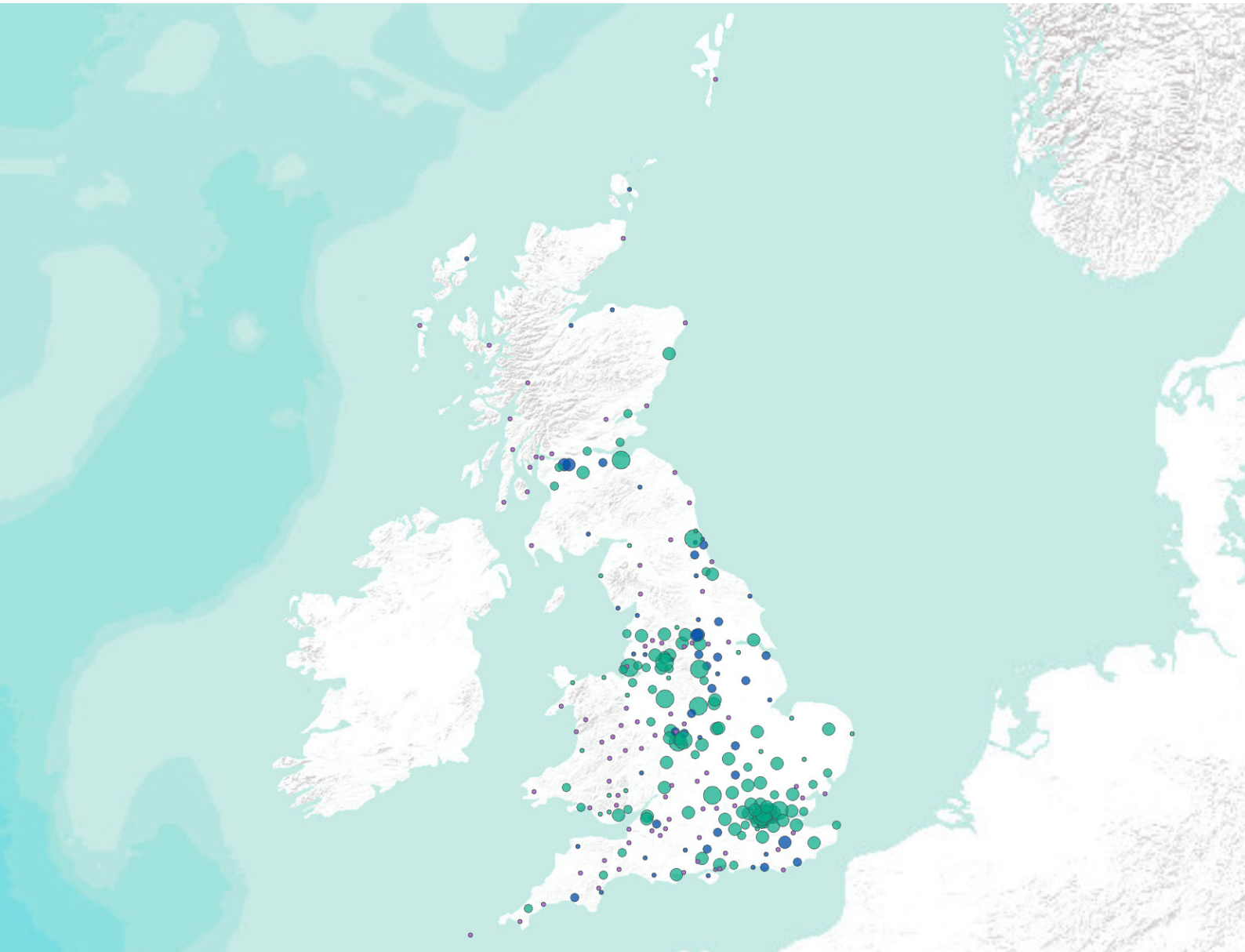


National Maternity and Perinatal Audit

Organisational Report 2019

A snapshot of NHS maternity and neonatal services
in England, Scotland and Wales in January 2019



The National Maternity and Perinatal Audit (NMPA) is led by the Royal College of Obstetricians and Gynaecologists (RCOG) in partnership with the Royal College of Midwives (RCM), the Royal College of Paediatrics and Child Health (RCPCH) and the London School of Hygiene and Tropical Medicine (LSHTM).

The NMPA is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP) on behalf of NHS England, the Welsh Government and the Health Department of the Scottish Government. HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing, and National Voices. Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality. HQIP holds the contract to commission, manage and develop the NCAPOP, comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies (www.hqip.org.uk/national-programmes).

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We would like to express our deep gratitude to all NHS trusts and health boards in England, Scotland and Wales for completing the second organisational survey of the National Maternity and Perinatal Audit. Once again the response rate was 100%, and this response rate, as well as the content of the responses, demonstrate the ongoing commitment of the maternity and neonatal services to improve care provision.

We are also very grateful to the members of the NMPA Women and Families Involvement Group, Clinical Reference Group and Sprint Audit Advisory Groups for their advice and input into the organisational survey, report and web pages.

The NMPA Project Team and Board

Foreword

This second organisational survey for the National Maternity and Perinatal Audit (NMPA) comes at a time of change and challenge for maternity and neonatal services across our three countries.

We are proud of the progress we are making to implement the visions for transformation of these services to provide safer and more personalised care to women, their babies and their families. This report highlights some of the successes, including an increased provision of alongside midwifery units in Scotland and England, which in Wales is already universal, and structural changes to increase continuity of carer, where women see the same midwife or group of midwives throughout their care, enhancing choice, personalisation and safety. There are also improvements in support for mothers and babies requiring additional input, such as perinatal mental health support, and maternal high dependency care and transitional care, which keep new families together when mother or baby requires additional support.

However, our services also face significant challenges and constraints due to available resources, demographic changes, and the challenges of balancing the needs of rural populations in all three countries with the benefits of centralisation into larger hubs that can provide more specialised services. The fact that, despite these challenges, all maternity and neonatal services participated in the NMPA shows a clear commitment to improvement.

Since the publication of the 2011 *Strategic Vision for Maternity Services in Wales*, services have continued to evolve to offer women choice of place of birth, dependent on their assessed health risk. A drive to ensure labour begins with midwife-led care and medical intervention is only used when warranted has been an important feature in designing services. All maternity services in Wales now have a consultant midwife to lead midwife-led services and health boards all have either alongside and/or freestanding midwifery units. Collaborative service improvement initiatives through Maternity Network Wales include *OBS Cymru*, focused on the management of postpartum haemorrhage, which led to significant improvements in care and received international plaudits. A new vision for the maternity services in Wales and guidance on improving breastfeeding rates will be published in summer 2019.

Implementation of the recommendations contained in *The Best Start: A Five-Year Forward Plan for Maternity and Neonatal Care in Scotland* is well underway, and real changes can be seen across Scotland. Continuity of carer will be implemented fully in all 14 boards in Scotland over the next few years, offering relationship-based care between midwives and women and better outcomes for women and their babies. Neonatal care will be redesigned to keep families together as much as possible, to enable more preterm babies to be discharged home sooner with support in the community, and to consolidate neonatal intensive care to improve outcomes for the smallest and sickest babies. The *Maternity and Children Quality Improvement Collaborative* continues its programme to reduce serious harm incidents across maternity, neonatal and paediatric care, which has contributed to a reduction in stillbirths since 2013, and sustained improvements in neonatal mortality.

Three years on from the publication of *Better Births: Improving Outcomes of Maternity Services in England – A Five Year Forward View for Maternity Care*, maternity services, women using the services, commissioners and other local partners are organised into Local Maternity Systems, and are in the process of implementing the recommendations resulting from the English maternity review. Maternity Choice and Personalisation Pioneers and Early Adopters have been at the forefront of developing new ways of working, and are now sharing their learning to support implementation at

pace. These efforts are reflected in the NMPA organisational report, for example the introduction of care models which enhance continuity of carer. At the same time, participation in the [Maternal and Neonatal Health Safety Collaborative](#) and adoption of the [Saving Babies' Lives care bundle](#) by all trusts will further improve the safety of the services.

The NMPA offers a unique opportunity to compare the approaches taken by our three countries to our shared challenges and ambitions, to take stock and to learn from each other. We look forward to reviewing these findings together with our colleagues.

Professor Jacqueline Dunkley-Bent OBE, Chief Midwifery Officer, NHS England

Dr Corinne Love, Senior Medical Officer, Scottish Government

Professor Jean White CBE MStJ, Chief Nursing Officer, Welsh Government

The NMPA opens up a wealth of opportunity. By enabling us to view maternity care based on fact we can be confident, ambitious and targeted in our goals to improve future outcomes.

This report is based on findings from the second organisational survey. It shows a snapshot of the maternity landscape across England, Scotland and Wales reflecting on service provision changes since 2017. Alongside the accompanying website, it empowers women, providers and policy makers to understand and build upon the strengths of our services.

I have been struck by the relentless commitment of the NMPA Team to ensure the integrity of the data. They publish this report navigating a complex logistical environment with considerable clinical oversight at every level. In addition, the NMPA has enabled users to have a voice through its 'Women and Families Involvement Group' and opened opportunities for its members to have further impact more broadly.

To find oneself included in the Audit results is a reminder that there is a woman behind every number. Each one has had a different experience and the NMPA programme of work captures and harnesses that encounter into something really powerful that enables us all to have a positive impact on services.

Mrs Ngawai Moss, Chair of the NMPA Clinical Reference Group and Member of the Women and Families Involvement Group

Abbreviations and glossary

AAGBI	Association of Anaesthetists of Great Britain & Ireland.
Amniocentesis	A procedure in which a small amount of the amniotic fluid surrounding the baby or babies is removed in order to test for infection or chromosomal abnormalities.
AMU	Alongside midwifery unit; a maternity unit where midwives have primary responsibility for care during labour in women at low risk of complications and which is located on the same site as an OU so it has access to the same medical facilities if needed.
BAPM	British Association of Perinatal Medicine.
Continuity care models	<p>A number of approaches are being taken to enable women to experience greater continuity of carer, in response to national maternity and neonatal services review recommendations. These include:</p> <ul style="list-style-type: none">• full caseloading: a midwife is allocated a certain number of women (the caseload) and antenatal, intrapartum and postnatal care is personally provided by this named lead midwife, with or without a buddy midwife as backup. I.e. there is an expectation of continuity of carer by the lead midwife across all three care periods (antenatal, intrapartum and postnatal).• partial caseloading: as caseloading above, but with continuity of carer provided across one or two, rather than all three care periods.• team continuity (or continuity teams): midwifery teams providing antenatal, intrapartum and postnatal care, in which the woman is allocated a named lead midwife within the team who is responsible for coordinating and personally providing most of her midwifery care, with the other midwives in the team as backup. This can be with or without a buddy midwife within the team as first choice to provide backup.
Cell salvage	The process of recovering blood lost during surgery and re-infusing it into the patient after filtering and cleaning.
CT	Computed tomography; a type of scan that combines a series of X-ray images taken from different angles to produce detailed images of the inside of the body.
CVS	Chorionic villus sampling; a procedure in which a small amount of placental tissue is removed in order to test for chromosomal abnormalities.
Declared cots	Planned neonatal cot capacity if fully staffed.
DoH	Department of Health and Social Care (Department of Health until 2018).
Echocardiography	Ultrasound scanning of the heart to assess its function and identify any structural abnormalities.
FMU	Freestanding midwifery unit; a maternity unit where midwives have primary responsibility for care during labour in women at low risk of complications and which is not located on the same site as an OU.
HCC	Healthcare Commission.
HDU	High dependency unit (level 2 care); a care unit for people who require more intensive observation and treatment than can be provided on a general ward but who do not need intensive care.
Interventional radiology	A subspecialist service that uses imaging by X-rays, CT or MRI to diagnose and guide minimally invasive treatment of diseases. In obstetric haemorrhage, interventional radiology can be used to block the blood supply to the uterus to stop bleeding.
LNU	Local neonatal unit. LNUs provide all categories of neonatal care for their own catchment population, but they transfer babies who require complex or longer term intensive care to a NICU. LNUs may receive transfers from other neonatal services in the network.

Local Maternity System	The maternity element of Sustainability and Transformation Partnerships in England. They are collaborations between maternity service providers, commissioners and other stakeholders, tasked with planning and coordinating local services across organisational boundaries.
Maternity Voices Partnership or Maternity Services Liaison Committee	A forum of maternity care stakeholders, with women and their families at the centre, that brings together maternity service users, providers and – where applicable – commissioners to review and co-design maternity care to meet local needs.
MBRRACE-UK	Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK; the collaboration appointed by HQIP to run the national Maternal, Newborn and Infant Clinical Outcome Review Programme, conducting surveillance and investigating the causes of maternal and perinatal deaths.
MDT	Multidisciplinary (multiprofessional) team.
Morbidly adherent placenta	A pregnancy complication in which the placenta grows deeply into the wall of the uterus and is unable to detach normally after childbirth. The condition can lead to severe bleeding.
MRI	Magnetic resonance imaging; a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body.
NCT	National Childbirth Trust.
Neonatal network	Linked group of neonatal care providers working in a coordinated way to ensure equitable provision of high-quality clinically effective services, unconstrained by existing professional and geographical boundaries.
NHS board/local health board	In Scotland and Wales, NHS services are provided by 14 NHS boards and seven local health boards respectively, which each include a number of hospitals and community services.
NHS trust	In England, NHS services are provided by NHS trusts (commissioned by clinical commissioning groups).
NHSE	NHS England (NHS England and NHS Improvement from April 2019).
NHSR	NHS Resolution.
NICE	National Institute for Health and Care Excellence.
NICU	Neonatal intensive care unit. NICUs provide the whole range of medical neonatal care for their local population, along with additional care for babies and their families referred from the neonatal network. NICUs may be co-located with neonatal surgery services and other specialised services.
OAA	Obstetric Anaesthetists' Association.
OU	Obstetric unit; a maternity unit where care is provided by a team of midwives and doctors to women at low and at higher risk of complications. All women will be cared for by midwives during pregnancy, birth and after the birth. Midwives have primary responsibility for providing care during and after labour to women at low risk of complications, while obstetricians have primary responsibility for women who are at increased risk of, or who develop, complications. Diagnostic and medical treatment services – including obstetric, neonatal and anaesthetic care – are available on site.
RCM	Royal College of Midwives.
RCoA	Royal College of Anaesthetists.
RCOG	Royal College of Obstetricians and Gynaecologists.
RCPCH	Royal College of Paediatrics and Child Health.
SCBU	Special care baby unit. SCBUs provide special care for their own local population and may also provide some high dependency services. In addition, SCBUs provide a stabilisation facility for babies who need to be transferred to a NICU or LNU for intensive or high dependency care, and they also receive transfers from other units for continuing special care.

SIGN	Scottish Intercollegiate Guidelines Network.
Therapeutic hypothermia	Lowering of body temperature in order to preserve brain function.
Transitional care	Care of babies who need more support than can be provided by the mother and normal midwifery care alone, but with mother and baby remaining together and the mother remaining the primary carer, usually on a postnatal ward or dedicated transitional care ward.
Twin-to-twin transfusion syndrome	A rare, serious complication of identical twin (or higher multiple) pregnancies that share a placenta. Abnormal blood vessels develop which cause unequal distribution of blood supply between the twins.
WHSSC	Welsh Health Specialised Services Committee.

