21/22

# HSIB maternity investigation programme year in review 2021/22

## Summary of highlights, themes and future work

Independent report by the
**Healthcare Safety Investigation Branch** NI-005831

## Providing feedback and comment on HSIB reports

At the Healthcare Safety Investigation Branch (HSIB) we welcome feedback on our investigation reports. The best way to share your views and comments is to email us at **enquiries@hsib.org.uk** or complete our online feedback form at **www.hsib.org.uk/tell-us-what-you-think**.

We aim to provide a response to all correspondence within 5 working days.

This document, or parts of it, can be copied without specific permission providing that the source is duly acknowledged, the material is reproduced accurately, and it is not used in a derogatory manner or in a misleading context.

© Healthcare Safety Investigation Branch copyright 2022.

## About HSIB

We conduct independent investigations of patient safety concerns in NHS-funded care across England. Most harm in healthcare results from problems within the systems and processes that determine how care is delivered. Our investigations identify the contributory factors that have led to harm or the potential for harm to patients. The safety recommendations we make aim to improve healthcare systems and processes, to reduce risk and improve safety.

We work closely with patients, families and healthcare staff affected by patient safety incidents, and we never attribute blame or liability.

## Considerations in light of coronavirus (COVID-19)

We have adapted some of our national and maternity investigations, reports and processes to reflect the impact that COVID-19 has had on our organisation as well as the healthcare system across England. For the period of this report, the way we engaged with staff and families was revised.

## About this report

This report provides a review of the HSIB maternity investigation programme during 2021/22, including an overview of activity during this period, themes arising from investigations and plans for the future. It is intended for healthcare organisations, policymakers and the public to understand the work we have undertaken.

# Our investigations

Our investigators and analysts have diverse experience of healthcare and other safety-critical industries and are trained in human factors and safety science. We consult widely in England and internationally to ensure that our work is informed by appropriate clinical and other relevant expertise.

We undertake patient safety investigations through two programmes:

## National investigations

Concerns about patient safety in any area of NHS-funded healthcare in England can be referred to us by any person, group or organisation. We review these concerns against our investigation criteria to decide whether to conduct a national investigation. National investigation reports are published on our website and include safety recommendations for specific organisations. These organisations are requested to respond to our safety recommendations within 90 days, and we publish their responses on our **website**.

## Maternity investigations

We investigate incidents that meet the criteria that were defined within the Each Baby Counts programme (the Royal College of Obstetricians and Gynaecologists' national quality improvement programme) or our own defined criteria for maternal deaths. The Each Baby Counts programme is now closed and HSIB has retained its criteria for investigation.

Incidents are referred to us by the NHS trust where the incident took place, and, where an incident meets the criteria, our investigation replaces the trust's own local investigation. Our investigation report is shared with the family and trust, and the trust is responsible for carrying out any safety recommendations made in the report.

In addition, we identify and examine recurring themes that arise from trust-level investigations in order to make safety recommendations to local and national organisations for system-level improvements in maternity services.

For full information on our national and maternity investigations please **visit our website**.

# Contents

1 Introduction **6**

2 Highlights **8**

3 Operational performance in 2021/22 **11**

4 Outcomes and impacts: emerging themes from HSIB maternity investigations **15**

5 Impact on trust learning and safety actions for maternity services **32**

6 Family and staff engagement **36**

7 How the HSIB maternity investigation programme is influencing national learning **42**

8 Planned developments for 2022/23 **50**

9 Conclusion **51**

# 1 Introduction

The HSIB maternity investigation programme is part of a national action plan to make maternity care safer. The programme started in April 2018 and was fully embedded in all trusts providing maternity care by April 2019. Currently, the maternity investigation teams work with 125 trusts across England.

The maternity investigation programme has continued to develop its approach to investigations and how we work with families and trusts. This has remained particularly important during the COVID-19 pandemic.

During 2021/22 the programme received 731 referrals for investigations and completed 706 reports. The adapted investigation criteria, developed in response to the COVID-19 pandemic, remained in place with families and trusts given an opportunity to request an investigation if they expressed concerns about the care they had received.

We have carried out further work with families to understand their individual needs throughout an investigation. This has enabled our investigations to be accessible from the initial point of contact through to completion. Our teams make sure families remain at the centre of the work we undertake, and this is reflected in the feedback we receive.

We continue to work with trusts to enable them to respond to the safety recommendations we identify within our reports. Trusts share with us the excellent work they carry out to improve the care they provide. We have developed a newsletter to share these examples across England. This work has been particularly important during the COVID-19 pandemic when many trusts have experienced extreme pressures on the frontline services they provide.

As the programme goes into its fourth year of being live in all trusts across England, there is a recognition of the information we have gathered and the opportunities this has provided to influence the safe care of mothers and babies. This review provides more information about the work we have carried out during 2021/22.

In January 2022 the Secretary of State for Health announced the government's plans to establish a Special Health Authority under secondary legislation to continue the maternity investigation programme, which is currently a function of HSIB.

The Special Health Authority will be established from April 2023 to enable maximum learning to be achieved and to equip NHS trusts with the expertise, resources and capacity to take on maternity safety incident investigations in the future.

During 2022/23 work will be undertaken to transition the maternity investigation programme into the Special Health Authority. This will take into consideration the value of work undertaken and opportunities for collaboration with the newly formed Health Services Safety Investigations Body (HSSIB) into which HSIB will transition in April 2023. A shared corporate services model has been approved and this will enable a smooth transition and set-up of the new Special Health Authority.

## 2 Highlights

- The maternity investigation programme has completed 706 reports during 2021/22.
- There has been a 9 percentage point reduction in the number of babies with an abnormal MRI or evidence of neurological damage, from babies referred in 2020/21 compared to 2019/20 (where consent to access medical records was given).
- Over the last year we have made more than 1,740 safety recommendations to trusts addressing a wide range of issues.
- We contact all families who agree for us to do so. However, in 7% of all cases that met HSIB criteria during 2021/22, the families did not agree to any contact being made by HSIB. Therefore we were unable to speak to these families. A further 7% when contacted declined an investigation.
- We have translated information into 31 languages to support families to make an informed choice about being part of our investigations.
- HSIB has implemented a race equality group to develop a considered approach to the use of our demographic data and to help us to learn how race impacts on people's lives, experiences and outcomes.
- We have developed an approach to maximise the inclusion of families in our investigations. We engage with them at the beginning of an investigation and at significant points during the process to try and understand any needs they may have with regards to communication, health and wellbeing, or day-to-day life.
- We have developed the information we share with trusts to ensure that immediate concerns and emerging themes are shared with them. Trusts receive regular updates on investigations being undertaken and quarterly information to share with their executive boards and frontline staff.
- Quarterly review meetings with trusts continue to see improved attendance from perinatal teams, with maternity board-level safety champions increasingly being in attendance and supporting the frontline teams.
- We have introduced a newsletter to support trusts to share the improvements they have made in response to safety recommendations. This is providing learning opportunities across England and beyond.
- We have piloted work with trusts to develop a Maternity Quality Matrix to provide each trust with insight into their HSIB maternity investigations over time. We plan to roll this out during 2022/23.

- We receive feedback from trusts about our investigations and have developed a Maternity Quality Improvement Team to make sure we continue to learn and improve our investigations and the processes that support them.

- During investigations we gather ‘soft intelligence’ relating directly or indirectly to an investigation. This is captured in the maternity observational diary. The diary supports feeding back areas of good practice to trusts and further information relating to the ongoing challenges trusts are experiencing.

- HSIB teams are working with system-level leaders to provide feedback and thematic learning from our investigations.

- During the COVID-19 pandemic, we have continued to work with families and trusts to make sure all communication has been adapted to support families’ wishes.

- We have responded to trusts’ requests to reduce the burden of work required and work collaboratively to ensure investigations are completed.

- The maternity team was part of two live webinars: a joint webinar with the national investigation team in collaboration with ambulance trusts, and a maternity-led webinar entitled ‘Who, what and why?’ which provided information and support for doctors in training.

## Criteria for HSIB maternity investigations

The maternity investigation programme investigates incidents that fall within a defined set of criteria.

Incidents that are eligible for investigation include those that involve term babies (at least 37 completed weeks of gestation) who experience one of the following outcomes:

**Intrapartum stillbirth:** Where the baby was thought to be alive at the start of labour and was born with no signs of life.

**Early neonatal death:** Where the baby died within the first week of life (0 to 6 days) of any cause.

**Severe brain injury:** Where the baby was diagnosed with severe brain injury in the first 7 days of life. These are any babies that fall into the following categories:

- diagnosed with grade III hypoxic ischaemic encephalopathy (HIE), or
- therapeutically cooled (active cooling only), or
- had decreased central tone (or, in layman's terms, were 'floppy'), were comatose (loss of consciousness) and had seizures of any kind.

(HSIB's investigation process in relation to these criteria was modified during the COVID-19 pandemic – see below.)

### Maternal deaths

The death of a woman while pregnant or within 42 days of the end of the pregnancy from any cause related to or aggravated by the pregnancy or its management, and not from accidental or incidental causes. (The criteria exclude death by suicide.)

