







# MIND THE GAP

An Investigation into Maternity Training for Frontline Professionals Across the UK (2017/18)

# Mind the Gap 2018

An Investigation into Maternity Training for Frontline Professionals Across the UK (2017/18)

# **Authors**

# Sara Ledger

Research & Development Manager, Baby Lifeline Training Ltd

Honorary Research Associate, University of Hull

# Grace Hindle

Research & Development Assistant, Baby Lifeline Training Ltd

# Tim Smith

Executive Director, Baby Lifeline Training Ltd

# **Contributors**

# Catriona Jones

Midwifery Lecturer, University of Hull

# Professor Julie Jomeen

Dean: Faculty of Health Sciences, Professor of Midwifery, University of Hull

Date issued: 6th November 2018, version 2

# **Foreword**

When things go wrong in the NHS they can have tragic consequences for patients and their loved ones. Perhaps the most tragic cases are those which happen during birth, leaving families devastated by loss or having to cope with the long-term impact. Most tragic of all is that research suggests an estimated three quarters of the worst incidents, the ones involving the death of or serious injury to babies, could have been avoided.

Over many years of dealing with litigation arising out of obstetric accidents, I have seen the terrible price paid by children and their families who have had to battle with life changing disabilities and the struggle to get help. The impact on staff can be devastating as well. Those whose calling is to keep mothers and their babies safe deserve our full support to achieve that goal.

Ensuring these hard-working and dedicated people are fully-trained and equipped to deal with every eventuality is key. Indeed, the need for more regular training has been a central recommendation in countless reviews and investigations over the years. It is therefore encouraging to read this report which clearly shows progress is being made. This is in no small part down to the work of Baby Lifeline, and shows the immense value to our health service of the contribution made by charities and their volunteers.

The numbers speak for themselves, more training is being delivered to more frontline professionals and the range of topics being covered is improving. Take mental health support as an example. Just three years ago only 53% of hospital trusts were providing specialist perinatal mental health training, today it is 88%. These big steps don't happen without significant commitment from right across the NHS to delivering change.

However, what also comes through in this report is the limited evaluation of the impact the training is having. To know if all this hard work is making a difference, hospitals need to understand what matters most to those they are caring for. They can then use this to assess whether the training initiatives they put in place are driving the sort of outcomes people want to see.

At Healthwatch we know that much can be learnt by speaking to those who have had a negative experience and seeking their views on what needs to improve. It was therefore surprising to see fewer than half of hospitals shaping their training priorities around key sources of insight such as complaints. This is a clear area for development.

The Government has set an ambitious target of reducing harm and death during childbirth by half by 2025. If this is to be achieved, the NHS must embrace a learning culture that uses existing insight to shape improvement plans, and seeks to involve patients and families in continuously evaluating progress.

Sir Robert Francis QC

Chair of Healthwatch England, the community champion for health and social care

Sir Robert has been a barrister since 1973 and became a Queen's Counsel in 1992. He is a Recorder (part time Crown Court judge) and authorised to sit as a Deputy High Court Judge. He specialises in medical law, including medical and mental health treatment and capacity issues, clinical negligence and professional discipline. He has chaired several health-related inquiries, including two inquiries into the care provided by Mid Staffordshire Foundation Trust and the Freedom to Speak Up Review into the treatment of NHS staff who raise concerns.

In October 2018 he became Chair of Healthwatch England. He is also honorary President of the Patients Association, a trustee of the Point of Care Foundation and the Prostate Cancer Research Centre and Honorary Fellow of the Royal College of Anaesthetists.

# **Foreword**

Modern healthcare is increasingly provided by teams drawn from different clinical backgrounds working together, not least in maternity care. But maternity care is unique, particularly care during labour. On most occasions, practitioners are assistants during a physiological process that culminates in two healthy individuals. On occasions, however, things go awry, sometimes leading to critical and life-threatening situations that demand as urgent a response as any in healthcare. This role as custodians of labour places particular demands on clinicians, on the one hand not to resort to unwanted intervention too readily but on the other hand to be constantly poised to act effectively to prevent disaster.

The place of training teams together to manage this complex and changeable role should not be in doubt. It is effective in improving care, including safety and outcomes, and must remain a priority as long as unnecessary and avoidable harm persists. It is beyond disappointing that the provision and uptake of such training remains as poor and as patchy across the country as this report indicates. This report should be required reading for Trust Boards and for all concerned with maternity care.

Dr Bill Kirkup CBE

Bill Kirkup

Former Chair, Morecambe Bay Investigation

Dr Bill Kirkup CBE was appointed Chairman of the Morecambe Bay Investigation in July 2013. Bill has previously led investigations into the Oxford paediatric cardiac surgery unit and Jimmy Savile's involvement with Broadmoor Hospital. He was also Associate Chief Medical Officer in the Department of Health from 2005 – 2009, and Regional Director of Public Health. He was made CBE in 2008.

# Acknowledgements

With thanks to members of our multi-professional panel of experts who reviewed and contributed to the report.

#### Dr Elizabeth Bonney

Consultant Obstetrician, Leeds Teaching Hospitals NHS Trust; Honorary Senior Lecturer, University of Leeds

#### Mr Edwin Chandraharan

Consultant Obstetrician & Gynaecologist, St George's University Hospitals NHS Foundation Trust; Honorary Senior Lecturer, St George's University of London

#### Charlene Francois

Expert Midwife, Born Medical Consultancy Ltd

#### Mr Kim Hinshaw

Consultant Obstetrician & Gynaecologist, Director of Research & Innovation, City Hospitals Sunderland NHS Foundation Trust; Visiting Professor, University of Sunderland; Honorary Faculty Chair, Baby Lifeline Training

#### Majid Hassan

Partner in the Clinical Law Team, Capsticks

#### Dr Abhimanu Lall

Consultant Neonatologist, King's College Hospital London

#### Dr Michael Magro

Senior Obstetrics & Gynaecology Registrar, North Middlesex University Hospital; Previous Darzi 8 Fellow, NHS Resolution

#### Bernadette McGhie

Executive Director, Enable Law

#### **Professor Simon Mitchell**

Consultant Neonatologist, St Mary's Hospital Manchester; Honorary Professor, University of Salford

#### Dr William Parry-Smith

Clinical Research Fellow, University of Birmingham; Obstetrics & Gynaecology Registrar, West Midlands Deanery; Trustee, Baby Lifeline

#### Dr Felicity Plaat

Consultant Obstetric Anaesthetist, Queen Charlotte's and Chelsea Hospital; Honorary Senior Lecturer, Imperial College School of Medicine; President Elect, Obstetric Anaesthetists Association

#### Dr Edward Prosser-Snelling

Consultant Obstetrician & Gynaecologist, Norfolk & Norwich University Hospitals NHS Foundation Trust; Each Baby Counts: Quality Improvement Lead, Royal College of Obstetricians & Gynaecologists

## Mr Nigel Simpson

Senior Lecturer, University of Leeds; Honorary Consultant Obstetrician & Gynaecologist, Leeds Teaching Hospital NHS Trust

#### Professor James Walker

Professor in Obstetrics & Gynaecology, University of Leeds; Clinical Director of Maternity Investigations, Healthcare Safety Investigations Branch; President, Baby Lifeline Training Ltd

With special thanks to the Baby Lifeline and Baby Lifeline Training administrative teams who were an integral part of the data collection and inputting.

# About the Organisations

# **Baby Lifeline**

Baby Lifeline is a UK-based mother and baby charity that is committed to supporting the care of pregnant women and newborn babies all over the UK and worldwide. Its mission is to ensure the best outcome from pregnancy and birth; we do this by developing much-needed training, providing equipment to the maternity sector, and carrying out national research concerning improvements to maternity care.

# Baby Lifeline Training Ltd

Baby Lifeline Training Ltd is a not-for-profit social enterprise, that delivers high-quality multi-professional training to the maternity sector. Its mission is to ensure safety for mother and baby by promoting best practice. The training services are purchased by Baby Lifeline Charity.

The project was commissioned by Baby Lifeline's Multi-Professional Advisory Panel (MPAP) and co-funded by Baby Lifeline and Baby Lifeline Training.

# **Executive Summary**

#### Context

It is a sobering fact that most baby deaths and injuries investigated by national bodies are reported to have been avoidable with different care (76-79%) [1] [2]. The tragic loss felt by families and the maternity staff that care for them is devastating, and the cost to the wider National Health Service (NHS) is high: clinical negligence in maternity contributes to about half of the value of claims received across *all* NHS specialities every year. The value of maternity claims received in 2017/18 was £2.1 billion, which would be around £6 million a day [3]. These costs continue – in October 2018, the High Court approved a settlement across 11 cases in just 24 hours that totalled £100 million to cover the care of children left disabled at birth [4]. In the same month, the High Court also approved a £37 million settlement to cover the care of a boy who suffered a catastrophic brain injury at birth, the highest award to date in any case in England and Wales [5].

These financial costs say nothing of the toll on families whose baby died or was harmed, or a mother who has life-changing injuries or never came home. No health professional goes into work to cause harm, and everything must be done to give maternity professionals tools to prevent this devastation.

For over two decades, reports reviewing care have repeatedly recommended training for maternity professionals in significant areas, dating back to the Confidential Enquiries into Stillbirths and Deaths in Infancy (CESDI) in 1993. The current report aims to explore the following questions:

- Is maternity training for frontline professionals adequately responding to recommendations to improve care?
- What can be done to improve any gaps in current training, and to ensure that training is of high quality and impactful?

The first *Mind the Gap* report (2016) explored the national picture of maternity training in England in 2015 [6]; this current report examines training in the last financial year (2017/18) across the UK. This period has seen increased focus on improving maternity care, with strategies to achieve the government ambition of halving stillbirths, neonatal deaths, and harm by 2025; including a one-off *Maternity Safety Training Fund* awarded to trusts to use in 2017/18.

One of the interventions that aimed to reduce stillbirths was the *Saving Babies' Lives Care Bundle* (2016). A recent evaluation of the bundle showed a significant reduction in stillbirths of 20% across the 19 early-adopter trusts that had implemented it; however, two barriers to implementation were a notable lack of awareness of the bundle by staff and the need for better training and engagement of staff [7]. NHS England states that, with effective implementation, the action plan can prevent over 600 stillbirths a year.

The objective of this report is to provide an overall picture of maternity training in the UK in relation to recommendations relating to training. Without properly funded and high-quality standardised training focusing on key interventions to improve care, we cannot expect to reach the government ambition of halving avoidable stillbirths, neonatal deaths, and injury by 2025. This report will support the implementation of important national work aiming to reduce avoidable harm and death.

# **Overall Findings**

- Fewer than 8% trusts provided all training elements of the Saving Babies' Lives Care Bundle a nationally recommended tool to reduce stillbirth.
- There are examples of excellence in maternity training; however, there is still little/no standardisation in the way maternity training is prioritised, provided, funded, assessed or attended across the UK.
- The provision of maternity training has increased across the UK since the last report in 2016, particularly in areas that have been emphasised in recent reports, such as human factors training. Other important topics and methods of provision that are recommended to improve rates of mortality and morbidity are still not widely shown.
- Staffing and funding are key barriers to the provision of and attendance at maternity training; other identified barriers are related to resource available.

# **Overall Recommendations**

- Regular funding is required for maternity professionals to adequately provide and attend
  high-quality training in areas shown to reduce mortality and morbidity. The funding must
  allow back-filling of staff to attend training (both in-house and external), travel and
  accommodation costs to attend national conferences, and improving local resource
  (i.e. training equipment).
- Maternity-specific national training guidance is required, on what should be considered
  mandatory for every trust and which professionals should attend. This guidance should
  be based on evidence-based care and/or best practice, and failures in care highlighted
  nationally and locally.
- All local and national training delivered should be assessed for *effectiveness* and impact on practice.
- All professionals should be audited for attendance (90%) on mandated training courses, and competency assessments carried out. If competency is not demonstrated, then a peer-support meeting should be carried out and an individual development plan put in place. Clinical duties for individuals with low attendance rates and poor competency assessments should be considered.

Specific key findings and recommendations relating to the management of training, and improvements to training to achieve national ambitions, are set out at the beginning of each section of this report.

# **Abbreviations**

**CESDI** Confidential Enquiries into Stillbirths and Deaths in Infancy

**CEFM** Continuous Electronic Fetal Monitoring

**CNST** Clinical Negligence Scheme for Trusts

**CPPD** Continuing Personal and Professional Development

CTG Cardiotocography

**FOI** Freedom of Information

**HDU** High-Dependency Unit

**HEE** Health Education England

MBRRACE-UK Mothers and Babies: Reducing Risk through Audit and Confidential Enquiries

across the UK

MST Fund Maternity Safety Training Fund

MSW Maternity Support Worker

NHS National Health Service

NHSLA National Health Service Litigation Authority

QCQ Quality Care Commission

**RCM** Royal College of Midwives

**RCOG** Royal College of Obstetricians and Gynaecologists

**TNA** Training Needs Analysis

**VTE** Venous Thromboembolism

# **Contents**

| Introduction  | 14   |  |
|---|--|--|
| Methodology   | 15-16  |  |
| The National Picture  | 19-56  |  |
| Management of Training Attendance Method of Delivery Barriers Spending Topics Mandatory Training and the Multi-Professional Team Is Quality of Training Assessed? | 21-22<br>23-27<br>28-31<br>32-35<br>36-40<br>41-45<br>47-50<br>51-56 |  |
| Achieving National Ambitions  | 57–82  |  |
| The Culture of Maternity Services Care Before Birth Care During Birth Care for Mother and Baby After Birth Saving Babies' Lives                                   | 58-60<br>61-64<br>65-72<br>73-79<br>80-82                            |  |
| Conclusion  | 83–84  |  |
| Key Findings<br>Key Recommendations   | 83<br>84   |  |

# Introduction

#### Background

Reducing Avoidable Deaths and Injuries

The Mothers and Babies: Reducing Risk through Audit and Confidential Enquiries across the UK (MBRRACE-UK) mortality surveillance reports showed that stillbirth and neonatal death rates vary hugely across regions, a disparity not accounted for by socioeconomic factors [8] [9] [10]. In addition, confidential enquiries by MBRRACE-UK into stillbirths, neonatal deaths, and maternal deaths have found that a significant number may have had a different outcome with improvements to care [1] [11] [12]. According to the latest MBRRACE-UK report (2018), nearly 80% of perinatal deaths could have been avoided with different care, almost all of which involved factors relating to recognition of the problem, acting appropriately, or effective communication. The Royal College of Obstetricians and Gynaecologists (RCOG)'s *Each Baby Counts* report (2015) stated that of the 1,136 cases where babies died or were severely injured through incidents in labour, 76% could have been avoided with better care [2].

The cost of avoidable death and injury is pervasive in terms of both profound human suffering and financial costs to an overburdened NHS; the latter can be quantified in negligence costs: more than £2.1 billion of the value of claims received were attributed to maternity in the 2017/18 [3]. Equally, bad outcomes have wide-reaching implications in terms of staff retention, morale, and well-being; for example, the reported attrition rate from the obstetrics and gynaecology training programme is 30% [13]. Likewise, the Royal College of Midwives has stated that the rate of attrition in midwifery means that for every 100 students being trained, the workforce is increasing by only one midwife [14].

Training for frontline maternity professionals has been recommended by perinatal mortality and morbidity reports as key to improving maternity care, dating back to the CESDI reports (established in 1992) [2] [11] [15] [16] [17] [18] [19].

Mind the Gap asks the following questions:

- Is maternity training for frontline professionals adequately responding to recommendations to improve care?
- What can be done to improve any gaps in current training, and to ensure that training is of high quality and impactful?

#### Purpose and aims

The first *Mind the Gap* (2016) report found that training provision varied widely across trusts in England, in terms of the topics offered and how they were provided. It also found that assessment of the training varied across the 70% of trusts that assessed it, and it was often superficial.

In the last financial year (2017/18), £8.1 million was awarded to 136 trusts across England as part of the *Maternity Safety Training Fund*, a stream of work relating to the *Safer Maternity Care Action Plan (2017)*. The *Maternity Safety Training Fund* catalogue of recommended training providers was a first step towards creating a national consensus on quality training. *Mind the Gap* (2018) aims to measure the impact that the fund has made on training provision, and the general state of maternity training provision across the UK, not just England.

Given the Government's target of halving stillbirths and neonatal deaths and reducing harm by 2025, immediate action is required to ensure that frontline maternity professionals are receiving timely, appropriate, and high-quality training nationally.

# Methodology

#### Collection of information

All trusts with maternity services (n=157) in England, Wales, Scotland, and Northern Ireland were sent a freedom of information (FOI) request, which included questions on maternity training provision, including duration, topics, mandatory/non-mandatory, assessment, barriers to provision, attendance rates, and budgets.

Following the first *Mind the Gap* report, it was clear that the questions in the FOI request needed to be more specific to get more conclusive responses. Thus, most questions in the recent FOI request were multiple choice, with an opportunity to supply more information qualitatively. In addition, in-depth questions were included on certain topics that had been identified by national reports as being important in reducing mortality and morbidity.

In the first instance, the FOI request was issued using Survey Monkey, as this made it easier to apply "skip logic" to questions that were not relevant to all respondents (e.g. if they did not provide that topic); however, many FOI teams then requested the survey in Word format.

Most trusts did not respond using the electronic format, or within the 28-day FOI standard. The research team devoted considerable resource and time to collating data

#### Data input

Because of the change in the way the data were collected, responses received in Word were input manually using an Excel UserForm to reduce administrative error and lack of clarity. Some trusts gave qualitative answers to multiple-choice questions in the Word document responses, requiring some interpretation; however, unclear answers were marked as such. Survey Monkey responses were exported and reformatted to match Word responses. Where it was possible for multiple options to be selected for one question, the result was entered as a unique binary code. Each question was represented in one column in the spreadsheet.

#### **Analysis**

Overall results were obtained by counting, summing, or averaging columns based on specific criteria. Graphs were used to analyse regional and general trends in data. Where trusts provided examples of assessment tools used for training the refined Kirkpatrick classification [20] was used by two independent researchers (SL, CJ); the inter-rater reliability was high. Qualitative data was investigated using thematic analysis.

#### Response Rate and Quality of Data

#### Response rate

Most trusts (89%, n=140) provided a response to the FOI request. We did not receive a response from 17 trusts, 16 of which were based in England. Trusts based in Northern Ireland and Wales all sent their responses, and only one trust in Scotland did not complete the request. The response status of trusts is listed in *Appendix I*.

#### Contradictions

Being a measure that relies on self-reporting, the survey was designed in a way that assessed the accuracy of the data provided, by asking for the same information in different questions within the survey. During analysis it became clear that there were some contradictions in some of the data reported. This was noted in particular where information on topics was provided; for example, two trusts said that *emergency skills drills* training for professionals was "not mandatory", and then later three trusts reported that it was "not mandatory".

Despite these inaccuracies, there were too few to challenge the overall results and conclusions. Where there were contradictions, the most complete set of data was used.

#### Unclear responses

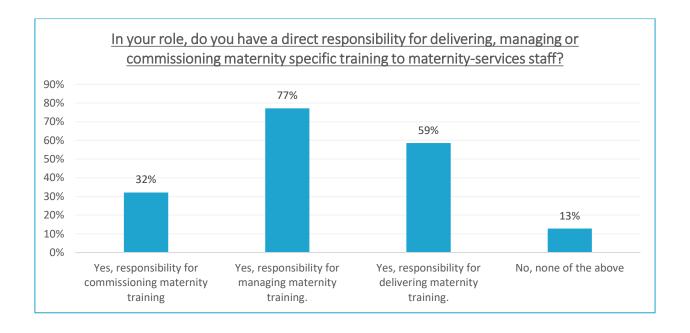
There were 122 instances where the answer was input as "unclear" across all questions. The majority of those related to attendance rates, where respondents did not use the multiple-choice answers but and instead reported qualitatively. In addition, some trusts stated that they did not record attendance rates but then provided an estimated percentage of attendance. Equally, some said that they did record responses, but then did not provide attendance percentages.

#### Incomplete data

Some answers were not provided even though questions were marked as required. This was most evident in the "spending" section, where over half of trust could not tell us what their spending was for maternity training (n=75). For other sections, most trusts did provide an answer.

#### Who Completed the Request?

Most requests were completed in conjunction with or by midwives (n=125): 45 were Practice Development/Education Midwives, 33 were Heads of Midwifery, 12 were Matrons, 7 were Consultant Midwives, and the rest were other types of senior midwife (e.g. Director of Midwifery & Women's Services). Five trusts reported that the request was completed by or in conjunction with obstetricians, all of which were at consultant level. Three of the requests were completed by FOI personnel. Three respondents did not give an answer.



Of those that responded, 13% (n=18) reported that they did not have direct responsibility for delivering, managing, or commissioning maternity-specific training to maternity services staff. Most of the respondents were responsible for managing maternity training (n=108); 28 respondents were responsible for commissioning, managing, and delivering maternity training.

# The National Picture

- Management of Training
- Attendance
- Method of Delivery
- Barriers
- Topics
- Spending
- Mandatory Training and the Multi-Professional Team
- Is Quality of Training Assessed?

#### The National Picture

# Management of Training

#### **Key Findings**

- Midwives were more involved than any other profession in the overall management of maternity training. Fewer than 1 in 10 trusts involved anaesthetists in the overall management.
- There was no consistent way for deciding the priorities for maternity training across the trusts.

# **Key Recommendations**

- Anaesthetists should be involved in relevant maternity training days. This is in line with recommendations by the RCOG's *Each Baby Counts* report into anaesthetic care (2018).
- With so many national recommendations relating to training, it can be difficult for busy professionals to keep up to date. We recommend that each trust's education team is dedicated to relating training to national lessons from failures, and evidence-based practice.

