Interim Report:

Thematic Review of Incidents relating to Maternity Care at the Nottingham University Hospitals NHS Trust

Independent Review Team

April 2022

Contents

Introduction and Context

Addendum to the interim report: *As of 26 May 2022, further to an announcement from Sir David Sloman, the Independent Thematic Review of Maternity Services at Nottingham University Hospitals has concluded and therefore there will be no further reports.*

This report describes progress made to date in the independent thematic review of maternity services ("the review") provided by Nottingham University Hospitals NHS Trust ("the Trust") over the period 01 April 2006 to October 2021. The Terms of Reference for the review were agreed by NHS England and NHS Improvement (NHSE/I) Midlands and NHS Nottingham & Nottinghamshire Clinical Commissioning Group (CCG) following consultation with a number of families and notified to the Independent Review Team (IRT) on its appointment in November 2021. They are available to view on the review website: *https://independentmaternityreviewnotts.nhs.uk*.

There is currently insufficient data and information to report comprehensive findings against each of the key lines of enquiry, as outlined in the Terms of Reference.

Maternity services nationally are under immense scrutiny in the light of the Kirkup and Ockenden Reports into service provision at, respectively, University Hospitals of Morecambe Bay NHS Foundation Trust and Shrewsbury and Telford Hospital NHS Trust. The IRT responsible for the thematic review of maternity services at the Trust has reviewed the findings and recommendations from the Kirkup and Ockenden Reports and established connections with reviews at East Kent Hospitals University NHS Foundation Trust and Cwm Taf University Health Board.

The review, however, primarily focusses on the experiences of families who have highlighted concerns with their experiences of maternity services at the Trust. Many of these concerns have been formally identified and reviewed by the Trust as serious incidents or never events; some have been the subject of coroner's inquests and investigations, whilst others may not have been formally recorded as serious events. What unites them is the continuing emotional trauma suffered by families who strongly feel that, despite previous reviews, their concerns have not been addressed and lessons have not been learned.

From the outset of the review in November 2021, the IRT has welcomed the openness and honesty of families who have come forward to share their experiences, often at the cost of triggering further trauma at the loss and/or physical and psychological distress they have experienced. These are families who are seeking answers, both for themselves and to ensure that any mistakes made do not happen again. The IRT recognises the profound effect their experience of maternity care has had, not only on each family but on their wider family members and friends too. The IRT would like to thank all the families who have come forward to share their experience.

The IRT is aware that many of the families have previously shared their experience with complaints investigators at the Trust, to the coroner and/or to previous reviews. Despite this, many concerns remain unresolved, recommendations not implemented, and services deemed inadequate. This review seeks to understand why this is the case and identify what further actions are required to improve the quality and safety of maternity services at the Trust.

Background to the Review and its Terms of Reference

The review was established by NHSE/I Midlands and the CCG in light of a continuing number of untoward incidents in maternity service provision at the Trust, aligned to the unsatisfactory findings of previous internal and external assessments and the failure to make or sustain improvements. These include previous reviews undertaken and the more recent Care Quality Commission (CQC) report following its assessment of maternity services in October 2020. This report rated maternity services as inadequate, highlighting a number of concerns which impacted on the safety of women and babies.

NHSE/I and the CCG determined that a thematic review should be undertaken by a vastly experienced independent team, none of whom have any connection with the Trust. The review would report to a Commissioner Assurance Group (CAG), comprised of senior managers from the two organisations who commission services from the Trust: NHSE/I (Midlands Region), responsible for the commissioning of neonatal services; and Nottingham and Nottinghamshire CCG, responsible for the commissioning of maternity services.

The purpose of a thematic review is to identify the key themes that are having an adverse impact on service delivery and review these in detail, in order to make recommendations for the immediate and sustainable improvement of care and service provision. This will be achieved through a detailed review and triangulation of:

- the individual experiences of women and families;
- engagement with staff working in maternity and neonatal services;
- interviews with those in leadership roles;
- data analysis;
- a review of all relevant documentation.

This will help to address and identify barriers to change, together with recommendations for action. A thematic review differs from a public inquiry insofar that it does not have a legal basis, and, as such, cannot hold individuals to account. Whilst public inquiries can typically take several years to progress, a thematic review can generate recommendations more quickly, enabling required improvements to be made. In instances where the IRT identifies a potential breach in the duty of care, the individual practitioner or practitioners involved would be referred to the relevant professional body.