### Modifications to investigation processes during COVID-19

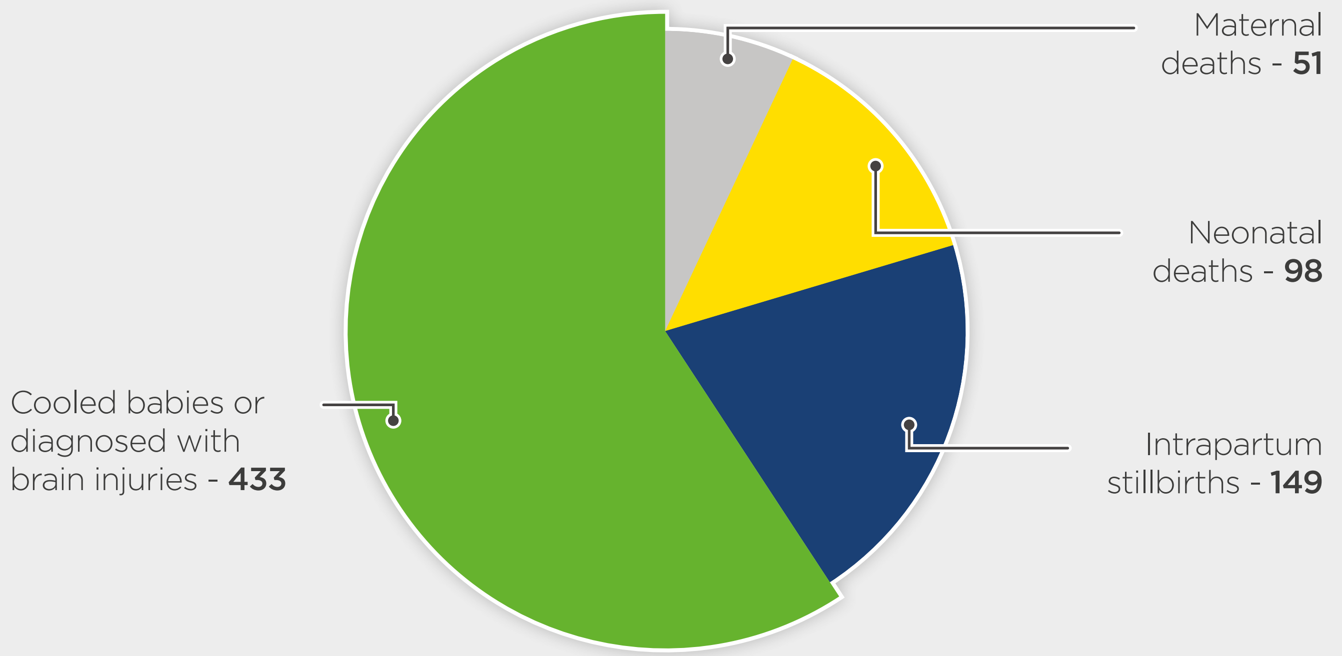
During the period of the COVID-19 pandemic, HSIB continued to review all referrals that met the above criteria.

During the COVID-19 period, we did not pursue an investigation in cases where a baby was found to have a normal neurological outcome following therapeutic cooling (assessed by neurological examination or normal MRI), and where the trust and family did not express concerns about the care provided. In these cases, trusts were asked to follow their internal investigation process.

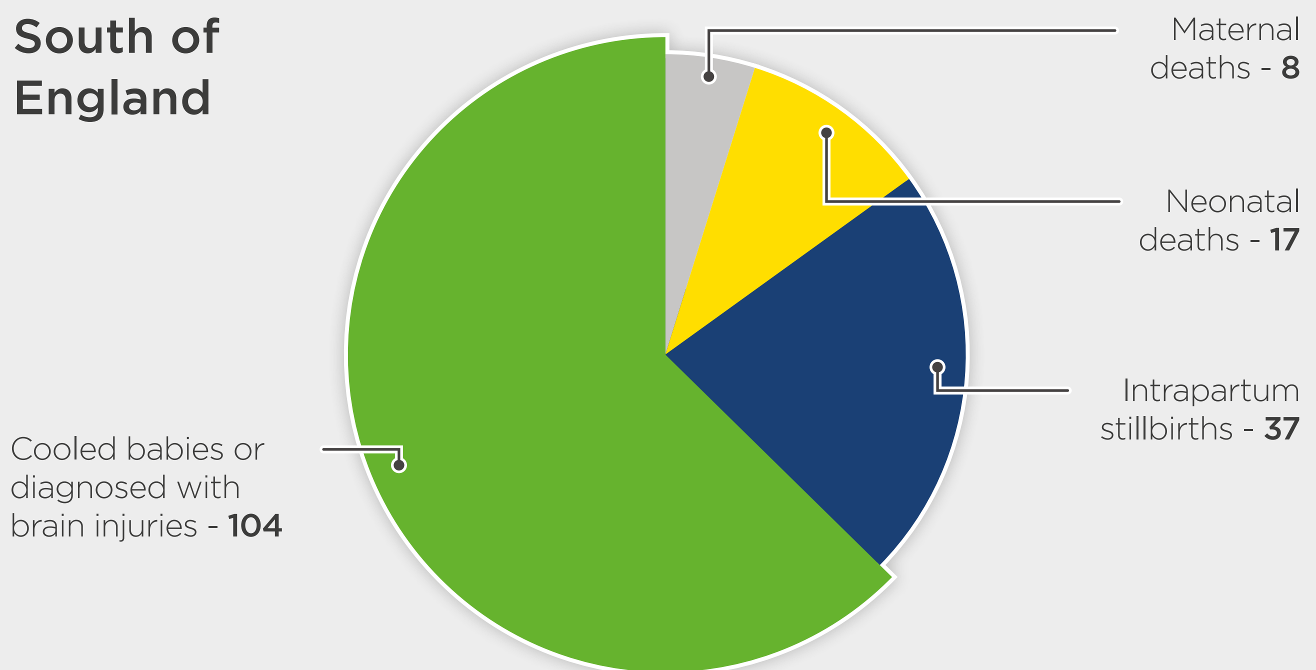
The scope and criteria of the maternity investigation programme will be reviewed as part of the work being undertaken to establish the new Special Health Authority.

