Women & Children’s Care Group
Maternity Learning

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SaTH mortality and morbidity – the facts
Perinatal mortality (PNM)

- Stillbirths from 24 weeks gestation (excluding termination of pregnancy) but including lethal congenital anomalies
- Neonatal deaths up to 28 days after delivery, born in SaTH, including lethal congenital anomalies
PNM definitions

- **Stillbirth** A baby delivered at or after 24+0 weeks gestational age showing no signs of life, irrespective of when the death occurred.

- **Neonatal death** A liveborn baby (born at 20+0 weeks gestational age or later, or with a birthweight of 400g or more where an accurate estimate of gestation is not available), who died before 28 completed days after birth.

- **Extended perinatal death** A stillbirth or neonatal death.
Crude mortality rates for babies born at 24 weeks gestational age or later by year of birth

- Extended perinatal death
- Stillbirth
- Neonatal death

Deaths per 1,000 births
Stabilised & adjusted mortality rates for babies born at 24 weeks gestational age or later by year of birth

Deaths per 1,000 births

Extended perinatal death

Stillbirth

Neonatal death

Year of birth
Stabilisation is designed to take account of some of the random variation inherent in this type of data and adjustment takes account of some of the factors known to affect perinatal mortality rates in particular populations, e.g. the level of social deprivation.
Stabilised & adjusted mortality rates for babies born in 2016 at 24 weeks gestational age or later

<table>
<thead>
<tr>
<th></th>
<th>Stillbirth (per 1,000 total births)</th>
<th>Neonatal death (per 1,000 live births)</th>
<th>Extended perinatal death (per 1,000 total births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK average</td>
<td>Level 3 NICU &amp; neonatal surgery</td>
<td>Level 3 NICU</td>
<td>Level 3 NICU</td>
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<td>Level 3 NICU</td>
<td>4,000 or more births</td>
<td>4,000 or more births</td>
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<td>2,000 to 3,999 births</td>
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<td>Under 2,000 births</td>
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Deaths per 1,000 births
PNM rate in the West Midlands

Still birth rate per 1000 total births – West Midlands Trusts 2016

MBRRACE-UK: 2018

NHSE 2018
National initiatives to reduce mortality and morbidity
Four part care bundle

1. Reducing smoking in pregnancy
2. Risk assessment and surveillance for fetal growth restriction
3. Raising awareness of reduced fetal movement
4. Effective fetal monitoring during labour
All Trusts are required to have fully implemented the Care Bundle by March 2019

Nationally the Care Bundle has been completed by 31% of Trusts

SaTH achieved completion of the care bundle in May 2018

Ongoing audit to assess impact
Reducing smoking in pregnancy

% of women smoking at time of delivery (SATOD): West Midlands

Public Health Outcomes Framework

2016/17
Reducing smoking in pregnancy

- **Reducing smoking with public health midwife post**
  - With initial support from T&W CCG and ongoing support from T&W council SaTH have employed a public health midwife with a specific role to reduce smoking in pregnancy. Commenced 12 months ago

- **Universal carbon monoxide screening for all women at booking**
  - Currently in place
  - Plan to check CO in all women at every visit

- **Money boxes to remind our pregnant mother not to smoke**
  - To encourage women to stop smoking we have been working with our local maternity system to design and provide ‘money boxes’ – they will have room for a scan picture and will show a simple message to encourage women to save the money that they would otherwise have spent on cigarettes
Reducing smoking in pregnancy

- Maternity and Neonatal Health Safety Collaborative (NHSI Matneo)
- All Trusts in UK involved in the collaborative
- SaTH in Wave 2 of 3 annual waves
- Commenced in March 2018
- Reduction of smoking in pregnancy chosen project

NHS Improvement
Reducing smoking in pregnancy

- Smoking at time of delivery for both CCGs 2018/19
  - Trustwide 15.6%
  - Telford and Wrekin 18.4%
  - Shropshire 13.6%

- National rate 12% in 2016/17
Risk assessment and surveillance for fetal growth restriction

• 2 more whole equivalent sonographer midwives appointed by SaTH since May 2018
  – serial scans for all women at risk of FGR in line with RCOG recommendations

• Training for staff from SaTH at the Perinatal Institute

• Implementation of GAP programme

• Ongoing audit of growth restricted cases
  – early data shows an over representation of small babies in the Shropshire population
Raising awareness of reduced fetal movement

• Fetal movements bracelet
  – along with the LMS developed a bracelet to enable women to monitor their babies movements, this will be made available to all of our women

