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- 1 **Title:**
- 2 The Midwifery Unit Self-Assessment (MUSA) Toolkit: embedding stakeholder engagement
- 3 and co-production of improvement plans in European midwifery units
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15 Abstract:

- 16
- 17 Background
- 18 For women with straightforward pregnancies midwifery units (MUs) are associated with
- 19 improved maternal outcomes and experiences, similar neonatal outcomes, and lower costs
- 20 than obstetric units. There is growing interest and promotion of MUs and midwifery-led
- 21 care among European health policymakers and healthcare systems, and units are being
- 22 developed and opened in countries for the first time or are increasing in number. To
- 23 support this implementation, it is crucial that practice guidelines and improvement
- 24 frameworks are in place, in order to ensure that MUs are and remain well-functioning.
- 25
- 26 Aims
- 27 This project focused on the stakeholder engagement and collaboration with MUs to
- 28 implement the Midwifery Unit Self-Assessment (MUSA) Tool in European MUs. A rapid
- 29 participatory appraisal was conducted with midwives and stakeholders from European MUs
- 30 to explore the clarity and usability of the tool, to understand how it helps MUs identifying
- 31 areas for further improvement and to identify the degree of support maternity services
- 32 need in this process.
- 33
- 34 Key conclusions of the paper
- 35 Engagement and co-production principles used in the case studies were perceived as
- 36 empowering by all stakeholders. A fresh-eye view from the external facilitators on dynamics

37	within the MU and its relationship with the obstetric unit was highly valued. However,
38	micro-, meso- and macro-levels of organisational change and their associated stakeholders
39	need to be further represented in the MUSA-Tool. The improvement plans generated from
40	it should also reflect these micro-, meso- and macro-levels considerations in order to
41	identify the key actors for further implementation and integration of MUs into European
42	health services.
43	
44	
45	Key words/short phrases:
46	Midwifery Units; Co-production; Continuous improvement; Stakeholder engagement
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48	
49	Key message:
50	• Engagement and co-production principles used in the case studies were perceived as
51	empowering by all stakeholders
52	A fresh-eye view from the external facilitators were highly valued by stakeholders
53	 Micro-Meso-Macro levels of change need to be further represented in the MUSA-
54	Tool
55	The high impact actions need to reflect the Micro-Meso-Macro levels to identify the
56	correct players.
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- 78 **Title:**
- 79 The Midwifery Unit Self-Assessment (MUSA) Toolkit: embedding stakeholder engagement
- 80~ and co-production of improvement plans in European midwifery units
- 81
- 82 Manuscript
- 83

84 Background

85

86 Evidence indicates that midwifery units (MUs) are associated with improved maternal

- 87 outcomes and experiences, similar neonatal outcomes, and lower costs than obstetric units
- 88 (OUs) for women with straightforward pregnancies (Scarf et al. 2018). There is growing
- 89 interest and promotion of MUs and midwifery-led care among European health
- 90 policymakers and healthcare systems (Rayment et al. 2020). MUs are being developed and
- 91 opened in countries for the first time or are increasing in number (Rayment et al. 2020). To
- 92 support the scaling up of midwifery units, it is crucial that implementation support is in
- 93 place as well as practice guidelines and improvement frameworks, in order to ensure that
- 94 MUs are and remain well-functioning and to ensure fidelity (Carrol et al. 2007).
- 95 The Midwifery Unit Standards define a MU as a 'Unit which offers primary maternity care to
- 96 healthy women with straightforward pregnancies in which midwives take primary
- 97 professional responsibility for the care' (Rocca-Ihenacho et al. 2018:7). One of the core
- 98 characteristics of MUs is that they should be underpinned by a bio-psycho-social philosophy
- 99 of care which recognises the physiological, psychological and social needs of women and
- 100 birthing people with a focus on a positive transition to parenthood (Rocca-Ihenacho et al.
- 2018). This approach to maternity services differs strikingly to a medical-industrial model ofcare which characterises OUs, focused on a risk-avoidance rather than on practices that
- 103 create health and wellbeing (McCourt et al. 2016). MUs may be located away from
- 104 (Freestanding or FMU) or adjacent to (Alongside or AMU) an obstetric service (Table 1)
- 105 (Rocca-Ihenacho et al. 2018).
- 106
- 107 INSERT
- 108 Table 1- Definition of Midwifery Unit (Rocca-Ihenacho et al. 2018)
- 109