The Terms of Reference reflected the view of NHSE/I and the CCG that there has been a failure to learn from incidents and investigations at the Trust, that the maternity care over recent years had not been of the quality required, and that there was potential for a number of incidents, complaints and concerns to come forward which had previously not been appropriately identified, reviewed or escalated. The decision to progress an independent thematic review reflects a desire to inform specific and measurable actions for rapid improvement. Within the Terms of Reference, four key sections of the review were highlighted:

A. Data and Analytics;
B. Detailed Review and Key Lines of Enquiry;
C. Listening to Women, People Who Require Medical Terminations, People Who Give Birth and Families;
D. Review of the Governance and Oversight of Maternity Services at the Trust

From the outset, emphasis has been placed on the primacy of consent in the Terms of Reference. Recognising the interests of patient confidentiality, individual case notes relating to all incidents selected for detailed investigation further to listening to families can - and will - only be reviewed with explicit written consent. This reflects the desire to investigate specific instances and potential failures of care. It does mean, however, that a broader audit, or sampling of case notes relating to clinical practice is outside the remit of the review, although findings relating to individual instances may inform future audits. Such a broader audit may well be in the public interest: - however, NHSEI confirmed that under the Terms of Reference for this review patient records could only be transferred to the IRT for those individuals where their explicit consent had been provided, and this is reflected in the agreed Data Sharing Agreement.

The IRT is led by Cathy Purt as Independent Programme Director. Cathy is an experienced NHS senior manager who is working with senior clinical support: - Dr Teresa Kelly, Consultant Obstetrician at Manchester University NHS Foundation Trust, Debbie Graham, Independent Maternity Services Advisor and Registered Midwife, and Dr Alison Bedford Russell, Neonatal co-Clinical Director at the Liverpool Neonatal Partnership. Other members of the team have vast experience in senior NHS management, nursing, data analysis and family liaison.

Set-Up Activity

The initial stages of the independent thematic review necessitated the establishment of a range of information governance (IG) requirements. These are necessary to ensure the safe sharing of data and documentation between organisations and to establish legally acceptable measures for securing the consent of individuals to access medical case notes for review.

IG and data protection processes to support the review commenced on 11th November 2021; from the perspective of the IRT, documents and internal processes were implemented and published quickly. However, the Trust's ability to share data with the IRT was challenged by the specific requirements of an appropriate Data Sharing Agreement (DSA) and the production of a Data Protection Impact Assessment (DPIA). This was a complex area requiring skilled expertise and legal support, including clarification as to the signatories for a legally binding arrangement given that the IRT is not a legal entity in its own right. Once signatories were agreed (the Trust and NHSE/I) for a legally binding data sharing agreement under data protection legislation it only then became legally possible to access some of the key data required by the IRT. From initiation to signature, the DSA took five months to complete and included very detailed negotiations across NHSE/I, the CCG and the Trust. There was specific debate as to the legal definition and application of consent, eventually resolved over a period of six weeks.

In line with the Terms of Reference and Review Data Management policy, the IRT is required to rely exclusively on NHS or CCG-issued Information Technology (IT) equipment when undertaking review activity. IT hardware for the team was available from two sources: the CCG and AGEM Commissioning Support Unit (CSU). In the case of the CSU, the issuing of hardware was part of the recruitment process and included a fully enabled laptop, appropriate software for working remotely and a mobile telephone enabled for data and the internet. In relation to CCG hardware, laptop devices were ordered from October 2021; once issued, users were required to attend an office site with connection to the CCG-network (County Hall, Nottingham) so that the start-up procedures (including initial log-in) could be completed successfully.

Appropriate software applications for the purposes of the review are available on all IRT devices. However, issues were identified in April 2022 regarding access to CCube (the review's electronic document management for patient records) on all laptops issued to the IRT by the CCG. Urgent engagement is in place to have this resolved by technicians at Nottingham Health Informatics Service (NHIS), as the CCG's IT service provider.

It is recommended that:

- **In all future independent reviews of maternity or other clinical services, whether thematic or public inquiries, due account is taken by the respective review commissioners of the time taken to embed required governance arrangements and commence the logistics of the review. This should include authorised and resourced Information Technology solutions, software platforms, Data Sharing Agreements, consent protocols, financial business case governance/approval processes and team recruitment. Evidence from other reviews indicates that this can typically take several months, and in some instances up to a year.**

A full chronology of review milestones to date is available at Appendix A.

Access to, and the Initial Review of Documentation

As outlined above, putting in place the necessary IG and data protection arrangements has taken longer than anticipated. In addition, the provision of bespoke psychological support for families (as required by the Terms of Reference) took several months for the CCG to commission, due to capacity issues of local mental health providers. This has frustrated the pace at which the IRT has been able to progress listening sessions, the review of documentation and the sharing of data, including the consented access to case notes. This is necessary learning for all maternity reviews, which need to realistically factor in the timescales for these critical elements of set-up.

Prior to a formal Data Sharing Agreement being signed on 6th April 2022, documentation reviewed by the IRT was limited to that which the Trust felt able to share (or which are already in the public domain). These included papers of Trust Board meetings held in public (subject to those available on the website), CCG Board meetings held in public, clinical guidelines (available online) and, most recently, reports from the Healthcare Safety Investigations Branch (HSIB) received by the Trust from 2018-2022 (whilst this period extends to February 2022, and is thereby out of the IRT's historic scope, these reports relate to events which occurred during the 'in scope' period).