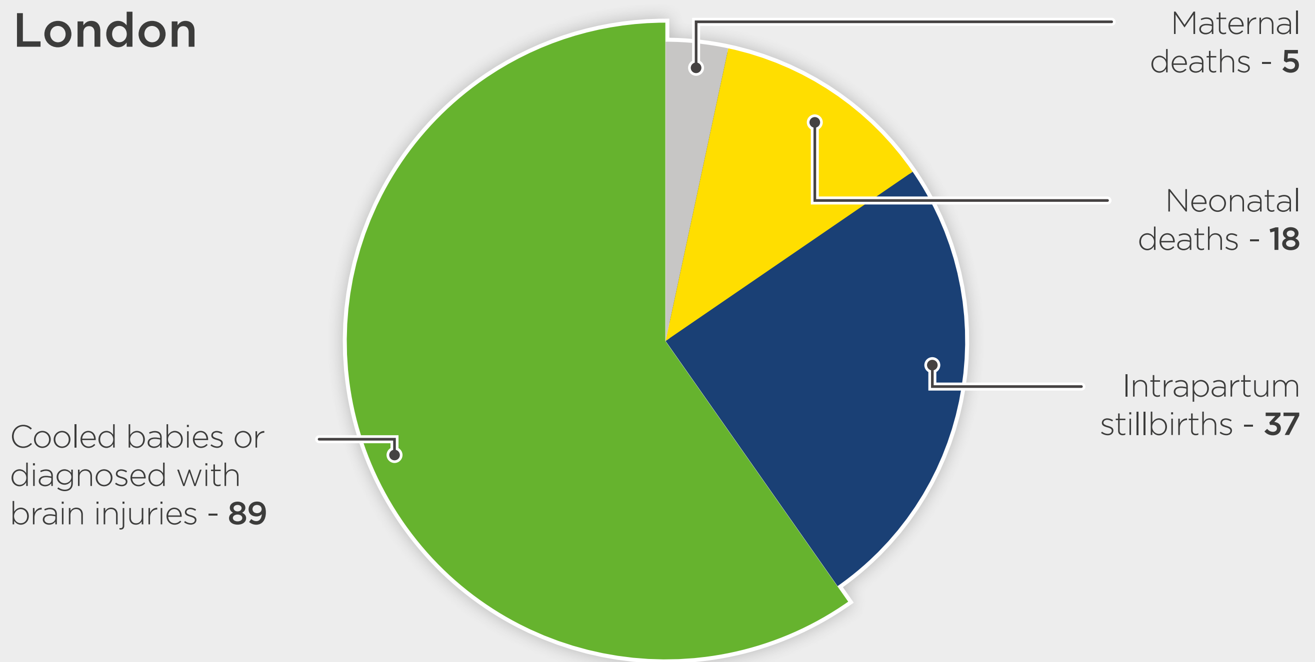
# 3 Operational performance in 2021/22

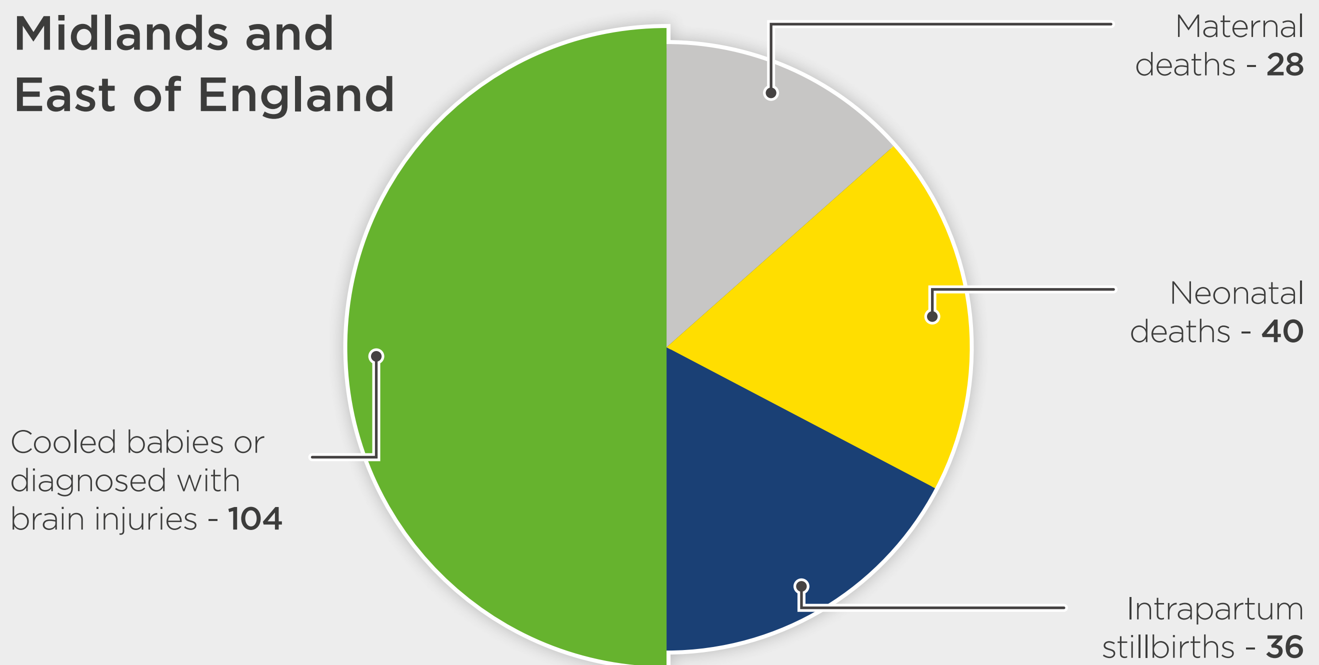
## Cases referred for investigation

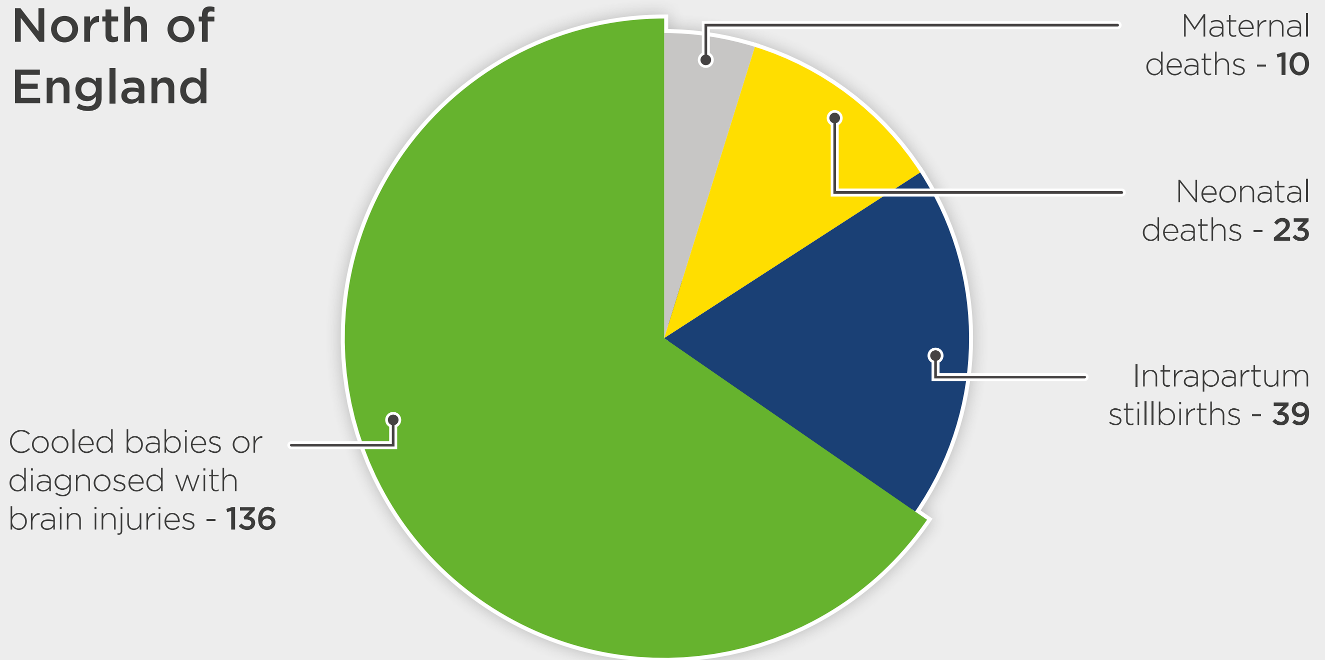



## Referrals by region

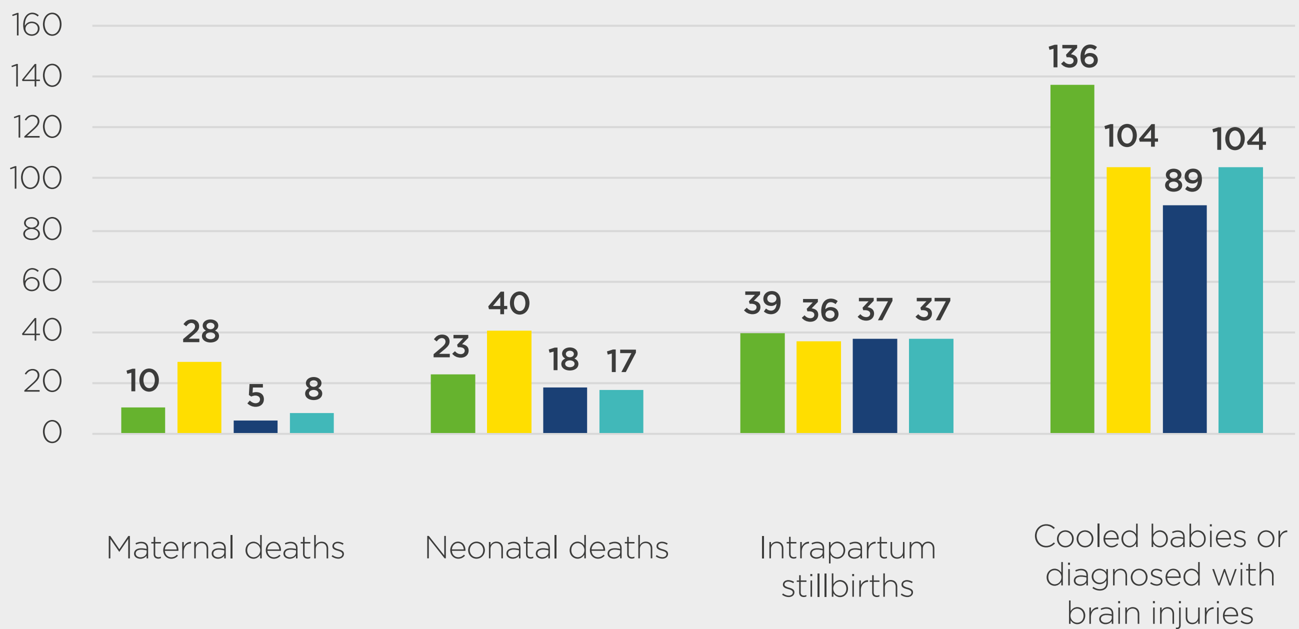


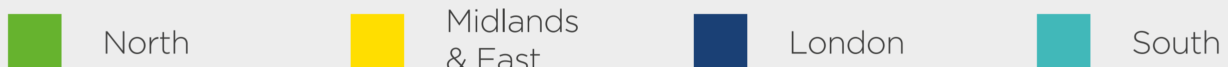

London
Maternal deaths - 5
Neonatal deaths - 18
Intrapartum stillbirths - 37
Cooled babies or diagnosed with brain injuries - 89


Midlands and East of England
Maternal deaths - 28
Neonatal deaths - 40
Intrapartum stillbirths - 36
Cooled babies or diagnosed with brain injuries - 104

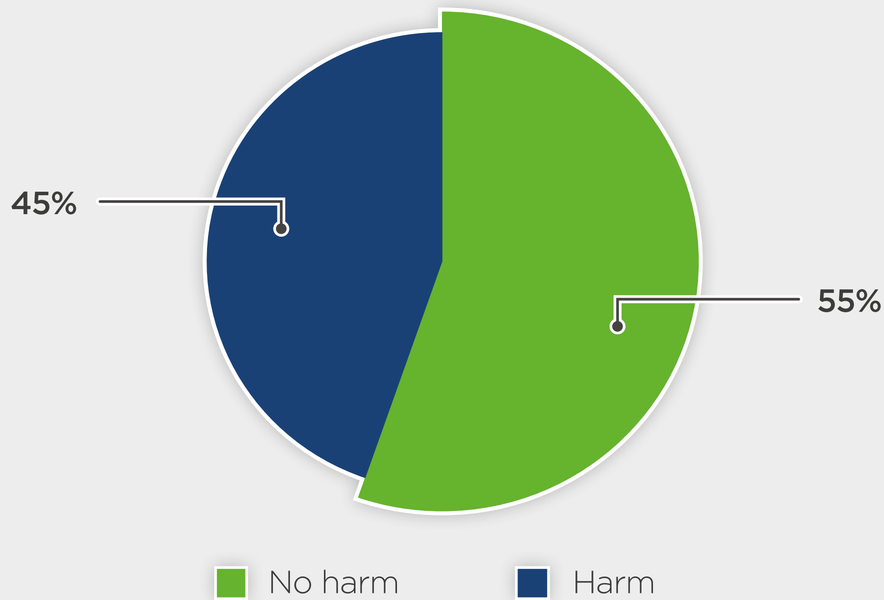


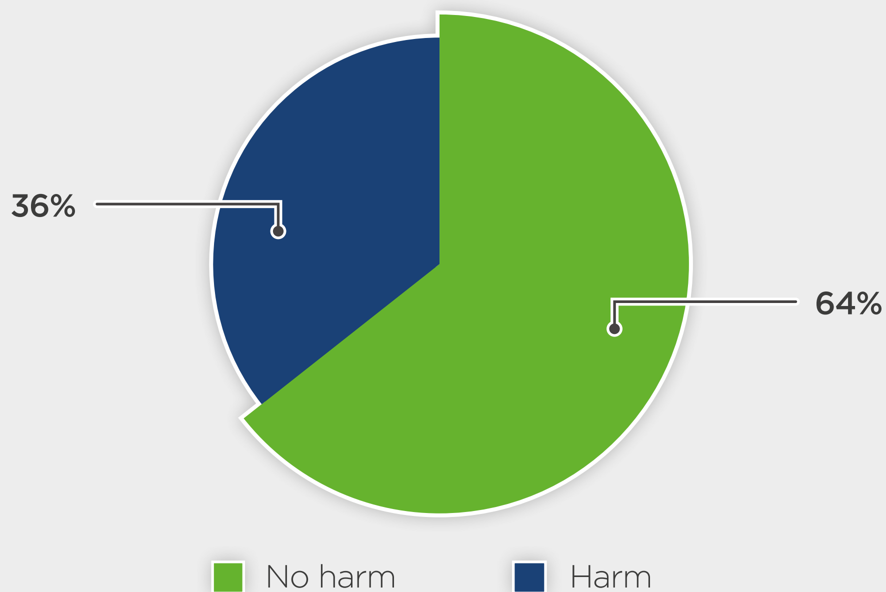

## 731 investigations broken down by criteria



## Reduction in HIE cases where harm has been identified



# 4 Outcomes and impacts: emerging themes from HSIB maternity investigations

We have identified the following themes from the safety recommendations made to trusts during 2021/22.