#### Insight from the Frontline

"Trust sets mandatory training programme based on the key skills framework. Local maternity training is delivered to meet national recommendations (e.g. NHSLA/Each Baby Counts) as well as local requirements identified by staff feedback, complaints, claims and incidents. Training needs analysis (TNA) reviewed annually by local governance team."

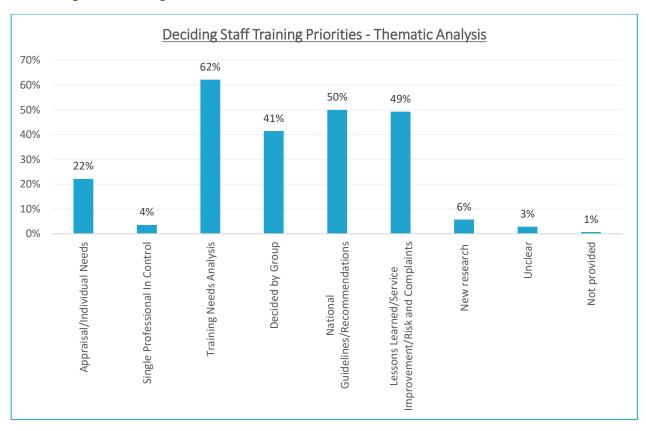
"The planning and composition of training will also be informed by the available 'headroom' in terms of hours funded for staff to be released for mandatory training."

"Additional external courses are considered on a request basis and supported if relevant to service/personal development need and funding is available."

#### Who is responsible for the overall management of maternity services staff training?

Most trusts did not answer with a single person and stated that a combination of staff from different professional groups were responsible (n=117); of these, 113 trusts said the overall management involved midwives, 52 involved obstetricians, and 12 involved anaesthetists. In some responses, only midwifery staff were mentioned (n=18), and the small number of remaining answers could not be categorised into a specialty.

#### **Prioritising Staff Training**



Most trusts mentioned that training priorities for maternity were decided by a training needs analysis (n=87), and most also mentioned that they followed national recommendations or guidelines (n=70) and lessons learned from serious incidents, risk assessment, or complaints (n=69). Some trusts mentioned that individuals who felt they needed additional training would need to apply separately. About 40% of trusts mentioned that the training decisions were made by a group of professionals, and the majority were multiprofessional groups.

Some trusts stated that additional maternity training was considered on a request basis and was dependent on funding. The length of responses varied enormously, with some trusts giving around 300 words about how training priorities were decided whereas others simply wrote "TNA".

#### Insight from the Frontline

"This is my story' (values and behaviours) included in response to complaints"

"Smoking session recommenced in response to 'Saving Babies Lives' in 2016"

# The National Picture

#### Attendance

#### **Key Findings**

- Most trusts recorded staff attendance on maternity training; however, 1 in 10 trusts did not
- Only about one-third of trusts said that staff attendance was recorded at 90% or more.
- Midwives had the highest rates of attendance compared with medical staff and other staff groups, and their attendance was recorded more often.
- Staffing was identified as the main barrier to attendance.
- Training was most likely to be mandated as a yearly occurrence, although there is less conformity between trusts when looking at frequency of attendance by topic.
- Annual duration of mandatory training topics varied widely. The topics with the longest average annual duration were *emergency skills drills training* (about 6.5 hours) and *electronic fetal monitoring/cardiotocography (CTG) training* (just under 6 hours).

#### **Key Recommendations**

- Every trust lead for training should ensure that attendance on mandatory training is audited against an expected standard of 90%. Clinical duties of individuals with poor attendance rates should be considered.
- Each trust lead for training should determine barriers to attendance, and work with a multiprofessional team to overcome these for each professional group. High-quality training is important to improve confidence and knowledge within maternity services.
- Funding should be allocated to cover professionals attending training.

# Insight from the Frontline

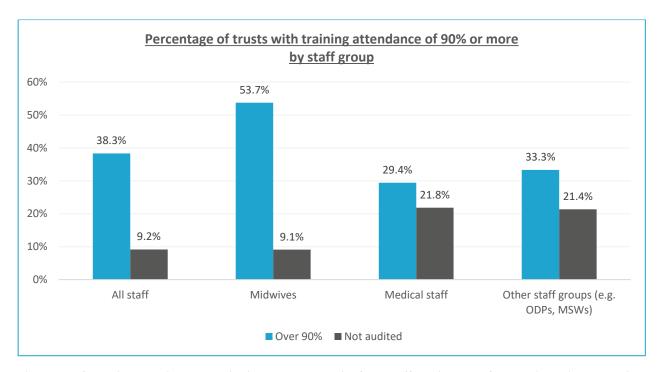
"The value that clinical managers place on training is key to enabling staff to attend sessions when they are booked onto them, and not cancelling and calling them back to practice to cover clinical shifts."

"Staff here value training and always want to attend training, they are very disappointed if training is cancelled due to clinical commitments"

#### Rates of Attendance

Most trusts stated that they audited how often maternity staff attend updates within the time specified by trust guidelines (n=124). Two trusts did not respond to the question, and 10% of trusts stated that they did not audit staff attendance (n=14).

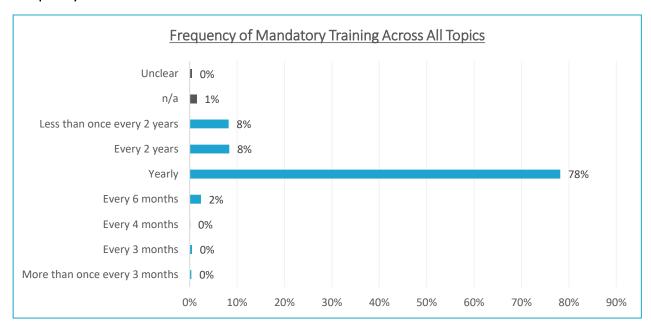
Most trusts stated that at least 50% of staff attended training (n=101); however, only around a third of trusts (38%, n=46) reported that more than 90% of staff attended mandatory training, and even fewer reported that more than 95% of staff attended mandatory training (n=19). One trust reported that fewer than 25% of staff attended mandatory training.



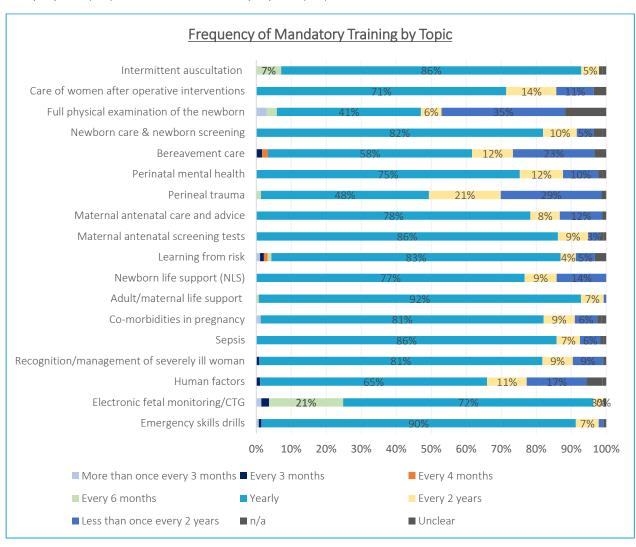
The rate of timely attendance was highest among midwifery staff, with 24% of trusts (n=29) stating that they had an attendance rate of 95% and above. In comparison, medical staff had the lowest attendance rates, with only eight trusts reporting an attendance rate of over 95%. In addition, the number of trusts that did not audit medical staff and other staff groups was more than double that for midwives.

A criterion for the *Maternity Safety Strategy Clinical Negligence Scheme for Trusts (CNST) discount* is that 90% of staff in each maternity unit must have attended an "in-house" multi-professional maternity emergencies training session within the last training year [21]. Most trusts reported that they did not meet this standard.

# Frequency of Attendance



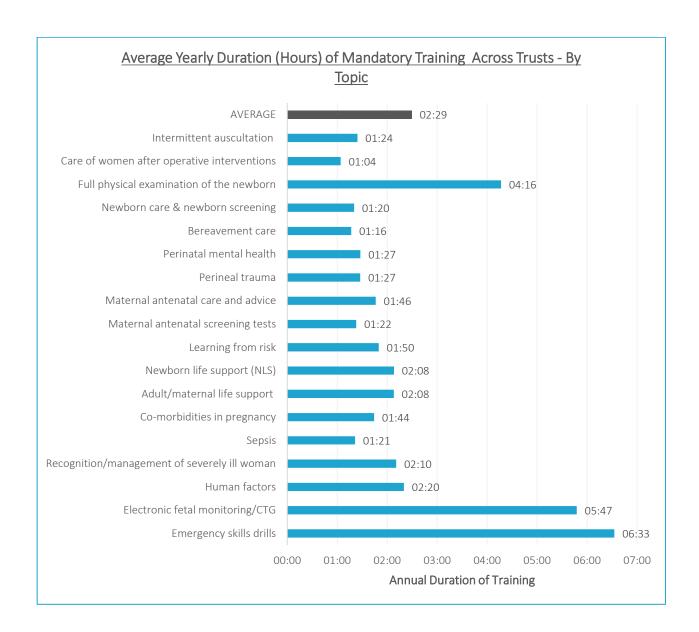
Most training was mandated to occur annually (n=109). A few trusts reportedly mandated attendance for some topics every 6 months (2%) whereas nearly 20% of trusts mandated that staff attend some topics every 2 years (8%) or less than once every 2 years (8%).



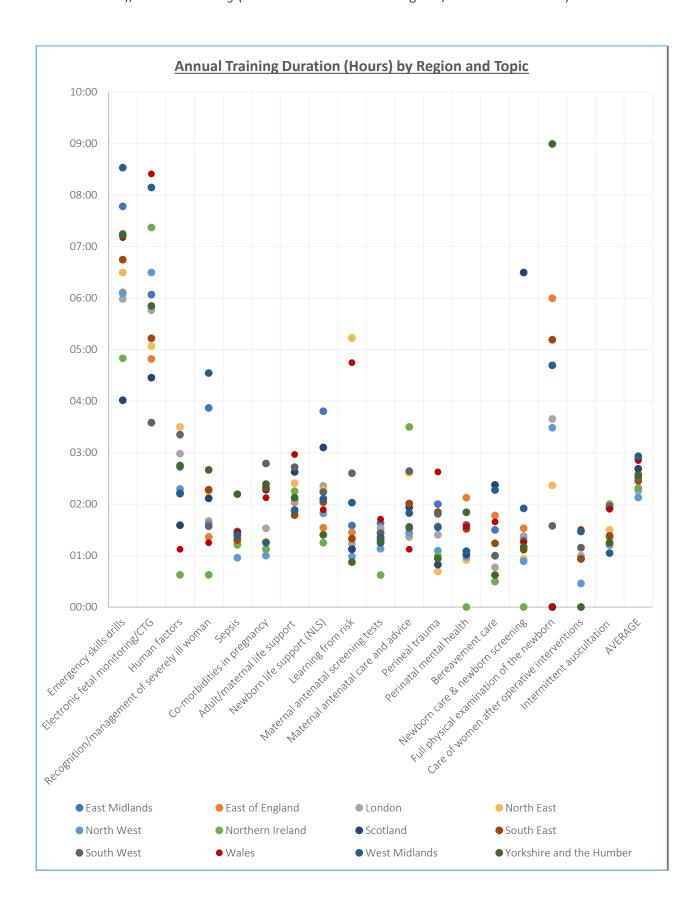
Whilst most training is provided annually, there is some variation when exploring frequency by topic. For example, most trusts mandated CTG training annually (71.5%) whereas some mandated it every 6 months (21.2%), some every 3 months, and some only mandated their staff to attend every 2 years. Another topic that varied across trusts was perineal trauma: while most mandated to attend training every year (47.9%), some trusts reported mandating every 2 years (20.5%), and more than a quarter reported mandating less than every 2 years (28.8%).

#### **Duration of Attendance**

Trusts were asked for the minimum duration of training mandated for relevant staff on each topic. By looking at both frequency of mandatory training and its duration, it was possible to determine the average annual duration of mandatory training. This varied by topic and trust. Of the 18 mandatory topics listed, 15 had an average annual duration of less than 2.5 hours. The three topics with the highest duration were emergency skills drills training, electronic fetal monitoring/CTG training and full physical examination of the newborn.



The annual duration across regions showed even greater variation. The largest variation is seen in *examination of the newborn* (range 0–9 hours), *emergency skills drills* (4.01 hours in Scotland to 8.32 in the West Midlands), and *CTG training* (3.35 hours in South West England; 8.25 hours in Wales).



# The National Picture

# Method of Delivery

# **Key Findings**

- Trusts reported that most training included elements of face-to-face or lecture-based training; however, topics that rely on interaction are still being provided by e-learning and other non-interactive methods in some trusts.
- Most training was delivered in-house.

# **Key Recommendations**

• Topics that rely on staff interaction must be delivered in an interactive manner (e.g. emergency skills drills, human factors).

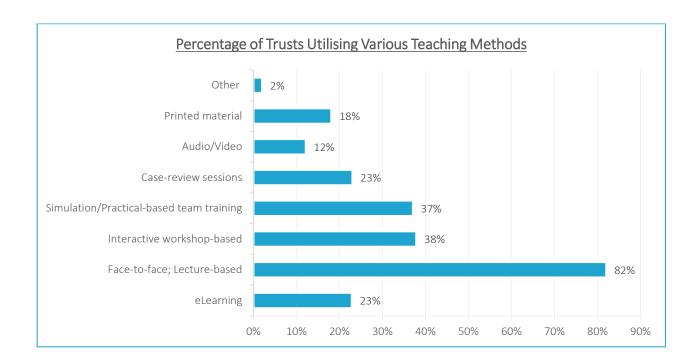
# Insight from the Frontline

"E-learning packages are often high-quality but staff compliance is poor (under 50% for some)."

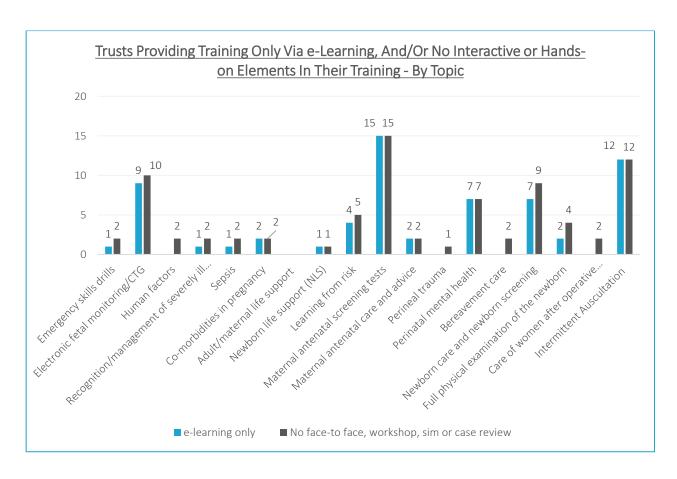
"A lot of learning is e-learning."

"Human factors training incorporated into skills & drills training and interactive simulation-based scenarios."

# Method of Delivery



Across all topics, most trusts included training with an element of face-to-face/lecture-based delivery (82%). After that, the most widely used methods were interactive workshop-based delivery (37.9%), simulation/practical-based team training (37.1%), e-learning (22.9%), and case-review (23%).



The inclusion criterion for "no face-to-face, workshop, or case-review" was trusts that did not include elements of "face-to-face; lecture based", "interactive workshop-based", "simulation/practical-based team training", or "case-review sessions".

The topic most often provided only by e-learning, with no elements of face-to-face, workshop, simulation, or case-review was *maternal antenatal care and advice*, with 15 trusts stating that they used only e-learning and another 15 trusts not including any hands-on or interactive elements. One trust delivered their *emergency skills drills* training only via e-learning, and two trusts had no face-to-face, interactive, or hands-on elements.

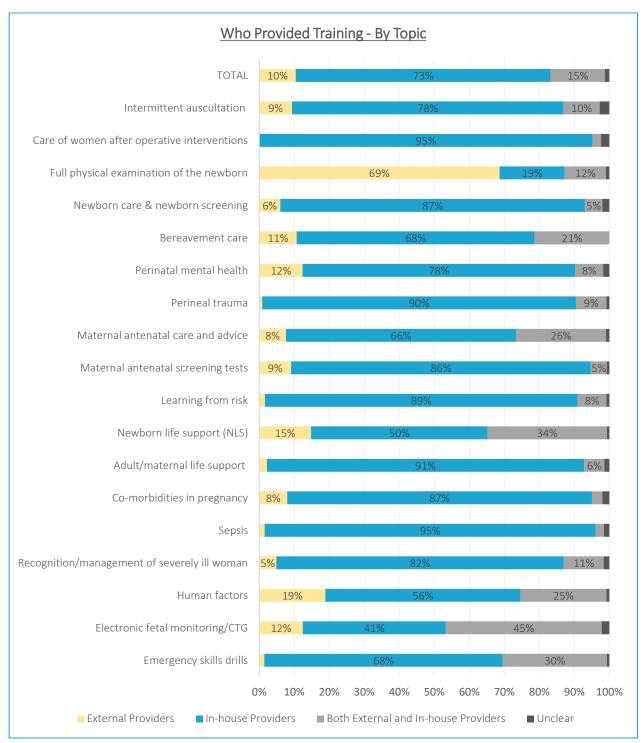
#### By Topic

When investigating by topic, *CTG training* involved the most e-learning by far (75.2%), followed by *maternal antenatal care and advice* (41.5%). CTG training also included high-levels of face-to-face interaction (78.1%), and the highest number for case review (68.6%).

# **Provision of Training**

#### In-House vs External Providers

Nearly three-quarters (73%) of mandatory maternity training was provided in-house. When looking at provision by topic, the only topic that is delivered predominantly by external providers is *full physical examination of the newborn* (68.6%). After that, *human factors training* was provided by external providers in 18.9% of trusts. The two topics with the highest number of trusts delivering training using both in-house and external providers was *electronic fetal monitoring/CTG* (44.5%), and *newborn life support* (34.1%). *Sepsis, care of the women following operative interventions,* and *adult/maternal life support* were provided in-house by over 90% of trusts.



# The National Picture

#### Barriers

#### **Key Findings**

• The biggest barriers to providing and attending training were related to staffing and funding; other barriers related to available resource.

#### **Key Recommendations**

- Funding for high-quality, relevant training and resource must be prioritised nationally for all staff groups. Improving team confidence and knowledge will improve staff retention.
- Where staffing is an issue, multi-professional team planning should occur based on identified audited patterns of non-attendance and clinical demand. Funding should also be used to cover any staff members attending training.

#### Insight from the Frontline

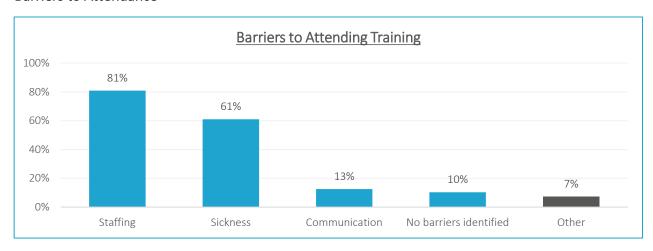
"A regional/national agreement in respect for time/payment for attendance at mandatory training should be agreed. There should be regional/national learning forums agreed to share learning and good practice."

"Going forward to sustain the level of training we have had in last 18 months will require extra funding"

"Time and the ability to release sufficient staff from each discipline to make sessions representative as a multidisciplinary team."

"Whilst we provide a comprehensive training programme for our staff, there is always more we could achieve to invest in staff and develop the service we provide. Resources are tight and often staff release for training, both attendees and teaching, is the biggest barrier to delivering teaching effectively"

#### **Barriers to Attendance**



Most trusts identified "staffing" (n=110) as a barrier to staff attendance at scheduled training. Only 14 trusts stated that there were "no barriers identified". The second highest identified barrier to staff attendance was sickness (n=83). Trusts also reported staff having to return to clinical practice from training sessions because of raised acuity, in order to maintain patient safety (n=8). One trust identified a barrier as staff not seeing the relevance of the training provided and not booking on to it.

#### Insight from the Frontline Regarding Barriers to Attendance

"Releasing frontline staff to receive training when maternity units are extremely busy often leads to staff being called back from training to deliver clinical care."

"E-learning packages are often high-quality but staff compliance is poor (under 50% for some)"

"It feels challenging to navigate internal systems to obtain a definitive number of hours that each midwife/member of staff has been allocated for mandatory training. In such a large Trust, there appears to be no unifying system for all divisions, as they all work differently."

"Difficult to plan for staff to attend due to the amount of mandatory training required."

"...There never seems to be enough time to deliver all the topics identified as essential in the time available. Multi-professional training is challenging due to different rotas and work plans. Different opinions about the 'level' training is pitched at for midwives, obstetricians, anaesthetists, maternity support workers can mean that the training days are regarded as having too much or too little detail to be valuable to all groups together, so it is difficult to satisfy all participants..."

"The TNA is completed at one time point in the year, but regularly additional training requirements are identified throughout the year and then the challenge is to fit the requirements into 'business as usual' as the training resource in terms of time and educators/facilitators will not have been allocated, but there is often an expectation that everything can be delivered without resources."