Executive summary

Introduction

Maternity and neonatal services in England, Scotland and Wales are going through an eventful time. Wide-ranging transformation plans are being implemented as a result of the English national maternity services review and the Scottish maternity and neonatal services review,^{1,2} and an updated Welsh vision for maternity care is in preparation at the time of writing. Services are being reconfigured and changes made to ways of working across the three countries.

The second organisational survey of the National Maternity and Perinatal Audit (NMPA) maps current service provision as of January 2019 across England, Scotland and Wales. This report describes how services have changed since the last survey in January 2017, where service provision has improved and where further improvement is still needed in order to meet recommendations. It is hoped that this report will help inform the transformation and other improvement initiatives which are underway.

Methods

The first NMPA organisational survey was developed with reference to national standards, guidance, recommendations and government policy regarding organisational aspects of maternity and neonatal care. The second survey included largely the same questions and was conducted during December 2018 and January 2019. The response rate was 100% of the 151 eligible trusts and boards.

Summary findings

Between 2017 and 2019, the proportion of sites with an obstetric unit (OU) that was co-located with an alongside midwifery unit (AMU) increased from 67% to 71% overall (from 124 to 132 out of 186 sites with an OU). However, the number of freestanding midwifery units (FMUs) decreased by four (from 95 to 91), and long-term FMU closures increased, with a further eight FMUs closed for births from several months to more than a year.

Perinatal mental health service provision was expanded, with more participation in networks (91% of 151 trusts and boards overall), increased access to community perinatal mental health teams and specialist midwives (91% and 87% of trusts and boards respectively), and more psychiatrist clinics (58% of 186 sites with an OU).

Access to electronic maternity records has improved for community midwives, with 66% of trusts and boards (out of the 140 that reported full access for maternity clinicians in hospital) reporting access at any location and 90% at the community base. However, still only 19% reported that women could access their own record, and the proportion where GPs had access decreased from 29% to 21% of trusts and boards.

The proportion of trusts and boards engaging with women through Maternity Voices Partnerships or Maternity Services Liaison Committees increased from 83% to 90%, while the proportion gathering feedback via surveys or focus groups increased similarly. However, the proportion of services involving women in audit, guideline development or labour ward forums decreased from 50% to 44%.

85% of services are in the process of implementing continuity of carer models, either through caseloading, teams set up to provide continuity, or both. However, nearly all currently serve only particular, sometimes small, groups of women with these models and scaling this up may be a challenge.

The reported level of provision of most services that were widely available in 2017 was maintained or increased slightly, and there was a notable increase in multiprofessional cardiac clinics and female genital mutilation services (now available at 25% and 55% of sites with an OU, respectively). However, despite their continued importance, provision of smoking cessation and weight management support remained similar to 2017 at 72% and 45% of trusts and boards, respectively, possibly reflecting cuts to public health budgets or competing demands on resources.

Although fewer sites reported entirely unfilled obstetric middle grade rota gaps in the 3 months leading up to the survey in 2019, the proportion requiring locum cover to staff the rota remained the same at 83%. Equally, at 51%, the proportion of sites reporting that all women received one-to-one midwifery care during established labour has not increased since the 2017 survey.

Neonatal transitional care provision increased from 64% to 83% of sites with a neonatal unit, and this is set to increase further. Transitional care was most commonly provided on postnatal wards, by both midwifery and neonatal staff. Postnatal ward beds were often used flexibly for transitional care.

Provision of private bathrooms for all birth rooms and of bedrooms for parents of babies admitted to neonatal units (at a ratio of one bedroom per intensive care cot) increased only slightly (to 68% and 54% of sites, respectively). The proportion of sites with some ward rooms with more than four beds remained similar at 32%.

These findings gave rise to the recommendations below (see p. xii for key messages, recommendations, report evidence and related national guidance in full).

Conclusion

The responses to the second NMPA organisational survey suggest that the maternity and neonatal services are making considerable efforts to implement the recommendations of the recent reviews and other national initiatives. They also highlight some of the challenges to reconcile the range of ambitions. While acknowledging an inherent degree of uncertainty in surveys as a data collection method, the results suggest that maternity and neonatal service provision is improving in a number of important areas as well as facing new and ongoing challenges.

Recommendations

- 1 Review reasons for any short-term, long-term and permanent closures of FMUs. Evaluate how effectively the viability of these units is assessed in terms of demand and resources, both in local and regional context. Evaluate the impact of these closures on the women affected.

(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, women and families using the services and their representatives)*

- 2 Ensure participation in a perinatal mental health network where this is not already the case, in order to optimise access to and effectiveness of the increased local provision of perinatal mental health support services.

* National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of activity as applicable.

(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, women and families using the services and their representatives)*

- 3 Continue to improve access to electronic maternity records, both for women and for all healthcare professionals involved in their maternity care.

(Maternity service commissioners and providers with national government support and in collaboration with maternity and GP system suppliers, relevant national and regional transformation and improvement initiatives, women and families using the services and their representatives)*

- 4 Encourage women's involvement in audit, guideline development and labour ward forums (where these exist).

(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, women and families using the services and their representatives, national service user organisations supporting local collaborations with service users)

- 5 Provide adequate resource to record all care contacts electronically in order to ensure effective monitoring of the level of continuity of carer that women experience (software, hardware and connectivity, and staff time).

(Maternity service commissioners and providers with national government support and in collaboration with system suppliers, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, women and families using the services and their representatives)*

- 6 Improve access to smoking cessation and weight management support services before, during and after pregnancy.

(Public health service providers/local authorities, maternity service providers and commissioners, national neonatal improvement initiatives, national governments)

- 7 Evaluate medical and midwifery staffing requirements, taking into account the range of national ambitions, and fund services accordingly.

(National governments, professional bodies, relevant national and regional transformation and improvement initiatives, maternity service providers and commissioners, women and families using the services and their representatives)*

- 8 Provide neonatal transitional care at all sites with a neonatal unit. Ensure that adequately skilled staff are available at all times to provide transitional care.

*(Maternity and neonatal service providers and commissioners, relevant national and regional transformation and improvement initiatives)**

- 9 Review the quality of the care environment for women and their families. Focus efforts on improving privacy and on measures that help families stay together while the mother and/or baby are admitted, including private bathrooms for all birth rooms and bedrooms for parents of babies admitted to neonatal units.

*(Maternity and neonatal service providers and commissioners, women and families using the services and their representatives, relevant national and regional transformation and improvement initiatives)**

* National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of activity as applicable.

Key messages, recommendations, report evidence and related national guidance

Key message Recommendation (Audience)	Report findings underlying the recommendation	Page	Related national guidance (details in Appendix 1)
<p>1 Between 2017 and 2019, the proportion of sites with an obstetric unit (OU) that was co-located with an alongside midwifery unit (AMU) increased from 67% to 71% overall (from 124 to 132 out of 186 sites with an OU). However, the number of freestanding midwifery units (FMUs) decreased by four (from 95 to 91), and long-term FMU closures increased, with a further eight FMUs closed for births from several months to more than a year.</p> <p>Review reasons for any short-term, long-term and permanent closures of FMUs. Evaluate how effectively the viability of these units is assessed in terms of demand and resources, both in local and regional context. Evaluate the impact of these closures on the women affected.</p> <p><i>(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives,^a women and families using the services and their representatives)</i></p>	<p>71% of English sites with an OU are co-located with an AMU in 2019 (was 68% in 2017), 47% in Scotland (was 35%) and 100% in Wales (was 100%).</p> <p>FMU numbers decreased from 63 to 61 in England, from 18 to 17 in Scotland and from 14 to 13 in Wales. The actual number of FMUs open for births at the time of the 2019 survey was lower, as six further FMUs in England and one FMU each in Scotland and Wales had been closed for births for long periods, ranging from several months to more than a year.</p>	6–8, 22	<p>NICE Intrapartum Care for Healthy Women and Babies (2014, updated 2017)³</p> <p>NHSE Better Births (2016)¹</p> <p>Scottish Govt The Best Start (2017)²</p>
<p>2 Perinatal mental health service provision was expanded, with more participation in networks (91% of 151 trusts and boards overall), increased access to community perinatal mental health teams and specialist midwives (91% and 87% of trusts and boards respectively), and more psychiatrist clinics (58% of 186 sites with an OU).</p> <p>Ensure participation in a perinatal mental health network where this is not already the case, in order to optimise access to and effectiveness of the increased local provision of perinatal mental health support services.</p> <p><i>(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives,^a women and families using the services and their representatives)</i></p>	<p>Participation in perinatal mental health networks increased from 70% to 93% in England, from 43% to 79% in Scotland and from 71% to 86% in Wales since 2017.</p> <p>Access to community perinatal mental health teams increased from 72% to 91% of trusts and boards, and to midwives specialised in perinatal mental health from 77% to 87%. Availability of psychiatrist clinics increased from 37% to 58% of sites with an OU.</p>	11, 16–17, 19–20	<p>SIGN Management of Perinatal Mood Disorders (2012)⁴</p> <p>NICE Antenatal and Postnatal Mental Health (2014, updated 2018)⁵</p>

Key message	Report findings underlying the recommendation	Page	Related national guidance
<p>Recommendation (Audience)</p>			(details in Appendix 1)
<p>3 Access to electronic maternity records has improved for community midwives, with 66% of trusts and boards (out of the 140 that reported full access for maternity clinicians in hospital) reporting access at any location and 90% at the community base. However, still only 19% reported that women could access their own record, and the proportion where GPs had access decreased from 29% to 21% of trusts and boards.</p> <p>Continue to improve access to electronic maternity records, both for women and for all healthcare professionals involved in their maternity care.</p> <p><i>(Maternity service commissioners and providers with national government support and in collaboration with maternity and GP system suppliers, relevant national and regional transformation and improvement initiatives,^a women and families using the services and their representatives)</i></p>	<p>Reported access to electronic maternity records increased for community midwives at any location from 50% to 66% of trusts and boards, and at the community base from 79% to 90%.</p> <p>The proportion of trusts and boards reporting that women could access their own electronic record increased from 11% to 19%, and the proportion where GPs had access decreased from 29% to 21%.</p>	12	<p>NHSE Better Births (2016)¹</p> <p>RCM Standards for Midwifery Services in the UK (2016)⁵</p> <p>Scottish Govt The Best Start (2017)²</p>
<p>4 The proportion of trusts and boards engaging with women through Maternity Voices Partnerships or Maternity Services Liaison Committees increased from 83% to 90%, while the proportion gathering feedback via surveys or focus groups increased similarly. However, the proportion of services involving women in audit, guideline development or labour ward forums decreased from 50% to 44%.</p> <p>Encourage women's involvement in audit, guideline development and labour ward forums (where these exist).</p> <p><i>(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, women and families using the services and their representatives, national service user organisations supporting local collaborations with service users)</i></p>	<p>The proportion of trusts and boards involved in a Maternity Voices Partnership or Maternity Services Liaison Committee increased from 83% to 90%. The proportion gathering feedback via surveys or focus groups increased from 91% to 95%, and the proportions involving women in the development of information for women and in the design of the care environment increased from 61% to 67% and from 59% to 64% respectively.</p> <p>The proportion of services involving women in audit, guideline development or labour ward forums decreased from 50% to 44%.</p>	12	

Key message	Report findings underlying the recommendation	Page	Related national guidance (details in Appendix 1)
<p>Recommendation (Audience)</p>			
<p>5 85% of services are in the process of implementing continuity of carer models, either through caseloading, teams set up to provide continuity, or both. However, nearly all currently serve only particular, sometimes small, groups of women with these models and scaling this up may be a challenge.</p> <p>Provide adequate resource to record all care contacts electronically in order to ensure effective monitoring of the level of continuity of carer that women experience (software, hardware and connectivity, and staff time).</p> <p><i>(Maternity service commissioners and providers with national government support and in collaboration with system suppliers, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives,^a women and families using the services and their representatives)</i></p>	<p>15% of trusts and boards reported using full caseloading models, 67% partial caseloading models and 40% a team continuity model.^b</p> <p>Only five trusts and boards used full caseloading or team continuity for all women, with the others currently using such models for specific groups.</p>	<p>14–16</p>	<p>NHSE Better Births (2016)¹</p> <p>NHSE Implementing Better Births:</p> <p><i>Continuity of Carer</i> (2017)⁷</p> <p>Scottish Govt <i>The Best Start</i> (2017)²</p> <p>RCM <i>Measuring Continuity of Carer: A Monitoring and Evaluation Framework</i> (2018)⁸</p>
<p>6 The reported level of provision of most services that were widely available in 2017 was maintained or increased slightly, and there was a notable increase in multiprofessional cardiac clinics and female genital mutilation services (now available at 25% and 55% of sites with an OU, respectively). However, despite their continued importance, provision of smoking cessation and weight management support remained similar to 2017 at 72% and 45% of trusts and boards, respectively, possibly reflecting cuts to public health budgets or competing demands on resources.</p> <p>Improve access to smoking cessation and weight management support services before, during and after pregnancy.</p> <p><i>(Public health service providers/local authorities, maternity service providers and commissioners, national neonatal improvement initiatives, national governments)</i></p>	<p>Provision of smoking cessation and weight management support remained similar to 2017 at 72% and 45% of trusts and boards, respectively. Availability of weight management support at FMUs decreased from 30% to 25%.</p>	<p>16–17</p>	<p>NICE <i>Weight Management Before, During and After Pregnancy</i> (2010)⁹</p> <p>NICE <i>Smoking: Acute, Maternity and Mental Health Services</i> (2013)¹⁰</p> <p>NHSE <i>Saving Babies' Lives</i> (2016)¹¹</p>