• Raising awareness of reduced fetal movements
  – we are nearing the end of our competition to re-design the front cover of our maternity hand held records, the image will encourage women to keep an eye on their babies movements and to give a clear message that ‘healthy babies don’t stop moving’

• Mama wallets
Effective fetal monitoring during labour

- Nationally heart rate monitoring (CTG) is recognised to be a significant contributor to perinatal mortality
- Successful Sign up to Safety bid in 2015 through NHSLA
- SaTH CTG training
  - K2 training software
  - Annual update within PROMPT study day
  - Twice weekly face to face CTG training meetings
  - Enhanced training for Delivery Suite Coordinators
  - Human factors training
- Fresh eyes
- Investment in hardware and software
- Along with the WM maternity network we are looking at a network wide competency assessment for all midwives in the region
Each baby counts - RCOG

- All stillbirths, neonatal deaths and brain injuries occurring during term labour in 2015
- Published by RCOG in 2017 based upon cases from 2015
- The key finding – that for many of the babies reported to Each Baby Counts, different care might have resulted in a different outcome
How many babies?

The total number of babies fulfilling the “Each Baby Counts” criteria in 2015 was 1136.

Of these:

- **1136 babies**
  - 126 babies (Intrapartum stillbirths)
  - 156 babies (Early neonatal deaths)
  - 854 babies (Severe brain injuries)

Note: These categories are mutually exclusive. Babies with a severe brain injury who died within the first 7 days of life are classified as early neonatal deaths.
Each baby counts - RCOG

- 24% Different care is unlikely to have made a difference to the outcome
- 76% Different care might have made a difference to the outcome
Key recommendations for care

- Risk assessment
- CTG analysis
- Human factors
- Education and training
Risk assessment in SaTH

• Assessment and quantification of risk on Delivery Suite since 2012
• Assessment of risk in antenatal period – work with maternity network in 2016
• SaTH Maternity triage using the CQC commended Birmingham BSOTS model since 2016
CTG analysis in SaTH

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Human factors in SaTH

- Collective Leadership courses in conjunction with BPP University in 2015
- Continued in 2016 with the NHSLA Sign up to Safety funding
- Provided to all midwives in 2017 as part of annual update
- Incorporated into PROMPT skills training in 2018
Human factors in SaTH

- Enhanced handover of care using SBAR
- Safety huddles implemented as a result of our work with Virginia Mason
- Twice daily safety huddles give chance for all staff in each ward or area to ‘stop’, come together, discuss plans of care, immediate risks or good practice to share widely
- Management safety huddle every day
Education and training in SaTH

- Successful Health Education England bid in 2017
- Development of a Training Faculty within maternity
- Delivery of multidisciplinary PROMPT skills training for members of staff annually
- Delivery of ROBUST assisted delivery training for all doctors
Education and training in SaTH

- Neonatal stabilisation training for midwives (MIST course) developed in SaTH and now being developed nationally
- Further human factors training for neonatal team planned
Mortality and morbidity results
Neonatal cooling rates in SaTH (to end Sept 2018)
6.32 Neonatal complication - Rate of hypoxic-ischaemic encephalopathy

Neonatal complication - Rate of hypoxic-ischaemic encephalopathy
HES Apr 2015 - Mar 2016
Crude mortality rates for babies born at 24 weeks gestational age or later by year of birth
SaTH crude PNM rates for 2018 at end Sept

- Stillbirth 3.5/1000
- Neonatal death 1.4/1000
- Perinatal mortality rate 4.9/1000

- National PNM rate 2016 5.1/1000
ATAIN - term admissions

• Overwhelming evidence that separation of mother and baby so soon after birth interrupts the normal bonding process, which can have a profound and lasting effect on maternal mental health, breastfeeding, long-term morbidity for mother and child

• Reducing admission of full term babies to neonatal units

• Over 20% of admissions of full term babies to neonatal units could be avoided

• National target of 6%
Main areas that reduce term admissions

- Breathing problems
- Getting cold
- Low blood sugars
- Jaundice
- Reducing asphyxia in labour
• Red hats for babies at risk
  – We have implemented a really striking way to alert staff to babies who are at risk of admission to the neonatal unit – all babies at risk will wear red hats – women (and possibly men...) all over Shropshire have been busy knitting them for us – bags and bags of red hats!
ATAIN - term admissions for SaTH

Current national level 8%
National target of 6%

SaTH admission level 3.4%
Investigations and sharing learning from incidents
Investigations and sharing learning from incidents