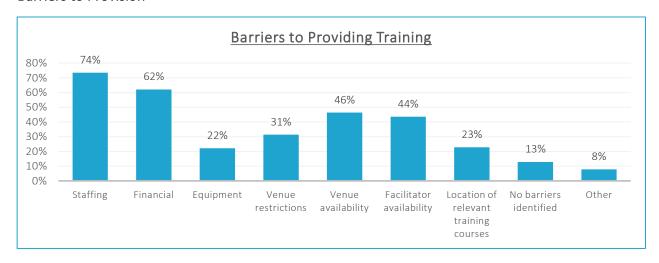
#### Ideas for Improvement from the Frontline:

"Try to maintain an effective two-way communication with staff and managers regarding staff attendance. On occasion, staff do need to reallocate training due to sickness or staffing levels. Managers reallocate staff to a later date."

"A regional/national agreement with respect to time/payment for attendance at mandatory training should be agreed. Regional/national learning forums should be agreed to share learning and good practice."

"We strive to ensure that as much of our training is delivered as multi-professional when appropriate. This year we have developed several new in-house study days which will be available several times a year. We hope to continue this provision, ensuring an equitable and intra-professional approach."

#### **Barriers to Provision**



# Barriers to training, in order of reporting were:

- 1. Staffing
- 2. Financial
- 3. Venue availability
- 4. Facilitator availability
- 5. Venue restrictions

- 6. Location of relevant training courses
- 7. Equipment
- 8. No barriers identified
- 9. Other

## "Other"

Comments linked to this question mostly related to staffing (n=6), and the lack of available staff to attend to create multi-professional learning environment (n=3). Barriers to e-learning related to lack of equipment and time for completion. Similarly, local resource availability was a barrier (n=1). Some additional comments regarding the need for financial investment were also made (n=2). One trust mentioned that too much training was required, and it was difficult to determine the priorities. One trust commented that they had not undertaken work to identify barriers.

## Insight from the Frontline Regarding Barriers to Provision

Going forward to sustain level of training we have had in last 18 months will require extra funding."

"Multi-professional training provision is challenging due to recruitment cycles, and doctors' changeovers."

"Simulators for training and scanning is available in part of the trust but not in the other part and distance between units is an issue. These would be useful for multi-disciplinary training in all the trust. Medical staff would need to travel long distances for relevant training and require a period of time to rearrange clinical sessions in order to attend."

"Time and the ability to release sufficient staff from each discipline to make sessions representative as a multidisciplinary team."

# The National Picture

# Spending on Maternity Training

#### **Key Findings**

- Most trusts could not provide information on their spending on maternity training.
- Budgets provided varied widely (from £1,051 to £372,878) but did not appear to be linked to the size of maternity services within the trust.
- Most of the funding for training was reported to come from Health Education England (HEE).
- The number of trusts that can provide information on funding for maternity training has improved since 2015, and budgets have increased.

#### **Key Recommendations**

- Regular funding needs to be provided and ring-fenced by national bodies and trusts for frontline maternity training relating to areas that have been shown to reduce mortality and morbidity.
- Funding needs to be part of a longer-term improvement plan, and should include backfilling for staff attending training, and travel to make external training accessible. Staff should be allowed to attend pertinent training during working hours.

#### Insight from the Frontline

"We were very fortunate to have a successful bid from HEE last year, continuing to provide high levels of training outside of what is mandatory will be challenging."

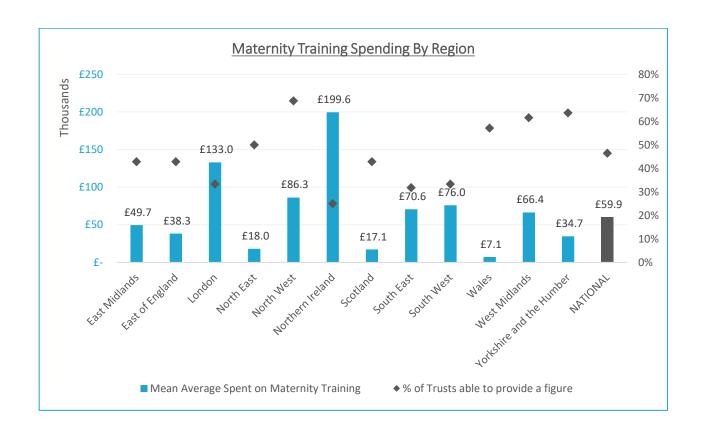
"No training budget for this financial year from HESL [Health Education South London] yet. Unable to support CPPD."

"There is no in-house funding or budget for fee-paying conference attendance."

"We do not have individual training budgets for specific services, only an overall budget."

"The Trust does not have this information."

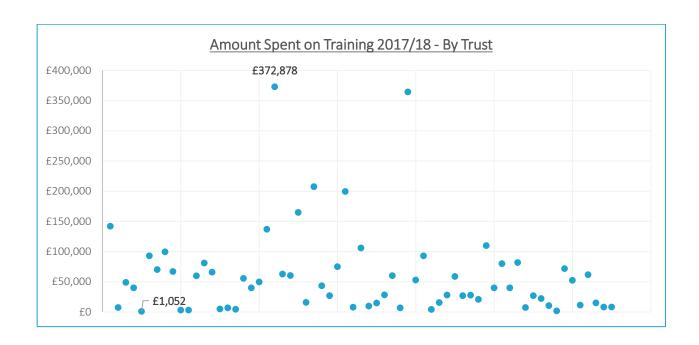
"Not calculated."

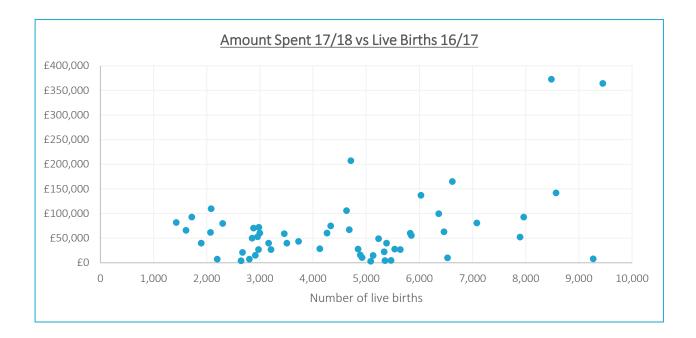


| National spending in 2017/18 |           |  |  |
|------------------------------|-----------|--|--|
| Mean                         | £ 59,873  |  |  |
| Median                       | £ 40,000  |  |  |
| Maximum                      | £ 372,878 |  |  |
| Minimum                      | £ 1,052   |  |  |
| No of Trusts                 | 65        |  |  |

Most trusts were unable to provide a figure for their budget for maternity training (n=75). Of the 65 trusts that did provide a figure, the amount given varied. The figure above shows average maternity spending by region, which ranged from £7,100 in Wales to £199,600 in Northern Ireland. Fewer trusts in Northern Ireland were able to supply their budget (25%, n=1) compared with other regions. Almost 70% of trusts in the North West of England were able to supply their budget.

When looking at individual trust budgets, the amount spent in the last financial year varied widely across the trusts. One reported spending £372,878 on training, whereas another reported spending on £1,052. The average (mean) amount across all trusts that provided a figure was £59,873.





Despite a weak positive correlation, there was no significant trend in the amount spent on maternity training in 2017/18 versus the recorded birth rate in 2016/17. Therefore, variation in spending cannot be wholly attributed to the different size of maternity service within each trust.

The birth rate from 2016/17 was used, as training needs and spending would have been identified using themes and trends from the previous financial year.

#### The Maternity Safety Training Fund

NHS trusts in England were awarded money from the *Maternity Safety Training* (MST) Fund by the Government as part of the *Maternity Safety Strategy* [19]. The average amount awarded was £59,124, the highest was £117,888 and the lowest £14,277.

The MST Fund was to be used in the last financial year (2017/18) by trusts to access training to improve maternity safety. Trusts were given about 3 months (January–March 2017) to use the money to commission training in key areas reported to improve outcomes in maternity care (e.g. *fetal monitoring, human factors*).

#### Source of Funding

| Source of Funds        | Average (£) | Maximum (£) | Minimum (£) | No. of trusts |
|------------------------|-------------|-------------|-------------|---------------|
| Allocated by the trust | 32,579      | 264,369     | 0           | 41            |
| HEE                    | 47,668      | 243,667     | 0           | 51            |
| Hospital Charity Funds | 4,414       | 58,000      | 0           | 24            |

Most of the funding across all topics came from HEE, although only 44% trusts (n=51) in England were able to provide us with that figure. On average, £32,578 was allocated by the trust across the 41 trusts that reported, and the least amount, on average, came from hospital charity funds.

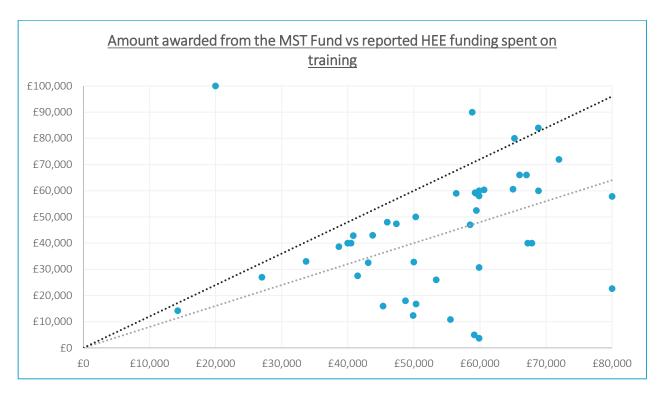
Where trusts did not report their budget; most said that the budget was not known, that the trust did not have this information, that there was no specific training budget, or that it was commercially sensitive information. This is surprising given that some respondents were responsible for commissioning training.

#### Insight from the Frontline Regarding NHS Funding

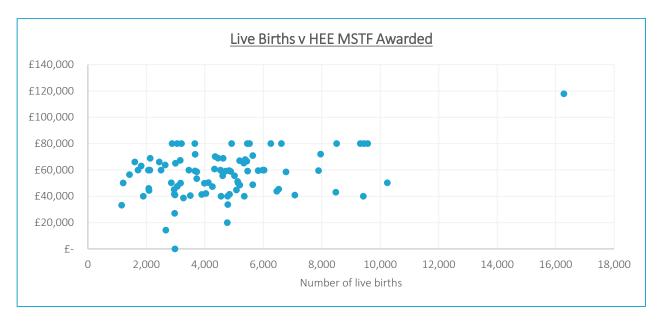
"Operative vaginal delivery: 8 middle-grade obstetricians attended external course funded by **NHS England** only once."

"Management of the labour ward: once only for midwives and obstetricians; 10 staff identified; external course funded by **NHS England**."

"Joint training on human factors and PROMPT for obstetricians/senior midwives and anaesthetists. This was as a result of successful **HEE bid** (safety training in maternity). Three trusts trained together on this project."



The trends in the above graph represent spending on maternity training that was either 10% above or 10% below what was awarded. For many of the trusts who were able to give us their spending amounts (HEE), the amount spent was similar to the amount received in the MST Fund; however, 16 trusts spent less money than awarded and four trusts spent more.



The graph above shows that there is no obvious trend in the amount awarded to trusts from the MST Fund versus live birth rate.

Should funding be administered to trusts again for maternity training, we recommend that the amount awarded reflects the size of the maternity services within the trust. We are unaware of the exact criteria for funding being awarded and realise that some specific projects would have relied on additional funding.

# **Topics**

## **Key Findings: Topics Provided**

- Not all topics that have been recommended to improve perinatal and maternal mortality and morbidity were consistently provided across all trusts; however, all trusts provided training in *emergency skills drills* and *safeguarding vulnerable children*.
- Despite the high rate of operative interventions during childbirth in the UK [22], the topic provided by the fewest trusts was *care of women following operative interventions*.
- Bereavement care was the one of the least provided topics, with only 107 trusts reporting that they provided training on bereavement care to their maternity services staff.
- Just over one-fifth of trusts reported that they did not provide training to their maternity staff on *co-morbidities in pregnancy and management of high-risk pregnancies*.
- Provision in relevant topics has generally increased since the last report in 2015; for example, *human factors* was provided 54% more often.

# Who Were the Topics Mandatory For?

- There is variability in the key topics considered mandatory for the wider maternity team.
- Topics are consistently reported as being mandatory for midwives more often than for any other professional group, followed by obstetricians. Obstetricians were mandated to attended training in some key topics less than half as often as midwives, and requirements fall even further for other key members of the team; such, as obstetric anaesthetists.

#### **Key Recommendations**

- Although we have seen marked increases in the provision of key topics since the previous request, there are still areas of variability. Continued investment in maternity training is essential for these improvements to continue.
- More emphasis on multi-professional, whole-team training for maternity is needed to comply with repeated guidance from reports into perinatal mortality and morbidity.
- Trusts need more support to provide consistent training to their teams on key topics where provision is particularly variable, and which relate to recommendations for improving care, such as: care of women following operative interventions, bereavement care, and comorbidities in pregnancy and management of high-risk pregnancies.

#### Insight from the Frontline

"Wide range of courses offered to all grades of staff to support professional development of all staff grades."

"There never seems to be enough time to deliver all the topics identified as essential in the time available."

"...there is often an expectation that everything can be delivered without resources."

#### Training Topics *Provided* by UK Trusts to Maternity Services Staff

Trusts were asked to indicate which topics of training, from a list within the request, they had **provided** to maternity services staff over the last financial year (2017/18).

Trusts were asked to report on any training provided, within the following inclusion criteria:

- training provided to any member of clinical maternity staff
- both mandatory and non-mandatory training
- training provided in-house
- training commissioned by the trust but provided by external agencies
- training provided via any medium.

## Rationale for Topics Listed in the Request

Topics were chosen and grouped based on previous CNST recommended minimum risk management training from 2013, a review of available trust TNA online, and a review of the topics reported by trusts for the first *Mind the Gap* report (2016) [6]. National recommendations or specific targets for improving outcomes in maternity care were also considered and, in key topics, we gave further options for trusts to stipulate the specific training provided. Topic lists were reviewed by a panel of practising obstetric, midwifery, and medico-legal experts and midwifery researchers at the University of Hull.

A limitation of the FOI request was the inability to list all possible topics; however, a qualitative option of "other" was provided to allow trusts to include topics not listed.

## Topics Provided by Trusts

| Topics listed in the FOI request In order of frequency of provision to maternity staff in the UK   | Trusts providing |
|--|------------------|
| Emergency skills drills training Including cord prolapse, shoulder dystocia, vaginal breech, antepartum and postpartum haemorrhage, eclampsia  | 100%             |
| Safeguarding vulnerable children and young people  | 100%             |
| Continuous electronic fetal monitoring/CTG Including case review sessions and similar  | 99%              |
| Newborn life support (NLS) Including NLS and/or advanced resuscitation of the newborn infant (ARNI) course or similar  | 99%              |
| Adult/maternal life support Including basic life support (BLS), immediate life support (ILS) and/or advanced life support (ALS) courses  | 98%              |
| Safeguarding vulnerable adults Including mental capacity   | 98%              |
| Infection prevention and control Including hand hygiene, personal protective equipment (PPE), and aseptic non-touch technique (ANTT)   | 98%              |
| Other personal professional development courses Including revalidation, mentorship/assessor training, supervisor of midwives course, train the trainer, and similar  | 97%              |
| Other statutory training/health and safety/occupational health Including health and safety at work, control of substances hazardous to health (COSHH), reporting injuries, diseases and dangerous occurrences (RIDDOR), fire safety, manual handling, equality and diversity, prevention of radicalisation, medical devices/gases training, inoculation injuries and sharps training | 97%              |
| Sepsis Including recognition and management of maternal sepsis and neonatal sepsis   | 96%              |

| Newborn feeding   | 96%   |  |  |
|---|-------|--|--|
| Interpersonal and 'human factors' training  |       |  |  |
| Including teamwork, communication, situational awareness, conflict resolution, leadership, innovation, and      |       |  |  |
| handover tools  |       |  |  |
| Transfusion of blood and blood products   | 95%   |  |  |
| Including anti-D  |       |  |  |
| Early recognition and management of the severely/critically ill woman   | 94%   |  |  |
| Including early warning systems and HDU care  | J 170 |  |  |
| Maternal antenatal screening tests  |       |  |  |
| Including blood pressure and urine screening; blood group and rhesus status; gestational diabetes screening;    | 94%   |  |  |
| anaemia screening; HIV, syphilis and hepatitis B screening  |       |  |  |
| Cannulation and venepuncture  | 94%   |  |  |
| Medicines management and extended medicines management  | 89%   |  |  |
| Including intravenous therapies, epidural and anaesthetic management, patient group directives                  | 0370  |  |  |
| Learning from risk, patient experience, clinical incidents/governance and professionalism                       |       |  |  |
| Including complaints, risk management/awareness, incident reporting, record keeping and accountability,         | 88%   |  |  |
| confidentiality, candour, consent, raising concerns/whistle-blowing, litigation and conducting serious incident | 00/0  |  |  |
| investigations  |       |  |  |
| Maternal antenatal care and advice  | 88%   |  |  |
| Including smoking cessation, growth assessment protocols (GAP), substance misuse                                |       |  |  |
| Perinatal mental health training  | 88%   |  |  |
| Water birth/pool drill  | 86%   |  |  |
| Assessment, management, and/or prevention of all types of perineal trauma                                       | 84%   |  |  |
| Female genital mutilation, domestic abuse, forced marriage  | 84%   |  |  |
| Intermittent auscultation   | 83%   |  |  |
| Care of the well/unwell baby, newborn care and newborn screening  | 80%   |  |  |
| Full physical examination of the newborn  | 80%   |  |  |
| Co-morbidities in pregnancy and management of high-risk pregnancies   | 700/  |  |  |
| Including hypertension, diabetes, obesity, venous thromboembolism   | 79%   |  |  |
| Bereavement care  | 76%   |  |  |
| Promoting normality in childbirth   | 66%   |  |  |
| Resilience training for healthcare professionals  | 62%   |  |  |
| Pressure ulcer prevention   | 56%   |  |  |
| Complementary therapies   | 54%   |  |  |
| Including hypnobirthing, active birth, aromatherapy   |       |  |  |
|   |       |  |  |

Emergency skills drills training and safeguarding vulnerable children and young people were the only\_topics that were consistently provided to maternity services staff in the UK, with 100% of trusts reporting that they provided training on these topics to maternity staff in their trust.

Even though about 40% of women in England gave birth by caesarean section or instrumental delivery in 2016-17 [22], the topic provided by the fewest trusts was *care of women following operative interventions*, with only 62 trusts indicating that this was provided to their staff. This was provided by 14 fewer trusts than the second least-provided topic, *complementary therapies*, which was provided by 76 trusts.

Bereavement care was the sixth least provided topic, with 107 trusts reporting that they provided training on bereavement care to their maternity services staff. Just over one-fifth of trusts reported that they did not provide training to their maternity staff on co-morbidities in pregnancy and management of high-risk pregnancies.

#### Topics Listed as 'Other'

Trusts were given the option to specify "other topics offered"; 35 trusts provided qualitative information in answer to this question.

Often, trusts used this opportunity to qualify their answers or to further describe the provision, selection, and funding of training topics. Some trusts gave qualitative examples of specific training initiatives they had undertaken, which often included examples of excellent practice in responsive, supportive, and multiprofessional training; these quotes have been included throughout the report.

Other responses of interest were as follows:

- Homebirth training
- New maternity notes and data in maternity
- Outpatient Induction of labour
- Motivational Interviewing
- 'Making every Contact Count'
- Dementia awareness
- Specialist leadership and management courses (e.g. Aspire to lead, Band 6 development, Advanced Labour Ward Skills Course, Nursing and Midwifery Leadership, Matrons Leadership, Practice Educators Development Programme)
- University modules (e.g. management)

- Birth reflections
- Breech delivery and upright breech
- Vaccination training
- Fetal medicine
- Termination of pregnancy
- Stillbirth, breaking bad news and postmortem consent training
- Family planning and contraception
- Telemedicine and triage
- Basic ultrasonography course and midwife sonographer
- Transitional care.

## Changes in Topic Provision Since the First FOI Request in 2015

The following table compares key topic provision between the first FOI request in 2015 and the latest request in 2018. Every topic saw an increase in the rate of provision.

| Topic  | 2018 | 2015 | Percentage<br>point<br>difference |
|--|------|------|-----------------------------------|
| Emergency skills drills training   | 100% | 90%  | +10%                              |
| Continuous electronic fetal monitoring/CTG                               | 99%  | 82%  | +16%                              |
| Inter-personal and 'human factors' training                              | 95%  | 41%* | +54%                              |
| Early recognition and management of the severely/critically ill woman    | 94%  | 47%* | +46%                              |
| Sepsis   | 96%  | 42%  | +53%                              |
| Co-morbidities in pregnancy and management of high-risk pregnancies      | 79%  | 42%* | +36%                              |
| Adult/maternal life support  | 98%  | 56%  | +42%                              |
| Newborn Life Support   | 99%  | 82%  | +18%                              |
| Maternal antenatal screening tests                                       | 94%  | 75%  | +18%                              |
| Assessment, management and/or prevention of all types of perineal trauma | 84%  | 60%  | +24%                              |
| Perinatal mental health training   | 88%  | 53%  | +35%                              |
| Bereavement care   | 76%  | 24%  | +52%                              |
| Full physical examination of the newborn                                 | 80%  | 30%  | +50%                              |
| Care of women following operative interventions                          |      | 12%  | +32%                              |
| Intermittent auscultation  | 83%  | 9%   | +74%                              |
| Newborn feeding  | 96%  | 81%  | +15%                              |
| Promoting normality in childbirth  | 66%  | 14%  | +52%                              |
| Resilience training for healthcare professionals                         | 62%  | 1%*  | +61%                              |

<sup>\*</sup>Values reached through further analysis of results from the original 2015 request (see Appendix II).

