sustainability of global maternity care		
<b>Period when the underpinning research was undertaken:</b> 2007 - ongoing		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Prof Christine McCourt	Professor of Maternal Health	2010 - present
Prof Alison MacFarlane	Professor of Perinatal Health	2000 – present
Dr Lucia Rocca-Ihenacho	NIHR Research Fellow	2015 - present
Dr Miranda Dodwell (now Scanlon)	Senior Research Fellow	2015-2018
Dr Juliet Rayment	Research Fellow	2010-2015
<b>Period when the claimed impact occurred:</b> 2013 - ongoing		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b> <p>Ground-breaking research from the Centre for Maternal and Child Health at City, University of London has had a global impact on the adoption of Midwifery Units. Midwifery Units offer maternity care to women with straightforward pregnancies and have better outcomes, experiences and are more cost effective compared with Obstetric Units. Our research has led to a better understanding of the complex barriers and facilitators to implementation. A spin-off company, Midwifery Unit Network Ltd (MUNet), has been established that supports service providers in implementing evidence into practice, including developing a set of standards endorsed by NICE. The number of midwifery units in England increased by 51% between 2010 and 2019 from 114 to 173. The number of midwifery unit births has also increased to 14% of the total number of births (in 2016) saving the NHS £10M. Globally, midwifery units have now been established in four countries outside England with support from MUNet and are in development in five low- and middle-income countries.</p>		
<b>2. Underpinning research</b> <p>‘Too little too late’ and ‘too much too soon’ refer to harm that can arise from lack of access to care, especially for economically deprived or rural populations, or from excessive intervention. These twin problems have been identified as major challenges for global maternity care resulting in inequity and poorer quality outcomes. The World Health Organisation has called for scaling-up of midwife-led services to improve quality of care while also reducing the burden on human and financial resources. Early cutting-edge research from City, University of London (City), was commissioned by the UK Department of Health to provide robust evidence on outcomes, costs and processes of care in different settings (the Birthplace in England Programme). Results demonstrated that, for low-risk women, giving birth in a midwifery unit was safer, cheaper, and associated with better experiences compared with obstetric units. These findings informed updated clinical guidelines from NICE, published in 2014, recommending that professionals provide information about the benefits of midwifery unit care to encourage uptake by pregnant women. NICE guidelines are referenced widely, but subsequent research by the team at City highlighted a range of implementation challenges for this recommendation, nationally and internationally, in terms of provision and uptake of midwifery units.</p>		

To understand and address this problem, the team from City, led by *McCourt*, have become sector leaders in implementation research into midwifery units, identifying opportunities and barriers to provision and components of quality. Key underpinning research has included:

- 1) A study employing ethnographic case studies of the organisation and management of Alongside Midwifery Units [3.1;3.2]. This research identified, for the first time, the key challenges to quality and safety, sustainability and scaling-up of this novel model of care, including professional tensions, resource conflicts, poor quality of information for women, training, management and staff deployment issues.
- 2) A mixed-methods study, which mapped patterns of midwifery unit provision in England following the updated NICE guidelines in 2014 and investigated factors influencing uptake. Mapping findings identified gaps in implementation, with limited provision in some areas, instability in provision and variable uptake [3.3]. A series of case studies identified a range of structural, organisational, cultural, and informational factors influencing this picture [3.4].
- 3) A case study of user experiences and cost-effectiveness of the first purpose-built urban Freestanding Midwifery Unit in England. Findings identified high levels of satisfaction and cost-effectiveness of this care model [3.5].
- 4) A NIHR doctoral fellowship (*Rocca-Ihenacho*) supervised by *Macfarlane & McCourt* (2012-2016) also identified key ingredients contributing to the positive outcomes of Freestanding Midwifery Units and developed conceptual models to guide midwives and managers and to support service users' choice [3.6].

The Birth Place Action Study (NIHR Knowledge Mobilisation Fellowship to *Rocca-Ihenacho* 2016-2019) built on this programme of work as the first study to explore implementation strategies for scaling-up use of midwifery units. Key outputs were the development of a set of evidence-based European Midwifery Unit Standards and accompanying self-assessment tool. These documents provide a practical framework to support service managers and practitioners when setting up a midwifery unit. They include a step-by-step guide on how to assess their midwifery unit and how to produce an implementation or improvement plan all underpinned by a research evidence base.