Key message	Report findings underlying the recommendation	Page	Related national guidance (details in Appendix 1)
<p>Recommendation (Audience)</p>			
<p>7 Although fewer sites reported entirely unfilled obstetric middle grade rota gaps in the 3 months leading up to the survey in 2019, the proportion requiring locum cover to staff the rota remained the same at 83%. Equally, at 51%, the proportion of sites reporting that all women received one-to-one midwifery care during established labour has not increased since the 2017 survey.</p> <p>Evaluate medical and midwifery staffing requirements, taking into account the range of national ambitions, and fund services accordingly.</p> <p><i>(National governments, professional bodies, relevant national and regional transformation and improvement initiatives,^a maternity service providers and commissioners, women and families using the services and their representatives)</i></p>	<p>87% of OUs reported gaps in their obstetric middle grade rota (89% in 2017). The proportion with entirely unfilled gaps decreased from 43% to 35% but the proportion requiring locum cover to staff the rota remained the same at 83%.</p> <p>51% of sites reported that all women had one-to-one care, and 85% of sites reported that at least 95% of women had one-to-one care (54% and 84% of sites respectively in 2017).</p>	<p>20–21, 16</p>	<p>NICE Intrapartum Care for Healthy Women and Babies (2014, updated 2017)³</p> <p>NICE Safe Midwifery Staffing for Maternity Settings (2015)¹²</p> <p>Scottish Govt The Best Start (2017)²</p> <p>RCM Midwifery Care in Labour Guidance for All Women in All Settings (2018)¹³</p> <p>NHSR Maternity Incentive Scheme – Year Two (2018)¹⁴</p>
<p>8 Neonatal transitional care provision increased from 64% to 83% of sites with a neonatal unit, and this is set to increase further. Transitional care was most commonly provided on postnatal wards, by both midwifery and neonatal staff. Postnatal ward beds were often used flexibly for transitional care.</p> <p>Provide neonatal transitional care at all sites with a neonatal unit. Ensure that adequately skilled staff are available at all times to provide transitional care.</p> <p><i>(Maternity and neonatal service providers and commissioners, relevant national and regional transformation and improvement initiatives)^a</i></p>	<p>83% of sites with a neonatal unit provided transitional care (64% in 2017). One-third of those without transitional care were planning to introduce it in the near future.</p> <p>72% of units with transitional care provided this on a postnatal ward. It was provided exclusively by maternity staff at 19%, by neonatal staff at 17% and by both at 64% of units with this service.</p>	<p>21</p>	<p>NHSI Reducing Harm Leading to Avoidable Admission of Full-Term Babies Into Neonatal Units (ATAIN) (2017)¹⁵</p> <p>BAPM Framework for Neonatal Transitional Care (2017)¹⁶</p> <p>Scottish Govt The Best Start (2017)²</p> <p>NHSR Maternity Incentive Scheme – Year Two (2018)¹⁴</p>

Key message	Report findings underlying the recommendation	Page	Related national guidance
9 Recommmendation <i>(Audience)</i>	<p>Provision of private bathrooms for all birth rooms and of bedrooms for parents of babies admitted to neonatal units (at a ratio of one bedroom per intensive care cot) increased only slightly (to 68% and 54% of sites, respectively). The proportion of sites with some ward rooms with more than four beds remained similar at 32%.</p> <p>Review the quality of the care environment for women and their families. Focus efforts on improving privacy and on measures that help families stay together while the mother and/or baby are admitted, including private bathrooms for all birth rooms and bedrooms for parents of babies admitted to neonatal units.</p> <p><i>(Maternity and neonatal service providers and commissioners, women and families using the services and their representatives, relevant national and regional transformation and improvement initiatives)^a</i></p>	22	DoH Toolkit for High-Quality Neonatal Services (2009)¹⁷ DoH Health Building Note 09-02: Maternity Care Facilities (2013)¹⁸ WHSSC All Wales Neonatal Standards (2013)¹⁹ Scottish Govt The Best Start (2017)²

AMU	alongside midwifery unit (co-located with OU on same site)	NHSR	NHS Resolution (England)	RCOG	Royal College of Obstetricians and Gynaecologists
BAPM	British Association of Perinatal Medicine	NICE	National Institute for Health and Care Excellence	SIGN	Scottish Intercollegiate Guidelines Network
DoH	Department of Health and Social Care	NICU	neonatal intensive care unit	WHSSC	Welsh Health Specialised Services Committee
FMU	freestanding midwifery unit	OU	obstetric unit	NHSE	NHS England
NHSI	NHS Improvement	RCM	Royal College of Midwives		

^a National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of a activity as applicable.

^b See *Midwifery care in the Availability of services, facilities and staff* section of the Findings chapter or the [NMPA website](#) for definitions.

Introduction

Background

It is an eventful time for maternity and neonatal services in England, Scotland and Wales. The English national maternity services review and the Scottish maternity and neonatal services review resulted in wide-ranging transformation plans,^{1,2} and an updated Welsh vision for maternity care is in preparation at the time of writing. Services are being reconfigured and changes made to ways of working across the three countries.

Overarching ambitions in these transformation plans are to provide more personalised, family-centred care, with greater continuity of carer, closer to home where possible; and to provide safer care through better collaboration and coordination across professional and geographical boundaries, with more support for vulnerable women and improved access to perinatal mental health care.

Related developments that are having an impact on the services include the implementation of the Saving Babies' Lives care bundle, the drive to reduce admissions of term babies to neonatal units, and the funding and incentivisation of measures to improve safety.^{11,14,15,20,21}

At the same time, the pressures on maternity and neonatal services continue, and workforce challenges persist in the face of growing demands on services through changes in practice, increasingly complex needs and heightened expectations.²¹⁻²⁹

The second organisational report of the National Maternity and Perinatal Audit

The National Maternity and Perinatal Audit (NMPA) is a national audit of the NHS maternity services across England, Scotland and Wales,^{*} which started in 2016.[†] The NMPA aims to produce high-quality information that can be used by providers, commissioners and users of the maternity services to benchmark against national standards and recommendations where these exist, and to identify good practice and areas for improvement. It consists of:

- an annual clinical audit of a number of key measures to identify unexpected variation between maternity services
- a programme of periodic 'sprint' audits on specific topics
- an organisational survey of maternity and neonatal care provision, and of services available to women.

The organisational survey maps current service provision and provides context for the NMPA annual clinical audit and sprint audits. It enables identification of organisational factors that may contribute to variation between service providers, and the information presented in this report and on the NMPA website allows organisations to benchmark their services against others.

* It has not yet been possible to include Northern Ireland, but this may change in the future.

† The NMPA is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme on behalf of NHS England, the Welsh Government and the Health Department of the Scottish Government. The audit is led by the Royal College of Obstetricians and Gynaecologists (RCOG) in partnership with the Royal College of Midwives (RCM), the Royal College of Paediatrics and Child Health (RCPCH) and the London School of Hygiene and Tropical Medicine (LSHTM).

Where organisational standards or recommendations exist that are clearly defined and suitable for measurement by survey at a national level, * adherence to these is reported; in their absence, this report describes the survey responses received and highlights opportunities for improvement.

The first NMPA organisational survey was conducted in January 2017 and had a 100% response rate. It found that women's choice of birth settings had improved through increased availability of alongside midwifery units (AMUs) and that access to key facilities such as blood transfusion laboratories and adult critical care was near-universal at sites with an obstetric unit (OU). However, provision of some specialist services, such as multiprofessional cardiac clinics, and of neonatal transitional care, which keeps mothers and babies together, was less widespread. Gaps in obstetric middle grade rotas were also reported, as was a lack of continuity of carer.³⁰

This second report presents a snapshot of service provision as of January 2019. The focus in this report is on what has changed since the first report, where service provision has improved and where further improvement is still needed in order to meet recommendations. Much work is underway in response to the English national maternity services review, the Scottish maternity and neonatal services review, and as part of the development of the Welsh vision for maternity care. It is hoped that this report will help inform this process and other improvement initiatives.

* See Appendix 1 for national organisational standards and recommendations.

Methods

The first NMPA organisational survey was developed with reference to national standards, guidance, recommendations and government policy regarding organisational aspects of maternity and neonatal care.* The NMPA audit partners and Clinical Reference Group provided additional advice and the survey underwent an extensive pilot.

The second survey included largely the same questions but the care model questions were updated to reflect policy developments related to continuity of carer, and the overall length of the survey was reduced.† As before, the survey was divided into sections for completion by midwifery, obstetric and neonatal leads and was conducted online using *Snap* survey software.³¹

All NHS trusts and boards providing intrapartum care on site across England, Scotland and Wales were eligible to take part. The survey was conducted during December 2018 and January 2019, and 100% of the 151 eligible trusts and boards submitted a completed survey (130 English trusts, 14 Scottish boards and seven Welsh boards).

The reported results are those provided by the respondents, following internal and external cross-validation where possible. Responses were analysed using *Stata/IC 14* and *Microsoft Excel*.^{32,33}

Results are reported as applicable at one or more of the following levels (Table 1):

- whole trusts (England) or boards (Scotland and Wales), for example for configuration changes
- individual sites within each trust or board, including sites with a co-located OU and AMU, for example for the availability of obstetric theatres on site
- individual units, for example for the number of birth rooms in each OU, AMU and freestanding midwifery unit (FMU).

This report presents aggregated results; individual trust, board and site results are available on the NMPA website, www.maternityaudit.org.uk, as is the survey questionnaire.

Further detail on methods can be found in Appendix 5 of the NMPA organisational report 2017.³⁰

* See Appendix 1 for national organisational standards and recommendations.

† The question about multiprofessional training was removed as it would have duplicated information available for the same period in a report dedicated to maternity training.⁵⁶ Some staffing questions were removed to reduce the burden on respondents; detailed workforce information is published by the RCM, RCOG, RCPCH, NHS Improvement, NHS Digital, ISD Scotland and StatsWales.^{22–26,57–60}. Both survey questionnaires are available on the resources page of the NMPA website.

Table 1 Levels at which findings are presented in this report (January 2019)

	Total	England	Scotland	Wales
Trusts/boards	151	130 trusts	14 boards	7 boards
	277			
Sites and unit types on site	54 OU only 132 OU+AMU 91 FMU	45 OU only 112 OU+AMU 61 FMU	9 OU only 8 OU+AMU 17 FMU	0 OU only 12 OU+AMU 13 FMU
	409			
Maternity units	186 OUs ^a 132 AMUs 91 FMUs ^a	157 OUs 112 AMUs 61 FMUs	17 OUs 8 AMUs 17 FMUs	12 OUs 12 AMUs 13 FMUs
	183			
Neonatal units	55 NICUs 80 LNUs 48 SCBUs	44 NICUs 73 LNUs 40 SCBUs	8 NICUs 5 LNUs 2 SCBUs	3 NICUs 2 LNUs 6 SCBUs

OU obstetric unit

AMU alongside midwifery unit (co-located with OU on same site)

FMU freestanding midwifery unit

NICU neonatal intensive care unit

LNU local neonatal unit

SCBU special care baby unit.

^a At the time of the survey, eight of the FMUs included in this table (six in England and one each in Scotland and Wales) had been closed for births for periods ranging from several months to more than a year, but they have been included as respondents indicated that the closure was considered temporary or still under review. In addition, one OU included had been temporarily changed to an FMU although the SCBU on its site remained open.

Findings

Maternity and neonatal care settings

Key messages and recommendations

- 1 Between 2017 and 2019, the proportion of sites with an obstetric unit (OU) that was co-located with an alongside midwifery unit (AMU) increased from 67% to 71% overall (from 124 to 132 out of 186 sites with an OU). However, the number of freestanding midwifery units (FMUs) decreased by four (from 95 to 91), and long-term FMU closures increased, with a further eight FMUs closed for births from several months to more than a year.

Review reasons for any short-term, long-term and permanent closures of FMUs. Evaluate how effectively the viability of these units is assessed in terms of demand and resources, both in local and regional context. Evaluate the impact of these closures on the women affected.

*(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, * women and families using the services and their representatives)*

- 2 Perinatal mental health service provision was expanded, with more participation in networks (91% of 151 trusts and boards overall), increased access to community perinatal mental health teams and specialist midwives (91% and 87% of trusts and boards respectively), and more psychiatrist clinics (58% of 186 sites with an OU).

Ensure participation in a perinatal mental health network where this is not already the case, in order to optimise access to and effectiveness of the increased local provision of perinatal mental health support services.

*(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, * women and families using the services and their representatives)*

- 3 Access to electronic maternity records has improved for community midwives, with 66% of trusts and boards (out of the 140 that reported full access for maternity clinicians in hospital) reporting access at any location and 90% at the community base. However, still only 19% reported that women could access their own record, and the proportion where GPs had access decreased from 29% to 21% of trusts and boards.

Continue to improve access to electronic maternity records, both for women and for all healthcare professionals involved in their maternity care.

*(Maternity service commissioners and providers with national government support and in collaboration with maternity and GP system suppliers, relevant national and regional transformation and improvement initiatives, * women and families using the services and their representatives)*

* National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of activity as applicable.

- 4 The proportion of trusts and boards engaging with women through Maternity Voices Partnerships or Maternity Services Liaison Committees increased from 83% to 90%, while the proportion gathering feedback via surveys or focus groups increased similarly. However, the proportion of services involving women in audit, guideline development or labour ward forums decreased from 50% to 44%.

Encourage women's involvement in audit, guideline development and labour ward forums (where these exist).

(Maternity service providers and commissioners, Local Maternity Systems and equivalent regional collaborations, women and families using the services and their representatives, national service user organisations supporting local collaborations with service users)

Maternity services

Maternity service configuration

The number of boards providing on-site intrapartum care in Scotland and Wales was unchanged between 2017 and 2019, at 14 and seven respectively. Owing to mergers, the number of English trusts decreased from 134 to 130.

Most NHS trusts and boards operated several different types of maternity unit. For consistency with current research and national guidance, the unit type definitions used in the NMPA organisational survey and report are based on those in the Birthplace in England Research Programme.³⁴ In summary, OUs provide midwifery and medical care to women with uncomplicated pregnancies as well as to those who have existing conditions or who develop complications during pregnancy or birth. Midwifery units provide midwife-led care to women at low risk of complications and are either located on the same site as an OU (AMUs), or at a geographically separate location (FMUs). Detailed descriptions are available in the glossary or on the [NMPA website](#).

Not all maternity units fit these definitions exactly: 12 Scottish FMUs (71%),* 18 English FMUs (30%) and one Welsh FMU (8%) reported having some medical support for the maternity service on site; this was mostly support from anaesthetic or emergency department staff in case of emergencies only, with some sites reporting the provision of obstetrician-led clinics or GP support. On the other hand, some FMUs did not have maternity staff on site at all times and operated on an on-call basis, or were sited at a provisional location to test their viability. While acknowledging their wide range of service provision, these units will all be referred to as FMUs in this report. There were also three sites with a small OU but without a neonatal unit.†

Following the findings of the Birthplace in England study,³⁵ the National Institute for Health and Care Excellence (NICE) recommends that pregnant women at low risk of complications should be encouraged to plan birth in a midwife-led setting (at home or in a midwifery unit) and that women with certain health conditions or pregnancy complications give birth in an OU.³ This is echoed by *Better Births*, the report on the English maternity services review, and *The Best Start*, the Scottish maternity and neonatal services review report.^{1,2}

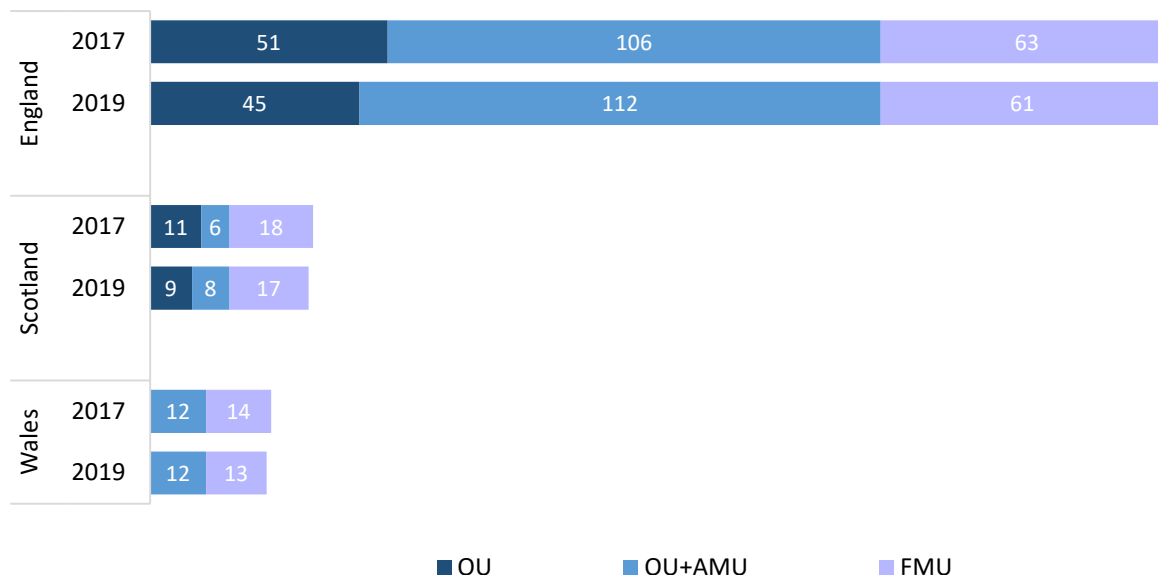
Between 2017 and 2019, the proportion of sites with a co-located OU and AMU increased from 67% to 71% overall. All 12 Welsh OUs were already co-located with an AMU at the time of the 2017 survey

* Commonly called community maternity units in Scotland.