## Clinical assessment

During the COVID-19 pandemic the clinical assessment of mothers and babies was adapted to ensure the risk of transmission of the virus was mitigated at every contact. This has meant that maternity services have been required to adapt their approaches to assessing the wellbeing of a mother and baby.

Before COVID-19, assessments were typically carried out face to face, with telephone and virtual assessments being the exception. The move to remote assessments has meant that clinicians cannot rely on many of the subtle cues such as behaviour, appearance and body language that they would previously have used to inform their decision making.

Below are some examples of changes trusts have made, showing how telephone and virtual services have been developed to support clinicians undertaking these assessments and provide improved support for mothers.

### North Cumbria Integrated Care NHS Foundation Trust: action planning in response to a recommendation about triage

#### We heard from HSIB ... the evidence

One of our investigation reviews recommended that the Trust ensure staff use a systematic approach to triage calls from mothers that supports a robust risk assessment to inform the timing of a mother's admission. It was also noted that this should be documented contemporaneously (at the time).

Our aims were:

- to improve the quality of telephone triage assessment by promoting a more holistic approach to a telephone clinical review
- to improve identification and recognition of a problem to ensure early intervention

- to promote professional curiosity, particularly for inexperienced midwives
- to improve documentation of telephone triage assessment.

## We did this, and it worked for us ... the change

These were the actions we planned and put in place:

1. Review of guidance on triage communication and introduction of a new triage standard operating procedure (SOP).
2. Removal of all message books and ad hoc pieces of paper to record telephone calls.
3. Re-education of staff around appropriate recording of triage contacts immediately onto the BadgerNet patient record and recognition of repeat calls.
4. Review of BadgerNet 'alert' so that the system alerts the user if there have been more than two contacts from a mother within 48 hours.
5. Amendment of the BadgerNet Triage workflow to incorporate new enhanced questions and 'drill-down' questions.
6. Introduction of a poster prompt sheet to sit alongside the new BadgerNet Triage workflow as a reminder to staff.
7. Monthly audit of the new triage process.

The changes have been reinforced through Safety Message of the Week and detailed information has been included within the Maternity Safety Bulletin.

By removing all paper and message books and promoting the use of the BadgerNet Triage workflow, improvements in triage assessments have already been identified.

Once the new workflow questions are embedded, further improvements will be tracked by regular audits.

## Medway NHS Foundation Trust: dedicated support for COVID-19 related concerns

### We heard from HSIB ... the evidence

It was recognised that mothers may not be getting the necessary care and support they need and with the additional pressure put on primary care, it was often difficult for them to access advice and guidance.

### We did this, and it worked for us ... the change

We are very proud to be one of the first maternity units in Kent, Surrey and Sussex to run a service for mothers during the difficult and challenging times of COVID-19. We offer a service for mothers to call a dedicated telephone line, which is covered by senior midwives, who ask the relevant and pertinent questions in line with NHS England and Public Health England guidance on signs and symptoms of COVID-19.

If COVID-19 is suspected, the mother is provided with a pulse oximeter, with guidance on how to use it, a logbook, and information on staying safe and who to call and what to do if they show any signs of deterioration.

Low molecular weight heparin (a medication that helps to prevent blood clots) is organised and arranged to collect and for the mothers to administer at home. Mothers are reassured with daily telephone calls to go through symptoms. This prompts early escalation if there are any signs that their health is deteriorating.

Clinical assessment can be undertaken at each contact a mother and baby has with maternity services, from the point a mother books for pregnancy care through to care for the mother and baby after the birth.

It is important to note that clinical assessment can be undertaken across a number of specialities and within locations outside of maternity services, depending on the care a mother and baby require. In such cases it is paramount that clinicians are able to access the medical notes or communicate with each other. HSIB investigations have identified that systems to enable clinicians to access medical notes between primary and secondary providers, or an

emergency department and maternity ward, are often not in place. This means clinical assessments and key pieces of information between one clinical assessment and another are not consistently available. Clinicians can be reliant on the information shared by the mother or family to support planning of care.

Clinical assessment offers an opportunity to provide individual holistic care. HSIB investigations have highlighted that the care needs of a mother or baby change throughout pregnancy. The initial assessment for a mother to follow a particular pathway of care may change. The mother or baby may require referral for care or assessment outside of maternity services. These referrals can relate to physical health, mental health or social needs. This requires clinical assessment at each contact to consider what the physical assessment is indicating, actively listening to a mother and being curious when findings are not as anticipated.

Our investigations often identify multiple opportunities when a different course of action or pathway of care could have been followed. Clinical assessment of a mother or baby on one occasion may indicate a finding that is not as expected but that in isolation does not require their care to be changed. On further reviews the unexpected findings may become cumulative and present a different picture. Systems and processes are needed that support staff to make clinical assessments, so that they can identify when changes to a mother's or baby's care plan are required. There are many factors that contribute to the challenges of consistently achieving this.

Clinical assessment can lead to decisions that require an emergency response. How this is communicated and responded to can influence the outcome for the mother and baby. Investigations have identified that this is particularly important when working across different clinical environments which have competing commitments within a trust. Ensuring that clinical teams are informed and share the same mental model of what needs to be done and within what timeframe supports this approach.

One scenario where effective assessment, decision making and communication are essential is the decision to transfer a mother to the operating theatre for an emergency caesarean section. Below is an example of how a trust has implemented change to improve care in this scenario.

### Bedfordshire Hospitals NHS Foundation Trust – Luton & Dunstable University Hospital site: introduction of a categorisation sticker system for assisted vaginal births and emergency and urgent caesarean sections

#### We heard from HSIB ... the evidence

We had a safety recommendation that staff ensure that, when making a decision to carry out a caesarean section, the categorisation (that is, the urgency) must be communicated to the team and documented in the mother's notes.

#### We did this, and it worked for us ... the change

A documentation tool in the form of a 'Categorisation of Delivery Sticker' has been developed. The tool categorises all births that require obstetric assistance, that is, assisted vaginal births or category 1 or 2 caesarean sections. This supports the urgency and timings from decision to birth interval, as well as prompting the team to review every 30 minutes to review any changes in a woman's clinical condition.

If there is a delay in the transfer of the woman to the operating theatre of more than 30 minutes, the clinician must re-assess and document the reason(s) for the delay. There is clear escalation to the on-call obstetric consultant following this review and the on-call team has the opportunity to review the workload in the unit and triage priorities accordingly.

The tool also helps to prioritise the workload on the delivery suite and acts as an aide-memoire for the escalation of concerns, for example if there is a deterioration in a woman's clinical picture.

After the birth of a baby the requirement for individualised care remains important. Our investigations identify that due to developing circumstances the priority of care for the mother or the baby can lead to clinical assessment being incomplete. One scenario in which we have seen this is when a baby is transferred to a tertiary (specialist) centre and the mother wishes to be with her baby. This can result in the mother's ongoing care not being implemented. On other occasions incomplete clinical assessment of the mother or baby before they are discharged from hospital can lead to them being readmitted.

As reflected in the examples above, trusts are responding to the safety recommendations HSIB is making relating to clinical assessment. Trusts' recognition of the issues being identified is supporting safer care of mothers and babies.

## Clinical oversight

We have seen that when the 'helicopter view' of a clinical situation is not maintained this can have negative impacts on safety. Designating someone to maintain an overview of events during a clinical emergency has been a key safety recommendation made to trusts. This has been seen to be particularly beneficial when there are multiple demands on the clinical team due to clinical complexity or workload or both. We have seen the importance of this helicopter view, especially when a mother or baby moves between care settings and there may be changing care priorities.

Another area of clinical oversight relates to action in response to investigation/scan results. Mothers and babies may have laboratory or radiological investigations undertaken, both in outpatient and inpatient settings, the results of which may not be immediately available. It is necessary to review such results in a timely way so that the subsequent care needed by the mother or baby can be planned. Investigations have found that this process is not always robust and clinical care has been delayed or has not occurred.

A finding in a number of investigations has been that when face-to-face clinical reviews by senior members of the clinical team did not take place, this had a negative impact on care provision. We found that face-to-face reviews involving the multi-professional team and a mother supported safe clinical oversight of her labour and birth. Similarly, involving parents in face-to-face reviews in the postnatal period optimised a baby's care.

Clinical oversight is not just needed during birth; in the antenatal and postnatal periods we have seen how limited clinical oversight of a mother's or baby's care has affected the outcome. All mothers and babies, not just those with more complex care needs, benefit from documented, personalised care plans that reflect a mother's or parent's choice in the context of her clinical risk assessment. These plans are best made in conjunction with a clinician who has the clinical oversight of a mother's or baby's care.

## North West Anglia NHS Foundation Trust: 'Safe Care' tool

### We heard from HSIB ... the evidence

One of our safety recommendations was: 'The Trust to ensure that a member of the intrapartum team maintains a helicopter view to maintain situation awareness to ensure the safe management of complex clinical situations.'

### We did this, and it worked for us ... the change

The Trust has developed a 'Safe Care' tool for both low-risk and high-risk women. This tool gives the oversight of all aspects of intrapartum care to another person to help identify evolving clinical risk factors.