### 3. References to the research

- [3.1] McCourt C, Rance S, Rayment J, Sandall J. Organising safe and sustainable care in alongside midwifery units: Findings from an organisational ethnographic study. *Midwifery*. 2018;65:26-34. <https://doi.org/10.1016/j.midw.2018.06.023>
- [3.2] Rayment J, Rance S, McCourt C, Rm JS. Barriers to women's access to alongside midwifery units in England. *Midwifery*. 2019;77:78-85. <https://doi.org/10.1016/j.midw.2019.06.010>
- [3.3] Walsh D, Spiby H, Grigg CP, Dodwell M, McCourt C, Culley L, Bishop S, Wilkinson J, Coleby D, Pacanowski L, Thornton J. Mapping midwifery and obstetric units in England. *Midwifery*. 2018;56:9-16. <http://dx.doi.org/10.1016/j.midw.2017.09.009>
- [3.4] Walsh D, Spiby H, McCourt C, Grigg C, Coleby D, Bishop S, Scanlon M, Culley L, Wilkinson J, Pacanowski L, Thornton J. Factors influencing the utilisation of free-standing and alongside midwifery units in England: a qualitative research study. *BMJ open*. 2020;10(2). <http://dx.doi.org/10.1136/bmjopen-2019-033895>
- [3.5] Macfarlane AJ, Rocca-Ihenacho L, Turner LR. Survey of women' s experiences of care in a new freestanding midwifery unit in an inner city area of London, England: 2. Specific aspects of care. *Midwifery*. 2014;30(9):1009-20. <https://doi.org/10.1016/j.midw.2014.03.013>
- [3.6] Rocca-Ihenacho L, Yuill C, McCourt C. Relationships and trust: Two key pillars of a well-functioning freestanding midwifery unit. *Birth*. 2020;00:1-10. <https://doi.org/10.1111/birt.12521>

All outputs were published in prestigious academic journals that apply a rigorous peer-review process prior to acceptance of papers. The outputs were supported by four grants from NIHR: “An organisational study of Alongside Midwifery Units: a follow-on study from the Birthplace in England Programme”, 2010 - 2012. Principal Investigator: Christine McCourt. Funding value: £299,030. Grant number 10/1008/35; “Factors influencing the utilisation of free-standing and alongside midwifery units in England: A Mixed Methods Research Study”, 2015 - 2018. Co-Investigator from City, University of London: Christine McCourt, Funding Value: £477,227, Grant Number: 14/04/28; “Assessing the impact of a new birth centre on choice and outcome of maternity care in an inner city area” NIHR Research for Patient Benefit, 2008 - 2009. Principal Investigator: Alison Macfarlane. Funding value: £249,993 Grant number PB-PG-0107-12209; “How can NICE intrapartum guidelines recommendations on place of birth for women with uncomplicated pregnancies be implemented in practice?” Career Development Award, 2016 - 2019. Principal Investigators: Lucia Rocca-Ihenacho. Funding value: £ 286,271. Grant number KMRF-2015-04-001

#### 4. Details of the impact

Our research has influenced a major shift from obstetric-led to midwife-led birth settings for low-risk women in the UK and internationally. The evidence base created by our research has been used in the design and development of a range of practical tools. These tools have supported change in national and global policy and the growth in numbers and quality of midwifery units in the UK and abroad. Between 2010 and 2016 the number of women who birthed in a midwifery unit in England rose from 5% to 14%, equating to an additional 58,492 midwifery unit births. A conservative estimate, based on the Birthplace in England Research Programme’s economic analysis (Schroeder et al., 2012), suggests that this represents a saving of approximately GBP10,000,000 to the NHS. The number of midwifery units in England increased from 114 in 2010 to 173 in 2019 and the number of maternity units without a midwifery unit decreased from 50% in 2010 to 20% in 2019. International change supports the increasing implementation of midwifery units worldwide.

Midwifery Unit Network (MUNet), was set up in 2015 as a community of practice to develop impact and is now a limited company. City staff were instrumental in the creation, launch and support of MUNet as a spin-off company and remain intrinsically linked through *Rocca-Ihenacho* (CEO and co-founder), *Thaels* (director), *Batinelli* (research advisor) and *McCourt* (associate). MUNet has created tools and training, underpinned by our research, aimed at expanding and improving the choice of maternity care offered to women. These include:

Midwifery Unit (MU) Standards: These evidence-based standards, informed by our research, define quality criteria for midwifery units and are aimed at improving quality of care and reducing variability of practice. The standards have been endorsed by the European Midwives Association and NICE, who state that they “*accurately reflect recommendations in the NICE guidance on intrapartum care for healthy women and babies [CG190]. They also support statement 1 in the NICE quality standard for intrapartum care [QS105]*”. The standards are also supported by the International Confederation of Midwives and the European Board and College of Obstetrics and Gynaecology [5.1].

Midwifery Unit Standards Self-Assessment Tool: The self-assessment tool, launched in September 2019, allows midwifery units to benchmark their service against the MU Standards and develop improvement plans. The tool has been piloted in four midwifery units across Europe. Evaluation of the pilot data has demonstrated that by using the self-assessment tool, services were better able to produce structured improvement plans. These plans included high-impact actions such as environmental refurbishment, production of evidence-based clinical guidelines and pathways, information for service users and providers, professional buddy-schemes and timelines to evaluate progress and service effects [5.2].

Midwifery Unit Academy: MU Academy is the education and training arm of MUNet. It delivers e-learning modules and interactive workshops/courses for professionals and service managers worldwide. 795 professionals have attended these workshops and courses since 2017 and a further 477 e-learning modules have been completed. In 2020 alone, 500 places

were purchased for Canadian professionals and 750 for UK midwives. The training has a direct impact on midwifery units through the professionals involved.