† One of these was included as FMU in the 2017 report, being midwife-led and obstetrician-supported, but has been included as OU in this report in response to feedback from the unit. 2017 maternity unit numbers in this report have been adjusted accordingly.

(Figure 1), but in Scotland the number of sites with a co-located OU and AMU increased from six to eight (from 35% to 47% of sites with an OU), and in England from 106 to 112 (from 68% to 71% of sites with an OU). In 2007, just 14% of English OUs were co-located with an AMU.^{36,37}

Figure 1 Maternity unit types on site in January 2017 and January 2019

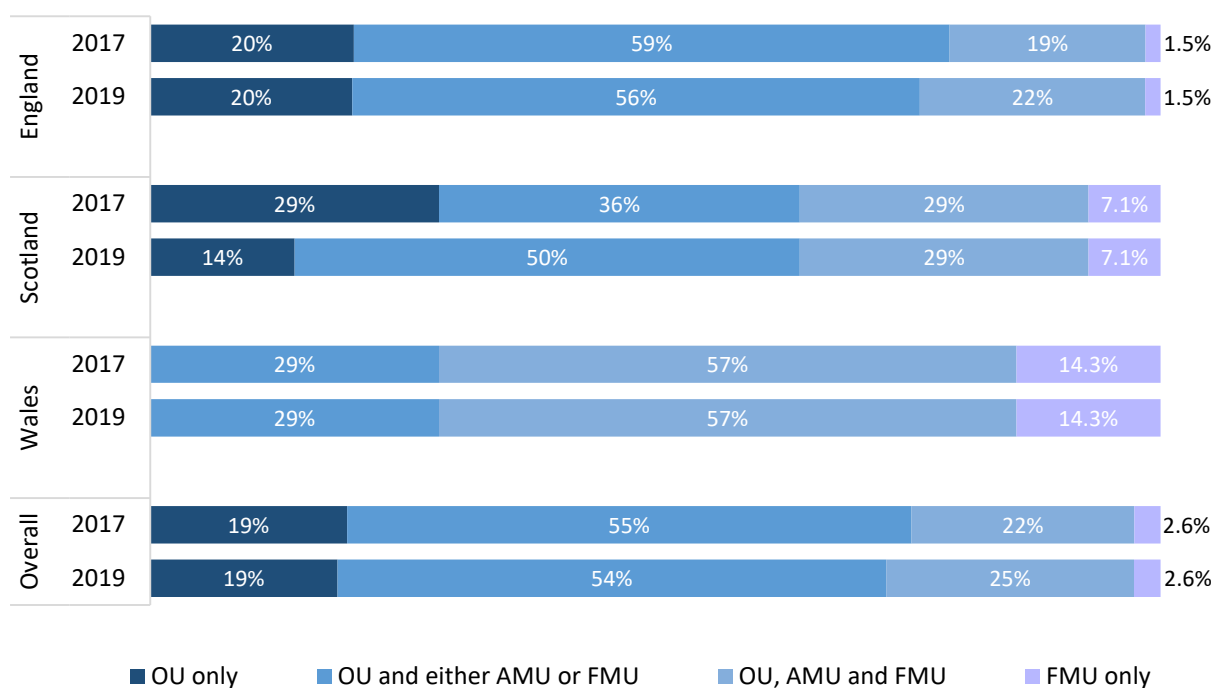


The number of FMUs decreased from 63 to 61 in England, from 18 to 17 in Scotland and from 14 to 13 in Wales. However, the actual number of FMUs open for births at the time of the survey was lower than these figures indicate, as six FMUs in England and one FMU each in Scotland and Wales had been closed for births for long periods, ranging from several months to more than a year. They were included in the FMU count because respondents indicated that the closures were considered temporary or still under review. By the same principle, one Scottish OU that temporarily provided only midwife-led care, although the neonatal unit on its site remained open, was retained in the OU count.

It was anticipated by respondents that a further four FMUs would close within the next 3 years, but 11 were anticipated to open, including three due to a change from OU (one) or OU and AMU (two) to FMU. One change from FMU to OU and the opening of another 23 AMUs were also being planned, with stages of development ranging from exploration of feasibility to imminent opening.

All trusts and boards offered homebirths. The proportion of trusts and boards offering homebirth and at least one FMU, AMU and OU increased from 22% to 25% between 2017 and 2019, while the proportion offering homebirth, at least one type of midwifery unit and an OU increased from 77% to 79% (Figure 2). 19% of trusts and boards did not have any midwifery units although some women may have access to midwifery units at neighbouring trusts or boards. 3% did not have any OUs but collaborated with neighbouring services that did.

In England, for which historical data are available from previous organisational surveys, the proportion of trusts with an OU, AMU and FMU increased from 3% in 2007 to 22% in 2019. In the past 2 years, this increase appears to have been mainly among trusts that already had one type of midwifery unit.^{36,37} Birth numbers in different birth settings are reported in the NMPA clinical reports insofar as data are available.^{38,39}

Figure 2 Maternity unit types available per trust or board in January 2017 ($n = 155$) and January 2019 ($n = 151$)

All trusts and boards offer homebirths

An interactive map of maternity units in England, Scotland and Wales is available on the [NMPA website](#).

Birth rooms and antenatal and postnatal beds

As in 2017, OUs had a median of 10 dedicated birth rooms, AMUs a median of 4 and FMUs a median of 2 (Table 2). 67% of sites with an OU had a combined antenatal and postnatal ward (62% in 2017), mostly instead of, but occasionally in addition to dedicated antenatal or postnatal wards. By their nature, FMUs tend not to have any antenatal beds and to discharge women home directly from the birth room a few hours after the birth. However, three Scottish FMUs had combined antenatal and postnatal wards. Median bed numbers for both site types were similar in 2017, as were approximate annual numbers of births per birth room.

Table 2 Numbers of dedicated birth rooms and antenatal and postnatal beds in January 2019^a

	Median	Range	Interquartile range
Number of dedicated birth rooms per unit			
OU labour wards	10	2 to 21	7 to 12
AMUs	4	1 to 12	3 to 5
FMUs	2	1 to 7	1 to 3
Total antenatal and postnatal beds per site			
Sites with an OU (with or without AMU)	35	6 to 83	26 to 47
FMUs	0	0 to 8	0 to 1
Approximate annual number of births per birth room^b	276	108 to 462	233 to 332

^a Excludes 11 units which reported that their birth rooms were multipurpose.

^b Excludes four trusts and boards with only FMUs, and those with one or more sites with multipurpose birth rooms (the number of births per birth room has been calculated per trust or board, as birth numbers per site were not available for 2017/18).

Neonatal services

Neonatal service configuration

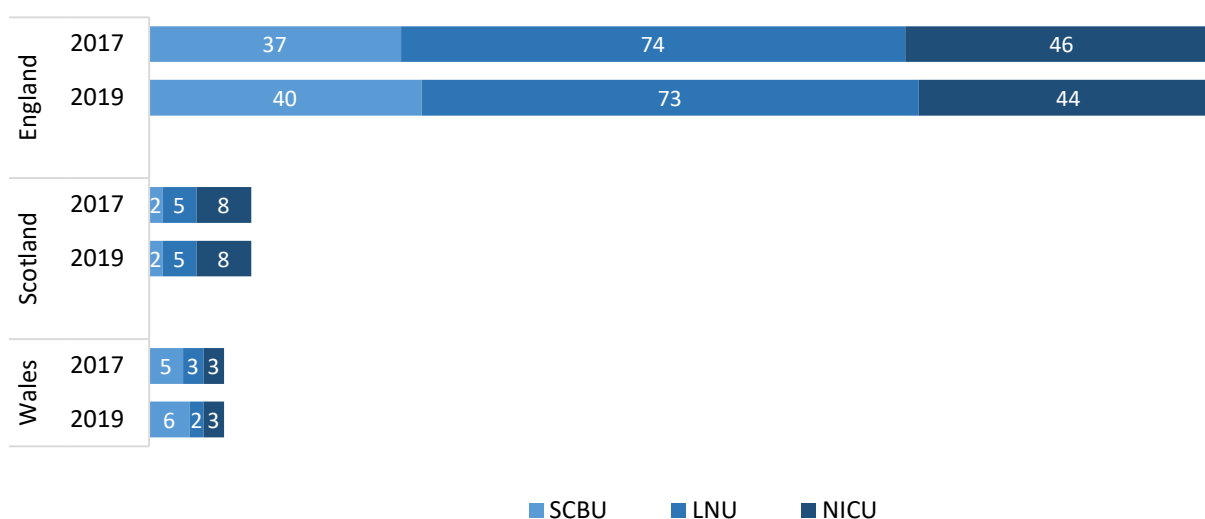
Neonatal care is categorised as special care, high dependency care or intensive care, depending on the level of support babies require. Transitional care is a fourth care category, for babies who need some extra support but who can remain with their mothers either on the postnatal ward or on a dedicated transitional care ward (see p. 21).

Neonatal units are designated nationally as special care baby units (SCBUs), local neonatal units (LNUs) and neonatal intensive care units (NICUs).¹⁷ NICUs provide medical neonatal care at all levels for their local population, along with high dependency care and intensive care for babies referred from other locations. LNUs provide all categories of neonatal care for their own catchment population and may receive transfers from within the local network, but they transfer babies who require complex or longer term intensive care to a NICU. SCBUs provide special care for their local population and may also provide some high dependency care, as well as stabilisation of babies prior to transfer to a NICU or LNU. Detailed definitions of care categories are available from the British Association of Perinatal Medicine.^{16,40} Neonatal unit designations and care levels are also summarised on the [NMPA website](#).

Neonatal units are organised into regional neonatal networks with designated transport services to transfer babies between units when necessary. These networks also facilitate transfer of women to an appropriate unit before the birth, in order to avoid postnatal transfer of a vulnerable baby.

There were 183 neonatal units across England, Scotland and Wales: 157 in England, 15 in Scotland and 11 in Wales (Figure 3). All sites with an OU had a neonatal unit on site, except three small and remote units that provided obstetric intrapartum care and reported that they could provide some neonatal special care on the maternity ward or had a stabilisation cot, but did not have a neonatal unit.* As in 2017, larger trusts and boards were more likely to have a NICU and smaller ones a SCBU as the highest neonatal unit designation within their organisation (Table 3).

Figure 3 Neonatal unit designations in January 2017 and January 2019



* This was also the case at the time of the 2017 organisational survey, but was not reported as such by all respondents. 2017 neonatal unit numbers in this report have been adjusted accordingly.

Table 3 Highest neonatal unit designation within the trust or board in January 2019

Trust/board annual number of births (i.e. of all trust/board sites combined)	Number of trusts or boards where the highest neonatal unit designation is				Total
	No neonatal unit ^a	SCBU	LNU	NICU	
<2500	6	13	9	0	28
2500–3999	0	9	20	8	37
4000–5999	0	2	31	22	55
≥6000	0	0	8	23	31
Total	6	24	68	53	151

^a Includes four trusts and boards without any OUs

At the time of the survey, overall numbers of NICUs, LNUs and SCBUs had changed little since 2017, and not at all in Scotland. However, most Scottish neonatal units said that they were awaiting implementation of *The Best Start*² and that this could result in configuration changes. One anticipated change is a concentration of NICU provision on fewer sites. Ongoing reconfiguration in Wales saw the redesignation of three neonatal units but units in England reported mainly changes in cot capacity at different care levels (20% of English neonatal units). The English neonatal critical care review that took place during 2018 and is due to be published in the near future may lead to further changes.

An interactive map of neonatal units in England, Scotland and Wales is available on the [NMPA website](#).

Cot numbers

Overall declared cot numbers (planned cot capacity when fully staffed) decreased by 3% since 2017, with decreases in special care and intensive care cots and an increase in Scottish high dependency care cots (Table 4). The decrease in special care cots across the three countries may be related to the increased provision of transitional care (see p. 21). The range of units' declared cot numbers was wide, although these tended to be related to the number of births on site and to neonatal unit designation (Table 5).

Table 4 Declared cots by country and care level in January 2019, and % change since January 2017

Country	Number of declared cots ^a			
	Neonatal care level			Total
	Special care	High dependency care	Intensive care	
England	1916 (–4%)	659 (+0%)	637 (–4%)	3212 (–3%)
Scotland	167 (–6%)	74 (+16%)	70 (–3%)	311 (–1%)
Wales	82 (–6%)	47 (+0%)	31 (–6%)	160 (–4%)
Total	2165 (–4%)	780 (+1%)	738 (–4%)	3683 (–3%)

^a Planned cot capacity if fully staffed (this can fluctuate and the numbers reported here are a snapshot as at 1 January 2019).

Table 5 Declared cots available for different care levels, by neonatal unit designation in January 2019

Neonatal care level	Number of declared cots ^a					
	SCBUs		LNUs		NICUs	
	Median	Range	Median	Range	Median	Range
Special care	8	3 to 18	12	4 to 21	14	4 to 31
High dependency care	2	0 to 6	3	0 to 8	8	2 to 19
Intensive care	0	0 to 2	2	0 to 7	9	3 to 20
High dependency care and intensive care combined ^b	2	0 to 6	6	1 to 12	16	6 to 38

^a Planned cot capacity if fully staffed.

^b Some units use high dependency care and Intensive care cots flexibly and do not differentiate when declaring cots.

Working together

Strategy

Following the national maternity services review in England, the national maternity and neonatal services review in Scotland and parallel developments in Wales, collaboration across organisations to develop plans and coordinate services has increased. The pattern is not uniform across the three countries, which probably reflects the timing of the services reviews and different ways of working.