110 Despite strong evidence and policy recommendations for high income countries to scale up

- 111 the provision of MUs, implementation has been slow (Rayment et al. 2020). In the European
- 112 Union (EU) and the UK, only 14 countries have implemented MUs and not in a systematic
- 113 manner (Rayment et al. 2020). OUs remain the norm for birth, and in some European
- 114 countries, it is illegal to give birth outside of a hospital, meaning that the implementation of
- 115 Freestanding midwifery units (FMUs) faces significant systemic challenges (Rayment et al.
- 116 2020). In the UK, MUs are more common than in the rest of Europe, and in Wales all eligible
- 117 women have access to a local MU (Blotkamp et al. 2019; Aughey et al. 2019).
- 118

- 119 The number of AMUs in England has increased by 51% between 2011 and 2016, and births
- 120 in MUs have increased to 14% from a baseline of 5% in 2010 (Walsh et al. 2018),
- 121 representing a £10 million savings for the National Health Service (NHS) (calculation based
- 122 on Schroeder et al. 2012). In France, following the positive impact and the positive
- 123 outcomes of the implementation of the first five pilot MUs, legislation has passed in 2020
- 124 for the implementation of an additional 12 MUs (Journal Officiel De La République Française
- 125 2020). Recent mapping of English maternity services suggests MUs have the capacity to
- 126 support around 36% of all women during labour and birth, meaning they are still
- 127 underutilised across the UK and Europe (Walsh et al. 2018; Walsh et al. 2020).
- 128 Against this backdrop, the Midwifery Unit Network (MUNet), a European community of
- 129 practice with the objective of supporting the implementation and improvement of MUs
- 130 across Europe (Newburn and Rocca-Ihenacho 2018), has been collaborating with local
- 131 stakeholders in Spain, Portugal, Czech Republic and Bulgaria to support the implementation
- 132 of MUs for the first time. Significant effort has also been applied in Italy, France, Belgium
- 133 and Switzerland, where MUs exist but are still considered an exception to the norm.
- 134 MUNet includes 8,000 members in its social media platforms and offers support to its
- 135 members via networking, conference organisation, training, consultancy and research in
- 136 collaboration with its academic partner, City, University of London. A core aim of MUNet is
- 137 to promote an organisational culture that embraces the bio-psycho-social philosophy of
- 138 care and positive interdisciplinary collaboration (Rocca-Ihenacho et al. 2018; Rayment et al.
- 139 2020). MUNet promotes midwives' sense of ownership and engagement with the MU,
- allowing them to take a central role in the continuous improvement of the unit (McCourt etal. 2016).
- 142 The aim of this project was to: 1) to implement the MUSA Tool in European MUs; 2) to
- 143 explore the clarity and usability of the tool; 3) to understand how the tool helps MUs to
- identify areas for further improvement; 4) and to identify the degree of support maternity
- services need in this process. In this paper we discuss the co-creation of the Midwifery Unit
- 146 Self-Assessment (MUSA) Tool and the stakeholder engagement activities conducted to
- 147 ensure that the tool is user-friendly and achieves its aim to support the continuous
- 148 improvement of MUs across Europe.
- 149

150 Development of the Midwifery Unit Self-Assessment (MUSA) Tool

- In 2018, MUNet in partnership with City, University of London and the European Midwives
 Association (EMA) launched the first European Midwifery Unit Standards (Rocca-Ihenacho
 et al. 2018; Rayment et al. 2020) with the aim of offering quality guidance to those working
 in or planning a new MU. The development of the Midwifery Unit Standards was a co-
- 155 produced and evidence-based process to ensure that it was robust and inclusive (Rayment
- 156 et al. 2020). It included a systematic review and synthesis of relevant evidence, a two-round
- 157 Delphi survey, case study interviews, stakeholder meetings, and peer review. In 2019, the
- 158 Midwifery Unit Standards received accreditation from the UK's National Institute for Health
- 159 and Care Excellence (NICE).