Analysis of the documentation received has helped the IRT track how maternity service concerns were overseen by both the Trust Board and the CCG, identifying issues for further review. However, at the time of writing, relevant documentation is still awaited from the Trust and this continues to be pursued. Whilst this was an initial source of delay, developments within the Trust have provided greater reassurance as to its responsiveness and support to the Review.

What the Data Tell Us

Whilst the focus of the review is on understanding the concerns of families and identifying the common factors and issues that may have contributed to the standard of care received, it is also of value to understand how the Trust compares in broader benchmarking terms to similar providers.

The data analytics task associated with the Terms of Reference is iterative and what is presented and summarised in this interim report has been derived from analysis of the maternity peripartum period only. It is important to note that observations should be considered in context and may be subject to further clarification once data relating to babies is analysed and records relating to mother and baby are linked.

Peripartum Period Analysis

Following a benchmarking exercise, five trusts were chosen because of similarities to the Trust in one or more areas: University Hospitals of North Midlands NHS Trust– on the basis of a similar deprivation profile; Sheffield Teaching Hospitals NHS Foundation Trust - ethnicity and two maternity sites; Leeds Teaching Hospitals NHS Trust – age, ethnicity and two maternity sites; University Hospitals of Leicester NHS Trust – volume of births and geography; and Birmingham Women's and Children's NHS Foundation Trust - complexity and volume of births. These benchmarked comparators were chosen for their similarities to NUH on the issues outlined.

The Trust has recorded a drop in the number of deliveries per annum from 9,200 in 2017/18 to c7,800 in 2020/21. This is in line with the national trend and is similar to its benchmarked peers.

The peripartum period analysis identified two areas where performance at the Trust differs from its peers:

- The recording of the ethnicity of the mother
- Length of stay following delivery

Ethnicity Recording

Over the period 2017-2021, 82-85% of mothers had their ethnicity recorded, compared to much higher (c95%) recording levels across the other benchmarked organisations. This limits the ability to assess whether ethnicity may play a role in outcome terms and therefore the ability to gain a clear view of any potential health inequalities. Recording of ethnicity is particularly important for the purpose of antenatal screening, for example in monitoring the risk of gestational diabetes and for sickle cell screening.

Length of Stay Following Delivery

One in eight (12%) of peripartum stays are in excess of five days, compared to a peer group average of 9%, whilst overall average length of stay is three days, compared to a peer group average of 2.4 days. Whilst these variances may not appear significant, it is of interest to note that almost two-thirds of the peer group who stayed in hospital for three weeks or over are at NUH. Further analysis of this is being undertaken, to better understand if the Trust may be an outlier.

Further analysis of data, including neonatal data is now progressing.

It is recommended that the Trust:

- **Undertakes further investigation to gain a better understanding of why the Trust reports a significantly higher proportion of spells with a length of stay of 21+ days than other trusts in the peer group. It is also recommended that as part of the investigation a sample of the Trust's spells with a length of stay of 21+ days is reviewed clinically;**

- **Resolves the systemic issues around recording of ethnicity and put in place a data quality improvement plan to reduce the number of 'not known' records to at least comparable levels to the best performing trusts in the peer group (3-4%);**

- **Although the Trust has a lower percentage of records that cannot be grouped to Index of Multiple Deprivation (IMD) bands than the peer group average, the percentage is still high enough to skew results. It is therefore recommended that the Trust ensures that the mother's postcode is recorded accurately.**

An analysis of any correlation between lengths of stay and clinical complications will be undertaken by the IRT and triangulated against data captured from the review of clinical notes to determine if further investigation is necessary.

A detailed interim report of the first phase of analysis is available upon request.

Review of Clinical Guidelines and HSIB Reports

A clinical review of 88 obstetric and maternity clinical guidelines has assessed them of being of variable quality. Many do not follow the format suggested by the Trust's own 'Development of Guidelines' (dated 19th April 2021). Several have previous versions that have been mislabelled, and for some it is not clear when the implementation date was or if they are overdue review. A clinical review of neonatal guidelines remains ongoing.

There are some excellent guidelines, including some where the Trust has led regionally (e.g., the abnormally invasive placenta guideline). Others are of a poor standard. Some guidelines which would be expected, most notably guidance on the management of diabetes in pregnancy, are not listed. There are 3 major guidelines (antenatal care, intrapartum care and postnatal care) where the Trust has replicated in full the NICE guidelines with little evidence of localisation.

As an example, the Antenatal Care guideline states *'consider using guidance by an appropriate professional or national body, for example The Royal College of Obstetricians guideline on the investigation and management of the small gestational age or the NHS Saving Babies Lives'.* This is despite the Trust having its own Fetal Growth Surveillance guideline (dated 2nd September 2021).

Previous reports from HSIB have recommended that the Trust should clarify its fetal growth restriction policy to staff. With conflicting guidelines, it seems this has not been achieved which could lead to clinical confusion. Of particular concern is that the Trust appears not to have embedded the national Saving Babies Lives packages fully.