#### The following findings were notable:

- Provision of *interpersonal and 'human factors'* training has more than doubled compared with the previous report. When data from 2015 were analysed further, the phrase 'human factors' was only mentioned seven times in total, whereas 133 trusts indicated that they provided interpersonal and 'human factors' training to maternity staff in their trust in 2017/18.
- The rates of training in *early recognition and management of the severely/critically ill woman* and *sepsis* have more than doubled.
- Despite the generally low provision of training on *care of women following operative interventions,* the rate of 44% is almost four times higher than in 2015.
- Resilience training for healthcare professionals was provided by just one trust in 2015 but 87 in the current report.
- More than 80% of trusts now provide training in *intermittent auscultation*, compared with fewer than 10% in 2015.

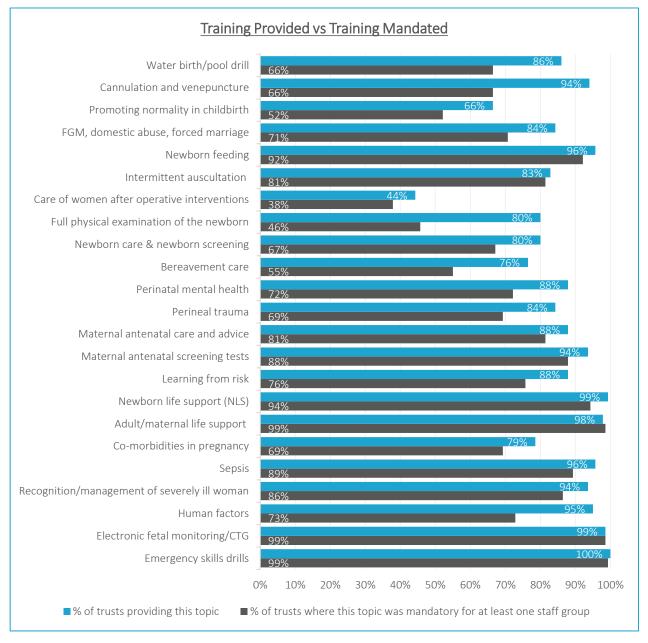
#### Which Topics Did Trusts Consider Mandatory for Staff?

Trusts were asked to indicate which topics were considered **mandatory** training for the following maternity services staff in their trust:

- midwives
- obstetricians
- obstetric anaesthetists

- maternity support workers
- other maternity allied health professionals.

The following chart compares the percentage of trusts reporting that they provided topics of training to maternity staff and the percentage reporting that they considered topics mandatory training for **at least one** of the above groups.



Emergency/ skills & drills and electronic fetal monitoring/CTG were both almost always considered mandatory for at least one staff group. Other topics varied; for example, training in human factors was provided by 95% of trusts but considered mandatory by 73%. Similarly, a quarter of trusts that provided bereavement care did not consider it mandatory. Full physical examination of the newborn was provided by 80% of trusts but only around half as many (46%) mandated this topic.

## The National Picture

## Mandatory Training and the Multi-Professional Team

A number of reports investigating themes of causation in morbidity and mortality in babies and mothers recommend multi-professional training in several recognised topics as key to reducing avoidable incidents. [2] [23] [18]. In addition, "focus on teams" was listed as one of the "five key drivers for delivering safer maternity care" included in the national maternity safety ambition and action plan [21]. In the Morecambe Bay Investigation, it is noted that safer maternity care requires close working between different professions, who have a "professional duty to work together effectively for the benefit of those they are caring for" [24].

Trusts were therefore asked to report which topics they considered mandatory for which staff groups, and whether these training sessions were attended as a multi-professional group. Results for key topics are shown in the following table below.

## **Mandatory Training by Staff Group**

| % of trusts reporting that training was mandatory for               | Midwives | Obstetricians | Obstetric<br>Anaesthetists | Maternity<br>Support<br>Workers | Other<br>Maternity<br>Allied Health<br>Professionals |
|---|----------|---------------|----------------------------|---------------------------------|--|
| Emergency/skills & drills   | 99%      | 92%           | 68%                        | 73%                             | 31%  |
| Electronic fetal monitoring/CTG                                     | 99%      | 91%           | 10%                        | 6%                              | 7%   |
| Human factors   | 72%      | 64%           | 45%                        | 46%                             | 27%  |
| Severely/critically ill woman                                       | 86%      | 70%           | 49%                        | 48%                             | 21%  |
| Sepsis  | 89%      | 76%           | 56%                        | 53%                             | 26%  |
| Co-morbidities in pregnancy and management of high-risk pregnancies | 69%      | 56%           | 36%                        | 30%                             | 16%  |
| Adult/maternal life support   | 99%      | 89%           | 77%                        | 86%                             | 48%  |
| Newborn life support  | 93%      | 45%           | 21%                        | 36%                             | 21%  |
| Learning from risk  | 75%      | 52%           | 36%                        | 47%                             | 26%  |
| Maternal antenatal screening tests                                  | 86%      | 33%           | 8%                         | 26%                             | 10%  |
| Maternal antenatal care & advice                                    | 81%      | 39%           | 6%                         | 25%                             | 7%   |
| Perineal trauma   | 69%      | 41%           | 3%                         | 5%                              | 4%   |
| Perinatal mental health   | 72%      | 30%           | 8%                         | 35%                             | 11%  |
| Bereavement care  | 53%      | 22%           | 5%                         | 25%                             | 7%   |
| Newborn care & newborn screening                                    | 64%      | 11%           | 4%                         | 30%                             | 13%  |
| Full physical examination of the newborn                            | 46%      | 4%            | 3%                         | 4%                              | 7%   |
| Care of women following operative interventions                     | 34%      | 15%           | 11%                        | 12%                             | 7%   |
| Intermittent auscultation   | 81%      | 36%           | 4%                         | 2%                              | 1%   |
| Newborn feeding   | 92%      | 31%           | 9%                         | 71%                             | 23%  |
| Female genital mutilation, domestic abuse, forced marriage          | 70%      | 44%           | 14%                        | 42%                             | 24%  |
| Promoting normality in childbirth                                   | 52%      | 12%           | 3%                         | 13%                             | 6%   |
| Cannulation and venepuncture  | 66%      | 18%           | 12%                        | 27%                             | 9%   |
| Water birth/pool drill  | 66%      | 19%           | 11%                        | 33%                             | 9%   |

All key topics were mandatory for midwives more often than for any other member of the team. The topic most frequently attended by all team members listed was *adult/maternal life support*, followed by *emergency/skills & drills*. Attendance varied across staff groups in *human factors*, which is relevant and important for all maternity team members. In addition, there was a notable difference in how often all members of the team were required to attended *newborn life support* training compared with *adult/maternal life support*; *adult/maternal life support* was mandated up to 3.5 times more frequently than *newborn life support*.

Regarding the well-being of the mother, training in *perinatal mental health* seems to be mandated for midwives notably more than for any other profession, with only one-third of obstetricians being mandated to attend and 8% of obstetric anaesthetists. *Bereavement care* was scarcely mandated for members of the team other than midwives, with a quarter or fewer of any other staff group being mandated to attend. *Care of women following operative interventions* was offered to very few of the staff groups; the highest was midwives but in only about a third of trusts.

## Insight from the Frontline Regarding Good Practice in Multi-Professional Training

"Drills with ambulance service (transfers in from midwifery-led units and community)"

"Share and Learn where community and midwifery-led unit staff meet to talk about topics specific to their area of work"

"Multi-disciplinary team teaching weekly (case reviews)"

"We strive to ensure that as much of our training is delivered as multi-professional when appropriate. This year we have developed several new in-house study days which will be available several times a year. We hope to continue this provision, ensuring an equitable and intra-professional approach."

"We disseminate an availability list for the year for all faculty to complete so that the department ensures multidisciplinary faculty are available when required."

## Insight from the Frontline Regarding Barriers to Multi-Professional Training

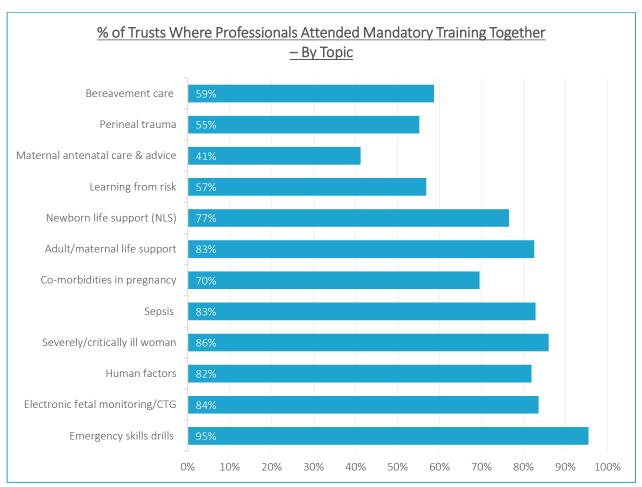
"Multi-professional training is challenging because of different rotas and work plans."

"Multi-professional training provision is challenging because of to recruitment cycles and doctors' changeovers."

"Simulators for training and scanning are available in part of the trust but not in the other part and distance between units is an issue. These would be useful for multidisciplinary training in all the trust. Medical staff would need to travel long distances for relevant training and require a period of time to rearrange clinical sessions in order to attend."

## Do Staff Who Work Together Train Together?

Even when training was mandatory for more than one professional group in a trust, these groups did not always attend training together. In key topics, trusts were asked if the training they provided was attended by a multi-professional audience.



Of those trusts where training in this topic was mandatory for 2 or more groups of staff, what percent also reported that different professional groups attended this training together?

Perhaps unsurprisingly, emergency skills drills was the most likely mandatory topic to be attended by multiple professionals together. This was followed by recognition and management of the severely/critically ill woman. Interpersonal and human factors training was not attended together in almost one-fifth of trusts where it was mandatory for more than one professional group. Other key topics such as sepsis, comorbidities in pregnancy, and learning from risk varied in how often they were provided to a multiprofessional audience in these trusts.

## The National Picture

# Is the Quality of the Training Assessed?

## **Key Findings**

- Most trusts evaluated at least one of the topics they provided a marked improvement from the last report in 2015.
- Fewer than 1 in 10 trusts evaluated *all* topics they provided training in.
- Most evaluation forms submitted for analysis evaluated only post-course satisfaction.

## **Key Recommendations**

- All trusts should evaluate the impact of the training they provide in each topic.
- This evaluation should include elements of *effectiveness of training*; measuring knowledge, skills, and attitudes or perceptions, ideally before and after training.
- Evaluation should also include longer-term analysis on behaviour and changes in outcomes, and this should then form part of the TNA each year. Where training interventions have affected patient safety and staff satisfaction, this should be shared nationally.

Assessment of effectiveness is an important element of providing training, with the evaluation of a course identifying areas of improvement and general impact on practice, and subsequently patient care and staff satisfaction.

Year-on-year surveillance into mortality, morbidity, and adverse events has identified the need for training in pertinent areas, often concluding similar recommendations in several reports across a couple of decades. In the recent *Five Years of Cerebral Palsy Claims* report by NHS Resolution "inadequate quality assurances around staff competency and training" was a principle theme in clinical care leading to avoidable cases of cerebral palsy in babies [25] (p. 61). The report went on to recommend that each trust needs to "urgently review whether the training provided in their trust allows staff to reach and maintain their competence" (p. 68). It also recommended that staff do not provide unsupervised care until "competencies have been achieved" (p. 11).

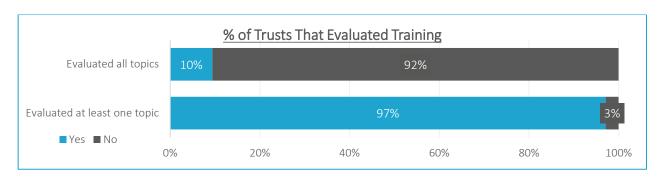
## Insight from the Frontline

"All mandatory study day content is evaluated, and this is taken into consideration when planning the following year's content."

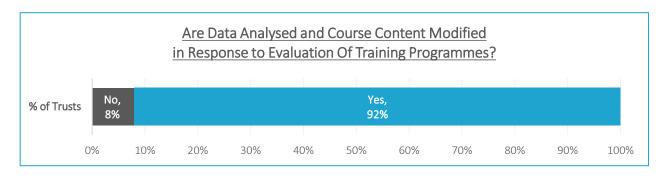
"Candidates for most in-house face-to-face training are asked to fill out evaluation forms. These are reviewed, and adjustments to training made. Some on-line training also has evaluation forms which are analysed by those providing the on-line training."

"Because of a lack of administrative support, only a limited number of in-house training days/sessions are formally evaluated. Educators encourage contemporaneous verbal feedback from staff who have attended days/sessions."

#### **Evaluation of Training**

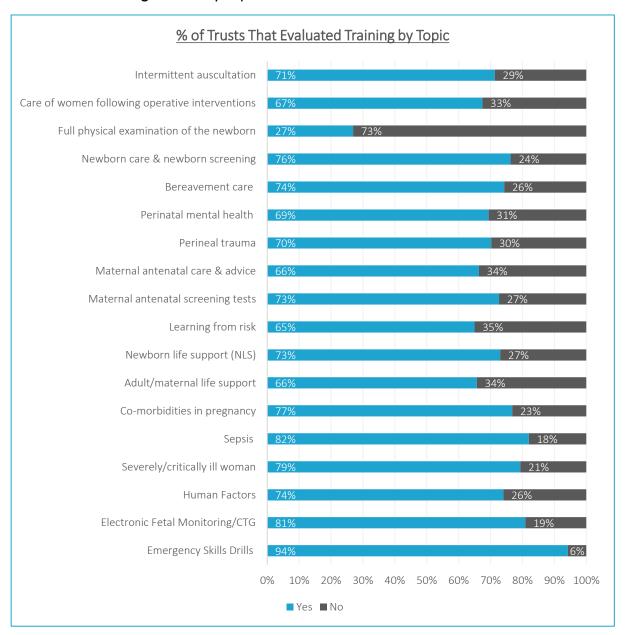


Most trusts (n=136) evaluated at least one training topic provided; however, only almost 10% of trusts (n=13) evaluated *all* topics provided. The overall evaluation of training being evaluated has increased compared with the last *Mind the Gap* report, when about 70% evaluated training provided by their trust. The last report only asked for general levels of evaluation; therefore, we cannot make a comparison regarding the number of topics evaluated.



Most trusts (n=127) stated that they used the evaluation of training programmes to modify their course content. Some trusts (n=2) did not respond to the question, and 11 trusts stated that they did not analyse the data or modify the course content in response to the evaluation of training.

## **Evaluation of Training Courses by Topic**



Most topics were evaluated by at least 65% of trusts; however, *full physical examination of the newborn* was evaluated by only 27% of trusts. This may be because this course is mostly offered by external providers. Only about two-thirds of trusts evaluated *adult/maternal life support* training, *learning from risk*, and *care of women following operative interventions*. The most highly evaluated topic was *emergency skills drills*.

#### The Level of Evaluation

The last *Mind the Gap* report concluded that about 70% of trusts assessed at least some of their training courses. The examples of evaluative methods sent were assessed using a refined version of Kirkpatrick's Classification of Training Evaluation [20]. For the purposes of presentation, the names of the topics have been shortened – full descriptions can be found in *Appendix III*.

## Kirkpatrick Classification Levels

## Level 1: Course-participant satisfaction

## Level 2: Learning

- Refers to the effectiveness of training in providing immediate benefits for individual providers
- •(2a) changes in attitudes or perceptions
- •(2b) knowledge
- •(2c) skills

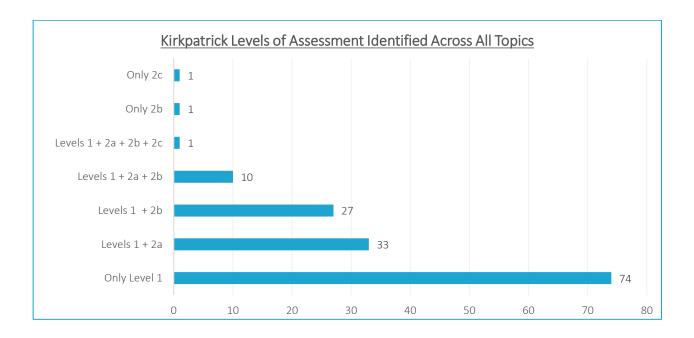
#### Level 3: **Behaviour**

• Refers to the efficiency of the training

#### Level 4: Outcome

• Refers to **changes in outcome**, quality of care, care processes, which lead to benefits for the patient (decrease in mortality, morbidity, and adverse events).

Examples of levels beyond 1 and 2 were not received and therefore have not been elaborated on.



A total of 151 evaluation forms were submitted across all topics. A clear trend across all topics is that they were predominantly evaluated using an element of *Course-Participant Satisfaction* (Level 1) (n=146). In most cases, this involved a 5-point Likert scale rating of poor to excellent, with an opportunity to add comments. Nearly half of the evaluation forms *only* used Level 1 assessment (n=74).

Most topics then also included a Level 2 element of assessment *Learning* (n=73), in "attitudes or perceptions" (n=44), and "knowledge" and "skills" (n=39). The elements of the forms relating to changes in attitudes or perceptions mostly concerned questions about change in practice, confidence, and personal areas of development. Elements relating to knowledge and skills were not tests relating to what the delegate had learned, but rather typically a line asking what the "key messages" from the day or session were; therefore, for this exercise the two could not be separated as they depended on what was self-reported.

The two most common forms of assessment that were used together were Level 1 (satisfaction), and Level 2a (attitudes or perceptions) (n=33), and almost as many evaluation forms used elements of Level 1 (satisfaction) with Level 2b (knowledge). Very few evaluation forms had examples of assessing satisfaction, knowledge, and attitudes/perceptions (n=10), and even fewer also contained elements of skills assessment (Level 2c) (n=2).

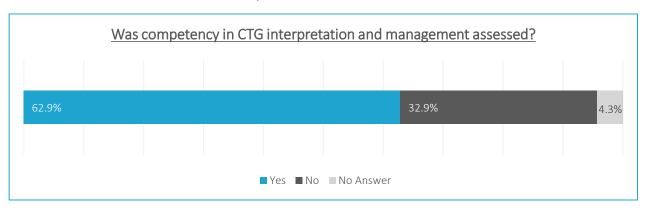
#### By Topic

Of the 151 total evaluation forms submitted across all topics, the number of evaluation forms per topic was limited (1–9; average 3 per topic). When looking at levels of assessment by topic, they generally followed the same pattern – mainly evaluating on *course participation satisfaction*. Only one trust primarily evaluated on *learning* (knowledge) in *sepsis* training; the only question related to delegate knowledge and understanding regarding the "sepsis guideline". Interestingly, most trusts only gave examples that assessed delegate satisfaction (Level 1) and changes in attitude or perception (Level 2a). Training in *emergency skills drills*, *fetal monitoring*, *newborn life support*, and *human factors* seemed to assess only delegate satisfaction and knowledge/skills; however, as previously mentioned in the examples supplied, knowledge and skills were not measured using any pre–post assessment. The "not assigned" category relates to trusts that submitted evaluation forms independent of a specific subject area.

## A Spotlight on National Recommendations: Is CTG Competency Assessed?

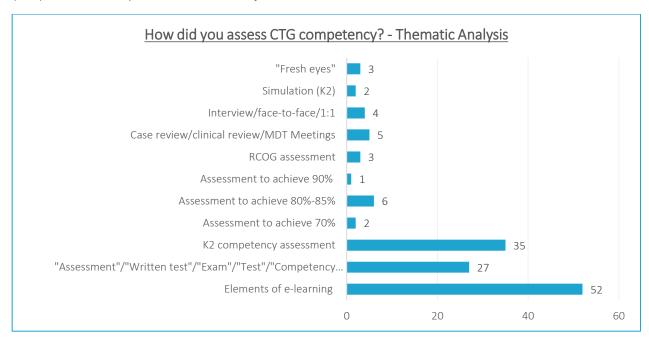
As part of "Element 4" of the Saving Babies' Lives Care Bundle (2016), all staff who care for women in labour are expected to undertake annual training and competency assessment in CTG interpretation and use of auscultation.

Similarly, MBRRACE-UK recommends a fresh look at how training in fetal monitoring is delivered, with a greater emphasis on evaluation of training through assessment of competency in continuous electronic fetal monitoring (CEFM), going beyond 'provision of information' — whilst also acknowledging the need to remember that CEFM is 'just a heart rate' and so any interpretation must happen in the context of the situation, environment, and wider clinical picture.



Most trusts (n=88) reported that they did assess competency in CTG interpretation; however, one third of trusts (n=44) did not assess CTG competency, and six did not provide an answer.

Below is a thematic review of the answers given when asked *how* competency was assessed. Although 88 trusts reported that they did assess, 92 trusts gave an example of assessment. Of those, 89 were examples of individual assessment (e.g. e-learning, test, and five mentioned team-based assessment (e.g. multiprofessional meetings). Almost half of all examples solely mentioned e-learning (n=45), and 13 trusts used mixed-methods assessment approaches. The use of "fresh eyes" was mentioned as a method of analysis (n=3); however, only one used this in conjunction with individual assessment.



# **Achieving National Ambitions**

- The Culture of Maternity Services
- Care Before Birth
- Care During Birth
- Care for Mother and Baby After Birth
- Saving Babies' Lives

Topics within this section do not always belong to *one* aspect of the pregnancy and birth journey; they have therefore been put into sections that the authors felt most appropriate.