An initial overview of all aspects of care is undertaken including analgesia (pain relief) options, fetal monitoring, maternal observations, liquor colour etc. This assessment is then re-examined with another clinician every 2 hours for low-risk women and hourly for high-risk women. Any changes in circumstances are then identified, for example, has the woman now fulfilled the prolonged rupture of membranes criteria?

The results of these reviews are used by the labour ward co-ordinator to help them to maintain a helicopter view.

## Barking, Havering and Redbridge University Hospitals NHS Trust: regular dynamic risk assessment

### We heard from HSIB ... the evidence

There were concerns regarding the recognition of the potential changing clinical condition of the mother over time, and the suitability of her remaining on the birth centre following a change in her condition.

Examples of HSIB safety recommendations from the investigation report:

- that the Trust support staff to ensure that mothers receive individualised care that incorporates regular comprehensive reviews and dynamic risk assessment throughout their admission
- the Trust to ensure staff are supported to carry out regular reviews in line with national guidance and ensure this includes a regular dynamic risk assessment of the mother's level of care.

### We did this, and it worked for us … the change

The Trust developed a clinical review proforma to be used 2-hourly for each mother on the birth centre, designed to support individual clinical decision making. This is similar to a detailed documented 'fresh eyes'. In addition to supporting individual clinical decisions, it facilitates increased oversight of the acuity of the unit.

## The Leeds Teaching Hospitals NHS Trust: the operating theatre – a high-risk environment in more ways than one

### We heard from HSIB … the evidence

It was identified that when an assisted vaginal birth was required in the operating theatre, there was a loss of situation awareness specifically relating to oversight of a deteriorating CTG (fetal heart rate monitor), and thus birth was not appropriately expedited.

### We did this, and it worked for us … the change

We identified that due to the highly complex nature of the operating theatre environment, it was very difficult for the team to maintain an oversight of the CTG as there were many other tasks requiring simultaneous attention. A second midwife now attends the operating theatre. Their role is exclusively to maintain adequate fetal monitoring and escalate concerns to the team.

## Escalation

Escalation of a mother's care (where a clinician seeks the opinion of, or assistance from, a more senior or specialist colleague) requires clinicians to recognise that a situation is evolving or has suddenly changed. In addition, there are situations where the response to an initial escalation is not as expected.

Our investigations indicate that recognition of an evolving clinical situation is a significant area of learning. Changes in a mother's or baby's health are often identified through the use of tools such as the National Early Warning Score 2 (NEWS2) or the Maternity Early Warning Scores (MEWS). We recognise that

there is an English national MEWS tool in the final stages of clinical testing. We know from our investigations that the way trusts implement and respond to MEWS varies across England, with many using NEWS2 outside of the maternity environment to monitor mothers. This means that the subtle physiological changes that may be identified by a MEWS tool are not picked up by NEWS2 and often mothers are more unwell than initially indicated.

In addition, the escalation response to a track and trigger tool varies across trusts, with the approach to triggers and responses within maternity services differing from those used elsewhere in a hospital.

We see different approaches taken when mothers attend wards or departments outside of the maternity setting. Often it may be assumed that a mother's signs and symptoms only relate to the pregnancy and therefore other causes are not considered. There is inconsistent referral and response when mothers attend areas such as emergency departments.

On occasion the mother's care is not discussed with the obstetric team or there is a reluctance to review a mother outside of the maternity services. The escalation of care of a mother whose health is deteriorating can be delayed and diagnoses that are recognised within maternity care are not made. We equally see excellent collaborative care with obstetric and maternity involvement at the point of admission with input throughout a mother's care, often when it is not primarily within the maternity environment.

A further key area identified in our investigations is escalation within the maternity environment, of a mother requiring a review by a senior clinician. Our investigations indicate that there are multiple reasons why escalation does not take place when a mother's or baby's health is deteriorating, for example normalising of the situation presented or staff seeking assurance that the evolving situation is 'normal'.

The process of escalation can be hierarchical and sometimes requires a senior colleague to be informed prior to discussion at a higher level. On many occasions this provides the intended support. Equally, on other occasions, it presents clinicians with the dilemma of where to go next if there is a difference of opinion.

Input from senior colleagues and the multidisciplinary team to support a plan when concerns are raised enables a mother's care to be considered from different perspectives. This approach provides an environment in which care of a mother can be discussed and supportive learning can be provided, ultimately allowing the voice of everyone involved in the mother's care to be heard. Below is an example of how this has been implemented in practice.

### Nottingham University Hospitals NHS Trust: improving clinical escalation through collaborative decision making

In keeping with findings in national reports we found that a breakdown in escalation was a contributing factor in some of our incidents. We wanted to learn from best practice nationally. We utilised approaches shared at the national 'Monitoring May' networking events. We also used the Each Baby Counts learn and support 'Teach or Treat' initiative.

The concept encourages colleagues to actively give each member of the team a voice, and to make decisions collaboratively. Collaborative decision making removes the need for a colleague to challenge a decision made in isolation by another colleague.

We have run several social media campaigns and interactive multi-professional learning events on the topic of clinical escalation. We have also created a 15-minute **YouTube video**. The video highlights the impact of hierarchies on team communication. It also looks at how the involvement of women, their companions and colleagues in assessments and decision-making processes can improve safety.

Staff have fed back that the work has been really helpful as it has improved the wider team's awareness of the lived experience of colleagues from different professional groups, levels of seniority or experience.

As a result, it has opened conversations about sociocultural barriers to escalation within the department, enabling us to address these.

## Fetal monitoring

Our investigations have identified recurring safety recommendations relating to fetal monitoring.

Fetal monitoring safety recommendations relate to the monitoring of an unborn baby's heart rate using intermittent auscultation (IA), or cardiotocograph (CTG) monitoring with or without computerised CTG analysis.

IA, or 'listening in', is the preferred method of listening to a baby's heart rate in labour in pregnancies where there are no anticipated complications.

A CTG is an electronic means of recording an unborn baby's heart rate pattern to assess their wellbeing. Computerised CTG analysis can be used instead of visual analysis (looking at the heart rate and contraction pattern on graph paper) alone. Computerised CTG analysis is designed for use in the antenatal period (before labour or induction of labour).

When fetal monitoring is not effective, this can lead to misinterpretation of the monitoring, or concerns relating to fetal monitoring not being escalated, which can affect the outcome for mothers and babies. For example:

- when a suspicious or pathological CTG is not recognised or acted on
- in the second stage of labour, when the frequency of IA is not increased in line with national guidance.

Two themes identified in our safety recommendations for fetal monitoring are a limited systematic approach to CTG interpretation, and non-compliance with national guidance particularly in relation to IA.

Our investigations have explored the reasons behind the issues, in particular looking at how humans work within a system and how this impacts on the care a mother and baby receive.

We have observed that fetal monitoring supported by a systematic approach to CTG categorisation, that includes all cumulative risk factors, strengthens clinical decision making.

### Royal Berkshire NHS Foundation Trust: planning actions after an HSIB investigation

#### We heard from HSIB ... the evidence

The investigation raised the following issues:

- not recognising chronic hypoxia on CTGs
- occasions where the CTG was misclassified by all levels of midwifery and obstetric staff
- no attempt to contact the on-call obstetric consultant to assist with the workload
- no escalation of fetal demise.

## Some of our aims were to ensure that:

- all relevant multidisciplinary staff are informed of birth emergencies
- CTGs are categorised and escalated if abnormal
- safety huddles are prioritised
- CTG reviews take place in the delivery room
- all staff are up to date on fetal monitoring training.

## What actions did we take?

With the above aims in mind, we:

- developed and implemented a fetal monitoring action plan
- introduced additional computerised CTG machines across the service
- developed an antenatal CTG monitoring decision-making tool
- reviewed guidance on categorising fetal heart rate changes
- monitored mandatory CTG training completion.

We have observed the importance of following national guidance (as set out in 'Intrapartum care for healthy women and babies', the National Institute for Health and Care Excellence (NICE) guidance published in 2017).

There is no national guidance on how often IA should be undertaken in the latent phase of labour. When performed in line with the NICE guidance, IA is required at least every 15 minutes in the first stage of labour, increasing to at least every 5 minutes in the second stage of labour. It is recommended that IA is always performed immediately after a contraction, for 1 minute.

We have made many safety recommendations in relation to supporting staff to undertake IA in the second stage of labour in line with current local and national guidelines, in particular the timing and method.

Additionally, safety recommendations have been made about staff being supported to escalate changes in a baby's baseline heart rate in a timely manner, when undertaking IA.

The following examples show how two Trusts have made changes in response to safety recommendations relating to IA monitoring.

### University Hospitals of Morecambe Bay NHS Foundation Trust: following national IA guidance

#### We heard from HSIB ... the evidence

It was recommended that the Trust ensure that all staff in all birth settings where IA is used, monitor the baby's heart rate in the second stage of labour in line with the NICE guidance on intrapartum care.

#### We did this, and it worked for us ... the change

We amended our fetal monitoring guideline to remove the differentiation between the passive and the active phase of the second stage of labour for the timing of IA of the fetal heart rate. This has removed any ambiguity and ensured that the fetal heart rate is always monitored at least every 5 minutes in the second stage in line with NICE guidance.

### Mid Cheshire Hospitals NHS Foundation Trust: IA assessment tool and guidance

#### We heard from HSIB ... the evidence

It was recommended that:

- the Trust ensure staff are supported to undertake IA in line with national guidance
- the IA guideline, training and clinical care are in line with agreed national best practice.

### We did this, and it worked for us … the change

We developed an IA assessment tool to be used in conjunction with reviewing a partogram hourly in the first stage of labour, and every 30 minutes in the second stage. This is to replicate the 'fresh eyes' perspective used in CTG review.

Core staff on the midwifery-led unit and homebirth team championed the completion of the intelligent intermittent auscultation (IIA) e-learning module and were the first to put this learning into practice. As a result, the division included the IIA module and assessment on E-Learning for Health as mandatory for this financial year for all registered midwives working within the division.

IIA was also presented as the topic of the month on our 'hot topic' board and has been presented at fetal monitoring workshops.