Elsewhere, there is a lack of consistency across guidelines: some state that Maternity Early Warning Scores (MEOWS) should be used, whilst other guidelines refer to OEWS or MEWS – the terminology should be consistent. The smoke-free pregnancy guideline states that Carbon Monoxide (CO) monitoring should not be used due to pandemic restrictions, yet most units nationally have recommenced CO monitoring as it is an important element of the Saving Babies Lives care bundle.

The number of recent guidelines suggests that the Trust is actively seeking to address previous gaps in guidance. This is welcomed, although the Trust should ensure that the collective guidance supports staff to deliver care in a consistent, high-quality manner. A coordinated approach is not yet evident.

In June 2020, a HSIB report recommended to the Trust that, when a baby was thought to be too large for its gestational age (typically > the 95th percentile for gestation after 36 weeks), staff should be supported to ensure that the timing, mode of delivery and all risks are discussed with patients in line with the Montgomery ruling. The IRT was unable to find evidence in the guidelines reviewed that this has been addressed despite supporting NICE guidance being available (NICE guideline NG121). The same HSIB report also recommended that the Trust develop guidance on pre labour rupture of membranes where there is suspicion that this occurred more than 24 hours prior to admission. Although the IRT has seen evidence of Trust guidance on management of term rupture of membranes, it is contained at the end of the Antenatal Care guideline at pages 71-72. It is the IRT's opinion that: - this is not where they would expect staff to look for guidance on the rupture of membranes; the guideline does not fully address the HSIB's recommendation that there should be clear guidance for staff where there is suspicion that the membranes have ruptured more than 24 hours prior to admission; - that, at over 70 pages, the guideline is too long, making it difficult for staff to access. The IRT also notes that the guideline was approved in February 2022, 20 months after the Trust received the HSIB report.

The IRT has, despite requests, yet to see any fetal medicine guidelines: a recent HSIB report has recommended that the Trust should have a local guideline for invasive procedures in fetal medicine. This may be because there are no fetal medicine guidelines. The IRT is aware that other units only have a small number of fetal medicine guidelines.

In summary, there is considerable scope for improvement and consistency in both the updating of and the process for ratification of clinical guidelines. The IRT is also seeking access to Trust audits to ascertain if compliance with guidelines has been assessed.

An area of good practice that has been noted is the decision by the Trust to give one obstetric consultant 5 sessions a week dedicated to quality improvement. The commitment is to be commended.

It is recommended that the Trust:

- **Reviews the maternity quality improvement plan to prioritise the embedding of consistent clinical guidelines and to ensure that HSIB recommendations are all promptly addressed. In particular, early assurance is sought that the Trust provides evidence to its commissioners that the national Saving Babies Lives 2 guidance is embedded;**

- **Reviews the current Maternity Guideline Group to ensure that the oversight of its review, development and approval process for maternity clinical guidelines is fit for purpose.**

The IRT has reviewed 39 HSIB reports (and their associated recommendations) across the period 2018 to date and a number of issues have been identified that require further investigation. These include:

- Cardiotocogram (CTG, monitoring of uterine activity and the baby's heart rate) assessment, interpretation and escalation of abnormal CTGs;
- The lack of availability of a separate 24/7 triage service including a dedicated 24/7 telephone triage line;
- Identification and management of fetal growth restriction;
- Clinical handover and staffing levels.

Whilst several of these issues are common to many trusts, they warrant attention to ensure the recommendations are implemented fully. There is also concern as to whether all clinical staff employed in the maternity services, whether in a substantive post or from agencies, are competent and appropriately trained in intrapartum fetal monitoring.

It is recommended that:

- **The Trust Board seeks assurance that all qualified staff working in maternity services, including all working through an agency placement, are competent with intrapartum fetal monitoring and have passed an annual assessment that is comparable with that agreed with the local commissioner and based on the advice of the clinical network;**

- **Immediate further consideration is given to the establishment of a dedicated 24/7 triage phone service across both sites.**

Engagement with Families

Upon the review's commencement, the IRT was contacted by 66 families whose experiences of maternity care at the Trust required further review in order to identify key issues and factors for detailed analysis. Initial contact was made with these families, notifying them of the review process: some welcomed this, whilst some remain of the strong belief that a public inquiry is warranted. Over the period November 2021 - February 2022 the IRT liaised with the CCG to put in place funding to commission professional, bespoke psychological support for those families requiring access to support, should they wish. Once this was in place, and consistent with the Terms of Reference, the IRT has reached out to women and families across Nottinghamshire through social media, in order to encourage others to come forward to share their experience of maternity services at the Trust.

The social media activity led to a rapid escalation of numbers, from 80 families at the beginning of March 2022 to a total of 501 families who have contacted the IRT by 25 April 2022. In preparation for the anticipated escalation of families coming forward, the capacity of the IRT with regard to experienced listening and transcription resources was significantly strengthened and trajectories for future listening sessions established.