## **Achieving National Ambitions**

## The Culture of Maternity Services

Support for staff, learning from incidents, and professionalism

## **Key Findings**

- Support for maternity staff appears to be improving: in our previous FOI request, only one trust mentioned that it provided resilience training for its maternity staff, whereas 62% of trusts reported providing this in 2018.
- The increase in trusts providing and requiring interpersonal and 'human factors' training for their staff is evidence of the increased emphasis on culture, team-working, and safety within maternity care; this appears to demonstrate the influence of recent reports and recommendations.
- Despite this, there is still room for improvement. Training on raising concerns /whistleblowing was provided to staff in fewer than half of trusts.
- A demonstrable effort by trusts to move towards a culture of learning was apparent in the current FOI request: over two-thirds of trusts reported that they provided training in learning from serious incident investigations.
- Training on consent was available to staff in fewer than half of trusts. Training on the duty of candour was provided in two-thirds of trusts.

#### **Key Recommendations**

- Funding must remain available to ensure that staff who work in this high-risk area are adequately supported. Sufficient support will enable highly skilled professionals to remain in the speciality not to mention the benefit to patients and families.
- The emphasis on a safe, responsive, and just culture must continue, and trusts should be given practical support to maintain or improve the culture within their units. All staff should be empowered to raise concerns.
- Training on professional issues such as the duties of candour and consent to treatment should be available to all staff.

#### Learning Culture

A "focus on learning and best practice" was listed as one of the "five key drivers for delivering safer maternity care" as part of the national maternity safety ambition and action plan [21]. Within that, sharing best practice and learning from investigations were cited as components leading to better care. Multiple reports exploring avoidable incidents recognised good investigations, learning lessons, and positive action as key [1] [12] [23] [25]. In *The Report of the Morecambe Bay Investigation*, Dr Bill Kirkup CBE reported that situations where this had not happened had been identified as "missed opportunities" to prevent future harm [24]. He added that part of learning lessons from previous failures in care is the ability to raise concerns in an open blame-free culture. In addition, there must be a duty of candour for health professionals to speak honestly and openly about what went wrong [1].

In addition, investigations must be conducted by the team as a whole; 43% of local investigations into harm, when reviewed by MBRRACE-UK, were found to be of poor quality. Although most of the investigations took a multi-professional approach, in most cases it was judged that the investigation team did not include all appropriate professionals [1]. One recommendation from the MBRRACE-UK report (2017) was that

"adequate resource and training should be given to enable all intrapartum deaths to be systematically reviewed to facilitate organisational learning" [1].

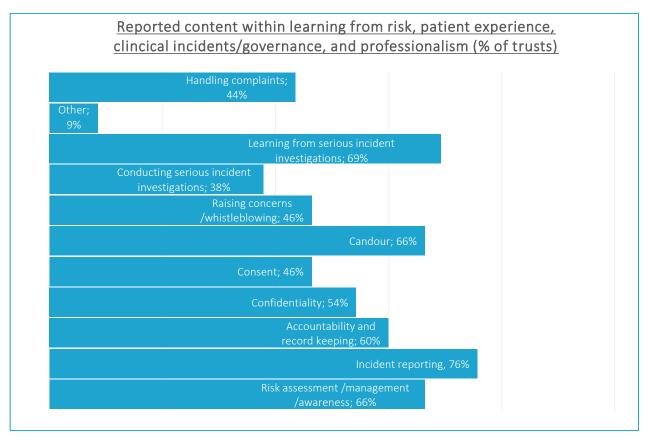
#### Supportive Culture

A prevalence of bullying and undermining reported in maternity services [26] [27], and retention of staff in the field is poor; for example, one in three obstetric registrars leave before they complete training [13] [14]. It is paramount that a culture of support within maternity is garnered in order to promote staff retention and increase morale.

## Learning from risk, patient experience, clinical incidents/governance, and professionalism

## **Training Provided**

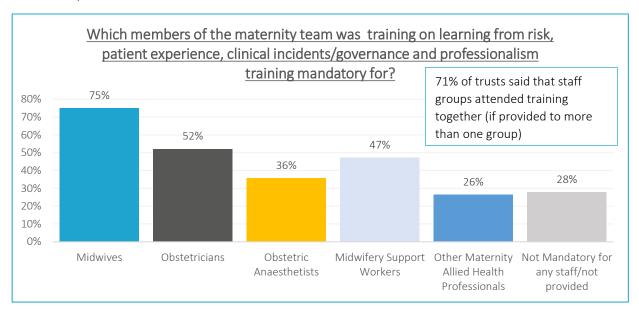
Almost 90% of trusts indicated that they provided training within learning from risk, patient experience, clinical incidents/governance, and professionalism.



The most commonly provided subject within this topic was training on *incident reporting*, provided by three-quarters of trusts. Regarding *serious incident investigations*, there was a difference in the number of trusts providing training in conducting *serious incident investigations* when compared with *learning from serious incident investigations*, which was provided by around 30% more trusts.

Issues of professionalism such as *consent*, *confidentiality*, and *handling complaints* were all covered by fewer than half of trusts. *Candour* was covered more frequently; by two thirds of trusts, possibly in response to the high profile of this issue in maternity in recent years. Training on *raising concerns* and *whistle-blowing* was available to maternity staff in fewer than half of trusts.

## Staff Groups in Attendance



Midwives were required to attend training in this topic more often than any other professional group, although a quarter of trusts did not mandate attendance for midwives. The topic was not mandatory for obstetricians or midwifery support workers in almost half of trusts, and obstetric anaesthetists were not required to attend training on these issues in almost two-thirds of trusts. Just under one-fifth of trusts (n=24) required that the whole maternity team attend training on this topic.

#### Resilience training

Provision of resilience training to staff has risen from just one trust in 2015 to 87 trusts in the current report; representing a percentage point increase of 61%.

## Interpersonal and 'human factors' training

An effect of recommendations and work to improve the awareness of the human factors in maternity is apparent within this report; provision has doubled in the short time between the reports, and almost three-quarters of trusts now report that training in this area is mandatory for at least some maternity staff.

#### Insight from the Frontline

Trusts gave the following examples of training they provide in this area:

"Use of defuse intervention for staff following a traumatic event"

"Professional midwifery advocate" training was listed by three trusts.

"This is my story' (values and behaviours) included in response to complaints"

"Smoking session recommenced in response to 'Saving babies lives' 2016"

## **Achieving National Ambitions**

## Care Before Birth

#### **Key Findings**

- Provision of training on *maternal antenatal screening tests*, and *training on co-morbidities in pregnancy/high-risk pregnancies* have both greatly improved since the last report, but multi-professional attendance on this training varies.
- The content of training on *co-morbidities in pregnancy and management of high-risk pregnancies* varied. Even though it is a leading cause of death during pregnancy and the post-partum period, fewer than one-third of trusts indicated that they provided training on the care of mothers with cardiovascular disease.
- Key content within *antenatal care and advice* that was recommended by reports to tackle stillbirth is not being provided consistently across UK trusts.

## **Key Recommendations**

- Training provision should reflect the changing demographics of mothers giving birth; as such, the whole team should be trained in the specific care of mothers with *co-morbidities* in pregnancy and management of high-risk pregnancy.
- Trusts require more support to implement recommendations in best-practice, such as the *Saving Babies' Lives Care Bundle* and areas for improvements to care identified in other reports.

Recent enquiries have highlighted evidence of sub-optimal care provided during pregnancy that may have contributed to the deaths of mothers and babies [1] [12], and issues for improvements remain similar to those in previous enquiries into babies who died [1]. At the same time, rates of maternal death and morbidity are static, and a proportion of maternal deaths are considered preventable; action must therefore be taken if improvements are to be seen [12].

Most mothers who died during or shortly after pregnancy in the UK between 2013 and 2015 were known to have pre-existing physical or mental health problems [12]. As our population is changing, and women are giving birth later in life; maternity professionals must be prepared to support women with pre-existing conditions or high-risk pregnancies to access the care they need to ensure that preventable adverse maternal outcomes are not repeated [12].

With regard to preventing avoidable harm to babies, the importance of quality antenatal screening, care, and advice has been brought to the fore by the *Saving Babies' Lives Care Bundle*, where the majority of bundle elements involve interventions before the onset of labour, including recommendations for training [19]. The most recent MBRRACE-UK confidential enquiry into intrapartum stillbirth and intrapartum-related neonatal death identified that, of the babies who died; one-quarter did not receive screening for a fetal growth disorder, and two-thirds of the mothers were not screened for smoking according to national guidance [1]. In the same report, for the babies who died, several maternal risk factors were identified, including: being under- or over-weight, smoking, diabetes and hypertensive disorders.

Emphasis has been placed on not missing opportunities to identify women and babies at risk of complications during the antenatal period. By advising women of these risks they can make informed decisions for their care.

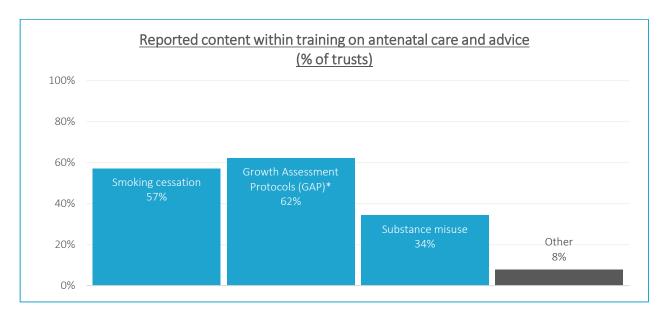
In addition, maternity professionals are adequately informed, so that they can forward plan, escalate and address issues early [1] [12]. Women using the service have also commented on the need for staff to be trained in identifying risks to them or their baby and to be confident to discuss these risks honestly [18].

## Antenatal Care and Advice and Antenatal Screening

## **Training Provided**

Both *antenatal care and advice,* and *antenatal screening* were provided by most trusts: Training on antenatal screening tests was provided by 94% of trusts, and maternal antenatal care and advice was provided by 88%.

Maternal antenatal screening tests and maternity antenatal care and advice were mandatory for one or more groups of staff in most trusts (87%).



\*GAP is a programme provided by the Perinatal Institute for the identification and management of the small for gestational age fetus, including customised fetal growth charts. Although other similar training on fundal height charts may have been provided by trusts, this option was not provided in the FOI request, so if trusts provided another programme this may not have been identified although the option to add 'other' similar training programmes was given). Only one trust who did not provide GAP listed similar training on this topic in 'other,' listed as Symphysis fundal height measuring and plotting / referral pathways and fetal movements.

Fewer than two-thirds of trusts provided training on *smoking cessation* advice; similarly, about two-thirds of trusts provided training on *Growth Assessment Protocols*. Training on advice for substance misuse was provided even less often – by around a third of trusts.

#### "Other"

Fourteen trusts provided qualitative data in this section. Some responses included topics considered to be more relevant to antenatal screening, and other topics listed in the request (possibly showing that trusts considered these relevant to antenatal care); other responses described the provision of training.

Topics of interest listed:

- obesity, weight management in pregnancy, perinatal mental health
- symphysis fundal height measuring and plotting/referral pathways and fetal movements and use of customised growth charts
- psychological well-being and sexual violence and domestic violence and handling disclosure
- vaccinations.

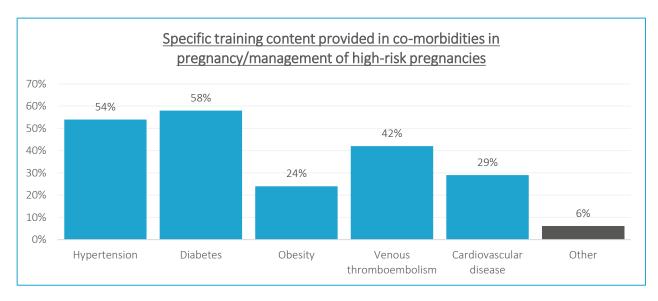
## Staff Groups in Attendance

Both topics were mandatory for midwives significantly more often than for the rest of the team. For example, *maternal antenatal care and advice* was mandatory for midwives in 81% of trusts and for obstetricians in 39%.

## Co-Morbidities in Pregnancy and Management of High-Risk Pregnancies

## **Training Provided**

Training provision in *co-morbidities in pregnancy and management of high-risk pregnancies* has increased since the previous report, and 79% of trusts reported that this topic was provided to maternity staff. It was considered mandatory for more than one group of staff in 69% of trusts.



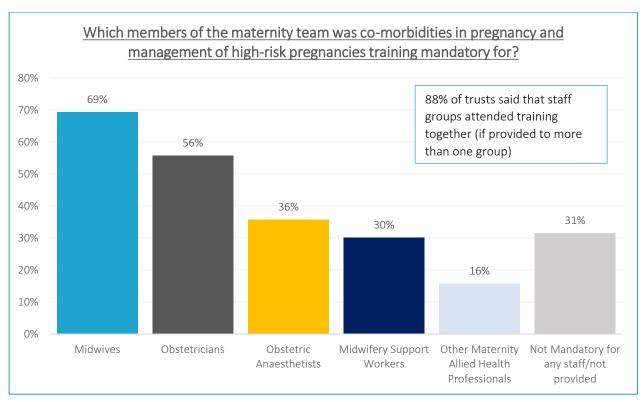
There is a lack of consistency in what is important to include in training on *co-morbidities in pregnancy and management of high-risk pregnancies*. This lack of consistency could be due to identified local population priorities. Guidance on nationally identified priorities is needed, however. For example, cardiac disease and venous thromboembolism are leading causes of death during pregnancy and for up to 6 weeks after, yet training on these was provided to maternity staff in fewer than half of trusts. In addition, obesity is a national problem yet only 24% of trusts reported provided relevant training.

#### "Other"

Nine trusts who answered the above question indicated that they provided specific training on this topic in addition to the five topics listed:

- four trusts gave answers that were not considered applicable two were topics explicitly listed in other sections (sepsis, mental health), one answer described the delivery of the training provided, and one answer was unclear ('high-risk situations')
- one trust mentioned training in 'anaphylaxis', which may not have been applicable to this section if referring to emergency management only, and was usually listed under *emergency skills drills*
- One trust each mentioned training in:
  - stroke
  - cancer in pregnancy.
- Two trusts mentioned epilepsy in pregnancy.

## Staff Groups in Attendance



Team training on this topic varied; training for the whole team was mandatory in only 11% of trusts. Training on *co-morbidities in pregnancy and management of high-risk pregnancies* was mandatory for obstetric anaesthetists in just over one-third of trusts, and was not mandatory for any member of the team in almost one-third of trusts.

## Care During Birth

## **Key Findings**

- The provision of *emergency skills drills* training has improved, and is now part of maternity training in all UK trusts.
- There is still some way to go to achieve the recommended standard of training on *emergency skills drills* and *interpersonal and 'human factors' skills* across entire multiprofessional maternity teams, with only about one-quarter of trusts reporting that both of these topics are mandatory for the whole maternity team.
- There is notable variation in the content of emergency skills drills training in the UK. For example, whilst almost all trusts provided training on post-partum haemorrhage as part of their programme, one-tenth of trusts did not indicate that they provided training on cord prolapse.
- Provision of training in *electronic fetal monitoring* varied: CTG training was not mandatory for obstetricians in almost one-tenth of trusts, and training on intermittent auscultation was not provided for any staff by almost one-fifth of trusts.
- The provision and awarenesss of training on *interpersonal and 'human factors'* skills has increased dramatically since the previous FOI request.

## **Key Recommendations**

- Work on involving the entire multi-professional maternity team in training for 'intrapartum-care' skills needs to continue, with a focus on requiring the involvement of obstetric anaesthetists and members of the wider team working in this high-risk area.
- Trusts need more support to implement recommendations in this field, particularly in
  electronic fetal monitoring training, where training on intermittent auscultation is hugely
  underemphasised. Training in electronic fetal monitoring must be mandatory for all
  obstetricians and midwives as a minimum standard, although some training for the entire
  team would be ideal.
- Trusts need more guidance on the minimum content of essential training such as emergency/skills & drills, to allow standardisation across the UK.

Investigations into stillbirths, neonatal deaths and injury have consistently identified sub-optimal care during birth (intrapartum care) as a contributary factor in potentially avoidable harm [1] [23] [25]. The most recent MBRRACE-UK perinatal confidential enquiry into term, singleton, intrapartum stillbirth and intrapartum-related neonatal death found that suboptimal care in labour was a factor that may have affected the outcome in more than three-quarters of deaths investigated; futhermore, it was felt that 90% of these outcomes might have been different with high-quality intrapartum care.

Lessons for improving care arising from investigations into avoidable harm have repeatedly identified similar issues; including, fetal monitoring, management of emergencies [1] [23] [25], and issues with escalation, situational awareness, and decision making - often referred to under the umbrella 'human factors' skills [1] [23].

## Emergency skills drills training

#### **Key Findings**

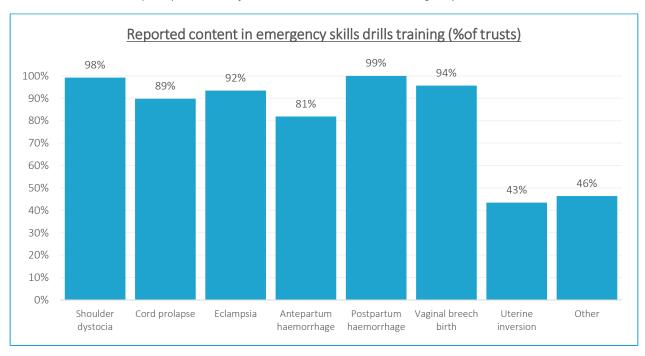
- All respondent trusts provided training on *emergency skills drills*, and almost all reported that this was mandatory.
- All trusts provided training on at least two of the emergencies mentioned in the request.
   Just over three-quarters covered at least six subjects but only 39% of trusts covered all subjects listed.
- Training on postpartum haemorrhage was the subject within *emergency skills drills* training covered most consistently by UK trusts; the provision of training in other emergencies listed varied.
- Although training was mostly reported as being delivered to a multi-professional audience, the whole maternity team attended this training in just over one-quarter of trusts. Training was mandatory for obstetric anaesthetists almost a third less often than for midwives.

Issues with timely recognition and appropriate management of emergency situations such as uterine rupture [1] and breech birth [25] have been highlighted as contributary factors in instances of harm. Training is recommended as one way to address these issues [21] [25]. In order to encourage safety in maternity care and achieve government targets, trusts are currently financially incentivised by NHS Resolution to implement criteria to reduce risk of harm; one aspect of this is ensuring annual in-house whole-team training on 'maternity emergencies' by trusts [21].

## **Training Provided**

All trusts that responded to the FOI request provided training in *emergency skills drills* and 99% reported that training in emergency skills drills was <u>mandatory</u> for at least one staff group.

Trusts were asked to specify which subjects were covered within emergency skills drills:



All trusts provided training on at least two of the emergencies mentioned in the FOI request. Just over three-quarters covered at least six subjects but only 39% of covered all seven subjects (n=53). Training on postpartum haemorrhage was the subject within *emergency skills drills* training that was covered most consistently by trusts. Training on shoulder dystocia was provided by most trusts (n=137). Other subjects were less consistently provided.

#### "Other"

Almost half of trusts (46%) indicated that they provided a topic within *emergency skills drills* training that was additional to the seven topics listed in the survey (n= 64 trusts); 83 trusts provided a comment in this section.

Some trusts mentioned topics already listed separately in the request. These mostly had a similar theme and may have been listed because they were provided in the same training session. For example:

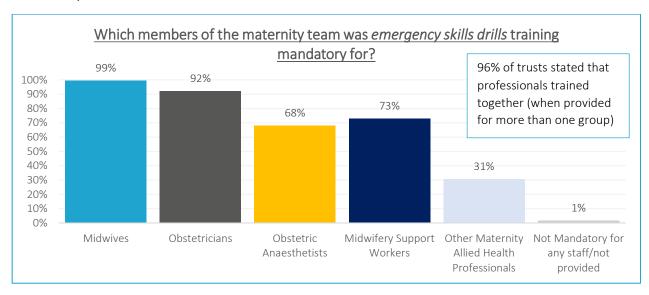
- maternal resuscitation/care of the critically ill woman was mentioned 28 times
- newborn resuscitation/emergency was mentioned 33 times
- sepsis was mentioned 41 times
- birthing pool evacuation was mentioned 4 times.
- CTG was mentioned twice.
- 'human factors' was mentioned 4 times.

Interestingly, four trusts also listed 'human factors' under 'other' for this topic, perhaps an indication of the growing recognition of the importance of human

| Emergencies            | No. of Trusts                 |   |  |  |
|------------------------|-------------------------------|---|--|--|
|                        | Anaphylaxis                   | 5 |  |  |
| General<br>emergencies | Embolism (pulmonary /venous   | 3 |  |  |
|                        | thrombus embolism)            | 3 |  |  |
|                        | Opioid use                    | 1 |  |  |
|                        | Abduction of a baby           | 1 |  |  |
| Diabetes               | Diabetic ketoacidosis         | 2 |  |  |
|                        | Hypoglycaemia                 | 2 |  |  |
|                        | 'Diabetes'                    | 1 |  |  |
| Anaesthesia            | Failed intubation             | 4 |  |  |
|                        | Anaesthetic emergencies/      | 4 |  |  |
|                        | issues                        |   |  |  |
|                        | Epidural toxicity/total block | 3 |  |  |
|                        | Impacted fetal head           | 2 |  |  |
| Maternity specific     | Female genital mutilation;    | 1 |  |  |
|                        | intrapartum deinfibulation    |   |  |  |
|                        | Category 1 lower segment      | 1 |  |  |
|                        | caesarean section             |   |  |  |
|                        | Uterine rupture               | 1 |  |  |
|                        | Delivery of twins             | 5 |  |  |

factors skills in high-risk, high-stress situations, and recommendations for its inclusion in team training.