99% of English trusts and 100% of Welsh boards reported having a maternity strategy or a Local Maternity System transformation plan (up from 74% and 86% respectively). In Scotland, the proportion of boards reporting such plans decreased from 71% to 64%, while the proportion with a designated maternity champion on the board of the organisation increased from 57% to 64%. The latter increased in England from 77% to 99% but decreased in Wales from 86% to 57%. The overall proportion of trusts and boards with a consultant midwife was similar to 2017 in England at 39%, decreased in Scotland from 50% to 36% and increased in Wales from 57% to 100%.

Networks

Clinical networks enable sharing of expertise, integrated working and equitable access to care, unconstrained by organisational and geographical boundaries. Neonatal networks were established following the 2003 review of neonatal intensive care⁴¹ by the English Department of Health,^{*} and all trusts and boards in England, Scotland and Wales are part of a neonatal network.

All Welsh boards and 96% of English trusts reported that they participate in a maternity network (this was 86% and 92% respectively in 2017). For Scotland, this proportion was 29% (up from 21%) but the country is currently in the process of establishing and reconfiguring networks following its maternity and neonatal services review, which recommended the formation of a single maternity network and a single neonatal managed clinical network across Scotland.²

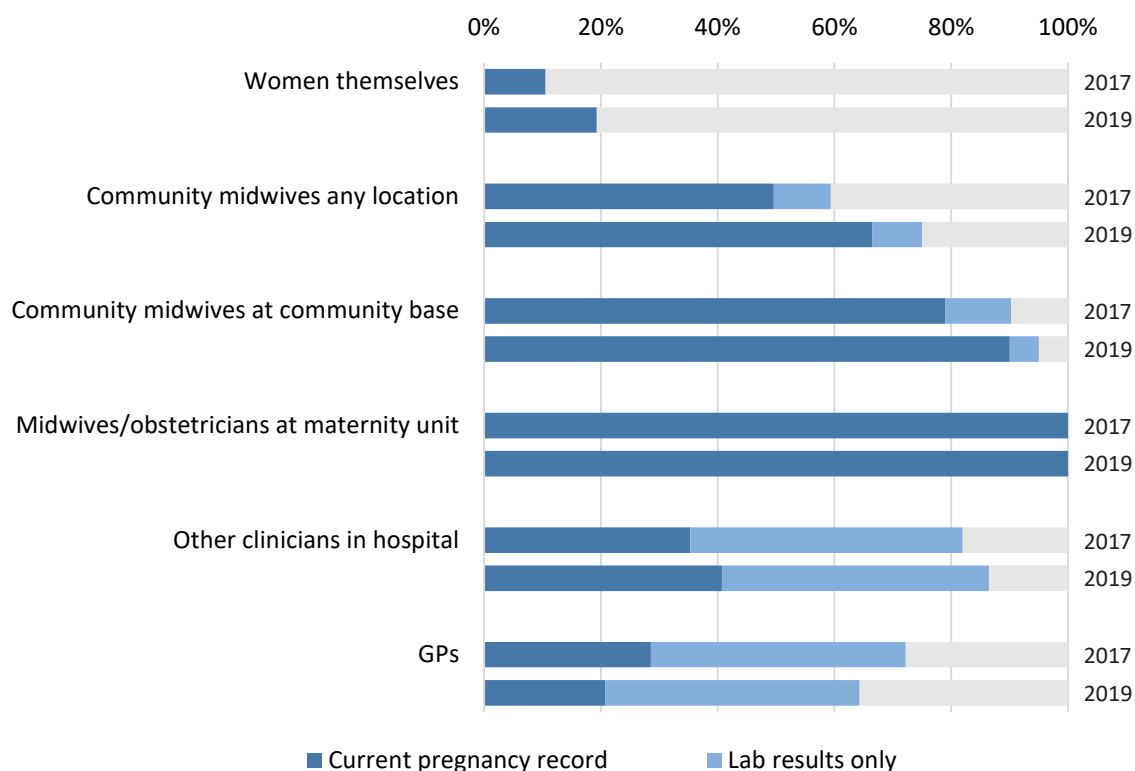
Participation in perinatal mental health networks had increased substantially, from 68% to 91% of trusts and boards overall (from 70% to 93% in England, 43% to 79% in Scotland and 71% to 86% in Wales).

* Now the Department of Health and Social Care.

Electronic information sharing

Information sharing between professionals and organisations, and with the women using the maternity services, is vital to provide safe and effective care (Figure 4).^{1,2,6} Among services that reported full access to electronic maternity records for maternity clinicians in hospital, access increased both for women using the services and for clinicians working outside of the maternity department. However, reported access for women is still limited and access for GPs decreased.

Figure 4 Who has access to electronic pregnancy details in January 2017 and January 2019?*



* Out of those trusts and boards that reported full access for maternity clinicians in hospital (2017: $n = 133$; 2019: $n = 140$)

Involving women and families

The proportion of trusts and boards engaging with women using the services through a Maternity Voices Partnership or Maternity Services Liaison Committee increased from 83% to 90%, in line with the recommendations of *Better Births*, the *RCM Standards for Midwifery Services in the UK* and the *RCOG Framework for Maternity Service Standards*.^{1,6,42} Gathering feedback via surveys or focus groups saw a similar increase, from 91% to 95%, and several respondents commented in addition that they used social media. While reported involvement in the development of information for women and the design of the care environment also increased (from 61% to 67% and from 59% to 64% respectively), there was a decrease in the proportion of services involving women in audit, guideline development or labour ward forums from 50% to 44%.

Availability of services, facilities and staff

Services and facilities by site and by country can be viewed on the [NMPA website](#).

Key messages and recommendations

- 5 85% of services are in the process of implementing continuity of carer models, either through caseloading, teams set up to provide continuity, or both. However, nearly all currently serve only particular, sometimes small, groups of women with these models and scaling this up may be a challenge.

Provide adequate resource to record all care contacts electronically in order to ensure effective monitoring of the level of continuity of carer that women experience (software, hardware and connectivity, and staff time).

(Maternity service commissioners and providers with national government support and in collaboration with system suppliers, Local Maternity Systems and equivalent regional collaborations, relevant national and regional transformation and improvement initiatives, women and families using the services and their representatives)*

- 6 The reported level of provision of most services that were widely available in 2017 was maintained or increased slightly, and there was a notable increase in multiprofessional cardiac clinics and female genital mutilation services (now available at 25% and 55% of sites with an OU, respectively). However, despite their continued importance, provision of smoking cessation and weight management support remained similar to 2017 at 72% and 45% of trusts and boards, respectively, possibly reflecting cuts to public health budgets or competing demands on resources.

Improve access to smoking cessation and weight management support services before, during and after pregnancy.

(Public health service providers/local authorities, maternity service providers and commissioners, national neonatal improvement initiatives, national governments)

- 7 Although fewer sites reported entirely unfilled obstetric middle grade rota gaps in the 3 months leading up to the survey in 2019, the proportion requiring locum cover to staff the rota remained the same at 83%. Equally, at 51%, the proportion of sites reporting that all women received one-to-one midwifery care during established labour has not increased since the 2017 survey.

Evaluate medical and midwifery staffing requirements, taking into account the range of national ambitions, and fund services accordingly.

(National governments, professional bodies, relevant national and regional transformation and improvement initiatives, maternity service providers and commissioners, women and families using the services and their representatives)*

* National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of activity as applicable.

- 8 Neonatal transitional care provision increased from 64% to 83% of sites with a neonatal unit, and this is set to increase further. Transitional care was most commonly provided on postnatal wards, by both midwifery and neonatal staff. Postnatal ward beds were often used flexibly for transitional care.

Provide neonatal transitional care at all sites with a neonatal unit. Ensure that adequately skilled staff are available at all times to provide transitional care.

*(Maternity and neonatal service providers and commissioners, relevant national and regional transformation and improvement initiatives)**

- 9 Provision of private bathrooms for all birth rooms and of bedrooms for parents of babies admitted to neonatal units (at a ratio of one bedroom per intensive care cot) increased only slightly (to 68% and 54% of sites, respectively). The proportion of sites with some ward rooms with more than four beds remained similar at 32%.

Review the quality of the care environment for women and their families. Focus efforts on improving privacy and on measures that help families stay together while the mother and/or baby are admitted, including private bathrooms for all birth rooms and bedrooms for parents of babies admitted to neonatal units.

*(Maternity and neonatal service providers and commissioners, women and families using the services and their representatives, relevant national and regional transformation and improvement initiatives)**

Midwifery care

Care models and continuity

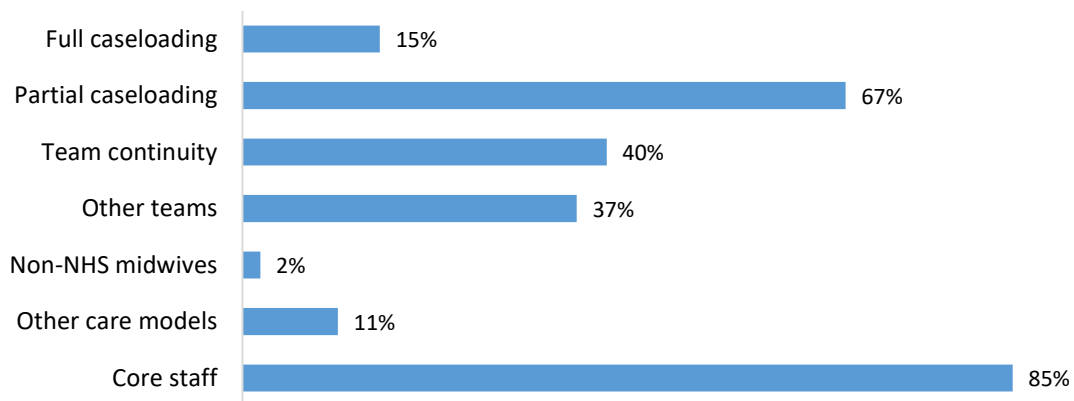
The need for continuity of carer was among the most prominent recommendations resulting from the national maternity and neonatal services reviews, with expectations becoming more clearly defined as maternity services and policy makers turned to implementation. A monitoring and evaluation framework for the provision of continuity of carer⁸ was published shortly before the second NMPA survey was conducted. Eight survey questions related to care models and continuity were updated to reflect these developments and included model options aligned with the framework, as well as additional models and the opportunity to add further models and free text details. Care model definitions were provided in the [questionnaire](#) and on the [NMPA website](#).

A few services reported long-established continuity models but many respondents indicated that the continuity models they reported as being in use had either been implemented very recently or were about to be introduced (85% of trusts and boards overall). While not an exact measurement of all models in use, and certainly not of the number of women experiencing continuity of carer, the survey responses give an indication of the way maternity services have been reorganising care provision since the baseline provided by the 2017 survey.

Overall, the proportion of trusts and boards reporting that they used some form of caseloading for some groups of women increased from 39% to 72% since 2017. 15% of trusts and boards reported using full caseloading models, with continuity of carer personally provided across the antenatal, intrapartum and postnatal periods by a named lead midwife, with or without a buddy midwife as backup (Figure 5). However, only one trust did so for all women, with the vast majority providing this

* National and regional transformation and improvement initiatives across England, Scotland and Wales should review all the recommendations in this report, consider the impact on their area of work and amend programmes of activity as applicable.

Figure 5 Midwifery care models used by trusts and boards in January 2019 (*n* = 151)*



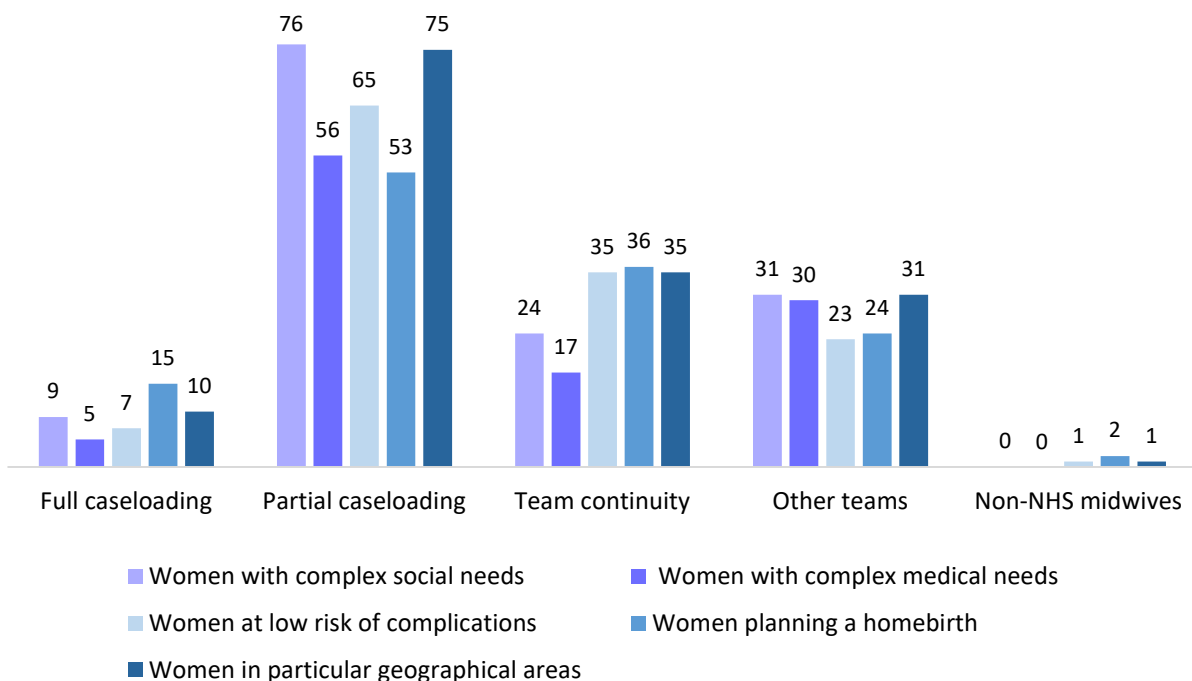
* Most trusts and boards used more than one care model and very few used one model for all women.

model of care only for particular groups of women (most commonly those planning a homebirth) or in certain areas (Figure 6).

67% reported they used partial caseloading models, with continuity of carer provided across one or two but not all three of these care periods. As with full caseloading, this was nearly always restricted to certain groups of women.

40% of trusts and boards reported having teams operating a continuity of carer model, in which women are allocated a named lead midwife who is responsible for coordinating and personally providing most of their midwifery care, with the other midwives in the team as backup ('team continuity' or 'continuity teams'). The continuity pattern reported for this model was not always across all three care periods, though, and it was used for selected groups. Since the publication of

Figure 6 Number of trusts and boards using a care model for a particular group of women in January 2019 (*n* = 151)



Better Births, the recommended team size for this model was adjusted upwards from four to six midwives to four to eight midwives.^{1,7,8} 77% of trusts and boards using a team continuity model reported that most teams were this size and 46% operated a buddy system to increase continuity.

37% reported having other types of teams not defined as continuity teams, although some of these teams did appear to offer continuity across care periods (Figure 5). 2% used non-NHS midwives (social enterprise or private) contracted by the trust, board or clinical commissioning group. 89% of trusts and boards reported using more than one care model, most commonly a combination of core staff, teams not defined as continuity teams, and partial caseloading for particular groups of women.