Figure 1: Family Listening Sessions as of 25/04/22

Listening sessions completed *(this includes written submissions received)*	**56**
Listening sessions booked, but not yet taken place	**34**
Families opting to submit written submissions, but not yet received by IRT	**79**
Families did not attend booked listening session – to be re-booked	**5**
Awaiting details from the family to confirm if they are in scope of the review	**324**
Confirmation received from families that no listening session is required	**3**
TOTAL	**501**

In addition to these sessions, the IRT has invited women and families from underrepresented groups to participate in listening sessions, including women who hold refugee or asylum status and Urdu speaking women, who have shared their experiences through an interpreter. 19 of these sessions have taken place so far.

Listening sessions have taken the form of a structured discussion with individual families, typically taking 90-120 minutes each. These identify issues and factors to inform the thematic analysis and identify incidents where it is felt that a more detailed case note analysis is required – this will then be undertaken if the family consent.

To ensure that families have the opportunity to contact the IRT, or undertake a listening session, in a way that is convenient to them, different options have been provided. Families may choose to do this face to face, over the telephone, through a video call or via a written submission. This can also be done at different times of the day, evening and weekends. The increased number of requests are being accommodated with additional listening and transcription capacity. In doing so, the IRT will not compromise the quality of the listening sessions and will ensure that all families who are in scope, and wish to do so, may share their experience.

Contact has been made with women and families in the community whose views have traditionally been underrepresented and are reflective of the local population in Nottingham and Nottinghamshire. These include, but are not limited to:

- Black, Asian and minority ethnic families;
- Young parents, including those with a history of substance misuse;
- Gypsy, Roma and traveller communities;
- Families with disabilities;
- Families with higher risk of poor pregnancy outcomes;
- The LGBTQ+ community.

The IRT continues to gather the experiences of women for whom English is not their first language and are focusing on Urdu, Romanian and Arabic speakers. This targeted activity is being strengthened further with interviews planned on Radio Faza and Kemet FM to reach Black, South East Asian and European women and families. The IRT has also publicised the review through Healthwatch, local voluntary and community groups, faith leaders, patient groups, parish councils, children's centres and GPs, among others.

Women have shared their good experiences of care provided by those teams at the Trust dedicated to supporting refugee/asylum seekers and those who have a particular vulnerability, e.g. substance misuse. The level of continuity of care and support offered is to be commended.

Engagement with Staff

Alongside the family listening sessions, maternity services staff were invited to meet with a member of the IRT to discuss, in confidence, their experiences of working at the Trust. Semi-structured interviews are undertaken, typically lasting an hour, to explore the culture and behaviour of maternity services in order to identify any issues/emergent themes.

Figure 1: Staff Listening Sessions as of 25/04/22

Listening sessions completed *(this includes written submissions received)*	**54**
Listening sessions booked, but not yet taken place	**5**
Staff opting to submit written submissions, but not yet received by IRT	**3**
Staff did not attend booked listening session – to be re-booked	**9**
Awaiting confirmation of staff member in scope – current maternity staff or previous staff up to 12 months	**0**
TOTAL	**71**

Members of staff from all maternity staff groups have participated in the listening sessions. Some staff have been with the Trust since inception, bringing organisational memory, whilst others have recently joined the Trust, bringing 'fresh eyes' to their view of the culture. In addition, the IRT has:

- Attended a Consultant Obstetricians meeting;
- Met with Junior Doctors and Senior Midwives;
- Held discussions with:
    - Non-Executive Directors (NEDs) at the Trust
    - Audit Committee Chair
    - Quality Committee Chair
    - Outgoing Chair / new Chair
    - Acting Chief Executive
    - Chief Nurse
    - Director of Midwifery;
- Undertaken site visits at both Nottingham City Hospital and the Queen's Medical Centre (QMC).

Emerging Issues and Potential Themes

During the initial phases of the review, through women and families sharing their experiences of maternity care at the Trust, the IRT has been able to start to collate *what* has happened. Similarly, through staff sharing their experiences and perspectives, the IRT has been able to start to collate a view of what it's like to work in maternity services at the Trust. The IRT's focus now is to continue to collate and triangulate this information, together with the assessment of relevant documentation and data until a *data saturation point* is reached, when the IRT can be statistically confident that all common issues and factors have been identified. Concurrently, with a data sharing agreement now in place, relevant documents and data will be reviewed to ascertain *why* the issues and factors identified as contributing to a particular outcome occurred, and what actions still need to be taken.

Throughout the work completed to date, a number of areas of concern have been identified that need to be addressed immediately by the Trust. These recommendations are presented within this report.

In addition, there is evidence of a lack of respect, appreciation and listening by some staff members in relation to their colleagues and to service users with some indications of bullying behaviour. There appears to be a small number of staff who display unacceptable behaviours such as being 'rude' and 'abrasive', with some staff members describing being 'scared' of named colleagues. Staff have described this as happening both within and across staff groups. As a result, this is costing the Trust diminished employee commitment and creating a defensive and fractious culture.