#### Staff Groups in Attendance



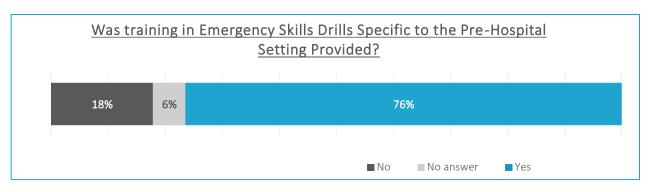
*Emergency skills drills* training was mandatory for midwives more often than for any other group. Obstetric anesthetists were the least well represented of any single named profession; training was mandatory for obstetric anesthetists in 68% of respondent trusts, over 30% less often than it was mandatory for midwives.

Emergency skills drills training was mandatory for at least two professional groups in 95% of trusts, and for three or more professional groups in over 80% of trusts. Just over one-quarter of trusts (n=36) reported that emergency skills drills training was mandatory for all the professional groups listed in the FOI request.

This made *emergency skills drills* training the <u>second most well-attended topic by the whole maternity team</u>, after *adult/maternal life support*, which was mandatory for all listed professional groups in 42% of trusts.

#### Role-Specific Training in Emergency Skills Drills

Births in community settings, and community services in general, are gaining more attention as a better option for some low-risk mothers [28] [29], and to support continuity of care for mothers [18]. Community-specific training, where resources are low, needs to be a priority for all maternity services offering community care. This training should be in a multi-professional setting, with all members of the team in attendance: community midwives, midwives, paramedics, emergency technicians, and midwifery support workers.



Just over three-quarters, and a total of 107 trusts, reported providing *emergency skills drills* training that was specific to the pre-hospital setting.

## **Fetal Monitoring**

#### **Key Findings**

- Whilst almost all trusts (99%) provided training on *electronic fetal monitoring/CTG interpretation*, this contrasted with the provision of training in *intermittent auscultation*, which was provided by 83% of trusts. Nevertheless, this represents a marked improvement in the provision of training on *intermittent auscultation* compared with the previous request. *Intermittent auscultation* was also 8 times more likely than *electronic fetal monitoring/CTG* not to be mandated or provided for any staff.
- Fetal monitoring training was mandatory for midwives more often than for any other group. As might be expected, midwives and obstetricians represent the overwhelming majority of professionals required to attend training.
- Even for midwives and obstetricians, there were discrepancies in the provision of training in the two elements of fetal monitoring contained in the request: for obstetricians, training in *electronic fetal monitoring/CTG* was mandated 2.5 times more frequently than *intermittent auscultation*, but was not mandatory in almost one-tenth of trusts. *Intermittent auscultation* was not mandatory for midwives in almost one-fifth of trusts.

Recent investigations into intrapartum-related stillbirths and neonatal deaths have found that sub-optimal care associated with the initiation, interpretation, escalation, and management relating to fetal monitoring, particularly of CTG traces, are a contributary factor in a high proportion of adverse outcomes [1] [23]. Bleakly, these themes remain similar to those identified in the confidential enquiry by CESDI in 1993, where issues with *fetal monitoring* were highlighted as the largest contributory factor in sub-optimal management, although it should be noted that overall mortality has fallen since this report [1] [23].

In more recent reviews for the RCOG's *Each Baby Counts* report (2015), critical contributory factors were identified where different care might have prevented injury and death in babies; failures relating to *intermittent auscultation* accounted for 21% of the contributory factors, and CTG-related failures accounted for 61% [23].

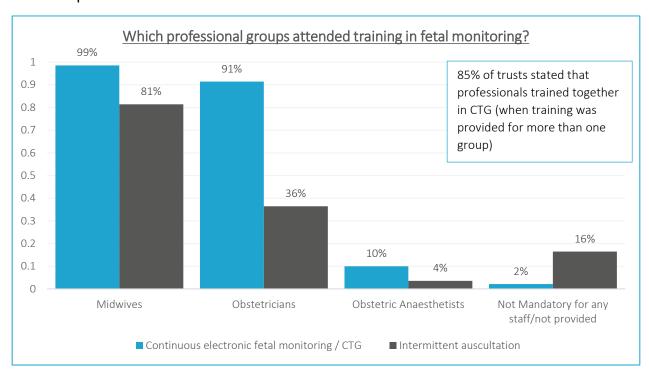
The Saving Babies' Lives Care Bundle (2016) recognised the importance of undertaking and passing annual training and competency assessment on CTG interpretation and use of auscultation for all staff who care for women in labour. It states that "no member of staff should care for women in the birth setting without evidence of competence within the last year" [19].

#### **Training Provided**

All but two trusts indicated that they provided training in *electronic fetal monitoring* to their maternity staff, whereas only 83% provided training in *intermittent auscultation*. Four trusts did not provide an answer.

Even though this level of training falls below the standard set in recent recommendations for England [19], this level of training reflects a significant increase in the reported provision of *intermittent auscultation* training since 2015, with training provision in this topic indicated by more than nine times as many trusts. This may be in response to the launch of the *Saving Babies' Lives Care Bundle* by NHS England in 2016.

## Staff Groups in Attendance



Training in *electronic fetal monitoring* was attended well by midwives and obstetricians but there was a lack of team involvement beyond those professional groups. Whilst it is not necessarily mandatory for obstetric anesthetists to attend training in *fetal monitoring*, knowledge of how to "assess fetal wellbeing in utero is an expected competency within core training for obstetric anesthesia [30] which is why they are included in the figure above.

In contrast to *electronic fetal monitoring*, training in *intermittent auscultation* was provided much less frequently for midwives and obstetricians: only around a third of trusts provided training in *intermittent auscultation* for obstetricians. (Note that members of the team for whom we feel mandatory fetal monitoring is not essential are not included in the figure.)

## Interpersonal and 'Human Factors' Skills

## **Key Findings**

- There has been a notable increase in the provision of training in this area since the previous report; provision of training in this topic has doubled, and respondents appear much more familiar with the term 'human factors'.
- Interpersonal and 'human factors' training, along with training in sepsis, was the third most well-attended topic by the whole maternity team, closely following emergency skills drills training. Training was attended by all the professional groups listed in the FOI request in just under a quarter of trusts.
- When this training was attended by more than one professional group, 93% of trusts reported that these groups attended training together.
- This training was mandatory for obstetric anaesthetists in fewer than half of trusts, and for allied maternity health professionals in fewer than one-third of trusts.

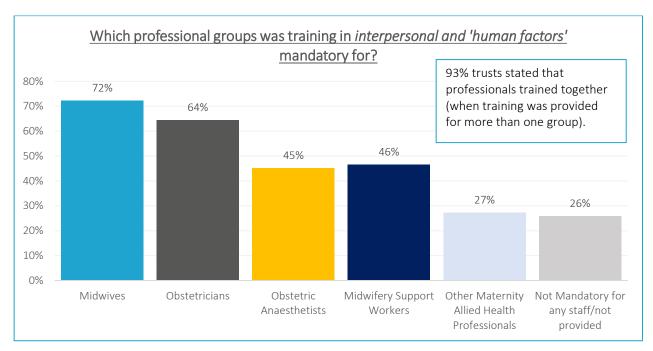
A key recommendation to reduce intrapartum death in MBRRACE-UK's report (2017) was that "multidisciplinary training in situational awareness and human factors should be undertaken by all staff who care for women in labour" [1]. In addition, the RCOG's Each Baby Counts report (2015) noted that "individual human factors" and "team communication issues" were critical contributory factors in over half of babies whose adverse outcome may have been prevented with different care [23]. Furthermore, Better Births highlighted the importance of team training in human factors, stating that "if you work together, you train together" [18]. The Morecambe Bay Investigations highlighted a pattern in fatal incidents, identified as failures in team working, and underlying human factors [24].

*Interpersonal skills and human factors* underly all practice in maternity and wider NHS services, and play a pivotal role in delivering safe care.

## **Training Provided**

There has been a notable increase in the provision of training in this area since the previous report. When trusts were surveyed for the initial 'Mind the Gap' report in 2015, fewer than half (41%) reported that they provided training in topics relating to 'human factors'. In contrast, 95% of respondents to the current FOI request (2018) reported that they provided *interpersonal and 'human factors*' training to maternity staff in their trust.

#### Staff in Attendance



Interpersonal and 'human factors' training was mandatory for midwives more often than for any other group. Obstetric anesthetists were the least well represented of any named group, and this training was mandatory for obstetric anesthetists in fewer than half of respondent trusts.

Just under one-quarter of trusts (n=33) reported that *interpersonal and 'human factors' skills* training was mandatory for the whole maternity team, making it join with *sepsis* in being the third most well-attended topic by the whole maternity team, closely following *emergency skills drills* training.

Just under three-quarters of trusts required that at least one professional group attend training on *interpersonal and 'human factors' skills,* and it was mandatory for three or more professional groups in just over half of trusts.

Over 9 out of 10 trusts reported that, when more than one professional group attended this training, they attended it together.

## Care of Mother and Baby After Birth

#### **Key Findings**

- There was a marked discrepancy between the provision of training for *care of the acutely unwell newborn* compared with training for *care of the acutely unwell mother*.
  - training on *newborn life support* was mandatory for the whole maternity team almost six times less often than it was for training on *adult/maternal life support*.
  - Trusts reported providing training on recognition of *maternal sepsis* 2.5 times more often than they reported providing training on recognition of *neonatal sepsis*.
- Training on care of the well/unwell baby, newborn care, and newborn screening was not mandatory for any maternity staff in almost one-third of trusts.
- Training on *adult/maternal life support* was the most well attended topic by the whole maternity team although in was mandatory for all listed professional groups in fewer than half of trusts.
- Just one-fifth of trusts required that training on *early recognition and management of the severely/critically ill woman* be attended by the whole maternity team.
- In 43% of trusts, *bereavement care* training was not mandatory for any staff; it was mandatory for the whole team in just 1% of trusts.
- In over one-quarter of trusts, *perinatal mental health* training was not mandatory for any group of staff.
- Training on the *care of women following operative interventions* was mandatory for midwives in just over one-third of trusts. Training in this topic was provided by trusts less often than any other topic listed, and by 14 fewer trusts than the second least provided topic, *complementary therapies*.

#### **Key Recommendations**

- Trusts should be supported to provide training for all staff who work with newborn babies on the recognition and initial management of the unwell neonate. This will help trusts to comply with recommendations from reviews of babies who died shortly after birth, and recommendations to help reduce the number of term babies being admitted to neonatal units.
- All staff who work with mothers and babies should be required to attend regular training on basic resuscitation of mothers and babies as a minimum standard. This training should follow guidelines set out by the Resuscitation Council.
- All members of the maternity team should receive training in care of the deteriorating/acutely ill woman.
- Trusts should be supported to provide complete and consistent training in topics relating to the key
  findings of reports that relate to saving the lives of mothers and babies, such as co-morbidities in
  pregnancy, sepsis, and perinatal mental health. The whole maternity team should be equipped to
  recognise and manage these issues.
- A high proportion of mothers undergo an operative intervention during childbirth; training priorities should respond to the demographics of our maternity population.
- A National Bereavement Care Pathway has now been developed for maternity care in the UK; training is essential for all staff so that they feel confident to provide the best possible care to parents who lose a baby.

#### Care of Babies

In Each Baby Counts "management of neonatal care" was identified as a critical contributory factor in nearly one in five cases where brain injury and death could have been prevented with different care [23]. Furthermore, MBRRACE-UK's investigation into intrapartum-related neonatal death found some evidence of sub-optimal resuscitation in just under half of babies who died [1]. Consequently, one of the report's recommendations was that all staff who are often present at births and who may be involved in resuscitation should attend and pass regular training in newborn life support.

Themes from NHS Resolution's data relating to cerebral palsy claims also identified problems with neonatal resuscitation in almost one-fifth of the claims, although this was not the isolated cause [25]. Again, effective and adequate multi-professional training was recommended following the report.

There are now national efforts to reduce unnecessary admission to neonatal units within the Avoiding Term Admissions Into Neonatal units (ATAIN) programme [31].

#### Care of Mothers

The latest MBRRACE-UK confidential enquiry into maternal death and morbidity showed no change in the overall maternal death rate from previous years, noting that further actions are urgently needed if national ambitions for England to reduce maternal deaths are to be achieved [12]. Of the women who died that were investigated, improvements in care may have made a difference to the outcome in 41% of cases.

New guidelines by the Royal College of Obstetric Anaesthetists now set out competencies for maternity teams for "enhanced maternal care", in order to ensure that mothers who become acutely unwell before, during, or after birth receive the same level of critical care expected for any other patient. These guidelines stress that training in caring for women whose condition is deteriorating or who critically ill is necessary for "all teams involved in maternity care" [32].

#### Perinatal Mental Health

The most recent investigation by MBRRACE-UK into maternal deaths and morbidity in the 2013–2015 found that 16% of the women who had died had a pre-existing mental health problem that was known to healthcare services. For women who are pregnant or have been pregnant in the last year, suicide continues to be the leading cause of direct maternal death [12].

Of those women investigated by the enquiry who had severe mental health illness and died, only 26% were judged to have had 'good' care. Furthermore, the enquiry decided that, for 26% of these mothers, better care may have led to a different outcome [12]. Recommendations to improve care in this area include the need for staff training, including information on prediction, identification, and effective support, and appropriate referral [12] [18]. Historically, perinatal mental health care has suffered from a lack of investment and national variation in the service provided to woman [19].

#### Bereavement Care

Where care following the death of a baby has been investigated, variation in the quality of *bereavement care* has been noted. In the investigation by MBRRACE-UK (2017), the quality of *bereavement care* received by the parents of babies who had died was assessed as good in fewer than half of cases. Healthcare professionals have identified a lack of training as a barrier to providing more effective *bereavement care* to parents following the loss of a pregnancy or baby [33].

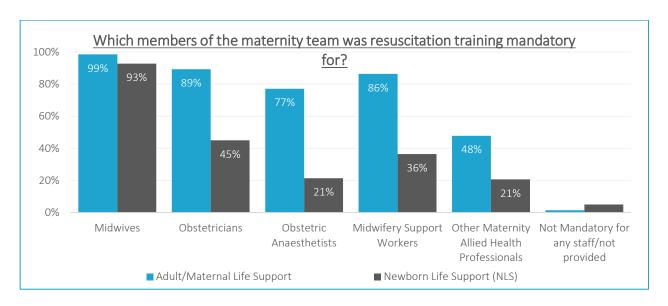
#### Resuscitation

## A Comparison Between Neonatal and Maternal training

## **Training Provided**

Most trusts provided training in both *newborn life support* (n=139), and *adult/maternal life support* (n=137). Where *adult/maternal life support* was provided, it was always mandatory for at least one group of staff (98% of the time) whereas training in *newborn life support* was mandatory for at least one group of staff 94% of the time.

#### Staff Groups in Attendance



A significant finding when looking at *neonatal resuscitation* was the frequency with which it was selected as mandatory compared with to *adult/maternal resuscitation*; therefore, we have included this as a comparison.

Adult/maternal life support was the most well-attended topic by the whole maternity team and was mandatory for all listed professional groups in 60 respondent trusts (42% of trusts). In contrast, newborn life support was less often mandatory in every professional group listed. It was also five times more likely to not be mandatory for any staff.

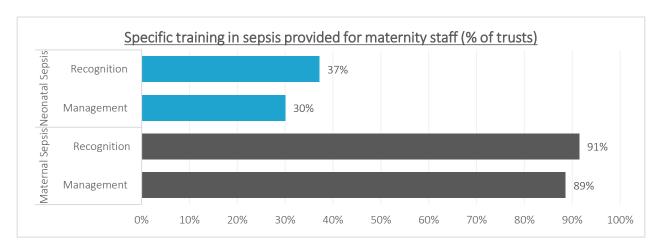
Newborn Life Support was mandatory for obstetric anaesthetists over three times less often than was adult/maternal life support, being mandatory for this group in only one-fifth of trusts. This is despite basic neonatal life support being considered a core competency for training in obstetric anaesthesia [30].

## **Sepsis Training**

#### A Comparison Between Neonatal and Maternal

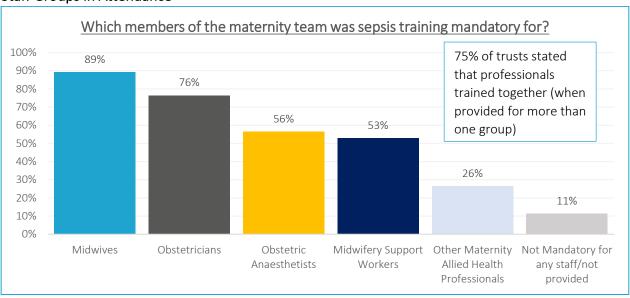
#### **Training Provided**

Almost all trusts (n=134) reported that providing *sepsis* training to maternity staff; 89% of trusts indicated that this was considered mandatory training for at least one staff group. Trusts were asked to further describe the specific training provided in the recognition and management of neonatal and maternal *sepsis*.



Similarly to training in *resuscitation*, a discrepancy was noted in the numbers of trusts that provided training in neonatal versus maternal *sepsis*. Fifty-two trusts reported providing training on recognition of *neonatal sepsis* whereas 128 trusts reported providing training on recognition of *maternal sepsis*. Fewer than one-third of trusts reported that they provided training in the recognition and management of both maternal and neonatal *sepsis*.

## Staff Groups in Attendance



As with all other topics, *sepsis* training was more often mandatory for midwives than for any other professional group. Three quarters of trusts also mandated training for obstetricians, and over half mandated obstetric anaesthetists to attend sepsis training. *Sepsis* training was mandatory for the whole team in almost one-quarter of trusts.

#### Other Training Relevant to Care of the Baby

## Care of the Well/Unwell Baby, Newborn Care, and Newborn Screening

Care of the well/unwell baby was provided to maternity staff in four-fifths of trusts and was considered mandatory for at least one group of staff in two-thirds of trusts.

This topic was required training for midwives in 63% of trusts (n=89), maternity support workers in 30%, and for obstetricians in 11%. It was not considered mandatory for any maternity staff in almost one-third of trusts.

#### **Newborn Feeding**

Training on *newborn feeding* was provided by 96% of trusts and was considered mandatory for at least one group of staff in most trusts (92%).

This training was almost always required for midwives (92% of trusts) and was often required for maternity support workers (71% of trusts).

## Other Training Relevant to Care of the Mother

## Care of Women Following Operative Interventions

About 40% of women in England delivered via caesarean section or instrumental delivery in 2017–18 [22].

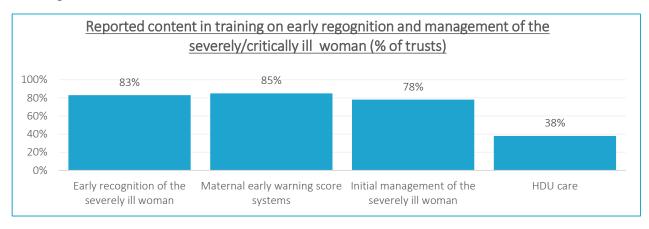
Despite this, care of women following operative interventions was the least provided topic in the FOI request, with fewer than half of trusts providing training (44%); however, provision has improved since 2015, with 32% more trusts now reporting that they provided training in this in 2017–18. Training on this topic was mandatory for at least one group of staff in 38% of trusts.

This training was mandatory for the whole team in just 3% of trusts, but was not mandatory for any staff in most trusts (56%). Just over one-third of trusts required that midwives attend training in *care of women following operative interventions*.

# Early Recognition and Management of the Severely/Critically III Woman

Most trusts (94%) provided training on the *early recognition and management of the severely/critically ill woman* to their maternity staff. This was mandatory for at least one staff group in 86% of trusts.

# **Training Provided**



Training more often focused on *recognition* of the deteriorating woman, as opposed to training on *management of* the severely ill woman, but this was still provided by over three-quarters of trusts. Training on *HDU care* was less well provided for, with 38% of trusts provided this to their maternity staff.

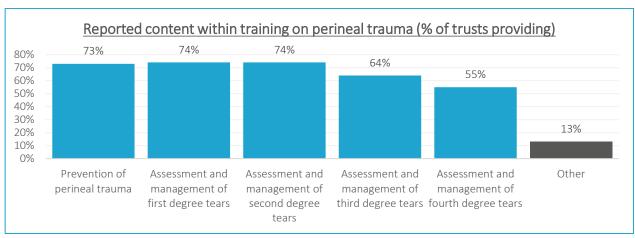
# Staff Groups in Attendance

Training on this topic was mandatory for the whole maternity team in just one-fifth of trusts. It was mandatory for midwives in 86% of trusts, for obstetricians in 70%, and for any other maternity professional in fewer than half of trusts. Overall, 90% of trusts reported that when this training was delivered to more than one professional group, they attended together.

# Assessment, Management and/or Prevention of all Types of Perineal Trauma

This training was provided by 84% of trusts and was mandatory for at least one professional group in 69% of trusts. It was mandatory for midwives in 69% of trusts but for obstetricians in under half of trusts.

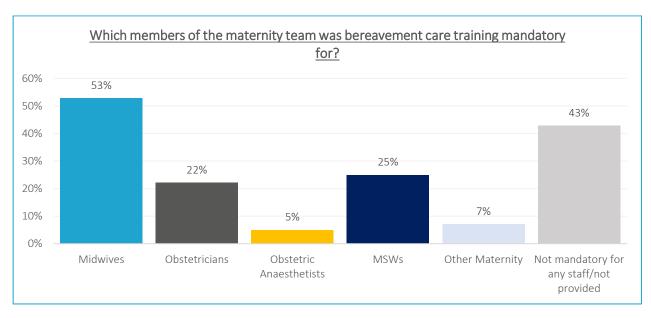
# **Training Provided**



Training on prevention of perineal trauma, and assessment and management of first- and second-degree tears were all provided by about three-quarters of trusts. Training on assessment and management of third-and fourth-degree tears was provided less often, however.