Only electronic recording of all care contacts during pregnancy, birth and the postnatal period would give a precise record of the number of different healthcare professionals women see. The proportion of trusts and boards using their electronic maternity records to monitor continuity of carer increased from 14% to 37% since 2017 but 35% continued to rely on audit of paper records and 30% did not monitor continuity at all.

Midwifery care and specialist support

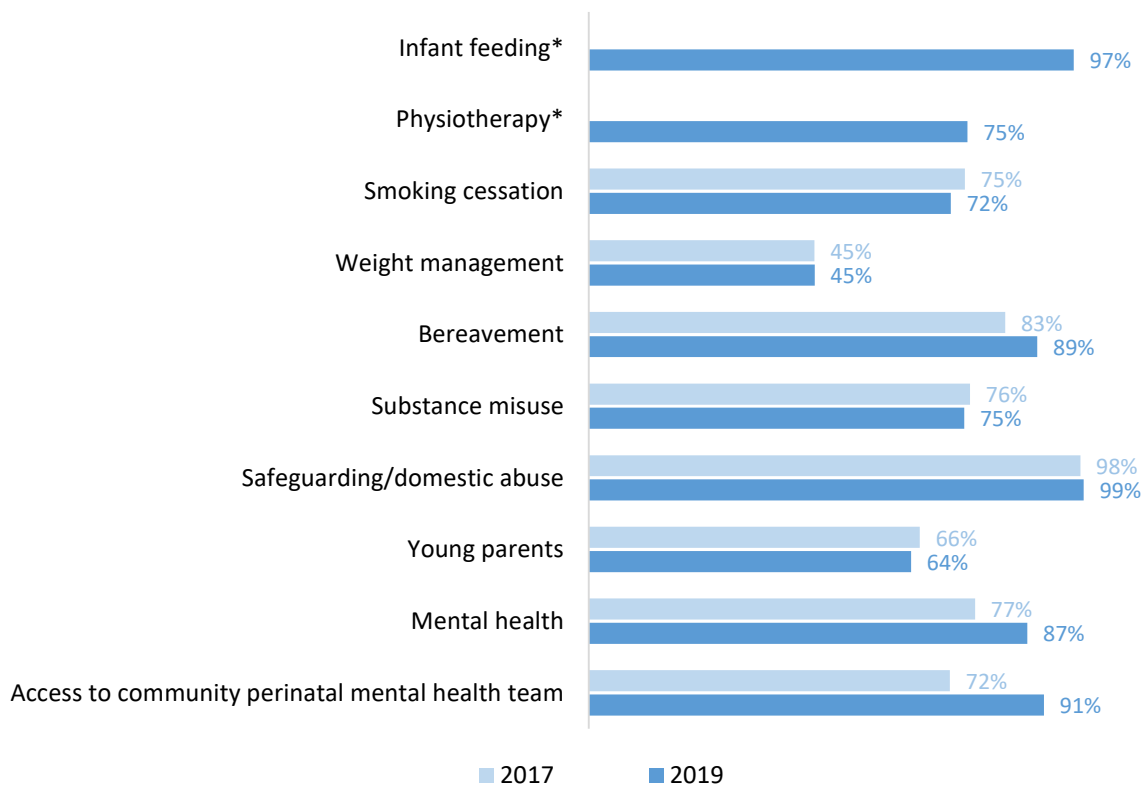
The pattern of antenatal and postnatal community midwifery care was similar to that reported in the 2017 survey, with comparable levels of choice in terms of antenatal and postnatal contacts and the staff involved in the latter. The median number of planned postnatal contacts for well women and babies also remained unchanged at 3 in England and 4 in Scotland and Wales.

The proportion of trusts and boards offering women assessment in early labour at home increased from 13% to 19%. Half of trusts and boards reported that they booked women at low risk of complications for birth in a midwife-led environment unless women opted out of this, and 62% of services with a midwifery unit directed women with straightforward pregnancies to the midwifery unit when they went into labour.

Ensuring that women in established labour have one-to-one care from a midwife is a long-standing national recommendation.^{3,43} 89% of sites monitored this provision and, of those, 51% reported that all women had one-to-one care and 85% reported that at least 95% of women had one-to-one care during the financial year 2017/18 (this was similar to the 54% and 84% of sites respectively for 2015/16 in the 2017 survey).

Specialist midwives and allied health professionals support women with additional needs. The organisation of this provision at site level varies widely, influenced by local needs and distance to other units. Many respondents indicated that certain support services were not necessarily based at a site but that women did have access to them, so this provision is reported here by trust or board.

There was an increase in the availability of mental health and bereavement support, both across organisations and at individual sites (Figure 7). Access to community perinatal mental health teams also increased. The availability of smoking cessation support decreased slightly, and although there was no change in the proportion of trusts and boards offering weight management support, fewer individual sites reported that this was available. The proportion of FMUs offering weight management support on site decreased from 30% to 25%.

Figure 7 Access to specialist midwives and allied health professionals by trusts and boards in January 2017 and January 2019 ($n = 151$)*

* Not included in the 2017 survey.

Obstetric and medical care

Obstetric and medical services and facilities

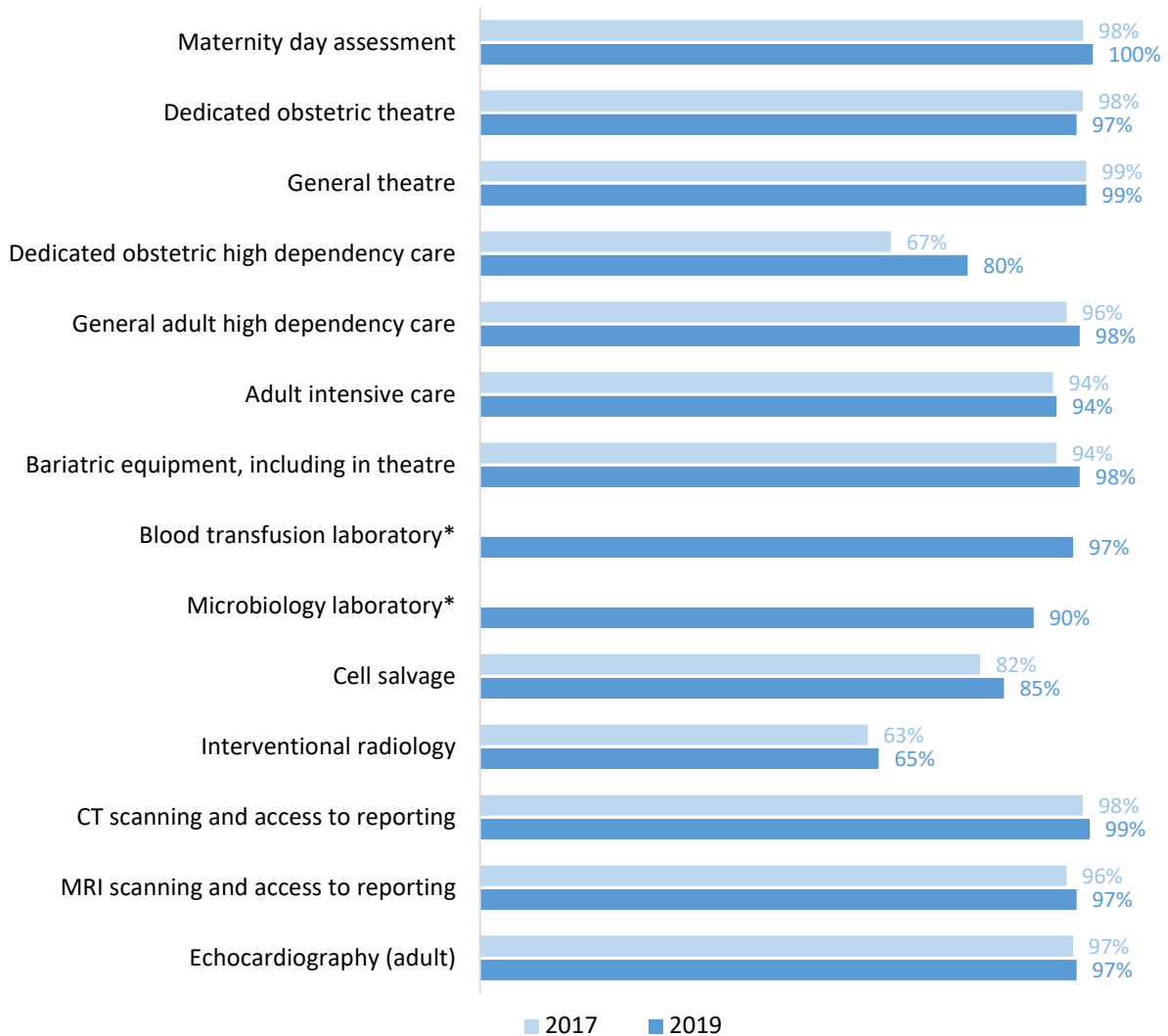
The availability of many obstetric and medical services and facilities on sites with an OU was similar to 2017 (Figure 8). As in 2017, a small number of units reported not having some services on site that are generally widely available, such as an intensive care unit, blood transfusion laboratory or acute medical cover. These were either small rural units or large OUs in dedicated maternity buildings, with access to such services within the wider site or hospital complex. Some specialised service provision would be expected to be more centralised, which is reflected in the survey responses.

Maternity day assessment, where pregnant women can be seen on an outpatient basis for checks and monitoring of potential problems, was available at all sites with an OU (up from 98% in 2017) and at 43% of FMUs (up from 34%). The proportion of maternity day assessment units that were open 24 hours per day on sites with an OU decreased slightly from 21% to 19%.

The availability of diagnostic facilities, interventional radiology and cell salvage was similar to 2017. Around half to two-thirds of sites with these facilities did not have access at all times, with the exception of computed tomography (CT) scanning, which was available around the clock at 87%. Access to general critical care increased slightly, and the availability of dedicated obstetric high dependency care (high dependency care provided within the maternity unit) increased considerably: 80% of sites with an OU now reported that they provided this, albeit not necessarily in dedicated obstetric high dependency beds. While maternity units are unlikely to offer the full range of organ

support available in general high dependency units and may vary in the specific elements of high dependency care that they are able to provide, obstetric high dependency care enables women and babies to stay together.

Figure 8 Availability of obstetric and medical services and facilities on sites with an OU in January 2017 and January 2019 (*n* = 186)



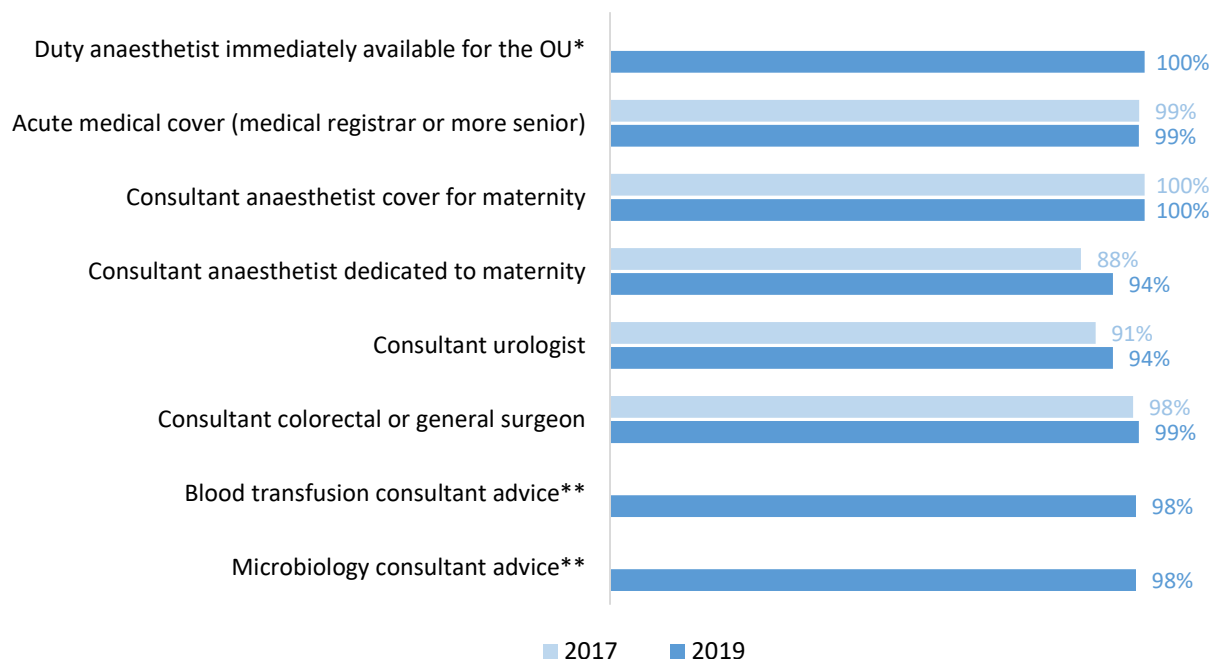
* The 2017 survey asked for laboratory and consultant advice combined rather than separately (blood transfusion laboratory and consultant advice and microbiology laboratory and consultant advice were reported to be available at 99% and 96% of sites with an OU, respectively).

Anaesthetic and other medical support

The availability of anaesthetists and other medical specialists to support the maternity services was high in 2017 and further increased slightly. All sites reported having 24 hour cover by duty anaesthetists,* either on site or on call from home. The proportion of sites with an OU that had a consultant anaesthetist dedicated to maternity available at all times increased from 88% to 94% (Figure 9). The proportion reporting that at least 48 consultant anaesthetist hours per week were dedicated to maternity, in line with the Obstetric Anaesthetists' Association recommendation,⁴⁴ increased from 55% to 67%.

* At the level of consultant, anaesthetic trainee, or staff grade, associate specialist and specialty doctors.

Figure 9 Anaesthetic and other medical support available at all times (including on call from home) on sites with an OU in January 2017 and January 2019 ($n = 186$)



* Not included in the 2017 survey.