In September 2021, HSIB published a national learning report entitled '**Intrapartum stillbirth: learning from maternity safety investigations that occurred during the COVID-19 pandemic 1 April to 30 June 2020**'.

The report explored the findings of our maternity investigations during this time and made a number of safety recommendations.

One of the safety recommendations was made to the Department of Health and Social Care (DHSC). This is the safety recommendation and the response we received from the DHSC:

HSIB recommended that the DHSC commission a review to improve the reliability of existing assessment tools for fetal growth and fetal heart rate to minimise the risk for babies.

The DHSC's response:

'The Department of Health and Social Care accepts this recommendation. Subject to the necessary approvals, we will look to commission this research in due course.'

Action: Seek approvals to commission research. Timeline: Submit proposal early 2022. Lead: DHSC. This is the earliest possible intake for Research and Development proposals.

## Guidance

We have observed that some local guidance does not offer staff advice on key areas of clinical management. This has led to staff being unaware of best clinical practice and has affected the care given to mothers and babies.

There are some areas of clinical care where no national guidance exists. Where we have seen that this has affected outcomes for mothers and babies, we have shared findings with national bodies and royal colleges. This has led to changes in national guidance. For example, national guidance on induction of labour included updates based on HSIB observations. In other areas trusts have attempted to mitigate these gaps in national guidance by introducing local guidance. We have seen how this has led to variation in the care provided to mothers and babies within England.

We have observed that some trusts are not able to implement new national guidance in a timely way. This can be due to resource limitations both in personnel to facilitate the change and in personnel or equipment to deliver the required changes. This was especially challenging during the COVID-19 pandemic, when it was necessary to update national guidance frequently because of the evolving understanding of the disease and infection processes.

### Dartford and Gravesham NHS Trust: management of the latent phase of labour

#### We heard from HSIB ... the evidence

There is no national guidance on the management of mothers who are inpatients in the latent phase of labour. This leads to different management for these mothers. There was a need to develop a guideline that provided clear guidance for staff relating to the care and observation of mothers and babies in the latent phase of labour.

#### We did this, and it worked for us ... the change

We developed our own guideline, which ensures that there is forward planning to monitor progress into established labour, taking risk factors and mothers' individual wishes into account.

## Northern Lincolnshire and Goole NHS Foundation Trust: structured telephone triage

### We heard from HSIB ... the evidence

HSIB identified that our telephone triage service takes place in a busy labour ward and the Trust telephone assessment guideline did not advise where women should be seen or how quickly. This meant that women may not always be seen in the most appropriate place and in the correct timescales. A safety recommendation was made that the Trust should ensure that the telephone triage guidance is written in a structured way that supports staff to recognise complications and direct the woman to the most appropriate area in a timely manner.

### We did this, and it worked for us ... the change

We worked in collaboration with our colleagues in IT to produce an online triage tool; when a mother contacts a midwife, the tool can be completed. From the information entered, the computer system informs the midwife where and when the mother should be seen. This has led to consistency and improved safety.

## Somerset NHS Foundation Trust (Taunton): guidance for pre-labour spontaneous rupture of membranes (SROM)

### We heard from HSIB ... the evidence

HSIB investigations highlighted a lack of clarity within local guidance and inconsistency with national guidance regarding management of pre-labour rupture of membranes. This led to a safety recommendation that the Trust ensure that the local induction of labour (IOL) and pre-labour SROM guidance incorporates national recommendations with reference to the offer of immediate IOL with pre-labour SROM.

### We did this, and it worked for us … the change

We changed practice to ensure those attending with uncomplicated pre-labour rupture of membranes are offered immediate (as soon as can be accommodated) IOL if they wish. This facilitates a discussion around the IOL process, risks and benefits of induction, risks associated with prolonged rupture of membranes, choice on how long to allow for conservative management if desired, and the opportunity to asks questions.

This allows individualised care planning with an emphasis on informed decision making. Our local guidance and care bundle have been updated clearly and concisely to reflect this change in practice.

Feedback from staff, women and families has been positive regarding promoting informed choice and decision making.

# 5 Impact on trust learning and safety actions for maternity services

Over the last year we have made more than 1,740 safety recommendations to trusts addressing a wide range of issues. A safety recommendation is made when a finding within an investigation is thought to be contributory to the outcome and it is the trust's responsibility to implement actions that will seek to address an identified issue and make improvements. All trusts have an opportunity to review draft HSIB reports before they are shared with the family and finalised. This ensures that any factual inaccuracies can be rectified, but also gives trusts the opportunity to review whether the safety recommendations will enable them to implement practicable actions that will result in tangible safety improvements.

One clinical issue arising from our investigations in the last year related to the identification and management of bloodstained liquor. We have seen widespread reference to 'pink' liquor when reviewing maternity notes and staff have reported that the presence of 'pink' liquor is "normal" during labour.

The World Health Organization recognises four categories of liquor: 'clear', 'bloodstained', 'meconium-stained' and 'absent'. 'Pink' is not an acknowledged definition of liquor in either national or local guidance. The Royal College of Obstetricians and Gynaecologists considers that, while bloodstained liquor may result from dilation of the mother's cervix, more significant causes, such as placental abruption, placental praevia, and uterine rupture, should be ruled out. In its 2017 guidance on intrapartum care, NICE recommends transferring mothers to obstetric-led care if any vaginal blood loss other than a 'show' is observed. In a number of investigations, the normalising of 'pink' liquor and the perception that the mother remained low risk contributed to possible ongoing bleeding not being recognised.

One of the findings of an investigation at University Hospital Southampton NHS Foundation Trust recommended that the Trust ensured that all clinical staff were aware that 'pink' liquor in labour should be recognised and documented as bloodstained liquor, and that these cases warranted an obstetric review. In considering its actions to address the safety recommendation, the Trust was concerned that it could have a significantly negative impact on mothers' care, when in most cases the underlying cause would be normal.

After regional and national discussions, the Trust realised that there were other maternity services also putting this safety recommendation into clinical practice. Locally, the Trust felt this change in practice would lead to increased transfers of mothers who are in labour, increased medicalisation in labour, and increased workload in the high-risk environment, which can then mean that medical care is not focused where it is most needed. Pragmatically, it would be challenging to

implement in midwifery-led settings without causing increased transfers in labour, which in themselves carry additional risks. Overall, the Trust felt the original safety recommendation was disproportionate to what they felt we were trying to support them to consider.

We met with the Trust and the safety recommendation was amended. While maintaining the need for clinical staff to understand the significance of bloodstained liquor, it was agreed that a holistic review and plan of care should be undertaken in these cases. In practice, this means that care givers will risk assess a mother when bloodstained liquor is evident, determining whether it is a normal physiological response in labour. This means they can continue to care for her in the low-risk setting, or if there are more concerning features, escalate her care to the obstetric team.

To implement this change in practice, the Trust had some guiding principles:

- 'pink' liquor was to be termed as bloodstained liquor and the digital documentation system was to support this
- reframing the thinking around bloodstained liquor and considering its origin and whether it is indicative of cervical or uterine origin
- what does a holistic assessment look like and how is this facilitated?
- that the Trust is on a journey with this practice change as it challenges historical norms
- there is a gap in the evidence and therefore guidance around liquor terminology; the term 'pink' liquor had become commonplace.

Putting a spotlight on this gave the Trust an opportunity to shape and inform the development of clinical practice, bringing together the multi-professional team and also educational bodies with whom it collaborates.

The safety improvements implemented in response include:

1. sharing the learning via multi-professional educational and governance forums, often structured to elicit practice implementation discussions
2. updating and amending all relevant guidelines with the appropriate terminology, risk assessment and management, for example, guidelines on pre-labour rupture of membranes, care of women in labour

3. including bloodstained liquor as a 'golden thread of learning' across the Trust's education and training, such as core learning topics on labour management and in PROMPT as part of placental abruption scenarios to consider differential diagnosis
4. sharing learning via 'theme of the week' posters and creating more permanent posters for clinical areas to support decision making
5. engaging with educational institutes and sharing the learning for midwifery and medical students
6. discussing with the regional clinical leads and sharing their changes in practice
7. informing changes to regional antenatal and labour guidance and triage in labour pathways.

Following discussions with the Trust and having gathered evidence from a number of HSIB investigations, we agreed to submit a paper to NICE for consideration during its review of the intrapartum care guidance, so that this learning can be shared across the maternity system.

Other trusts have also implemented safety improvements in response to HSIB safety recommendations regarding 'pink' liquor, including Portsmouth Hospitals University NHS Trust, as detailed below.

### Portsmouth Hospitals University NHS Trust: THINK at PINK

#### We heard from HSIB ... the evidence

A safety recommendation was made by HSIB around staff seeking review for documented 'pink' liquor. There was lots of debate among staff about the impact of treating pink loss as abnormal and the risk of unnecessary transfer of mothers from low-risk settings to obstetric-led care.

#### We did this, and it worked for us ... the change

We needed to find a balance between reducing the impact of intervention with normal pink loss but still recognising that blood staining of the liquor is not normal.

We recognised that this may be a documentation issue. Midwives document 'pink' for liquor, on the partogram for example, when what

they mean is pink loss and not liquor. Pink vaginal loss (where clear liquor has flowed through show) is normal, whereas if the liquor itself is pink (bloodstained) this is not normal.

We raised awareness for midwives to 'THINK at PINK' – that is, to consider and document whether the loss is pink but the liquor clear or whether the liquor itself is pink, in which case they should seek a review.

We sent out a simple short message as part of our weekly safety message (see below).

# SAFETY MESSAGE OF THE WEEK

**THINK at PINK**

HSIB have recently highlighted a documentation issue around defining vaginal loss. It is well recognised that some pink vaginal loss during labour is normal and is as result of bloody show mixing with *clear* liquor.

Blood staining of the liquor itself is not normal and needs further risk assessment - considering antepartum haemorrhage.

Differentiating between simple and normal pink vaginal *loss* and *blood-stained liquor* is important, both in our risk assessment of the labour and how we document our findings.