## **Bereavement Care**

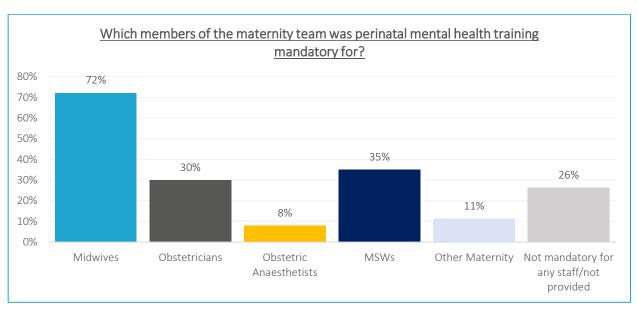
Just over three-quarters of trusts (n=107) indicated that they provided *bereavement care* training to maternity services staff in their trusts; however, 43% of trusts stated that this was not mandatory.



Whilst bereavement care training was mandatory for midwives more than twice as often as for any other group of staff, it was mandatory for midwives in only half of all respondent trusts (53%). Bereavement care training was mandatory for obstetric anaesthetists in **only 5%** of UK trusts. Only two trusts indicated that bereavement care training was mandatory for the whole multi-professional maternity team.

# Perinatal Mental Health

Provision of training in *perinatal mental health* has increased significantly since the last report, and is now provided in 88% of trusts. However, this training is considered mandatory in fewer than three-quarters of trusts.



Perinatal mental health training was mandatory for midwives in twice as many trusts as for any other group of staff, including maternity support workers and obstetricians. Perinatal mental health training was mandatory for obstetric anaesthetists in only 8% of UK trusts and for the whole team in only 3% of trusts.

In over one-quarter of trusts, perinatal mental health training was not mandatory for any group of staff.

# **Achieving National Ambitions**

# Saving Babies' Lives

Assessing levels of implementation with national recommendations to reduce stillbirth

# **Key Findings**

- Compliance with the training elements of the *Saving Babies' Lives Care Bundle* is generally low, and varies regionally; 92% of trusts have not implemented all the training elements of the bundle.
- Only 1 in 5 trusts reported complying with all components of the *fetal monitoring* element of the bundle.
- About half of trusts reportedly provided training in *smoking cessation*.
- The element of the bundle that most trusts complied with was mandatory annual training for midwives and obstetricians in *fetal monitoring*.

# **Key Recommendations**

• All trusts across the UK should identify the training components of the Saving Babies' Lives Care Bundle that they are not providing, and put measures in place to provide this training for all relevant staff members. This should help in the national ambition to reduce stillbirths.

To assess whether maternity training for frontline professionals is responding adequately to national recommendations to improve maternity care, we looked at one of the Government's initiatives to reduce stillbirths – the *Saving Babies' Lives Care Bundle*. This was published in 2016 and outlined evidence-based and/or best practice in care to tackle variation in stillbirth rates across regions.

An evaluation of the importance of the bundle showed clinical improvements across each of the 19 early adopter sites, saving more than 160 babies' lives. This bundle appears to be a key element to achieving the Government target of reducing stillbirths by half by 2025.

Staff training is explicitly mentioned in three of the four care bundle elements.

# Reducing smoking in pregnancy

• "Midwives must have up-to-date knowledge and skills training to maximise their potential to impact positively on pregnancy outcomes."

# Risk assessment and surveillance for fetal growth restriction

- "For low-risk women, fetal growth to be assessed using antenatal symphysis fundal height charts by clinicians trained in their use."
- "All staff competent in use of estimated fetal weight charts, and audited within trusts (e.g. through midwifery supervision/trust-based training and competence records)."
- Training programme in place on use of fundal height charts, interpretation and referral.

# Effective fetal monitoring during labour

• "All staff who care for women in labour are required to undertake an annual training and competency assessment on CTG interpretation and use of auscultation. No member of staff should care for women in a birth setting without evidence of training and competence within the last year."

# How Many Trusts Provided the Training Elements of the Bundle?

One in 12 trusts (7.9%) reportedly provided all training elements of the *Saving Babies' Lives Care Bundle* (n=11)

One or more training elements provided by 61.4% of trusts; two or more training elements provided by 23.6%

# 51.4% provided training in smoking cessation

# Inclusion criteria:

Trusts that selected 'Maternal Antenatal Care and Advice' as mandatory for midwives **AND** selected 'Smoking Cessation' as being provided within this topic.

# 31.4% provided training in fetal growth restriction

#### Inclusion criteria

Trusts that selected 'Maternal Antenatal Care and Advice' as mandatory for midwives AND Obstetricians\* AND indicated that they provided training on 'Growth Assessment Protocols' within this topic

# 20% provided all training components outlined by the electronic fetal monitoring element

#### Inclusion criteria:

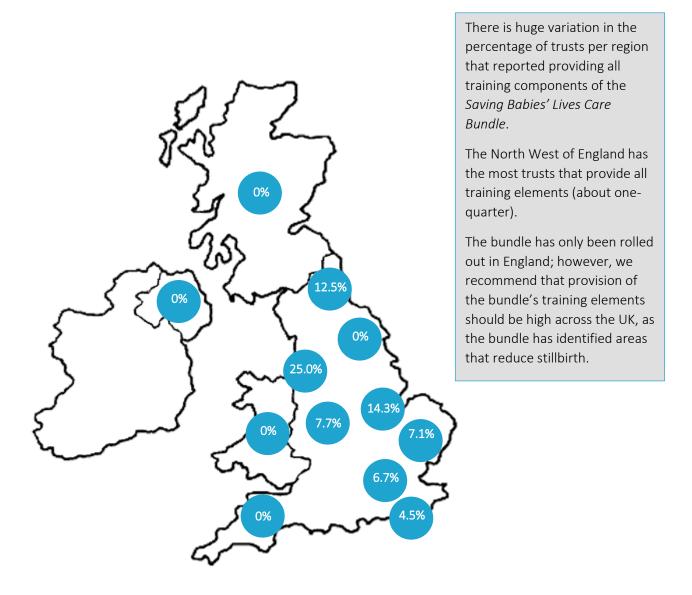
Annual mandatory training in CEFM/CTG and intermittent auscultation for midwives and obstetricians, and competency was assessed for CTG interpretation and management.

# A more detailed look at the training components of Electronic Fetal Monitoring element (Element 4)

- Annual training in CEFM/CTG as mandatory for midwives and doctors: 86.4% of trusts
- Annual training in Intermittent auscultation as mandatory for midwives and obstetricians: 29.3%
- Competency assessment in CTG interpretation and management assessed: 62.9%

# **Regional Comparisons**

% of Trusts That Provided the Saving Babies' Lives Care Bundle Training Components



# **Analysis Notes**

Where the care bundle recommends an intervention for 'all staff', we have assumed midwives and obstetricians to be the minimum standard, although we recognise that these training interventions may also be applicable to other staff who work in the intrapartum care setting.

Regarding the Growth Assessment Protocol (GAP), the recommendation in the bundle is 'training programme in place on use of fundal height charts, interpretation and referral'.

GAP is a programme provided by the Perinatal Institute for the identification and management of the small for gestational age fetus, including customised fetal growth charts. Although other similar training on fundal height charts may be provided, this option was not provided in the FOI request and if trusts provided another programme, this may not have been identified (although the option to add 'other' similar training programmes was given). One trust stated a related growth assessment course in "other", which was included as within our analysis.

# Conclusion

Three in four baby deaths and injuries are preventable with different care; [1] [23] however, the tragic human and financial consequences of this harm continue. For over two decades, successive reports that investigated avoidable instances of harm and death have recommended training for frontline staff in targeted areas as a key way to improve outcomes. This report has surveyed the national response to these recommendations and provides the most up-to-date picture of maternity training for healthcare professionals in the UK. The following gaps have been identified and must be addressed as a matter of urgency.

# **Findings**

- 1. As well as a lack of prioritisation in areas recommended to improve mortality and morbidity in mums and babies, there is no standardisation in the way maternity training is prioritised, provided, funded, assessed, or attended across the UK. Comparisons in maternity training showed a wide variation in the amount spent, with individual trust spending ranging from £1,051 to £372,878 (mean £59,873).
- 2. There was a clear consensus across trusts that the key barriers to the provision of training were adequate staffing and finance. Adequate staffing was also the greatest barrier to staff attending training (80% of trusts), with the second being sickness which also directly relates to staffing.
- 3. This report shows that whilst provision of training has increased, there are still gaps in key areas of evidence-based best training and practice. For example, the Saving Babies' Lives Care Bundle (an evidence-based intervention comprising four separate elements, devised by NHS England to reduce stillbirths) has been poorly implemented. Although 60% of maternity units provide training in at least one element, of more concern, fewer than 8% of trusts across the UK have adopted all the training elements.

NHS England has recommended comprehensive implementation of the Care Bundle, and it is now vital that formal training to reduce unnecessary baby deaths is provided throughout the UK. This report, together with the evaluation of the bundle, which demonstrated the potential impact of the implementation in saving 160 babies' lives across 19 sites, should hopefully promote even wider national adoption.

# Recommendations

1. Immediately reinstate the *Maternity Safety Training Fund*. The Secretary of State for Health and Social Care must take immediate action to reinstate the *Maternity Safety Training Fund* for 2018–19 and every year thereafter. We now have a clear view of the inadequate funding for training, and this cannot continue.

**Funding** must be provided to tackle the barriers to attendance and provision of training: releasing funds that cover staff back-filling for those attending training, costs for external training courses and travel and accommodation costs, and proper on-site resources for well-equipped, accessible learning environments.

- 2. Professionals and other staff working in clinical areas must undergo regular and relevant mandatory training, with competency assessed and recorded. Health Education England must take oversight of compliance with maternity training, as compliance recording varies widely across trusts. Training must be mandatory.
  - Individual competency and attendance should be measured. Doctors and midwives who have not completed annual training must have this training expedited if they are to continue working in clinical areas.
- 3. Maternity-specific national training guidance must be developed in collaboration with national training bodies and experts, using recommendations to improve care and evidence-based best practice.

The guidance should cover the content of training for different professional groups, how often they should attend, and the minimum assessment standards.

A national multi-disciplinary faculty development programme must be established to ensure that quality trainers are recognised and can develop their skills. Local programmes of training must be assessed for local impact. This work will build on previous work carried out by *Mind the Gap Working Group* (Appendix IV).

Training being provided in-house and externally must be properly assessed for effective impact on practice and outcomes. Training should not be a "tick-box" exercise that wastes the time of the professionals completing it and serves no purpose other than fulfilling a managerial training objective.

# **Further Work**

- Baby Lifeline in collaboration with its partners will maintain pressure on policy makers, commissioners, and providers by repeating surveillance on national maternity training with a third *Mind the Gap* report in 2020.
- Baby Lifeline will continue research to define constitutes effective training and evaluation methods.

# References

- [1] Draper, E., Kurinczuk, J., and Kenyon, S. (Eds.) on behalf of MBRRACE-UK. (2017). *MBRRACE-UK 2017 Perinatal Confidential Enquiry: Term, singleton, intrapartum stillbirth and intrapartum-related neonatal death.* Leicester: The Infant Mortality and Morbidity Studies, Department of Health Sciences, University of Leicester.
- [2] The Royal College of Obstetricians and Gynaecologists. (2018). Each Baby Counts: Themed report on anaesthetic care, including lessons identified from Each Baby Counts babies born 2015 to 2017. London: The Royal College of Obstetricians and Gynaecologists.
- [3] NHS Resolution. (2018). *Annual report and accounts: 2017/18*. London: NHS Resolution.
- [4] Gibb, F. (2018, October 15). NHS payouts to disabled children reach £100m in a day. *The Times*. Retrieved 31 October, 2018, from <a href="https://www.thetimes.co.uk/article/nhs-payouts-to-disabled-children-reach-100m-in-a-day-88p3nh5hq">https://www.thetimes.co.uk/article/nhs-payouts-to-disabled-children-reach-100m-in-a-day-88p3nh5hq</a>
- [5] Thompson, A. (2018, October 8). NHS pays out a record £37 MILLION to a six-year-old boy who suffered a catastrophic brain injury after catching herpes at the hospital where he was born. *Mail Online*. Retrieved 31 October, 2018 from <a href="https://www.dailymail.co.uk/health/article-6253109/Six-year-old-boy-awarded-record-37-million-pay-NHS-hospital.html">https://www.dailymail.co.uk/health/article-6253109/Six-year-old-boy-awarded-record-37-million-pay-NHS-hospital.html</a>
- [6] Wadephul, F., Jones, C., Ledger, S., and Jomeen, J. (2016). Mind the Gap: An Investigation into the Training Gap Between NHS Trusts in England. Retrieved 31 October, 2018 from <a href="http://babylifeline.org.uk/home/wp-content/uploads/2017/06/BBL-The-Training-Gap-FINAL-report.pdf">http://babylifeline.org.uk/home/wp-content/uploads/2017/06/BBL-The-Training-Gap-FINAL-report.pdf</a>
- [7] Widdows, K., Roberts, S., Camacho, E., and Heazell, A. (2018). *Evaluation of the implementation of the Saving Babies' Lives Care Bundle in early adopter NHS Trusts in England*. Manchester: Maternal and Fetal Health Research Centre, University of Manchester.
- [8] Manktelow, B., Smith, L., Prunet, C., Smith, P., Boby, T., Hyman-Taylor, P., Kurinczuk, J., Field, D., and Draper, E. on behalf of the MBRRACE-UK Collaboration. (2017) *MBRRACE-UK Perinatal Mortality Surveillance Report, UK Perinatal Deaths for Births from January to December 2015: Summary Report*. Leicester: The Infant Mortality and Morbidity Studies, Department of Health Sciences, University of Leicester.
- [9] Manktelow, B., Smith, L., Seaton, S., Hyman-Taylor, P., Kurinczuk, J., Field, J., Smith, P., and Draper, E. on behalf of the MBRRACE-UK Collaboration. (2016). *MBRRACE-UK Perinatal Mortality Surveillance Report, UK Perinatal Deaths for Births from January to December 2014.* Leicester: The Infant Mortality and Morbidity Studies, Department of Health Sciences, University of Leicester
- [10] Manktelow, B., Smith, L., Evans, T., Hyman-Taylor, P., Kurinczuk, J., Field, D., Smith, P., and Draper, E. on behalf of the MBRRACE-UK Collaboration. (2015). Perinatal Mortality Surveillance Report UK Perinatal Deaths for births from January to December 2013. Leicester: The Infant Mortality and Morbidity Group, Department of Health Sciences, University of Leicester.
- [11] Draper, E., Kurinczuk, J., and Kenyon, S. on behalf of the MBRRACE-UK Collaboration. (2015) MBRRACE-UK Perinatal Confidential Enquiry: Term, singleton, normally formed, antepartum stillbirth. Leicester: The Infant Mortality and Morbidity Studies, Department of Health Sciences, University of Leicester.

- [12] Knight, M., Nair, M., Tuffnell, D., Shakespeare, J., Kenyon, S., and Kurinczuk, J. (Eds.) on behalf of MBRRACE-UK. (2017). Saving Lives, Improving Mothers' Care Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2013–15. Oxford: National Perinatal Epidemiology Unit, University of Oxford.
- [13] The Royal College of Obstetricians and Gynaecologists. (2017). *Obstetrics and Gynaecology Workforce Report 2017*. London: The Royal College of Obstetricians and Gynaecologists.
- [14] Bonar, S. (2017, November 24). One more midwife for every 100 trained. The Royal College of Midwives. Retrieved 31 October, 2018, from <a href="https://www.rcm.org.uk/news-views-and-analysis/views/one-more-midwife-for-every-100-trained">https://www.rcm.org.uk/news-views-and-analysis/views/one-more-midwife-for-every-100-trained</a>
- [15] Macintosh,M. (1999). The lessons of CESDI. The Obstetrician & Gynaecologist, 1(2), 13-17.
- [16] The Royal College of Paediatrics and Child Health (2017). *National Neonatal Audit Programme 2017*Annual Report on 2016 Data. London: Neonatal Data Analysis Unit (NDAU), The Royal College of Paediatrics and Child Health.
- [17] NHS Litigation Authority . (2012). 10 Years of Maternity Claims. London: NHS Litigation Authority.
- [18] National Maternity Review. (2016). Better Births: Improving outcomes of maternity services in England A Five Year Forward View for maternity care. London: NHS England.
- [19] O'Connor, D. (2016). Saving Babies' Lives: A care bundle for reducing stillbirths. Retrieved 21 March, 2016, from <a href="https://www.england.nhs.uk/wp-content/uploads/2016/03/saving-babies-lives-car-bundl.pdf">https://www.england.nhs.uk/wp-content/uploads/2016/03/saving-babies-lives-car-bundl.pdf</a>.
- [20] Bergh, A., Baloyi, S., and Pattinson, R. (2015). What is the impact of multi-professional emergency obstetric and neonatal care training?. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 29(8), 1028-1043.
- [21] Maternity Safety Programme Team, Department of Health. (2017). Safer Maternity Care. Retrieved 31 October, 2018, from <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/560491/Safer Maternity Care action plan.pdf</a>
- [22] NHS Digital. (2017). NHS Maternity Statistics; 2016-17: Summary Report. Retrieved 31 October, 2018, from <a href="https://files.digital.nhs.uk/pdf/l/1/hosp-epis-stat-mat-repo-2016-17.pdf">https://files.digital.nhs.uk/pdf/l/1/hosp-epis-stat-mat-repo-2016-17.pdf</a>
- [23] The Royal College of Obstetricians and Gynaecologists. (2015). *Each Baby Counts: 2015 full report.*London: The Royal College of Obstetricians and Gynaecologists.
- [24] Kirkup,B. 2015. The Report of the Morecambe Bay Investigation. London: The Stationary Office.
- [25] Magro, M. (2017). Five Years of Cerebral Palsy Claims; A thematic review of NHS Resolution data. London: NHS Resolution.
- [26] General MedicalCouncil. (2013). *National training survey 2013: undermining*. London: General Medical Council.
- [27] NHS Survey Coordination Centre. (2012). NHS Staff Surveys Staff Survey2012 Detailed Spreadsheets. Retrieved 31 Ocotber, 2018, from

- http://www.nhsstaffsurveys.com/Page/1037/Past-Results/Staff-Survey-2012-Detailed-Spreadsheets/
- [28] Brocklehurst, P., Hardy, P., Hollowell, J., Linsell, L., Macfarlane, A., Marlow, N., Miller, A., Newburn, M., Petrou, S., Puddicombe, D., Redhaw, M., Rowe, R., Sandall, J., Silverton, L., and Stewart, M. (2011). Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. BMJ (Clinical Research Ed), 343:d7400.
- [29] National Institute for Health and Care Excellence. (2014). Choosing place of birth: resource for midwives. Retrieved 31 October, 2018, from <a href="https://www.nice.org.uk/guidance/cg190/resources/choosing-place-of-birth-resource-for-midwives-msword-248730877">https://www.nice.org.uk/guidance/cg190/resources/choosing-place-of-birth-resource-for-midwives-msword-248730877</a>
- [30] The Royal College of Anaesthetists. (2010). *CCT in Anaesthetics: Annex B, Core Level Training (Edition 2; Version 1.8).* London: The Royal College of Anaesthetists.
- [31] NHS Improvement. (2017). *Reducing harm leading to avoidable admission of full-term babies into neonatal units; Findings and resources for improvement*. London: NHS Improvement.
- [32] The Royal College of Anesthetists. (2018). *Care of the critically ill woman in childbirth; enchanced maternal care.* London: The Royal College of Anesthetists.
- [33] Donaldson, R. (2018). Evaluation of the National bereavement Care Pathway (NBCP): Interim report. London: FivewaysNP Ltd.