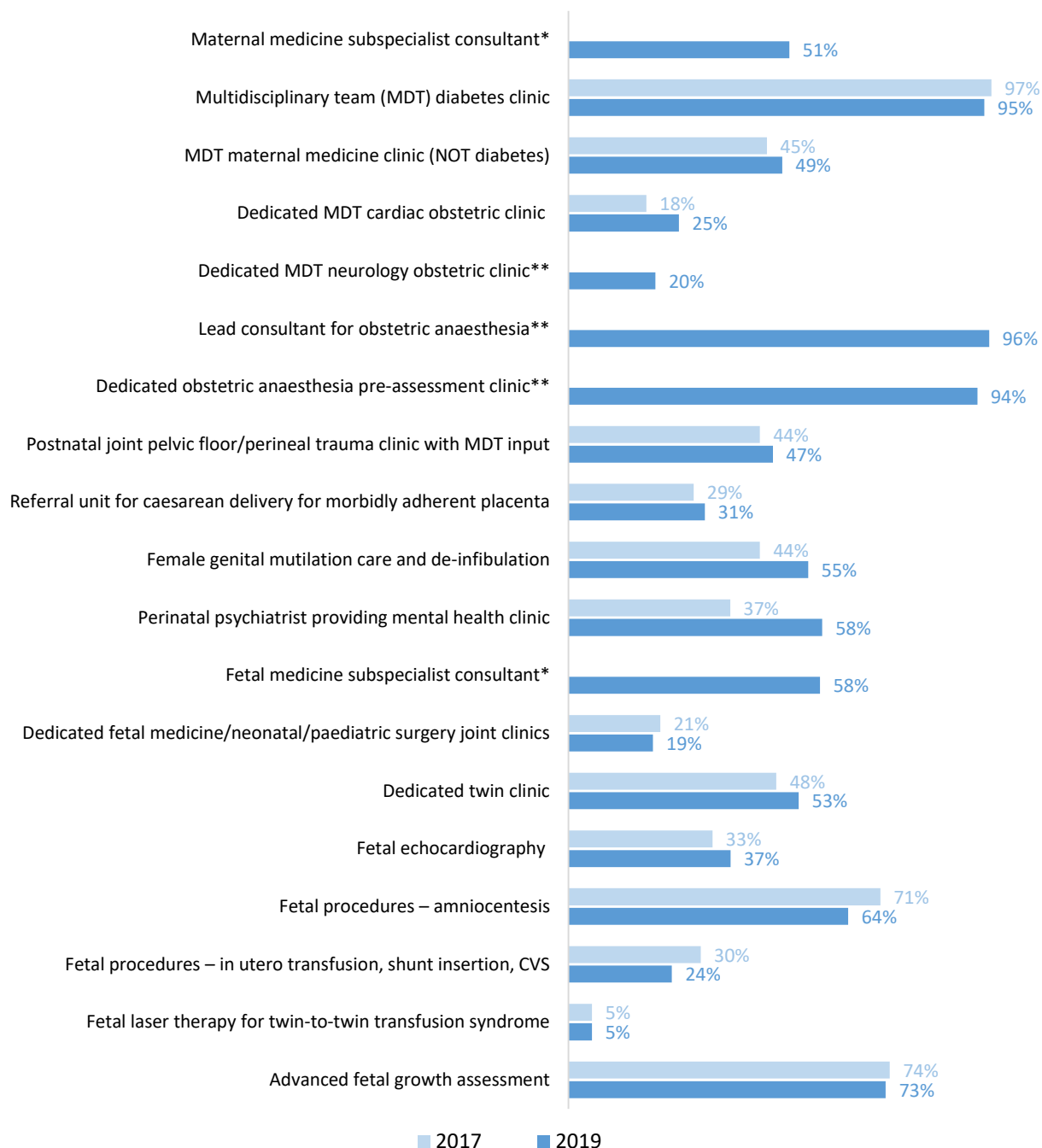
** The 2017 survey asked for laboratory and consultant advice combined rather than separately (blood transfusion laboratory and consultant advice and microbiology laboratory and consultant advice were reported to be available at 99% and 96% of sites with an OU, respectively).

Maternal and fetal conditions and perinatal mental health

Half of sites with an OU reported having a maternal medicine subspecialist consultant and the proportion with a multidisciplinary maternal medicine clinic rose from 45% to 49% since 2017 (Figure 10). Cardiac disease has been highlighted as a leading cause of maternal death,⁴⁵ and the proportion of sites with a dedicated multidisciplinary cardiac clinic increased from 18% to 25%, with a greater geographical spread in England and Scotland than in 2017.

In line with the increase in perinatal mental health support available and the growing participation in perinatal mental health networks, the proportion of sites with a perinatal psychiatrist clinic increased substantially, from 37% to 58%. A considerable increase was also seen in the provision of female genital mutilation care and de-infibulation in England, and particularly in Wales.

The provision of dedicated twin clinics increased from 48% to 53% of sites with an OU. A fetal medicine subspecialist consultant was available at 58% of sites, and, while the provision of fetal echocardiography increased, the decrease in sites performing fetal procedures such as amniocentesis, chorionic villus sampling (CVS), in utero transfusion and shunt insertion suggests a degree of centralisation of these services may be occurring.

Figure 10 Availability of obstetric and medical specialists and clinics on sites with an OU in January 2017 and January 2019 (*n* = 186)

* The 2017 survey asked for fetal/maternal medicine subspecialist consultant (available at 63% of sites with an OU)

** Not included in the 2017 survey.

Obstetric middle grade rota gaps

In the UK, specialist training in obstetrics and gynaecology lasts a minimum of 7 years. Consultants have completed specialist or equivalent training. Middle grade obstetricians are in their third year of specialist training and above, and provide around-the-clock direct care,* supported by consultants.³⁰ The Clinical Negligence Scheme for Trusts incentivises effective obstetric workforce planning in England.¹⁴

* Together with staff grade, associate specialist and specialty doctors at some sites.

Obstetric middle grade rota gaps are time periods on the rota that could not be filled with normally employed middle grade obstetric staff. The proportion of OUs reporting gaps in their middle grade rota during the previous 3 months was 87%, slightly lower than the 89% in 2017 (Table 6). The proportion with entirely unfilled gaps (i.e. gaps not covered by either a locum or a consultant) decreased from 43% to 35% but the proportion requiring locum cover to staff the rota remained the same at 83%.

Table 6 Obstetric middle grade rota gaps reported by sites with an OU in the 3 months before 1 January 2019 (*n* = 186)

Proportion of the middle grade rota in the 3 months before 1 January 2019 that was entirely unfilled, filled by a locum or filled by a consultant	Number of OUs in each response category (excluding units which responded that a proportion was unknown)		
	Entirely unfilled	Filled by a locum	Filled by a consultant
Overall rota gap	61 (35%)	149 (83%)	70 (40%)
0%	115 (65%)	31 (17%)	107 (60%)
1% to 5%	26 (15%)	40 (22%)	46 (26%)
6% to 10%	12 (7%)	44 (24%)	5 (3%)
11% to 25%	18 (10%)	44 (24%)	13 (7%)
26% to 50%	1 (1%)	19 (11%)	4 (2%)
More than 50%	4 (2%)	2 (1%)	2 (1%)
Total (excluding unknown)	176 (100%)	180 (100%)	177 (100%)
Unknown (out of total number of 186 OUs)	10 (5%)	6 (3%)	9 (5%)

Neonatal care

Transitional care

Transitional care is defined as care additional to normal newborn care, provided by the mother in a postnatal clinical environment, supported by healthcare professionals with relevant training.¹⁶ Keeping mothers and babies together and avoiding unnecessary neonatal unit admissions has become a national priority in recent years, and transitional care provision is now incentivised by NHS Resolution in England.^{14,15}

The proportion of sites with a neonatal unit providing transitional care increased from 64% to 83% since 2017. One-third of those without transitional care were planning to introduce it in the near future, and several units with transitional care were planning expansion of this provision. 9% of units with transitional care provided this on a dedicated ward, but 72% did so on a postnatal ward and 19% on both. The median number of transitional care beds was 5, but many respondents indicated that any postnatal beds could be used flexibly for transitional care as needed. Transitional care was provided exclusively by maternity staff at 19%, by neonatal staff at 17% and by both at 64% of units with this service.

Specialist neonatal services

30% of neonatal units (95% of NICUs and 4% of LNUs) reported that they received referrals for therapeutic hypothermia, defined as active cooling. This was very similar to 2017, with a slight increase in Scotland. 14% of neonatal units (45% of NICUs) provided neonatal surgery on site or pre- and postoperative care in close collaboration with another nearby hospital.

The care environment

Birth room facilities

The Department of Health and Social Care recommends that birth rooms should have private bathroom facilities and that there should not be more than four beds per maternity ward room.¹⁸ The proportion of sites that had en-suite or private bathrooms for all their birth rooms increased from 63% to 68% since 2017, but the proportion reporting that some antenatal or postnatal ward rooms had more than four beds remained similar at 32%. There was no change in the availability of plumbed-in birth pools, with 80% of OUs and 92% of midwifery units having at least one.

Facilitating support from birth partners

There was a large increase in the proportion of sites with an OU where birth partners could stay at all times (i.e. outside of visiting hours, including overnight) if a woman was having labour induced, from 71% to 84%. At 86% of sites, birth partners could stay at all times in the birth room after the birth (up from 80%), and at 74% of sites they could stay at all times on the postnatal ward in line with National Childbirth Trust recommendations,⁴⁶ an increase from 62% in 2017.

Accommodation for parents with babies receiving neonatal care

The Department of Health and Social Care and the All Wales Neonatal Standards recommend that accommodation should be available for parents with babies in intensive care at the ratio of one bedroom per intensive care cot^{17,19} (in Scotland, exact numbers are not specified).⁴ Overall, the proportion of neonatal units with declared intensive care cots that met this standard increased from 49% to 54% since 2017, but the proportion of NICUs doing so remained low at 18%.

Maternity unit closures

Of the 84% of sites that were able to report the number of times that their obstetric or midwifery units closed to new admissions during the last financial year (2017/18), 43% of OUs, 26% of AMUs and 42% of FMUs closed at least once (Table 7). This was similar for OUs and AMUs in the 2017 survey (for the financial year 2015/16), but increased in FMUs (previously 23%). Most units did not close often or for long. However, some FMUs in particular were closed for a much longer time in total than in 2015/16 (up to 1.5 years compared with 28 days in 2015/16), although respondents indicated that these closures were considered temporary or were still under review at the time of the survey.

Table 7 Number of maternity unit closures during 2017/18 (of those units that could report this)^a

Unit type	1. Number of closures			2. Total duration of closures in hours (days)		
	Median	Range	Interquartile range	Median	Range	Interquartile range
OUs ($n_1 = 161$; $n_2 = 140$)	0	0 to 28	0 to 3	0	0 to 1 170 (49 days)	0 to 11
AMUs ($n_1 = 114$; $n_2 = 96$)	0	0 to 85	0 to 1	0	0 to 1 680 (70 days)	0 to 1.5
FMUs ($n_1 = 69$; $n_2 = 57$)	0	0 to 83	0 to 1	0	0 to 12 960 (540 days)	0 to 12

^a Total unit numbers: 186 OUs, 132 AMUs and 91 FMUs; n_1 refers to the number of units able to report the number of separate occasions on which the unit closed, n_2 refers to the number of units able to report the total number of hours that the unit was closed in 2017/18.

Discussion

The responses to the second NMPA organisational survey suggest that the maternity and neonatal services are making considerable efforts to implement the recommendations of the recent reviews and other national initiatives. They also highlight some of the challenges to reconcile the range of ambitions.

The number of AMUs has continued to increase and, if reported plans go ahead, availability of this setting will soon be near-universal. However, keeping FMUs staffed and open appears to have become more problematic, and this choice for women may become increasingly restricted as limited resources are concentrated at services' central sites.

At these sites, the increase in provision of transitional care and of maternal high dependency care within the maternity unit serves to keep mothers and babies together. Partners can also increasingly stay at all times during labour induction and on postnatal wards. On the other hand, the care environment could be improved at some sites to increase privacy and help families stay together while the mother and/or baby are admitted.

Perinatal mental health service provision has expanded, with more participation in networks and increased access to psychiatrists, community perinatal mental health teams and specialist midwives. There has also been a notable increase in multiprofessional cardiac clinics and female genital mutilation services. The reported level of provision of most services that were widely available in 2017 has been maintained or has increased slightly, but, despite the continued importance of smoking cessation and weight management support, there has been no improvement in the availability of these services, possibly reflecting cuts to public health budgets or competing demands on resources.

Resource constraints may also play a part in the lack of improvement in services' ability to provide one-to-one midwifery care to all women in established labour, and in obstetric middle grade rota gaps.

Many services are in the process of introducing care models that support continuity of carer. Although the ambition is for continuity of carer across pregnancy, birth and the postnatal period, most trusts and boards are focusing on continuity across the antenatal and postnatal periods in the first instance, and for particular groups of women. It will be a challenge to expand this into meaningful continuity for the majority of women, particularly in areas of high mobility or staff turnover. Effective monitoring of the level of continuity of carer that women experience will require adequate resourcing of means to record all care contacts electronically.*

Reported access to electronic maternity records has improved for community midwives but GPs' access has decreased. The proportion of trusts and boards reporting that women had access has nearly doubled since 2017 but remains low.

While acknowledging an inherent degree of uncertainty and potential for response bias in surveys as a data collection method, the results suggest that maternity and neonatal service provision is improving in a number of important areas as well as facing new and ongoing challenges.

* The updated Maternity Services Data Set (MSDS), implemented in England in spring 2019, includes fields to enable monitoring of individual-level continuity of carer on a national basis, provided the information is available electronically from local records.⁶¹

Appendix 1

National organisational standards and recommendations

Organisation and publication year	Standard/recommendation	Page no. in report
NICE (2014, updated 2017) ³ NHSE (2016) ¹ Scottish Govt (2017) ²	Commissioners and providers (or networks of providers) should ensure that all four birth settings (home, FMU, AMU, OU) are available to all women (in the local area or in a neighbouring area). Each NHS Board should ensure that they are able to provide the full range of choice of place of birth within their region. In conjunction with service users, NHS Boards should undertake an assessment of the viability, and scope, of FMUs against an agreed national framework to ensure consistency, with a view to balancing access needs with the need to ensure resources are used to their maximum impact.	6–8
RCOG/RCM/RCoA/RCPCH (2008) ⁴⁸	Effective development of a maternity service which meets the needs of the local population relies on an agreed strategy developed by key stakeholders working within the national service framework.	11
NHSE (2016) ¹	Provider organisation boards should designate a board member as the board level lead for maternity services.	11
RCOG/RCM/RCoA/RCPCH (2007) ⁴⁹	All midwifery units must have one WTE consultant midwife. All OUs must have one WTE consultant midwife to 900 low-risk women.	11
HCC (2008) ⁵⁰ NHSE (2016) ¹ Scottish Govt (2017) ²	Trusts and commissioners should increase membership of maternity networks. A single Maternity Network Scotland should be created to promote sharing of experience and expertise and to create regional or national protocols, for example to manage the most complex conditions at a national level.	11
NICE (2014, updated 2018) ⁵ SIGN (2012) ⁴	Clinical networks should be established for perinatal mental health services, managed by a coordinating board of healthcare professionals, commissioners, managers, and service users and carers. A national managed clinical network for perinatal mental health should be centrally established in Scotland.	11
NHSE (2016) ¹ RCM (2016) ⁶ Scottish Govt (2017) ²	Use of electronic maternity records should be rolled out nationally, to support sharing of data and information between professionals, organisations and with the woman. Commissioners and providers should invest in the right software, equipment and infrastructure to collect data and share information. A Scottish electronic women's maternity record should be developed, that is readily accessible to women, and all professionals involved in her care.	12
RCOG (2016) ⁴² RCM (2016) ⁶ NHSE (2016) ¹	There should be evidence that the local Maternity Services Liaison Committee or other such structures embed user involvement to develop and improve services. Feedback from women and their families' experiences must be used to drive continuous improvement of care. The design of the environment for care must be led by the needs of women and their families and should contribute to relationship building between women and those caring for them.	12