160 In 2019, researchers from City, University of London collaborated with an international

- 161 group of advisors and service user representatives to develop the MUSA-Tool with the
- 162 purpose of helping MU staff to benchmark their settings, performance, organisation of care
- against each standard. The implementation of the MUSA-Tool includes the principle of co-
- 164 production with stakeholders in the creation of an advisory group which contributes to the
- 165 identification of strengths and area for improvement for the MU, based on the results of the
- 166 completion of the MUSA-Tool.
- 167

168 The development process involved:

- Review of existing self-assessment tools and the methodology behind indicators;
- Meetings with key international stakeholders and experts with experience in
 creating indicators and self-assessment tools for maternity care;
- A Delphi survey with two rounds to achieve consensus amongst experts;
- Expert stakeholder event;
- Peer review.
- 175

176 Before the creation of the indicators and self-assessment tool commenced, existing self-177 assessment tools and methodologies behind the creation of indicators were reviewed and 178 examined (Boesveld et al. 2017; NICE 2019). The research team consulted with the 179 American Associations of Birth Centres (AABC) and Euro-Peristat about the process of 180 developing indicators and a self-assessment tool. A first draft list of indicators was created 181 by tabulating all the MU Standards and identifying an outcome measure. The first round of 182 the Delphi survey was composed of ten sections and 77 proposed indicators which were 183 linked to each of the 29 standards. Experts with experience in developing, evaluating, 184 working in and managing MUs or in the creation of indicators were invited to fill out the 185 survey and to rate the proposed indicators on a scale from 1 to 5 based on the SMART 186 criteria (Specific, Measurable, Attainable, Relevant and Time-bound). Indicators that scored 187 less than 75% in the ranking process were either removed or reviewed. Seventeen of the 77 188 proposed indicators scored lower than 75% and were changed or left out. 189 Results from the open questions/comment sections of the first Delphi round suggested that 190 SMART was not an ideal criterion to rate the draft indicators, so a different rating method 191 was used for the second round. The second survey was composed of 66 proposed 192 indicators. Experts were invited to rate the proposed indicators between 1-5 for clarity and 193 measurability (1 – Not clear and measurable, 3 – Neutral, 5 – Very clear and measurable). 194 Eight of the 66 proposed indicators scored below 75% and again were reviewed or removed. 195 A first draft of the MUSA-Tool was then produced and peer-reviewed by ten experts in 196 developing and managing midwifery units, during a face-to-face stakeholder event. This 197 engagement event with European stakeholders led to a second draft version of the MUSA-198 Tool which was then sent for a second round of peer-reviewing to seven international 199 experts in midwifery units. The research team then incorporated all the feedback received and drafted the final First Version of the MUSA-Tool. 200

5

- 201 The resulting tool includes 61 indicators arranged into ten themes (Rocca-Ihenacho et
- al.,2019) which mirror those of the Midwifery Unit Standards. When completing the MUSA-
- 203 Tool respondents will select either 'Yes', 'No', 'Partly' or 'Not applicable' to each indicator,
- and 29 of the indicators have follow-up 'Yes' or 'No' questions in the event that the first
- 205 response was 'Yes'. Each indicator is also connected to one of the Midwifery Unit Standards,
- so that users can refer to the Standards for clarification. The MUSA-Tool is formatted into an
- 207 Excel spreadsheet and can be completed either on a computer or on paper. As a first step
- 208 into the further development of the MUSA-Tool, the team collected feedback from those
- 209 working in and managing MUs who would be using the tool. A rapid appraisal was
- 210 conducted to gather the views of service providers and users on the tool and the
- 211 stakeholder engagement process to identify the degree of support needed by services in the
- 212 process of self-evaluation and co-creation of an improvement plan.
- 213

214 Use of the MUSA-Tool and stakeholder engagement

- 215 Rapid participatory appraisal is the method that has been used to collect qualitative
- 216 information about deprived areas in the United Kingdom but has also been extended to
- 217 planning primary care services (Murray et al. 1994). The key aims of rapid appraisals is to
- 218 gain stakeholders' own views on their needs, translate this information into action and
- 219 establish partnerships between different health service providers and local communities.
- 220 Information is collected about a variety of aspects that come together to form a multi-
- 221 layered pyramid that establishes the micro-, meso- and macro-level contexts of a
- 222 community or case study of focus. Rapid participatory appraisals are usually conducted
- 223 within two weeks; however, our appraisal was conducted over a period of three months due
- to the impact of the first-wave of the COVID-19 pandemic on healthcare services,
- 225 professionals and the complexity of migrating a face-to-face project online. Our team liaised
- with the service leaders and staff continuously to ensure that the participation was not
- 227 adding unnecessary stress to the stakeholders during the pandemic, and online stakeholder
- 228 events were postponed until the pressure on the services improved. Feedback from our
- stakeholders reassured us that they found the focus on the positive plans of improving their
- 230 MU helpful and also they felt part of a community of practice.
- 231 We conducted the rapid appraisal in collaboration with four MUs (two AMUs and two
- 232 FMUs) across Europe in order to explore the usability of the MUSA-Tool in practice. The
- 233 locations were selected based on maximum variability and motivation, and both FMUs and
- AMUs were included. A call was sent to MUNet partners and stakeholders via our Facebook
- 235 Group, and four MUs located in Belgium, Spain, Northern Ireland and Switzerland
- responded with interest in participating in the evaluation project. In order to take part, the
- 237 MUs had to agree to:
- Complete the self-assessment tool
- Conduct a local stakeholder engagement to identify areas for improvement within
 the unit and high impact actions after stakeholder engagement
- Identify short, medium- and longer-term improvement high impact actions