Appendix I: Trust Responses to Freedom of Information Request (2018)

| UK Trusts with Maternity Services that Received Freedom of Information Request  | Status                |  |
|---|-----------------------|--|
| Abertawe Bro Morgannwg University Health Board                                  | Response included     |  |
| Airedale NHS Foundation Trust   | Response included     |  |
| Aneurin Bevan University Health Board   | Response included     |  |
| Ashford & St Peter's Hospital NHS Foundation Trust                              | Response included     |  |
| Barking, Havering and Redbridge University Hospitals NHS Trust                  | Response included     |  |
| Barnsley Hospital NHS Foundation Trust  | Response included     |  |
| Barts Health NHS Trust  | Response included     |  |
| Basildon and Thurrock University Hospitals NHSFT                                | Response included     |  |
| Bedford Hospital NHS Trust  | Response included     |  |
| Belfast Health and Social Care Trust  | Response included     |  |
| Betsi Cadwaladr University Local Health Board                                   | Response included     |  |
| Birmingham Women's and Children's NHS Foundation Trust                          | Response included     |  |
| Blackpool Teaching Hospitals NHS Foundation Trust                               | Response included     |  |
| Bolton NHS Foundation Trust   | Response included     |  |
| Bradford Teaching Hospitals NHS Foundation Trust                                | Response not received |  |
| Brighton & Sussex University Hospitals NHS Foundation Trust                     | Response included     |  |
| Buckinghamshire Healthcare NHS Trust  | Response included     |  |
| Calderdale & Huddersfield NHS Foundation Trust                                  | Response not received |  |
| Cambridge University Hospitals NHS Foundation Trust                             | Response included     |  |
| Cardiff and Vale University Health Board  | Response included     |  |
| Chelsea and Westminster Hospital NHS Foundation Trust                           | Response included     |  |
| Chesterfield Royal Hospital NHS Foundation Trust                                | Response included     |  |
| City Hospitals Sunderland NHS Foundation Trust                                  | Response included     |  |
| Countess of Chester Hospital NHS Foundation Trust                               | Response included     |  |
| County Durham and Darlington NHS Foundation Trust                               | Response included     |  |
| Croydon Health Services NHS Trust   | Response included     |  |
| Cwm Taf University Health Board   | Response included     |  |
| Dartford and Gravesham NHS Trust  | Response included     |  |
| Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust                 | Response not received |  |
| Dorset County Hospital NHS Trust  | Response not received |  |
| East and North Hertfordshire NHS Trust  | Response included     |  |
| East Cheshire NHS Trust   | Response included     |  |
| East Kent Hospitals University NHS Foundation Trust                             | Response included     |  |
| East Lancashire Hospitals NHS Trust   | Response included     |  |
| East Suffolk and North Essex NHS Foundation Trust (merged July 2018), formerly: | Response included     |  |
| - Ipswich Hospital NHS Trust  | Response included     |  |
| - Colchester Hospital University NHS Foundation Trust                           | ·                     |  |
| East Sussex Healthcare NHS Trust  | Response included     |  |
| Epsom and St Helier University Hospitals NHS Trust                              | Response included     |  |
| Frimley Health NHS Foundation Trust   | Response included     |  |
| Gateshead Health NHS Foundation Trust   | Response included     |  |
| George Eliot Hospital NHS Trust   | Response included     |  |
| Gloucestershire Hospitals NHS Foundation Trust                                  | Response not received |  |
| Great Western Hospitals NHS Foundation Trust                                    | Response included     |  |
| Guy's and St Thomas' NHS Foundation Trust                                       | Response included     |  |
| Hampshire Hospitals NHS Foundation Trust  | Response included     |  |

| Harrogate and District NHS Foundation Trust                | Response included                     |  |  |
|--|---------------------------------------|--|--|
| Homerton University Hospital NHS Foundation Trust          | Response included                     |  |  |
| Hull and East Yorkshire Hospitals NHS Trust                | · · · · · · · · · · · · · · · · · · · |  |  |
| Hywel Dda University Health Board                          | Response included                     |  |  |
| Imperial College Healthcare NHS Trust                      | Response included                     |  |  |
|  | Response included                     |  |  |
| Isle of Wight NHS Trust                                    | Response included                     |  |  |
| James Paget University Hosps NHS Foundation Trust          | Response included                     |  |  |
| Kettering General Hospital NHS Foundation Trust            | Response included                     |  |  |
| King's College Hospital NHS Foundation Trust               | Response included                     |  |  |
| Kingston Hospital NHS Foundation Trust                     | Response included                     |  |  |
| Lancashire Teaching Hospitals NHS Foundation Trust         | Response included                     |  |  |
| Lewisham and Greenwich NHS Trust                           | Response included                     |  |  |
| Liverpool Women's NHS Foundation Trust                     | Response included                     |  |  |
| London North West University Healthcare NHS Trust          | Response included                     |  |  |
| Luton & Dunstable University Hospital NHS Foundation Trust | Response included                     |  |  |
| Maidstone and Tunbridge Wells NHS Trust                    | Response included                     |  |  |
| Manchester University NHS Foundation Trust                 | Response included                     |  |  |
| Medway NHS Foundation Trust                                | Response included                     |  |  |
| Mid Cheshire Hospitals NHS Foundation Trust                | Response included                     |  |  |
| Mid Essex Hospital Services NHS Trust                      | Response included                     |  |  |
| Milton Keynes University Hospital NHSFT                    | Response included                     |  |  |
| NHS Ayrshire & Arran                                       | Response included                     |  |  |
| NHS Borders  | Response included                     |  |  |
| NHS Dumfries & Galloway                                    | Response included                     |  |  |
| NHS Fife   | Response included                     |  |  |
| NHS Forth Valley   | Response included                     |  |  |
| NHS Grampian   | Response not received                 |  |  |
| NHS Greater Glasgow and Clyde                              | Response included                     |  |  |
| NHS Highland   | Response included                     |  |  |
| NHS Lanarkshire  | Response included                     |  |  |
| NHS Lothian  | Response included                     |  |  |
| NHS Orkney   | Response included                     |  |  |
| NHS Shetland   | Response included                     |  |  |
| NHS Tayside  | Response included                     |  |  |
| NHS Western Isles  | Response included                     |  |  |
| Norfolk and Norwich University Hospitals NHSFT             | Response not received                 |  |  |
| North Bristol NHS Trust                                    | Response not received                 |  |  |
| North Cumbria University Hospitals NHS Trust               | Response included                     |  |  |
| North Middlesex University Hospital NHS Trust              | Response not received                 |  |  |
| North Tees & Hartlepool NHS Foundation Trust               | Response included                     |  |  |
| Northampton General Hospital NHS Trust                     | Response included                     |  |  |
| Northern Devon Healthcare NHS Trust                        | Response included                     |  |  |
| Northern Health and Social Care Trust                      | Response included                     |  |  |
| Northern Lincolnshire and Goole NHSFT                      | Response included                     |  |  |
| Northumbria Healthcare NHS Foundation Trust                | Response included                     |  |  |
| Northwest Anglia NHS Foundation Trust                      | Response included                     |  |  |
| Nottingham University Hospitals NHS Trust                  | Response included                     |  |  |
| Oxford University Hospitals NHS Trust                      | Response included                     |  |  |
| Poole Hospital NHS Foundation Trust                        | Response included                     |  |  |
|  | I .                                   |  |  |

| Portsmouth Hospitals NHS Trust  | Response included         |  |
|---|---------------------------|--|
| Powys Teaching Health Board   | Response included         |  |
| Royal Berkshire NHS Foundation Trust  | Response included         |  |
| Royal Cornwall Hospitals NHS Trust  | Response included         |  |
| Royal Devon & Exeter NHS Foundation Trust   | Response included         |  |
| Royal Free London NHS Foundation Trust  | Response included         |  |
| Royal Surrey County Hospital NHS Foundation Trust   | Response included         |  |
| Royal United Hospitals Bath NHS Foundation Trust  | Response included         |  |
| Salisbury NHS Foundation Trust  | Response included         |  |
| Sandwell & West Birmingham Hospitals NHS Trust  | Response included         |  |
| Sheffield Teaching Hospitals NHSFT  | Response included         |  |
| Sherwood Forest Hospitals NHS Foundation Trust  | Response included         |  |
| South Eastern Health and Social Care Trust  | Response included         |  |
| South Tees Hospitals NHS Foundation Trust   | Response included         |  |
| South Tyneside NHS Foundation Trust   | Response included         |  |
| South Warwickshire NHS Foundation Trust   | Response included         |  |
| Southend University Hospital NHS Foundation Trust   | Response included         |  |
| Southern Health and Social Care   | Response included         |  |
| Southern Health and Social Care   | Response not received     |  |
| Southport and Ormskirk Hospital NHS Trust   | Response included         |  |
| St George's University Hospitals NHSFT  | Response not received     |  |
| St Helens & Knowsley Teaching Hospitals NHS Trust   | Response not received     |  |
| Stockport NHS Foundation Trust  | Response included         |  |
| Surrey and Sussex Healthcare NHS Trust  | Response included         |  |
| Tameside and Glossop Integrated Care NHS Foundation Trust   | Response included         |  |
| Taunton and Somerset NHS Foundation Trust   | Response included         |  |
| The Dudley Group NHS Foundation Trust   | Response included         |  |
| The Hillingdon Hospitals NHS Foundation Trust   | Response included         |  |
| The Leeds Teaching Hospitals NHS Trust  | Response included         |  |
| The Mid Yorkshire Hospitals NHS Trust   | Response included         |  |
| The Newcastle upon Tyne Hospitals NHSFT   | Response included         |  |
| The Pennine Acute Hospitals NHS Trust   | Response included         |  |
| The Princess Alexandra Hospital NHS Trust   | Response included         |  |
| The Queen Elizabeth Hospital, King's Lynn NHSFT   | Response included         |  |
| The Rotherham NHS Foundation Trust  | Response included         |  |
| The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust                                 | Response included         |  |
| The Royal Wolverhampton NHS Trust   | Response included         |  |
| The Shrewsbury and Telford Hospital NHS Trust   | Response not received     |  |
| Torbay and South Devon NHS Foundation Trust   | Response included         |  |
| United Lincolnshire Hospitals NHS Trust   | Response not received     |  |
| University College London Hospitals NHSFT   | Response not received     |  |
|   | Response received after   |  |
| University Hospital Southampton NHSFT   | deadline and not included |  |
| University Hospitals Birmingham NHS Foundation Trust (formerly Heart of England NHS Foundation Trust) | Response included         |  |
| University Hospitals Bristol NHSFT  | Response included         |  |
| University Hospitals Coventry and Warwickshire NHST   | Response included         |  |
| University Hospitals of Derby and Burton NHS Foundation Trust (formerly Derby                         | Response included         |  |
| Teaching Hospitals NHS Foundation Trust) University Hospitals of Leicester NHS Trust                  | Response included         |  |
| Oniversity Hospitals of Leicester INFIS Hust  | Litesponse included       |  |

| University Hospitals of Morecambe Bay NHSFT        | Response included     |
|--|-----------------------|
| University Hospitals of North Midlands NHS Trust   | Response included     |
| University Hospitals Plymouth NHS Trust            | Response included     |
| Walsall Healthcare NHS Trust                       | Response included     |
| Warrington & Halton Hospitals NHS Foundation Trust | Response included     |
| West Hertfordshire NHS Foundation Trust            | Response not received |
| West Suffolk NHS Foundation Trust                  | Response included     |
| Western Health and Social Care Trust               | Response included     |
| Western Health and Social Care Trust               | Response not received |
| Western Sussex Hospitals NHS Foundation Trust      | Response included     |
| Whittington Health NHS Trust                       | Response included     |
| Wirral University Teaching Hospital NHSFT          | Response not received |
| Worcestershire Acute Hospitals NHS Trust           | Response included     |
| Wrightington, Wigan & Leigh NHS Foundation Trust   | Response included     |
| Wye Valley NHS Trust                               | Response included     |
| Yeovil District Hospital NHS Foundation Trust      | Response included     |
| York Teaching Hospital NHS Foundation Trust        | Response included     |
|  |                       |

# Appendix II: Re-Analysis of Mind the Gap (2015) Data

Re-analysis of the original Mind The Gap data was completed for the topics below.

*Inter-personal and 'human factors' training;* Including teamwork, communication, situational awareness, conflict resolution, leadership, innovation, and handover tools

- Included trusts who reported variations on: delegation, escalation, leadership, and innovative programmes, communication, care, compassion, and effective communication, leadership and development programmes, teamwork and communication, SBAR (situation, background, assessment, recommendation) and conflict resolution.
- For 21 of these trusts, conflict resolution/management was the only topic noted that is related to human factors.
- Only seven trusts mentioned *human factors* specifically.

Early recognition and management of the severely/critically ill woman; Including early warning systems and HDU care

- Included trusts that included variations on MEOWS (modified early obstetric warning score), 'Early recognition of the severely ill woman', 'maternal acute illness management', 'High Dependency Course', and 'care of the severely ill woman'.

*Co-morbidities in pregnancy and management of high-risk pregnancies,* including hypertension, diabetes, obesity, and venous thromboembolism.

- Included trusts who included terms similar to 'diabetes', 'obesity', 'VTE', 'venous thromboembolism', 'teenage pregnancy,' 'HIV,' 'twins'.
- Topics were excluded where it was evident that these topics were provided during skills & drills and focused on emergency management only e.g. (eclampsia, management of the fitting patient [epilepsy]).
- Weight management in pregnancy was also excluded.
- 'VTE' and variations were included but this may have only focused on prophylaxis and not pregnancy specific.

# Resilience training for healthcare professionals

- One result when responses were searched for the word 'resilience'.

| Topics as listed in the Freedom of Information Request  | Training on this topic was provided to maternity services staff in my trust | Training on this topic was not provided to maternity services staff in my trust |
|---|---|---|
| Emergency skills drills training Including cord prolapse, shoulder dystocia, vaginal breech, antepartum and postpartum haemorrhage, eclampsia   | 140   | 0   |
| Continuous electronic fetal monitoring/CTG Including case review sessions and similar   | 138   | 2   |
| Inter-personal and 'human factors' training Including teamwork, communication, situational awareness, conflict resolution, leadership, innovation and handover tools  | 133   | 7   |
| Early recognition and management of the severely/critically ill woman Including early warning systems and HDU care  | 131   | 9   |
| Sepsis Including recognition and management of maternal sepsis and neonatal sepsis  | 134   | 6   |
| Co-morbidities in pregnancy and management of high-risk pregnancies Including hypertension, diabetes, obesity, venous thromboembolism   | 110   | 30  |
| Adult/Maternal Life Support Including Basic Life Support (BLS), Immediate Life Support (ILS) and/or Advanced Life Support (ALS) courses   | 137   | 1   |
| Newborn Life Support (NLS) Including NLS and/or Advanced Resuscitation of the Newborn Infant (ARNI) course or similar   | 139   | 1   |
| Learning from risk, patient experience, clinical incidents/governance and professionalism  Including complaints, risk management/awareness, incident reporting, record keeping and accountability, confidentiality, candour, consent, raising concerns/whistle-blowing, litigation and conducting serious incident investigations | 123   | 14  |
| Maternal antenatal screening tests Including blood pressure and urine screening; blood group and rhesus status; gestational diabetes screening; anaemia screening; HIV, syphilis and hepatitis B screening  | 131   | 8   |
| Maternal antenatal care and advice Including smoking cessation, Growth Assessment Protocols (GAP), substance misuse   | 123   | 14  |
| Assessment, management and/or prevention of all types of perineal trauma  | 118   | 20  |
| Perinatal mental health training  | 123   | 16  |
| Bereavement care  | 107   | 30  |
| Care of the well/unwell baby, newborn care and newborn screening  | 112   | 23  |
| Full physical examination of the newborn  | 112   | 24  |
| Care of women following operative interventions   | 62  | 74  |
| Intermittent auscultation   | 116   | 20  |
| Newborn feeding   | 134   | 3   |
| Female genital mutilation, domestic abuse, forced marriage  | 118   | 20  |
| Promoting normality in childbirth   | 93  | 42  |
| Pressure ulcer prevention   | 79  | 56  |
| Cannulation and venepuncture  | 131   | 8   |
| Complementary therapies Including hypnobirthing, active birth, aromatherapy   | 76  | 57  |
| Water birth/pool drill  | 120   | 18  |
| Resilience training for healthcare professionals  | 87  | 47  |

| Cofe according to the control of the   |     |    |
|--|-----|----|
| Safeguarding vulnerable adults   | 137 | 3  |
| Including mental capacity  |     |    |
| Safeguarding Vulnerable children and young people                                      | 140 | 0  |
| Infection prevention and control   |     |    |
| Including hand hygiene, personal protective equipment (PPE), and aseptic non-touch     | 137 | 3  |
| technique (ANTT)   |     |    |
| Medicines management and extended medicines management                                 |     |    |
| Including intravenous therapies, epidural and anaesthetic management, patient group    | 125 | 12 |
| directives   |     |    |
| Transfusion of blood and blood products  | 133 | 6  |
| Including Anti-D   | 155 | 0  |
| Other personal professional development courses  |     |    |
| Including revalidation, mentorship/assessor training, supervisor of midwives course,   | 136 | 3  |
| train the trainer, and similar   |     |    |
| Other statutory training/health and safety/occupational health                         |     |    |
| Including health and safety at work, control of substances hazardous to health         |     |    |
| (COSHH), reporting injuries, diseases and dangerous occurrences (RIDDOR), fire         | 136 | 2  |
| safety, manual handling, equality and diversity, prevention of radicalisation, medical |     |    |
| devices/gases training, inoculation injuries and sharps training                       |     |    |

# **Appendix IV: The Training Gap: Consensus Statement**

# Background

An expert group convened by Baby Lifeline (BL) met on 16 January 2017 to consider how the NHS should respond to the report of an investigation into gaps in maternity training in NHS Trusts in England. An FOI request sent to all trusts in England had revealed wide variations in the methods and frequency of maternity training, and in the topics offered. The report, *Mind the Gap*<sup>1</sup>, concluded that there is a need for standardised, high-quality, effective maternity team training across the UK.

# The Expert Group

The Expert Group, chaired by a former vice-president of RCOG, was made up of experts in midwifery, obstetrics, anaesthesia, and litigation, all in active practice. They included the Professional Advisor on Education from the Royal College of Midwives (RCM), the current RCOG Vice-President for Clinical Quality, the trainees' representative on the RCOG Council, and representatives from NHS Resolution (formerly the NHSLA) and the Care Quality Commission (CQC).

#### **Peer Review**

This Consensus Statement was finalised in June 2017 and has been reviewed by the RCOG, the RCM, the British Maternal and Fetal Medicine Society, the Obstetric Anaesthetists' Association, and NHS Resolution. It is supported by all these organisations.

# Recommendations

The Expert Group strongly agrees with the *Mind the Gap* report's conclusion that there is a need for effective maternity team training across the country, with some agreed standardisation. After reflection and consultation, the group agreed the following recommendations.

- 1. Each Trust/maternity service should have a formal lead for multidisciplinary education, who should be accountable to the Trust Board for the provision of team training and for reporting on its effectiveness.
- 2. To assess its effectiveness, training should be linked to outcomes. These are mainly clinical but should also include metrics of staff confidence and satisfaction, such as recruitment and retention. The CQC states that staff must receive the training they need to help them do their job<sup>2</sup>, and a catalogue of approved training packages has been produced by HEE<sup>3</sup>. Further work is needed, however, on the evaluation of training, using new outcome measures, maternity dashboards, etc.
- 3. Currently, NHS "mandatory training" is mostly generic (e.g. hand hygiene, resuscitation), often lacks an agreed definition, and is not specialty specific. Mandatory training should not be confined to elementary aspects of clinical care and management of emergencies. It should also include aspects of teamwork such as communication, human factors, and conflict resolution, which can prevent emergencies from arising or escalating. Training should also be targeted to emerging areas of poor practice identified by audit and review<sup>4</sup>, in order to improve outcomes at unit level and ultimately reduce litigation costs to the NHS.
- 4. Trusts and directorates must ensure that time is made available for training both for staff attending the sessions and for the trainers, who are also working clinicians. Action and oversight at Trust Board level will be necessary to balance time for giving and receiving training against the competing demands of the clinical service. Guidance at national level will be needed to help Trust Boards achieve this.

5. Training should include assessment of skill acquisition, with support in place for those who do not meet the standard. At present, training sessions are monitored only by a log of attendance but there are few repercussions for staff who fail to attend. The professional codes for clinical staff require them to keep up to date, as failure to do so may put patients at risk. Any concerns for patient safety should lead Trust Boards to strongly consider removing staff from front-line clinical care until training has been undertaken and assessment confirms an appropriate level of skills has been achieved.

# Summary

Although there are some regional and local examples of high-quality maternity team training, the vital area of "team skills" is generally given a low priority by the NHS. Team training is now part of the core business of other public services and industries where lives are at stake and litigation rates are high. We hope our recommendations will help the NHS to do likewise. It is a step change that is long overdue.

#### References

- 1. Mind the Gap: an investigation into the Training Gap between NHS Trusts in England. http://babylifeline.org.uk/home/about-us/what-we-do/mind-the-gap/
- 2. http://www.cqc.org.uk/content/regulation-18-staffing#guidance
- 3. Maternal Safety Catalogue <a href="https://www.hee.nhs.uk/sites/default/files/documents/Maternity%20Safety%20Training%20Catalogue.pdf">https://www.hee.nhs.uk/sites/default/files/documents/Maternity%20Safety%20Training%20Catalogue.pdf</a>
- 4. NHS Resolution and the Maternity Transformation Board are developing a consensus quality dashboard that will help in the evaluation of outcomes.

#### **Expert Group Members**

# Professor James Drife (Chair)

Former President of Baby Lifeline; Former Vice-President of RCOG; Emeritus Professor of Obstetrics and Gynaecology; Consultant for the World Health Organisation

# Mr Kim Hinshaw

Consultant Obstetrician & Gynaecologist, Director of Research & Innovation, Sunderland Royal Hospital Tyne & Wear; Visiting Professor, University of Sunderland; Education Officer, British Maternal & Fetal Medicine Society; Honorary Faculty Chair o Baby Lifeline – BIRTH2 Training Initiative

#### Professor Julie Jomeen

Dean: Faculty of Health Sciences, Professor of Midwifery, University of Hull

# Dr Caroline Knight

Trainee representative, British Maternal & Fetal Medicine Society

# Mrs Judy Ledger

CEO & Founder of Baby Lifeline and Baby Lifeline Training

#### Ms Sara Ledger

Research & Development Manager of Baby Lifeline Training; Honorary Research Associate, University of Hull

## Ms Carmel Lloyd

Head of Education and Learning, Royal College of Midwives

# Dr Michael Magro

Former Darzi Fellow, NHS Resolution, Safety and Learning Team

# Ms Bernadette McGhie

Executive Director, Enable Law

## Mr Edward Morris

Vice President, Clinical Quality, Royal College of Obstetricians & Gynaecologists

# Dr William Parry-Smith

Education Board, Council, Royal College of Obstetricians & Gynaecologists; Trustee of Baby Lifeline

# Dr Felicity Plaat

President of Obstetric Anaesthetists' Association

#### **Professor James Walker**

Professor in the University Department of Obstetrics and Gynaecology, St James University Hospital; Former Vice-President of the Royal College of Obstetricians & Gynaecologists; National Professional Advisor (Maternity), Care Quality Commission; Honorary President of Baby Lifeline Training

The Granary, Fernhill Court, Balsall Street East, Balsall Common, CV7 7FR t. +44 (0) 1676 534671 e. info@babylifeline.org.uk w. www.babylifeline.org.uk