The vast majority of staff are committed to a caring and compassionate culture where excellent care can be delivered.

Going Forward

Added on 26 May 2022 - Further to the closure of the independent thematic review, this section has been removed as it is no longer applicable.

Appendix A: Review Milestones to 30 April 2022

10 Sep – 01 Oct: NHSE/I and the CCG consult with families, local MVP and regional MVP regarding the draft Terms of Reference

27 Sep: Cathy Purt commences as Independent Programme Director

27 Sep: Independent Programme Director, Programme Manager and Finance Lead begin drafting the financial business case for the review

01 Nov: Review commences - IRT commence in post. Weekly operational meetings and monthly team meetings are scheduled for the IRT.

02 Nov: Commissioners hold 'Assurance & Oversight' Meeting with the IRT. The IRT are asked to update the draft financial business case prior to commissioner approval.

9 Nov: IRT initiate weekly calls with the Trust's Programme Director & PMO

10 Nov: Families are formally introduced via e-mail to the IRT's Family Liaison Facilitator

11 Nov: External stakeholders* are formally notified in writing of the review by the IRT; the IRT commence DPIA and DSA discussions with the Trust

16 Nov: Commissioners hold 'Extraordinary Strategy Group' meeting with the IRT. The IRT are asked to further update the draft financial business case prior to commissioner approval.

18 Nov: IRT agree to award Data Analytic contract to AGEM following a competitive process, pending approval of the financial business case by commissioners; Family Liaison Facilitator invites families to meet face-to-face in Nottingham

22 Nov: IRT commence occupation of County Hall, Nottingham, as office site; activity commences to review publicly available Trust Board papers

22-29 Nov: Lead Clinicians hold Zoom calls with families

23 Nov: Letter sent from the IRT to Trust Staff

24-26 Nov: Family Liaison Facilitator holds face-to-face engagement sessions with families in Nottingham

25 Nov: Commissioners hold 'Strategy Group' meeting with IRT. Strategy Group endorse the IRT's proposed review methodology. NHSE/I and CCG agree a change of governance arrangements for the review - creation of "Commissioner Assurance Group", to meet monthly from January 2022. The IRT are asked to further update the draft financial business case prior to commissioner approval, though agreement is given to award AGEM data analytic contract

01 Oct: Dr Teresa Kelly & Debbie Graham officially commence as Clinical Leads for Obstetrics & Midwifery (respectively)

01–31 Oct: Recruitment of the IRT by the Independent Programme Director

08 Oct: revised, draft Terms of Reference circulated to families for final comment

22 Oct: Amanda Sullivan (SRO, CCG), Nigel Sturrock (SRO, NHSE/I) and Cathy Purt notify the Trust in writing of the Independent Thematic Review

22 Oct: The Terms of Reference are published online

25 Oct: Independent Programme Director awards independent legal services contract to Innovo Law

07 Dec: Family Liaison Facilitator shares FAQs following face-to-face meeting with families; Commissioners hold 'Assurance & Oversight' Meeting with IRT. IRT are asked to further update the draft financial business case in readiness for a CCG Value for Money Review.

13 Dec: Clinical Leads hold site visit to meet with staff at QMC and City Hospital

15 Dec: CCG hold Value for Money Review on draft financial business case

16 Dec: Family Liaison Facilitator circulates Equality and Diversity Survey to families; Draft of the review DPIA, Privacy Notice and DSA commences

17 Dec: Families informed of arrangements for Listening Sessions, to commence in the New Year

23 Dec: Trust staff are informed of arrangements for Listening Sessions, to commence in the New Year; review website launched

* Coroner's Service, CQC, GMC, Healthwatch Nottingham & Nottinghamshire, HEE, HSIB, NHSE/I Chief Midwifery Officer, NHSE/I Director of Commissioning, NHSE/I Regional Director, NMC, CCG Chief Officer, Nottingham & Nottingham Local Maternity & Neonatal System (LMNS), NHSE/I Deputy Director of Patient Safety, RCM, RCOG, University of Nottingham

04 Jan-present: Family Listening Sessions commence

04 Jan-present: Staff Listening Sessions commence

05 Jan: Families contacted regarding consent to access records

24 Jan: Commissioners hold 'Commissioner Assurance Group' Meeting with IRT. IRT notified of change to SROs - appointment of Nina Morgan (SRO, NHSE/I) and Rosa Waddingham (SRO, CCG). IRT request update from commissioners on the progress regarding approval of the financial business case.