Organisation and publication year	Standard/recommendation	Page no. in report
NHSE (2016) ¹ NHSE (2017) ⁷ RCM (2018) ⁸	England: Every woman should have consistency in the midwife or clinical team that provides hands on care for her and her baby throughout pregnancy, labour and the postnatal period; a named midwife who takes on responsibility for coordinating her care, and for ensuring all her needs and those of her baby are met, at the right time and in the right place, throughout the antenatal, intrapartum and postnatal periods; a midwife she knows at the birth. The two main models which meet these principles are team continuity, whereby each woman has an individual midwife, who is responsible for coordinating her care, and who works in a team of four to eight, and full caseloading, whereby each midwife is allocated a certain number of women. These models may be mixed.	14–16
Scottish Govt (2017) ²	Scotland: Every woman will have continuity of carer from a primary midwife who will provide the majority of their antenatal, intrapartum and postnatal care and midwives will normally have a caseload of approximately 35 women at any one time.	
HCC (2008) ⁵⁰ NHSE (2016) ¹	Maternity services should provide a choice of locations for antenatal appointments where practicable and make more antenatal appointments available outside normal working hours.	16
NICE (2014, updated 2017) ³	Consider a face-to-face early assessment of labour for all low-risk nulliparous women, either at home (regardless of planned place of birth) or in an assessment facility in her planned place of birth (midwifery unit or obstetric unit).	16
NICE (2015) ¹² NICE (2014, updated 2017) ³ RCM (2018) ¹³ NHSR (2018) ¹⁴	Women in established labour should have supportive one-to-one care from a midwife. NHS Resolution's maternity incentive scheme requires demonstration of an effective system of midwifery workforce planning to the required standard.	16
NICE (2013) ¹⁰ NHSE (2016) (2) ¹¹	Refer all women who smoke (including those who smoke lightly or infrequently), have stopped in the last 2 weeks or have a CO reading indicative of smoking, to stop smoking services. Saving Babies' Lives care bundle intervention: Carbon monoxide (CO) testing of all pregnant women at antenatal booking appointment and referral, as appropriate, to a stop smoking service/specialist, based on an opt-out system.	16–17
NICE (2010) ⁹	Offer women with a body mass index (BMI) of 30 or more at the booking appointment a referral to a dietician or appropriately trained health professional for assessment and personalised advice on healthy eating and how to be physically active.	16–17
NICE (2016) ⁵¹ Scottish Govt (2017) ²	Specialist multidisciplinary perinatal community services are available to support women with a mental health problem in pregnancy or the postnatal period. All NHS Boards should review their current access to perinatal mental health services to ensure early and equitable access is available to high quality services, with clear referral pathways.	16–17
RCoA (2017) ⁵²	There should be at least one fully equipped obstetric theatre within the delivery suite, or immediately adjacent to it. The number of operating theatres required will depend on the number of deliveries and the operative risk profile of the women delivering in the unit.	17–18
RCOG/RCM/RCoA/ RCPCH (2007) ⁴⁹ RCOG/RCM/RCoA/ RCPCH (2008) ⁴⁸	Consultant OUs require a 24-hour anaesthesia and analgesia service with consultant supervision, adult high dependency and access to intensive care, haematology blood transfusion and other district general hospital support services and an integrated obstetric and neonatal care service. It is essential that, wherever women are giving birth in an OU, there should be adequate laboratory facilities, if not on site then within easy reach.	17–19

Organisation and publication year	Standard/recommendation	Page no. in report
OAA/AAGBI (2013) ⁴⁴	As a basic minimum there must be 12 consultant anaesthetist sessions per week to cover emergency work on delivery suite. Scheduled obstetric anaesthetic activities (e.g. elective caesarean section lists, clinic) require additional consultant sessions over and above the 12 for emergency cover.	18
MBRRACE-UK (2016) ⁴⁵	Lack of co-location of obstetric and cardiac services jeopardises interdisciplinary working and communication. Measures such as joint obstetric cardiac clinics, multidisciplinary care plans, copying letters to the woman and all clinicians involved in her care, as well as staff from all specialties writing in the woman's hand held notes may mitigate against the inherent risk of inadequate communication between specialists. The full range of clinical and investigatory services required to assess women with early pregnancy emergencies should be available throughout the whole week.	17–20
SIGN (2010, updated 2017) ⁵³ NICE (2015) ⁵⁴	An experienced multidisciplinary team, led by a named obstetrician and physician with an interest in diabetes, and including a diabetes specialist nurse, diabetes specialist midwife and dietician should provide comprehensive care from pre-pregnancy to postnatal review. Ensure that women with diabetes have contact with the joint diabetes and antenatal clinic for assessment of blood glucose control every 1–2 weeks throughout pregnancy.	19–20
MBRRACE-UK (2014) ⁵⁵	Women with medical disorders in pregnancy should have access to a coordinated multidisciplinary obstetric and medical clinic, thereby avoiding the need to attend multiple appointments and poor communication between senior specialists responsible for their care.	19–20
Scottish Govt (2017) ²	NHS Boards will require to undertake comprehensive workforce planning-based on the new model, including an assessment of current and future supply and demand, and new roles, and this should be fed into national level work including the Shape of Medical Training Review.	20–21
NHSR (2018) ¹⁴	NHS Resolution maternity incentive scheme requires demonstration of an effective system of medical workforce planning to the required standard.	
NHSI (2017) ¹⁵	We would encourage clinicians and commissioners to work together to consider the role that transitional care models could play locally in reducing unnecessary admissions to neonatal units while keeping mother and baby together.	21
BAPM (2017) ¹⁶	Regardless of geographical location, midwives and neonatal staff must work together to support the needs of individual babies and families, and to ensure that a mother and her baby remain together whenever possible. (BAPM also sets out service and staffing expectations for transitional care.)	
Scottish Govt (2017) ²	Well, late preterm infants and term infants with moderate additional care needs should remain with their mothers and have their additional care needs provided on a postnatal ward by a team of maternity and in-reach neonatal staff. Clear pathways of care, admission criteria, discharge planning and clinical guidelines would be required, underpinned by education and training.	
NHSR (2018) ¹⁴	NHS Resolution maternity incentive scheme requires demonstration of transitional care services to support the Avoiding Term Admissions Into Neonatal units Programme.	
DoH (2013) ¹⁸	All birthing rooms should include en-suite sanitary facilities. On ante- and postnatal wards single rooms are preferred for privacy and dignity reasons and to reduce noise (postnatally). The preferred maximum number of beds in a multi-bed room is four.	22
NICE (2014, updated 2017) ³	Offer the woman the opportunity to labour in water for pain relief.	22

Organisation and publication year	Standard/recommendation	Page no. in report
NCT (2009) ⁴⁶	Provision should be made for fathers to stay outside of visiting hours and overnight where possible [fathers amended to (birth) partners in the NMPA organisational survey].	22
Scottish Govt (2017) ²	All units should take a flexible approach to the presence of partners, to ensure that families can stay together, with suitable accommodation being provided and facilities to enable kangaroo skin-to-skin care and breastfeeding/breast-milk feeding.	
DoH (2009) ¹⁷ WHSSC (2013) ⁴⁹	Overnight accommodation for parents of babies receiving neonatal care: as a minimum there is one room per intensive care cot.	22
Scottish Govt (2017) ²	All neonatal facilities should provide emergency overnight accommodation on the unit for parents, with accommodation available nearby for parents of less critically ill babies.	

AAGBI	Association of Anaesthetists of Great Britain & Ireland
AMU	alongside midwifery unit
BAPM	British Association of Perinatal Medicine
DoH	Department of Health and Social Care
FMU	freestanding midwifery unit
HCC	Healthcare Commission
MBRRACE-UK	Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK (the collaboration appointed by HQIP to run the national Maternal, Newborn and Infant Clinical Outcome Review Programme, conducting surveillance and investigating the causes of maternal and perinatal deaths)
NCT	National Childbirth Trust
NHSE	NHS England
NHSI	NHS Improvement
NHSR	NHS Resolution (England)
NICE	National Institute for Health and Care Excellence
OAA	Obstetric Anaesthetists' Association
OU	obstetric unit
RCM	Royal College of Midwives
RCoA	Royal College of Anaesthetists
RCOG	Royal College of Obstetricians and Gynaecologists
RCPCH	Royal College of Paediatrics and Child Health
SIGN	Scottish Intercollegiate Guidelines Network
WHSSC	Welsh Health Specialised Services Committee
WTE	whole-time equivalent

Appendix 2

Trusts and boards participating in the NMPA organisational survey 2019

England

Airedale NHS Foundation Trust
Ashford and St Peter's Hospitals NHS Foundation Trust
Barking, Havering and Redbridge University Hospitals NHS Trust
Barnsley Hospital NHS Foundation Trust
Barts Health NHS Trust
Basildon and Thurrock University Hospitals NHS Foundation Trust
Bedford Hospital NHS Trust
Birmingham Women's and Children's NHS Foundation Trust
Blackpool Teaching Hospitals NHS Foundation Trust
Bolton NHS Foundation Trust
Bradford Teaching Hospitals NHS Foundation Trust
Brighton and Sussex University Hospitals NHS Trust
Buckinghamshire Healthcare NHS Trust
Calderdale and Huddersfield NHS Foundation Trust
Cambridge University Hospitals NHS Foundation Trust
Chelsea and Westminster Hospital NHS Foundation Trust
Chesterfield Royal Hospital NHS Foundation Trust
City Hospitals Sunderland NHS Foundation Trust
Countess of Chester Hospital NHS Foundation Trust
County Durham and Darlington NHS Foundation Trust
Croydon Health Services NHS Trust
Dartford and Gravesham NHS Trust
Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust
Dorset County Hospital NHS Foundation Trust
East and North Hertfordshire NHS Trust
East Cheshire NHS Trust
East Kent Hospitals University NHS Foundation Trust
East Lancashire Hospitals NHS Trust
East Suffolk and North Essex NHS Foundation Trust
East Sussex Healthcare NHS Trust
Epsom and St Helier University Hospitals NHS Trust
Frimley Health NHS Foundation Trust
Gateshead Health NHS Foundation Trust
George Eliot Hospital NHS Trust
Gloucestershire Hospitals NHS Foundation Trust
Great Western Hospitals NHS Foundation Trust
Guy's and St Thomas' NHS Foundation Trust

Hampshire Hospitals NHS Foundation Trust
Harrogate and District NHS Foundation Trust
Homerton University Hospital NHS Foundation Trust
Hull University Teaching Hospitals NHS Trust
Imperial College Healthcare NHS Trust
Isle of Wight NHS Trust
James Paget University Hospitals NHS Foundation Trust
Kettering General Hospital NHS Foundation Trust
King's College Hospital NHS Foundation Trust
Kingston Hospital NHS Foundation Trust
Lancashire Teaching Hospitals NHS Foundation Trust
Leeds Teaching Hospitals NHS Trust
Lewisham and Greenwich NHS Trust
Liverpool Women's NHS Foundation Trust
London North West University Healthcare NHS Trust
Luton and Dunstable University Hospital NHS Foundation Trust
Maidstone and Tunbridge Wells NHS Trust
Manchester University NHS Foundation Trust
Medway NHS Foundation Trust
Mid Cheshire Hospitals NHS Foundation Trust
Mid Essex Hospital Services NHS Trust
The Mid Yorkshire Hospitals NHS Trust
Milton Keynes University Hospital NHS Foundation Trust
Norfolk and Norwich University Hospitals NHS Foundation Trust
North Bristol NHS Trust
North Cumbria University Hospitals NHS Trust
North Middlesex University Hospital NHS Trust
North Tees and Hartlepool NHS Foundation Trust
North West Anglia NHS Foundation Trust
Northampton General Hospital NHS Trust
Northern Devon Healthcare NHS Trust
Northern Lincolnshire and Goole NHS Foundation Trust
Northumbria Healthcare NHS Foundation Trust
Nottingham University Hospitals NHS Trust
Oxford University Hospitals NHS Foundation Trust
The Pennine Acute Hospitals NHS Trust
University Hospitals Plymouth NHS Trust
Poole Hospital NHS Foundation Trust
Portsmouth Hospitals NHS Trust
Royal Berkshire NHS Foundation Trust
Royal Cornwall Hospitals NHS Trust
Royal Devon and Exeter NHS Foundation Trust
Royal Free London NHS Foundation Trust
Royal Surrey County Hospital NHS Foundation Trust
Royal United Hospitals Bath NHS Foundation Trust
Salisbury NHS Foundation Trust
Sandwell and West Birmingham Hospitals NHS Trust
Sheffield Teaching Hospitals NHS Foundation Trust
Sherwood Forest Hospitals NHS Foundation Trust
The Shrewsbury and Telford Hospital NHS Trust

South Tees Hospitals NHS Foundation Trust
South Tyneside NHS Foundation Trust
South Warwickshire NHS Foundation Trust
Southend University Hospital NHS Foundation Trust
Southport and Ormskirk Hospital NHS Trust
St George's University Hospitals NHS Foundation Trust
St Helens and Knowsley Teaching Hospitals NHS Trust
Stockport NHS Foundation Trust
Surrey and Sussex Healthcare NHS Trust
Tameside and Glossop Integrated Care NHS Foundation Trust
Taunton and Somerset NHS Foundation Trust
The Dudley Group NHS Foundation Trust
The Hillingdon Hospitals NHS Foundation Trust
The Newcastle upon Tyne Hospitals NHS Foundation Trust
The Princess Alexandra Hospital NHS Trust
The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust
The Rotherham NHS Foundation Trust
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
The Royal Wolverhampton NHS Trust
Torbay and South Devon NHS Foundation Trust
United Lincolnshire Hospitals NHS Trust
University College London Hospitals NHS Foundation Trust
University Hospital Birmingham NHS Foundation Trust
University Hospital Southampton NHS Foundation Trust
University Hospitals Bristol NHS Foundation Trust
University Hospitals Coventry and Warwickshire NHS Trust
University Hospitals of Derby and Burton NHS Foundation Trust
University Hospitals of Leicester NHS Trust
University Hospitals of Morecambe Bay NHS Foundation Trust
University Hospitals of North Midlands NHS Trust
Walsall Healthcare NHS Trust
Warrington and Halton Hospitals NHS Foundation Trust
West Hertfordshire Hospitals NHS Trust
West Suffolk NHS Foundation Trust
Western Sussex Hospitals NHS Foundation Trust
Weston Area Health NHS Trust
Whittington Health NHS Trust
Wirral University Teaching Hospital NHS Foundation Trust
Worcestershire Acute Hospitals NHS Trust
Wrightington, Wigan and Leigh NHS Foundation Trust
Wye Valley NHS Trust
Yeovil District Hospital NHS Foundation Trust
York Teaching Hospital NHS Foundation Trust

Scotland

NHS Ayrshire and Arran
NHS Borders
NHS Dumfries and Galloway
NHS Fife
NHS Forth Valley
NHS Grampian
NHS Greater Glasgow and Clyde
NHS Highland
NHS Lanarkshire
NHS Lothian
NHS Orkney
NHS Shetland
NHS Tayside
NHS Western Isles

Wales

Abertawe Bro Morgannwg University Health Board
Aneurin Bevan Health Board
Betsi Cadwaladr University Health Board
Cardiff and Vale University Health Board
Cwm Taf University Health Board
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Powys Teaching Health Board

Appendix 3

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