- Implement three to five short term high impact actions within six months
- Participate in a follow-up call with a researcher to discuss the experience of using
 the MUSA-Tool
- Complete a second self-assessment after six months to identify which high impact
 actions had been implemented
- 247

248 Self-assessment and co-creation of high impact actions

249 Basic background information was gathered via the form completed to apply to be part of 250 the project and some further information was gathered via email or a telephone call (see 251 table 2). Version 1 of the MUSA-Tool was sent to the MUs and support was offered in 252 completing it if necessary. Due to the COVID-19 pandemic, the FMU in Northern Ireland 253 decided to suspend the participation in view of the temporary closure of the FMU. The 254 remaining three MUs required some support (by LRI and ET) in completing the MUSA-Tool 255 in the form of a call to clarify some of the items of the tool. 256 The completed tools were then returned to the research team who evaluated the responses

- 250 The completed tools were then returned to the research team who evaluated the response
- and identified some key themes and areas for improvement in the MUs but did not share it
- with the participating units until the stakeholder engagement took place to ensure co-
- 259 production and full participation of the stakeholders. The MU Teams were asked to organise
- a stakeholder event to discuss the findings of the MUSA-Tool and identify they key high-
- 261 impact actions. The MUNet experts within the team (LRI and ET) offered support in the
- identification of the high-impact actions in the form of face-to-face or virtual participation.
- 263 The three MUs received a different degree of support: the MU in Belgium received face-to-
- face support during a stakeholder event (LRI and ET); the MU in Spain received support during a two-hour video conference call (LRI); and the MU in Switzerland received no
- 266 additional support.
 - 267 The MU teams were asked to organise an event for key stakeholders, including
 - 268 obstetricians, neonatologists, service managers and service users to evaluate the responses
 - to the MUSA-Tool, discuss areas for improvement, and identify short-medium- and longer-
 - term actions. Two MUs managed to organise the stakeholder events, and a variety of
 - 271 people attended, collaborating in the creation of the improvement plans. For instance, the
 - 272 Belgian stakeholder event was attended by most of the MU team of midwives, the manager
 - of the MU, the head of obstetrics (of the hospital) and link obstetrician for the midwifery
 unit and the midwifery manager of labour ward. The results of the self-assessment tool
 - were discussed, and a timely and measurable plan was made for improvements of the MU.
 - 276 ET and LRI participated in the stakeholder event in Belgium face-to-face, which was
- 277 beneficial for gaining a better understanding of the support needs and how to develop the
- 278 MUSA-Tool further in terms of explanations, information-giving and synchronous support.
- 279 ET and LRI only disclosed their impressions and identification of high impact actions after
- 280 the team had discussed their views and priorities. It was clear that having outsiders coming
- with a fresh-eye approach was useful to the team. A very positive discussion about the
- 282 MUSA-Tool responses arose during the stakeholder event, and this led to creating the initial

- 283 short-, medium- and longer-term actions with an identified lead and deadline for each
- action. A short report was also provided by ET to the team, summarising some of the keypoints of the discussion.
- 286 Similarly, the virtual meeting with stakeholders in Spain was very effective and led to the
- identification of several improvement actions. On the other hand, the actions identified by
- 288 the Swiss team were less articulated and the lack of co-production with the interdisciplinary
- team and MUNet was felt as a limitation due to the absence of outsiders' fresh-eye
- 290 impressions on the service. A summary of the high impact actions across the three case
- 291 studies was produced and is available in Table 3.
- 292
- 293 **INSERT**