25 Jan: IRT meet with MPs and families on MS Teams to discuss review progress

Ongoing: family listening sessions & staff listening sessions

01 Mar - 01 Apr: Expressions of Interest open for IIT Maternity & Medical Investigators

01 Mar - 30 Apr: Expressions of Interest open for IIT Neonatal Nurse Investigators

01 Mar: Commencement of bespoke psychological support for families from Trent PTS

03 Mar: IRT agree to award Corporate Governance Review contract to Niche Consulting following competitive process

09-16 Mar: Social Media campaign launched and communications sent to GP surgeries, faith leaders, parish councils, patient leaders and CVS groups to raise awareness of the Independent Thematic Review.

10 Mar: Epiq contract enabled

21 Mar: IG training delivered to the IRT

24 Mar- present: Niche Consulting undertake Corporate Governance Review

28 Mar: Commissioners hold 'Commissioner Assurance Group' Meeting with IRT. IRT request approval for additional transcription support to be sourced in light of the growth in family Listening Sessions. IRT requested to develop business case. Finances for 2022/23 remain pending approval. IRT asked to update the format for reporting.

29 Mar: IRT meet with Lilian Greenwood MP and families on MS Teams to discuss review progress

30 Mar-present: IRT hold face-to-face listening sessions in the community with families from underrepresented groups

January 2022 | **February 2022** | **March 2022** | **April 2022**

Ongoing: family listening sessions & staff listening sessions

01 Feb: Family Liaison Facilitator circulates Family Group survey to families; review DPIA, privacy notice and DSA are enabled; CCube contract enabled

02 Feb: HSIB share documents shared with the IRT

04 Feb: Commissioners approve the review funding for 2021/22 in line with the financial business case. IRT subsequently commence outstanding recruitment and procurement activity.

11 Feb: Departure of the IRT's Family Liaison Facilitator

17 Feb: IRT update Nottingham City Council Health Adult and Social Care Scrutiny Committee on review progress

21 Feb–02 Mar: Leaflets handed out at QMC and City Hospital encouraging staff to share their experiences via Listening Sessions

21 Feb: Commissioners hold 'Commissioner Assurance Group' Meeting with IRT.

Ongoing: family listening sessions & staff listening sessions; Corporate Governance Review (Niche Consulting)

01 Apr: Dr Alison Bedford Russell commences in post as Clinical Lead for Neonatology; Family Liaison Facilitator commences in post; CCube goes live for medical records and Patient Identifiable Data (PID)

06 Apr: DSA signed by Nina Morgan (NHSEI), Cathy Purt and the Trust

08 Apr: IRT receive draft, interim data analytic report from AGEM

11 Apr: Commissioners hold 'Extraordinary Commissioner Assurance Group' Meeting with IRT. CCG Finance asked to review transcription business case prior to approval.

14 Apr: Commissioners approve the IRT's proposal to commission Innovo Law for transcription support

22 Apr: Announcement of immediate changes to how the review is being managed and delivered. Julie Dent CBE is appointed as Chair and Sir David Sloman is appointed as SRO.

Appendix B: Glossary of Terms

Term	Definition
Abnormally invasive placenta	The placenta develops together with the baby in the uterus during pregnancy. It attaches to the lining of the uterus (womb) and provides the baby with oxygen and nutrients. After the birth of the baby, the placenta detaches and is expelled. The uterus is then able to contract to prevent bleeding from the placental site. Sometimes the placenta can attach too firmly to the muscle layer of the uterus (the myometrium). This is known as placenta accreta. It can also invade into the myometrium or through the uterus and affect surrounding organs, such as the bladder. This is known as 'placenta increta' and 'placenta percreta'. Collectively these conditions are known as an 'abnormally invasive placenta'.
Antenatal	Before the birth.
Caesarean section	A caesarean section (also called a C-section) is a type of surgery in which one incision is made into the mother's abdomen and a second in the uterus so that the baby can be delivered non-vaginally. Caesarean sections are typically made in emergency situations although some women may choose to give birth this way (known as an elective caesarean).
Cardiotocograph	Electronic fetal monitoring of both the fetal heart and the contractions of the uterus
Care Quality Commission (CQC)	An executive non-departmental public body of the Department of Health and Social Care of the United Kingdom, established to regulate and inspect health and social care services in England
CCube	The IRT's electronic document management system for medical records and patient identifiable data (PID)
Clinical Commissioning Group (CCG)	Established as part of the Health and Social Care Act in 2012. CCGs consist of groups of general practices (GPs) which come together in each area to commission the best services for their patients and population.
Coroner or Her Majesty's (HM) Coroner	A judicial office holder who is independent from the hospital and local government. The Coroner is responsible for investigating deaths in certain situations. Coroners are usually lawyers or doctors with a minimum of 5 years' experience.