**When documenting vaginal loss, it is important to:**

- **Be clear when the vaginal loss is pink but the liquor itself is clear – you may need to document that you are going to observe this for a period until you are sure**
- **Consider obstetric review if you have suspicions or confirmation that the liquor itself is blood stained as this is not normal**

*This learning was identified in a recent HSIB investigation. HSIB reports are available for staff to view on the Trust Intranet.*

# 6 Family and staff engagement

Meaningful engagement with and involvement of families continues to be a priority within our investigations. Over the last year 86% of families engaged with our maternity investigation programme.

Work has been ongoing to get a better understanding of why some families decide not to be involved. This includes those families who do not agree for their contact details to be shared with HSIB, which means we are not able to speak to them. It also includes families who agree to initial contact, but, after having the process explained to them, decide they do not wish to be involved or do not give us consent to access their medical records.

The reasons for not wishing to be involved included:

- families stating that they are happy with their care and do not see the value of an investigation
- families not feeling able to participate because of the distress of what has happened.

There are also a number of families from whom we were unable to gain consent and who have not replied to any contact; therefore, we do not fully understand their reasons for not wanting to be involved.

To ensure that information provided to families is as complete and accessible as possible we undertook a full review of family resources. The aim of this was to ensure that the information helps families to make an informed choice about their involvement. The review has resulted in additional resources being made available in different formats and additional languages. We also developed videos in which families explain from their perspective why they agreed to be involved, and share their experience of the process and the difference it made to them.

To ensure accessibility and inclusivity for families, we carried out a pilot where, with the agreement of the family, their particular needs were identified. This enabled us to adapt our approach to these families and to ensure that the information provided or requested, and the way families were involved, happened in a way that was best for each family. Where the family identified needs which sat outside of the investigation process, appropriate signposting could be given. Support for investigators in this work included further information, resources, and signposting information.

We have conducted a review to reflect on the experience of the tripartite meetings that are held after an HSIB maternity investigation. A tripartite meeting brings together HSIB, the family and the trust to discuss next steps following an investigation. This enables the family to ask the trust questions about areas that may sit outside of the investigation, and allows the trust to discuss the steps it has taken or plans to take following any safety recommendations. In collaboration with a local trust, a family resource is currently being drafted to help set clear expectations about the purpose of this meeting.

The processes we have developed for family involvement in investigations has informed a project with NHS England and NHS Improvement and the Learn Together research team. This project has developed guidance to support and inform how the NHS engages with families in all patient safety responses. The guidance will be available as supplementary guidance and sit alongside the suite of documents developed for the Patient Safety Incident Response Framework.

Feedback from families continues to inform our processes and provides opportunities for review and development.

Analysis of this feedback shows consistent positive themes from last year, including:

- families feeling included, part of the investigation and able to participate
- investigators demonstrating sensitivity and excellent communication skills
- families thanking HSIB and investigators for the work they are doing
- families understanding the facts of what happened as a direct result of the investigation.

In addition, positive themes that have emerged over the last year include:

- families feeling the investigations were timely, especially when considering COVID-19 restrictions
- families recognising the value of tripartite meetings at the end of the investigation
- families saying that the language used within reports was clear and they welcomed any terminology being explained.

Feedback over the last year also identified areas for development which included ensuring families are aware of what is being asked of them when the draft investigation report is shared to ensure we manage expectations appropriately.

Through their feedback, families have also expressed to HSIB a desire that reports are thorough, independent and that the safety recommendations they include can make an impact so that any further harm is prevented.

## Inclusivity

We have developed an approach to maximise the inclusion of families in our investigations. In early conversations with families and at significant points during the investigation, investigators speak with family members to try and understand any needs they may have in relation to communication, health and wellbeing, or day-to-day life. This is to help understand how we can support families to be involved in the investigation and to identify whether any adjustments to our approach are required to ensure that happens.

For example, some families have required interpretation or translation services, others may need signposting to specific types of support or may have limited or no access to digital technology. The issues raised by the family will then inform how we can best support their involvement in the investigation.

As part of this development, work has been undertaken with different community groups. The aim is to gain a better understanding of the way different communities may have different requirements or beliefs that need to be considered when we involve families from those groups in an investigation. This work has enabled us to create resources to inform staff of these important considerations, and to develop additional signposting for families who need further support.

## Language services

If our initial contact with families identifies a need for interpretation or translation services, we work with a language services provider to ensure the most appropriate format is available. This includes the availability of information resources and investigation-specific information in the required language or format.

During the last year we have required these services for 31 different languages, the three most requested being Romanian, Urdu and Arabic. While we mainly use this service for translations into specific languages, we also use it for British Sign Language and easy read formats.

## Feedback from families during 2021/22

"Our investigator kept us informed all the way through the investigation. We were always given a chance to ask questions and things were explained to us."

"I had a step-by-step explanation of the process and contact was always available for any questions. My feelings were always considered, and compassion was shown. Everything was explained to me, and I was always made to feel comfortable and able to ask any questions."

"My partner was involved to an extent that he was comfortable with. Being a witness to what happened, his say was also important."

"We are extremely impressed by the thorough commitment and professionalism shown by [the investigator] during this investigation. We strongly believe that this is a very important piece of work which would hopefully help the government to make improvements to the system."

"Really, really clear communication style from my investigator. Asked how I preferred to engage with her. Was flexible with timings. Was clear about key milestones."

"Terminology that we didn't understand was gone over and explained to us to ensure we could engage and understand everything fully."

"I think my perspective was considered and areas that HSIB aren't able to make changes for, were highlighted and appropriate next steps were discussed with me."

"We felt heard."

## How equality and diversity is influencing our work

An HSIB race equality group was created in 2021. Its aims are to:

- review, analyse and use internal demographic data regarding the ethnicities of those involved in HSIB investigations, using the learning from this to understand and improve health inequalities
- facilitate education within HSIB about the impact of race on peoples' lives
- understand how the race of a person referred for an HSIB investigation impacted on their experience and/or healthcare outcome
- understand racial biases in language, devices or procedures which HSIB is investigating or needs to consider in healthcare.

This work is being developed by three workstreams and involves collaboration with external stakeholders across healthcare. It also draws upon the expertise of the **HSIB Citizens' Partnership** – a group that supports HSIB's work by providing a patient and public perspective.

We recognise that our involvement with families means we are uniquely placed to explore, report and learn from families' experiences of the impact of race where HSIB investigations have been conducted, and make recommendations for positive change.

We aim to identify how we can optimise the data we hold and increase our understanding of health inequalities, taking account of individual needs. This work will also inform staff development and ensure we improve staff understanding in this area.

# 7 How the HSIB maternity investigation programme is influencing national learning

## Perinatal meetings

Each of the seven NHS England regions host a surveillance meeting with the aim of supporting the timely identification and escalation of concerns, drawing on insights from regional representatives, regulators and other national bodies to inform action.

An HSIB representative from each region attends the relevant area meetings and regularly presents regional-level data from our investigations. The meetings are an opportunity to develop relationships with stakeholders, to share intelligence and to support ongoing monitoring of safety and quality in maternity services.

## Close working with regional chief midwifes and regional lead obstetricians

HSIB regional leads have developed effective relationships with each of the regional chief midwives. Open communication enables rapid escalation of concerns and demonstrates a collaborative approach to maternity safety. The regional chief midwives are invited to attend individual trusts' quarterly review meetings to support their insight into organisations' investigations and any recurrent themes that may be evident.

Our processes for the escalation of concerns have been reviewed and now include notification to the relevant regional chief midwife. One example of this is where agreement cannot be reached when a trust does not accept a safety recommendation arising from an investigation. This supports the regional chief midwife's oversight of an organisation's openness to learning from incidents.

## Maternity Quality Matrix

The Maternity Quality Matrix is a tool, currently in development, to provide each trust with insight into their HSIB maternity investigations over time, reported on a quarterly basis. It will capture information gathered through HSIB's maternity investigation process in one single document.

An inquiry by the Health and Social Care Select Committee on the safety of maternity services reported in 2021. One of its recommendations is that HSIB shares the learning from its maternity reports in a more systematic and accessible manner. It outlined that this should include the rapid sharing across the NHS of a top-level summary of individual cases, together with the key learnings derived

from them. A Maternity Quality Matrix for each trust will provide data on all referrals, categorisation and cases progressing to investigation, thematic learning, where concerns have been escalated, and an overview of the trust's and family's engagement and any coincidental learning and findings.

This will support trusts in achieving the 'immediate and essential actions' for enhanced safety arising from the Ockenden review of maternity services at The Shrewsbury and Telford Hospital NHS Trust, evidencing required clinical change and communicating across local networks.

With the Maternity Quality Matrix, the data will be presented to the trust and reviewed to determine improvements or concerns within the quarterly period in comparison with the previously reported quarter/year, enabling timely discussion by the trust. This will allow rapid learning for the trust and the wider NHS as they will be able to review the progress of interventions and learning from the incidents investigated. It will support our quarterly review meetings, already in place, in enabling a collaborative discussion and will facilitate a more bespoke approach to conducting these meetings.

## Maternity observational diary

The maternity observational diary is a newly implemented tool, used within HSIB, to enable maternity investigators to capture information during the lifespan of an investigation. This information includes:

- points of good practice and/or challenges in working with a trust
- soft intelligence/coincidental findings (evidence collated that may not be included within the investigation report itself)
- concerns that may warrant escalation via the HSIB escalation of immediate concerns process
- challenges in undertaking the investigation itself, which may refer to HSIB internal processes.

This information provides evidence to support information sharing at the quarterly review meetings held with trusts and escalation of immediate concerns. It will also feed into the Maternity Quality Matrix and support quality improvement within HSIB.

## Newsletter

We piloted a newsletter for the maternity investigation programme in the London region over a year ago, using a 'we said, you did' format. The newsletter came about because trusts had contacted us asking if others had received similar HSIB safety recommendations and if so, how they were approaching them. The aim was to share learning between trusts by providing a way for staff to share with others what they had done to make changes and improvements.