294 Table 3- Improvement plans and high impact actions identified by stakeholders

295 Lessons for further development of the tool

296 Several strengths have emerged during this evaluation. Midwives thought that the tool was

- 297 structured well and straightforward, as well as an effective guide and motivator for
- 298 assessing different aspects of the functioning of the MU, which they had not considered
- 299 before. This made the teams enthusiastic about expanding their plans and empowered
- 300 them to have a wider approach to service improvement. The teams from Belgium and Spain
- 301 concluded that this was a useful exercise that should be repeated every three years,
- 302 depending on the service context. The MUSA-Tool was transferrable, not just to the
- 303 improvement plan, but also to other midwives; however, familiarity and confidence with the
- 304 Midwifery Unit Standards was key to its successful use. All of the MUs reported that the tool
- 305 reflected the Midwifery Unit Standards and strongly communicated the philosophy of care
- that is promoted by them.
- 307 Discussions with the midwives about using the tool revealed that there were accessibility
- 308 issues, including language barriers for those who speak English as a second language. Some
- 309 stakeholders found the tool to be content heavy and some aspects of the tool more
- 310 applicable for a British maternity service context, meaning there was mismatch between
- 311 tool components and their organisational culture or MU team structure. Additionally, the
- 312 Swiss FMU was a private unit, while the other two AMUs were part of national health
- 313 services. The Midwifery Unit Standards and MUSA-Tool have been primarily based on a
- 314 publicly-funded, nationalised health service context, meaning they could be less suitable for
- 315 private systems, which carry different considerations when organising care.
- 316 Support from MUNet in-between self-assessment and improvement plan creation,
- 317 especially for identifying high impact areas and establishing timeline, was crucial. The level
- of support was equally important, in that it appeared to determine the MUs ability to
- 319 complete the self-assessment and improvement plan. The Belgian MU, which received face-
- 320 to-face support, completed the self-assessment twice and generated both short- and long-
- 321 term high impact actions, without the need for additional support during implementation.

- 322 The Spanish MU, which received a two-hour video consultation completed the tool once
- 323 and generated actions with a timeline but requested additional support during
- 324 implementation. Finally, the Swiss MU, which received no additional support, completed
- 325 the self-assessment, with some clarification needed, and generated high impact actions
- 326 without a clear timeline.
- 327

328 Areas for improving the MUSA-Tool

329 Through collaboration with the MUs, we identified how to further improve the MUSA-Tool 330 by eliminating some redundancies, clarifying the language and including a step-by-step 331 guide about how to use it and the available support by MUNet with the MUSA- Tool. 332 More work with EU partners is needed to address the feedback about the requirement to 333 adapt the Midwifery Unit Standards further to the European context and especially to 334 privately-funded health care services. To what extent these concerns can be ameliorated 335 through translating the Midwifery Unit Standards and MUSA-Tool into other languages and 336 using locally salient terminology also remains to be seen. Translation of each document into 337 Italian and Spanish is now complete, and Brazilian Portuguese, Czech, Dutch/Flemish and 338 French is currently underway. For the English version, we did not conduct a literacy test for 339 readability in this phase but plan to do one as part of the next round of improvement. 340 Besides translation, improving the electronic interface of the MUSA-Tool will also work 341 towards greater accessibility and usability. We plan to create supporting materials both in 342 the form of a video guidance and an interactive page on the MUNet website for 343 stakeholders to guide the use of the tool. We are exploring IT solutions to develop an 344 interface for the tool that is visually easier to navigate, and which can generate suggestions 345 for high impact actions based on the answers to the self-assessment. Ideally, this interface 346 will incorporate a multi-level perspective, so that high impact action suggestions consider 347 the micro-, meso- and macro-level contexts in which MUs are operating. 348 MUNet is working on developing a more structured way of supporting the MUs that would 349 like to receive additional personalised support. This could be in the form of consultancy and 350 training, both face-to-face and remote. As we have presented, stakeholder engagement is 351 key for the successful implementation of the self-assessment tool, as the process requires 352 in-depth familiarity with and understanding of the Midwifery Unit Standards and connected

- indicators. While we recognise the importance of engagement and consultation, more work
- is still required to identify the optimal levels of each and how they might require to be
- 355 tailored around the needs of the MU and local context.
- 356

357 Micro-, meso- and macro-level considerations

- 358 Adopting a multi-level perspective to service implementation, evaluation and improvement
- 359 is beneficial because it displays how complex interactions between stakeholders,
- 360 institutions and societies shape individual and organisational actions, as well as practice
- 361 outcomes (Currie, et al. 2012). In general, there is limited theoretical work on how
- 362 institutional and regulatory factors impact the implementation of midwives' full scope of
- 363 practice (Smith, et al. 2019).