Data Protection Impact Assessment (DPIA)	A process to help identify and minimise data protection risks.
Data Sharing Agreement (DSA)	Data sharing agreements set out the purpose of the data sharing, cover what happens to the data at each stage, set standards and help all the parties involved in sharing to be clear about their roles and responsibilities.
Epiq	The IRT's digital eDiscovery platform, enabling huge amounts of non-PID data and documents to be searched quickly and efficiently.
Fetus	The unborn baby.
General Medical Council	A public body that maintains the official register of medical practitioners within the United Kingdom.
Gestation	The time between conception and birth, when the fetus grows and develops inside the mother's womb.
Gestational Age	The age of the baby in the womb, measured in weeks from the first day of the woman's last menstrual period. A full-term pregnancy is between 37 and 42 completed weeks.
Healthcare Safety Investigation Branch (HSIB)	Undertakes independent investigations where incidents meet specific criteria. The criteria for investigation changed during the Covid pandemic.
Health Education England (HEE)	An executive non-departmental public body of the Department of Health and Social Care.
Healthwatch Nottingham and Nottinghamshire	Local independent patient and public champion.
Independent Review Team (IRT)	Commissioned to undertake the independent thematic review of incidents relating to maternity care at the Nottingham University Hospitals NHS Trust
Index of Multiple Deprivation (IMD)	The official measure of relative deprivation for small areas in England.
Information Governance (IG)	Describes the approach within which accountability, standards, policies and procedures are developed and implemented, to ensure that all information created, obtained or received is held and used appropriately.
Intrapartum	The time period spanning childbirth, from the onset of labour through to delivery of the placenta.

Maternal Early Warning Scores (MEWS)	A clinical tool designed to help in the early recognition of clinical deterioration, treatment and referral of pregnant women/people.
Maternity Voices Partnership (MVP)	A working group made up of women and their families, health commissioners and providers (midwives and doctors) working together to review and contribute to the development of local maternity care.
Membrane	Amniotic sac surrounding the fetus.
Midwife or midwives (pl.)	A midwife provides care and support to women, birthing people and their families throughout the period of pregnancy, labour and during the period after a baby's birth.
Modified Early Obstetric Warning Score (MEOWS)	A clinical tool designed to help in the early recognition of clinical deterioration, treatment and referral of pregnant women/people.
Montgomery Ruling	Montgomery *v* Lanarkshire case (March 2015): landmark case which ruled on informed consent
National Institute for Health and Care Excellence (NICE)	Provides national guidance and advice to improve health and social care.
Neonatologist	A doctor who specialises in the care of new-born babies.
NHS Arden and Greater East Midlands (AGEM)	NHS Business Intelligence (BI) provider.
NHS England and NHS Improvement (NHSE/I)	The body that leads the NHS in England.
Non-Executive Director (NED)	A board member without responsibilities for daily management or operations of the organisation.
Nottingham and Nottinghamshire Local Maternity and Neonatal System (LMNS)	Established following the publication of the national maternity review, *Better Births* (2016); oversees the development of a local maternity and neonatal strategy, responds to national recommendations and supports transformation of local maternity and neonatal services.
Nottingham City Hospital	*A hospital site that forms part of the* Nottingham University Hospitals NHS Trust.
Nottingham University Hospitals NHS Trust (NUH)	Nottingham University Hospitals NHS Trust (“the Trust”) is an acute teaching trust and the subject of the independent thematic review of incidents relating to maternity care. The Trust was established on 1 April 2006 following the merger of Nottingham City Hospital and the Queen's Medical Centre NHS Trusts.

Nursing and Midwifery Council (NMC)	The regulator for nursing and midwifery professions in the United Kingdom.
Obstetrician	A doctor specializing in obstetrics, which deals with all aspects of pregnancy, from pre-natal care to post-natal care.
Obstetric early warning score (OEWS)	A clinical tool designed to help in the early recognition of clinical deterioration, treatment and referral of pregnant women/people.
Patient Identifiable Data (PID)	Any information that is personal to you and would identify you as an individual.
Peripartum	The period shortly before, during, and immediately after giving birth.
Postpartum	The six weeks after birth.
Pre-term	Babies born before 37 weeks of pregnancy. There are sub-categories of preterm birth, based on gestational age: • extremely pre-term (less than 28 weeks) • very pre-term (28 to 32 weeks) • moderate to late pre-term (32 to 37 weeks)
Privacy Notice	A public document from an organisation that explains how that organisation processes personal data and how it applies data protection principles
Queen's Medical Centre (QMC)	*A hospital site that forms part of the* Nottingham University Hospitals NHS Trust.
Royal College of Midwives (RCM)	The United Kingdom's only trade union or professional organisation for midwives and those that support them.
Royal College of Obstetricians and Gynaecologists	Professional body of obstetricians to improve healthcare for women everywhere, by setting standards for clinical practice, providing doctors with training and lifelong learning, and advocating for women's healthcare worldwide.
Terms of Reference	Terms of Reference are developed and agreed before a review gets underway, in order to explain what a review aims to achieve, the scope of the review and why it has been commissioned. The Terms of Reference act as instructions for the Independent Review Team, outlining the limits of the team's responsibility and the parameters associated with review activity.
Trust or 'The Trust'	See "Nottingham University Hospitals NHS Trust (NUH)"