The tools produced by MUNet, informed by our research, continue to influence policy and provision in the UK. For example, the MU Standards have been used to ensure the new community birthing hubs provide the necessary ambience, equipment and space: *“MU Net resources and training have helped to develop services across the North of England, supported leaders to develop new ways of working and new environments that women, birthing people and their families want. MU Net have been invaluable in developing service and system change”* [5.3]. The MU Standards have also helped shape best practice in London; they have been written into a resource from the London Clinical Maternity Network and our research has been cited in an NHS Best Practice toolkit ‘Increasing the number of births at home and in midwifery led units’ [5.4]. MUNet’s training resources have also been licensed by Trusts and Health Boards including Chelsea and Westminster, Wakefield, Grampian and Tayside, and bespoke training has been provided to Cheshire and Merseyside.

Our research, networking and training (through MUNet) has also had a profound impact across Europe leading to change in policy and legislation and increased numbers of midwifery units. In 2015, France implemented five pilot midwifery units. MUNet and academics at City collaborated with the French Midwifery Association to support stakeholder meetings and provide testimonial to the French Senate. The head of the French Midwifery Association, which represents 20,000 midwives and 498 maternity services, confirmed that new legislation was passed in the French Parliament on 14 December 2020, allowing the eight existing birth centres to continue their activity and planning for at least 12 more. The testimonial also notes that a multinational team including France, Belgium and Switzerland were translating the MU standards into French and that France were trialling the self-assessment toolkit. These developments have also been supported by the Vice-President of the French government’s Social Affairs Committee [5.5].

MUNet has collaborated with the Federation of Spanish Midwifery Associations, (FAME), an organisation that represents most of the midwifery associations in Spain and some 3033 midwives. The collaboration has led to policy changes that support the implementation of midwifery units and the MU standards and underpinning research have been used as evidence to support these changes. The autonomous region of Valencia has passed legislation in support of the implementation of midwifery units and Catalunya, which opened the first public service midwifery unit in 2017, is about to launch its second Alongside Midwifery Unit at Badalona in early 2021 [5.6].

There has been extensive engagement between MUNet and stakeholders across many other European countries including Italy, the Czech Republic, Bulgaria, Romania, the Netherlands, Portugal, Belgium and Malta. Training and consultation services provided by MUNet have not only improved the operation of existing midwifery units but supported the introduction of midwifery units in countries such as the Czech Republic. Testimonials from the head of the Department of Gynaecology and Obstetrics, Charles University and the chair of the Association of Birth Houses and Centers note direct impact on staff skills (less invasive approaches), processes (midwife-to-midwife coaching) and staff communication techniques [5.7].

Globally, the implementation of midwifery units has been facilitated by academics from City through online advisory meetings and use of the MU Standards as a planning tool, with support from MUNet or IMaGINE (a City-based GCRF-funded network). Senior stakeholders have been supported to explore implementation challenges and opportunities in low- and middle-income countries and to implement and evaluate pilot midwifery unit projects. A number of new midwifery units were opened in India as a pilot project supported by a collaboration involving MUNet, the WHO and the Health Ministry in India [5.8]. MUNet has collaborated with the Saudi Ministry of Health since 2018 leading to the creation of a stakeholder consultation group that works on the implementation of midwifery units. In 2020, approval was granted to initiate a midwifery unit consultation committee, which will formalise and regulate the opening of midwifery units in Saudi Arabia. Part of this project is the creation of Midwifery Unit Standards for Saudi, based on the European Midwifery Unit Standards

created by MUNet and underpinned by our research [5.9]. Similarly, in Afghanistan, MUNet collaborated with the country's Midwifery Association securing formal approval in 2020 to initiate a midwifery consultation committee, which will regulate midwifery units and create midwifery unit standards for Afghanistan, based on the European Midwifery Unit Standards [5.10]. In other countries such as Brazil the MU Standards have been translated into Portuguese, but their planned launch has been postponed to 2021 because of the coronavirus pandemic.

#### **5. Sources to corroborate the impact**

- [5.1] Midwifery Unit Standards 2018 and NICE endorsement statement of the Standards published 21 October 2019.
- [5.2] Report on the Midwifery Unit Self-Assessment Tool, January – July 2020.
- [5.3] Testimonial from the Chief Midwife for North East & Yorkshire, NHS England.
- [5.4] NHS London Clinical Networks document 'Increasing births in midwifery led settings; A Best Practice Resource by London Maternity Clinical Network Draft V.11 07.12.20' and NHS London Strategic Clinical Networks document 'Increasing the number of births at home and in midwifery led units: A best practice toolkit'.
- [5.5] Testimonial from the president of the French Association of Midwives.
- [5.6] Testimonial from the president of the Federation of Midwifery Associations, Spain.
- [5.7] Testimonials from the head of the Department of Gynaecology and Obstetrics, Charles University, Czech Republic and the chair of the Association of Birth Houses and Centers Czech Republic.
- [5.8] Testimonial from the Department for Maternal, Newborn, Child and Adolescent Health and Ageing, World Health Organisation, Geneva Switzerland.
- [5.9] Testimonial from the Director of Midwifery, General Department of Nursing and Midwifery Affairs, Ministry of Health, Saudi Arabia.
- [5.10] Testimonial from the president of the Afghan Midwives Association, Afghanistan.