- 364 From the implementation of the tool and work with stakeholders, it emerged that the
- 365 MUSA-Tool does not consider the micro-, meso- and macro-level perspectives of institutions
- and organisations (Scott 1995) within MUs' improvement. Micro-level changes, such as
- 367 increasing visibility of the MU within a hospital by installing signs or becoming more
- 368 strategic through promotion of the MU online, are examples of short- and medium-term
- 369 high-impact actions which the MU staff is able to lead on and achieve. Other high impact
- actions might be more difficult for MU staff to enact. Often there are limitations, regulations
- 371 or laws that are beyond MUs' control which make it all but impossible for midwives to
- 372 implement alone. These actions may require input from strategic players who operate at
- 373 the meso- and macro-levels: for instance, midwives may have a marginal role in antenatal 374 care despite having the remit and skills due to role division within the maternity services
- 375 (meso); or midwives might not be able to discharge infants because there are laws stating
- 376 this is legally done by neonatologists (macro). Each have implications on how MU staff
- 377 respond to certain indicators on the self-assessment tool.
- 378 Incorporating the recognition of the different levels is necessary in order to clarify at which
- 379 level improvement actions operate and which stakeholders must be involved. For infant
- 380 discharge, this requires changes to regulations at national level, implicating health care
- 381 professionals, policymakers, lawmakers and politicians. We found that, without this
- 382 incorporation, it is not straightforward to what extent a 'No' response is linked to meso- or
- 383 macro-level constraint nor can these constraints be considered when comparing individual
- 384 unit's responses and improvement plans. Clarifying indicators and actions by micro-, meso-
- 385 and macro-level will not only contextualise the tool for researchers and MU users, but also
- 386 organise larger scale improvement for MUs by clarifying which stakeholders need to be
- 387 engaged.
- 388

389 Conclusions

- 390 We conducted three stakeholder engagement case studies to gain feedback on the usability
- 391 and impact of a newly developed self-assessment tool based on the Midwifery Unit
- 392 Standards. In this paper we reported the stakeholders' experiences of using the MUSA-tool
- 393 and the high impact actions identified during the engagement events. Our rapid appraisal is
- 394 the first to explore the use of a self-evaluation and improvement tool in a variety of MU
- 395 settings, contributing to the implementation of the standards beyond the UK and into other
- 396 European countries. We expect to see an evolution of the Midwifery Unit Standards and,
- consequently, of the MUSA-Tool, as more research on MUs located in European countries isundertaken and published.
- 399 Support and facilitation were regarded as crucial for clarifying aspects of completing the
- 400 tool and useful in providing an expert fresh-eye view on the performance of the MU.
- 401 Stakeholder engagement was also quoted as paramount to develop a MU improvement
- 402 plan. Micro-, meso- and macro levels of organisational change and their associated
- 403 stakeholders need to be further represented in the MUSA-Tool. The improvement plans
- 404 generated from the self-assessment also must reflect the micro-, meso- and macro levels to

405	identify the key actors for further integration of MUs into European health services and
406	increase the chance of success. Future research on MUs and their improvement should
407	reflect the structural considerations of health care innovation and implementation.
408	
409	Research Ethics Statement:
410	The authors of this paper have declared that research ethics approval was not required
411	since the paper does not present or draw directly on data/findings from empirical research.
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414	LRI and ET conducted the stakeholder engagement; NU conducted the analysis of the case
415	studies responses to the MUSA-Tool, CY conducted the rapid appraisal and all authors
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427	
428	
429	References
430	Kererences
431	Aughey, H., Blotkamp, A., Carroll, F., Geary, R., Gurol-Urganci, I., Harris, T., Hawdon, J.,
432	Heighway, E., Jardine, J., Knight, H., Mamza, L. (2019) National Maternity and Perinatal
433	Audit: Clinical report 2019. Based on births in NHS maternity services between 1 April 2016
434	and 31 March 2017.
435	
436	Blotkamp, A., Aughey, H., Carroll, F., Gurol-Urganci, I., Harris, T., Hawdon, J., Heighway, E.,
437	Jardine, J., Knight, H., Mamza, L., Moitt, N. (2019) National Maternity and Perinatal Audit:
438	Organisational Report 2019.
439	
440	Boesveld, I.C., Hermus, M.A.A., de Graaf, H.J. <i>et al.</i> (2017) 'Developing quality indicators for
441	assessing quality of birth centre care: a mixed- methods study', BMC Pregnancy
442	<i>Childbirth,</i> 17(2017): 259.
443	
444	Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., Balain, S. (2007) 'A conceptual
445	framework for implementation fidelity', <i>Implementation Science</i> , 2(1): 1-9.
446	
447	Currie, G., Lockett, A., Finn, R., Martin, G., Waring, J. (2012) 'Institutional work to maintain
448	professional power: Recreating the model of medical professionalism', Organization Studies,
449	33(7): 937-962.