As the first edition received an overwhelmingly positive response from trusts and external stakeholders the newsletter was expanded. We invited contributions from all four HSIB regions in England. As the volume of contributions increased, we grouped the entries under themes.

Examples may be mentioned during quarterly review meetings between HSIB and the trusts, and trusts are encouraged to submit these to the newsletter.

Examples of learning have included changes that have been made to maternity triage services, ways of supporting staff to undertake fetal monitoring successfully, and initiatives to improve the escalation of concerns about a mother and baby. Trusts have shared examples of tools that may be useful to others including redesigned CTG stickers, posters and checklists.

The newsletter continues to evolve as trusts increasingly want to know from others how they achieved change and the results they saw. We have also received contributions from ambulance trusts and plan to focus on their entries in the next newsletter. We also seek to be responsive to requests; for example, trusts are keen to see examples of action plans created by others.

Below are two examples of items included in the newsletter during 2021/22.

### Birmingham Women's and Children's NHS Foundation Trust: introduction of safe gestational ranges for induction of labour (IOL)

#### We heard from HSIB ... the evidence

It was recommended that the Trust ensure that an individualised risk assessment for mothers requiring IOL considers the most suitable venue and plan of management for their ongoing care.

#### We did this, and it worked for us ... the change

As part of booking IOL, all women are individually risk assessed and using national and local guidance, a safe gestational range is allocated for undertaking IOL. This allows for safe oversight of booking and improved management of capacity across both areas for induction.

All staff are provided with a 'Safe Gestational Range' card to support decision making and to identify situations where escalation may be required.

### Chelsea and Westminster Hospital NHS Foundation Trust: improving our response to obstetric emergency in the midwifery-led unit

#### We did this, and it worked for us ... the change

The orientation of new staff has been adapted to include all areas of the maternity unit so they are more familiar with the environment and the layout. This includes raising awareness of the equipment that is available in all settings. Staff are provided with a booklet which is currently accessible online.

The mandatory training programme has been adapted to incorporate the scenario which led to the HSIB investigation, including a focus on appropriate maternal positioning as well as a 'think breech' approach when thick meconium is present.

In response to the investigation's findings we have also reviewed the layout of the Birth Centre and Maternity Assessment Suite to ensure adequate space for all emergency equipment, including the installation of 'cosy cabinet' resuscitaires.

## Sharing learning through seminars

With the continuing COVID-19 pandemic restrictions and advances in the ease of hosting and attending webinars, we were delighted to present three webinars during 2021.

### Ambulance services webinar – June 2021

A joint webinar with the HISB maternity and national teams, in collaboration with NHS ambulance services, was held on 1 June 2021. The aim was to help ambulance services to understand how HSIB's experience is making a difference to frontline healthcare.

We explored the differences between a maternity and national investigation. Findings were shared from the national investigation into the emergency response to heart attacks, and the safety recommendations from a recent maternity investigation involving aspects of an ambulance service were discussed.

The webinar included an interactive question and answer session on HSIB's investigation approach and explored in greater depth the safety recommendations we have made to ambulance services to improve safety and optimise patient outcomes.

### World Patient Safety Day webinar – September 2021

In association with World Patient Safety Day, HSIB hosted a webinar and learning event on 16 September 2021.

The programme included an introduction to the HSIB maternity investigation programme. We explored what have we been doing over and above our Directions (the legislation which sets out our remit) and how the programme has listened, learned and improved from feedback.

We shared the new HSIB Maternity Quality Matrix, reviewed actions taken in response to our investigations and shared examples of how trusts have improved safety within their units.

### Doctors in training webinar – November 2021

On 10 November 2021, in partnership with medical defence organisations, we delivered an evening webinar primarily aimed at doctors in training. Entitled 'Who, what and why?', it explored the maternity investigation programme and answered questions about our investigations.

The webinar was attended by clinicians from different professional backgrounds, mainly from those working within maternity and neonatal services.

The participants' feedback indicated that 87.5% found it very or extremely useful. Feedback included the following:

"I think seeing the people involved was actually reassuring … The information about investigation methodology was helpful. The Q&A was excellent."

"Found it all so interesting. I have a much better understanding of all the processes now."

## Developing our team and investigation processes

Our maternity investigation team members come from various clinical and non-clinical investigation backgrounds. As an organisation we encourage individuals with a wide range of skills and experience to work with us to reflect the diversity of families and trusts where we carry out investigations.

### Maternity Quality Improvement Team

This has been the first full year of operation for our Maternity Quality Improvement Team (MQIT), which was set up to support improvement projects across maternity investigations. It continues to act as a bridge to connect teams and individuals to work on quality improvement (QI) projects that matter to them and that aim to improve our approach to maternity investigations.

The MQIT has established QI champions in each of the maternity teams and, together with colleagues, using recognised QI methodologies, has completed six quality improvement projects. These projects have now moved to a continuous improvement pathway.

The MQIT has also ensured that clear and transparent governance arrangements are in place for each completed project as it moves to a continuous improvement pathway. This means that a plan is in place to continue to evaluate change which supports our continual learning journey.

The MQIT is continuing to work on four key QI projects that began in 2021/22 and is aiming to move these towards completion in 2022.

During 2022/23 the MQIT is looking forward to supporting and developing new improvement ideas that are put forward via open forum meetings or captured in its 'ideas inbox'.

## Investigation management system (HIMS)

We have created and implemented an investigation management system (HIMS) to support both the maternity investigation programme and the national investigation teams. The cloud-based platform allows investigations to be created, stored and managed from initiation to conclusion. The system enables collaboration, improved data analysis and streamlined working.

HIMS was launched within the maternity programme in January 2020. The launch included a new NHS trust interface to a web portal allowing easier referral and management of cases. Working with trust stakeholders, we continue to make improvements to make this a simple and user-friendly tool.

The HIMS system is continually under review. A support team of staff from across the organisation continues to meet regularly to identify and design further changes and improvements to the system.

## The impact of the COVID-19 pandemic

In response to the COVID-19 pandemic the maternity investigation team has initiated different approaches to working with families and trusts.

Working with families using virtual platforms has been challenging, particularly when they are sharing sad and tragic experiences with our investigators. Where we have visited families, we have made sure these visits have been thought through and assessed to ensure everyone's safety.

Many of our families have embraced the challenges and worked with us to develop the best possible approach for them as individuals and for other families we meet. The feedback we receive from families reflects the importance of the relationships our teams develop with them. Supporting families to have a voice and share their experiences in a way that meets the individual needs of each family remains fundamental to our work. Since the start of the pandemic the approaches we have taken have demonstrated our commitment to fulfilling this ambition.

We recognise that trusts have been under significant pressure in response to COVID-19 and we have seen the impact of this across England at different times. We have worked closely with trusts to reduce the burden of taking part in our investigations and have considered different approaches depending on trusts' individual needs. An example of this is trusts taking the time to walk our teams virtually through a mother's journey in hospital. This has enabled the teams to understand the changes and reconfigurations that trusts have implemented to

support the safe care of patients during the pandemic. These changes may also have affected trusts' ability to provide safe care. An important part of our work going forward is to revisit all trusts and take time to walk through the maternity services and understand changes that have been made.

In addition to their role at HSIB, many of our investigators have supported the NHS through frontline clinical work and by supporting the vaccination programme.

# 8 Planned developments for 2022/23

On 26 January 2022 a statement was made by the Secretary of State for Health and Social Care about the plan to establish a Special Health Authority to continue the HSIB maternity investigation programme.

The Special Health Authority will be established in April 2023 to enable maximum learning to be achieved and to equip NHS trusts with the expertise, resources and capacity to take on maternity safety incident investigations in the future.

This means that during 2022/23 work will be progressing to establish the Special Health Authority and take forward what we have learned over the last 4 years.

One area of development that remains core to our work is our approach to family engagement and ensuring it is accessible and reflects the diversity of the population.

In addition, there are areas of investigation which we would like to explore using the expertise we have developed across our teams. Opportunities for collaboration and joint working to enhance system-wide learning need further consideration to ensure that, as an organisation, we reduce the burden on the frontline teams delivering care.

# 9 Conclusion

This annual review has provided an opportunity to reflect on the significant work undertaken by the maternity investigation programme during 2021/22. Our investigations have highlighted themes that are experienced by trusts across England. The sharing of learning related to these themes demonstrates the response from trusts and the ongoing collective ambition to make maternity services in England as safe as possible.

We continue to use the information we gather from maternity investigations and the feedback we receive to develop our investigation processes and to continually improve the experience of the families who engage with us. Our skilled and experienced staff are committed to representing both the experiences of family members and staff in distressing circumstances.

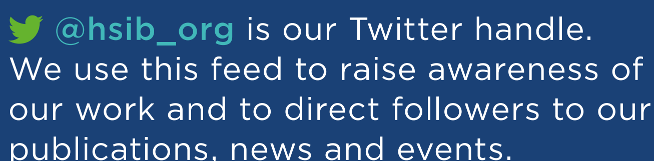
We could not undertake our work without families sharing with us their often tragic experiences. We thank them for their courage, candour and commitment to improving the experiences of all families receiving maternity care.

Equally we thank trusts and the staff who work within them, many of whom have worked under unprecedented circumstances during the COVID-19 pandemic. It is important to remember that we see and experience a passion to provide exceptional care; when this has not occurred there is an equal commitment from trusts and staff to improve the care they provide.

# Further information

More information about HSIB – including its team, investigations and history – is available at www.hsib.org.uk

If you would like to request an investigation then please read our guidance before contacting us.




## Contact us

If you would like a response to a query or concern please contact us via email using enquiries@hsib.org.uk

We monitor this inbox during normal office hours - Monday to Friday (not bank holidays) from 09:00 hours to 17:00 hours. We aim to respond to enquiries within five working days.

To access this document in a different format – including braille, large-print or easy-read – please contact enquiries@hsib.org.uk

© Healthcare Safety Investigation Branch copyright 2022. Any enquiries regarding this publication should be sent to us at enquiries@hsib.org.uk