450	
451	Journal Officiel De La République Française (2020) LOI No 2020-1576 Du 14 Décembre 2020
452	De Financement De La Sécurité Sociale Pour 2021 (1). Texte 1 Sur 163.
453 454 455 456 457	McCourt, C., Rayment, J., Rance, S., Sandall, J. (2016) 'Place of birth and concepts of wellbeing: an analysis from two ethnographic studies of midwifery units in England', <i>Anthropology in Action</i> , 23(3): 17-29.
458 459 460 461	Murray, S.A., Tapson, J., Turnbull, L., McCallum, J., Little, A. (1994) 'Listening to local voices: adapting rapid appraisal to assess health and social needs in general practice', <i>BMJ</i> 1994(308): 698.
462 463 464	Newburn, M., Rocca-Ihenacho, L. (2018) <i>Midwifery Unit Network: the first three years</i> , London: Midwifery Unit Network & City, University of London.
465 466 467	National Institute for Health and Care Excellence (2019) NICE indicator process guide, https://www.nice.org.uk/media/default/Get-involved/Meetings-In-Public/indicator- advisory-committee/ioc-process-guide.pdf
468	
469 470 471	Rocca-Ihenacho, L., Batinelli, L., Thaels, E., Rayment, J., Newburn, M., McCourt, C. (2018) <i>Midwifery Unit Standards</i> . London: City, University of London.
472	Thaels, E., Rocca-Ihenacho, L., Batinelli, L. (2019) Midwifery Unit Self-Assessment Tool.
473	London: City, University of London.
474	
475 476 477	Rayment, J., Rocca-Ihenacho, L., Newburn, M., Thaels, E., Batinelli, L., McCourt, C. (2020) 'The development of midwifery unit standards for Europe', <i>Midwifery</i> , 86: 102661.
478 479 480 481	Scarf, V.L., Rossiter, C., Vedam, S., Dahlen, H.G., Ellwood, D., Forster, D., Foureur, M.J., McLachlan, H., Oats, J., Sibbritt, D., Thornton, C. (2018) 'Maternal and perinatal outcomes by planned place of birth among women with low-risk pregnancies in high-income countries: a systematic review and meta-analysis', <i>Midwifery</i> , 62: 240-255.
482 483 484 485 486 487	Schroeder, E., Petrou, S., Patel, N., Hollowell, J., Puddicombe, D., Redshaw, M., Brocklehurst, P. (2012) 'Cost effectiveness of alternative planned places of birth in woman at low risk of complications: evidence from the Birthplace in England national prospective cohort study', <i>BMJ</i> , 344.
487 488 489	Scott W.R. (1995) Institutions and organizations, London: Sage.
490 491 492	Smith, T., McNeil, K., Mitchell, R., Boyle, B., Ries, N. (2019) 'A study of macro-, meso- and micro-barriers and enablers affecting extended scopes of practice: the case of rural nurse practitioners in Australia'., <i>BMC Nursing</i> , 18(14): 1-12
493 494 495 496	Walsh, D., Spiby, H., Grigg, C.P., Dodwell, M., McCourt, C., Culley, L., Bishop, S., Wilkinson, J., Coleby, D., Pacanowski, L., Thornton, J. (2018) 'Mapping midwifery and obstetric units in England', <i>Midwifery</i> , 56:9-16.

497

- 498 Walsh, D., Spiby, H., McCourt, C., Grigg, C., Coleby, D., Bishop, S., Scanlon, M., Culley, L.,
- 499 Wilkinson, J., Pacanowski, L., Thornton, J. (2020) 'Factors influencing the utilisation of free-
- 500 standing and alongside midwifery units in England: a qualitative research study'. BMJ Open,
- 501 10(2):.
- 502