- External RCA investigator training in 2017
- New appointments of Risk Midwife and Risk Consultant
- Increasing use of external investigators
- Working on a consistent external approach along with neighbouring LMS
Investigations and sharing learning from incidents

- Weekly risk review meetings since 2017
- Improved governance process for sharing learning
  - Governance feedback meetings
  - Staff huddles
Perinatal Mortality Review Tool (PMRT)

- Using since January 2018
- Launched by MBRRACE
- National tool
- All stillbirths and neonatal deaths in SaTH
- Structured assessment
- Awaiting key themes for 2018
• Go live at SaTH for support in November 2018
  – national programme whereby ALL trusts’ maternity services will have all of their major investigations carried out by an independent body
National audit
National Maternity and Perinatal Audit
Clinical report 2017 - revised version

Based on births in NHS maternity services between 1st April 2015 and 31st March 2016
GETTING IT RIGHT FIRST TIME

Obstetrics and Gynaecology Review

Shrewsbury and Telford Hospital NHS Trust
6.8 Rate of induced labour

Rate of induced labour
HES Apr 2015 - Mar 2016

Rate %

Deliveries
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000 10500 11000
6.4 Rate of spontaneous, unassisted vaginal delivery
6.16 Rate of caesarean section (CS) delivery, Primiparous

Rate of caesarean section (CS) delivery, Primiparous
HES Apr 2015 - Mar 2016

[Graph showing rate of caesarean section delivery vs. deliveries]
6.18 Rate of caesarean section (CS) delivery, Multiparous
6.20 Rate of spontaneous labours resulting in emergency CS delivery, Primiparous
6.22 Rate of spontaneous labours resulting in emergency CS delivery, Multiparous

Rate of spontaneous labours resulting in emergency CS delivery, Multiparous
HES Apr 2015 - Mar 2016

Deliveries
Rate %
0 1 2 3 4 5 6 7 8 9 10 11 12
0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000
6.24 Rate of pre-labour CS delivery, Primiparous

Rate of pre-labour CS delivery, Primiparous
HES Apr 2015 - Mar 2016

Rate %

0 10 20 30 40 50 60 70 80 90 100

Deliveries

0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200
6.26 Rate of pre-labour CS delivery, Multiparous
6.6 Rate of instrumental delivery

Rate of instrumental delivery
HES Apr 2015 - Mar 2016

Deliveries

Rate %
GIRFT – Perineal trauma

6.14 Rate of third- and fourth-degree perineal tear

Rate of third- and fourth-degree perineal tear
HES Apr 2015 - Mar 2016

[Graph showing rate of perineal tears against deliveries]
### Case-mix adjusted proportion of women with severe post partum haemorrhage of greater than or equal to 1500 ml

<table>
<thead>
<tr>
<th>Case-mix adjusted proportion</th>
<th>Safe</th>
<th>1.32%*</th>
<th>2.70%</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3130 cases</td>
<td></td>
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</table>
GIRFT – brachial plexus injury
CQC Maternity Survey 2018 – labour and birth

- **Advice at the start of labour**
  Receiving *appropriate advice and support*  
  9.3/10 About the same

- **Moving during labour**
  Being able to *move around* and choose the most comfortable position *during labour*  
  8.1/10 About the same

- **Skin to skin contact**
  Having *skin to skin contact* with the baby *shortly after birth*  
  9.3/10 About the same

- **Partner involvement**
  Partners being involved as much as *they* wanted  
  9.6/10 About the same
CQC Maternity Survey 2018 – staff during labour and birth

• **Staff introduction**
  Staff introducing themselves before examination or treatment
  9.3/10
  About the same

• **Being left alone**
  Not being left alone by midwives or doctors at a time when it worried them
  8.2/10
  About the same

• **Raising concerns**
  Concerns being taken seriously once raised
  9.0/10
  Better

• **Attention during labour**
  If attention was needed during labour and birth, a member of staff helped them within a reasonable amount of time
  9.1/10
  About the same
CQC Maternity Survey 2018 – staff during labour and birth

- **Clear communication**
  Being *spoken to* during labour and birth, in a way they could *understand*  
  Better

- **Involvement in decisions**
  Being *involved* enough in *decisions* about their care during labour and birth  
  8.8/10  
  About the same

- **Respect and dignity**
  Being treated with *respect and dignity* during labour and birth  
  9.7/10  
  Better

- **Confidence and trust**
  Having *confidence and trust* in the *staff* caring for them during labour and birth  
  8.9/10  
  About the same
### CQC Maternity Survey 2018 – care in hospital after the birth

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Rating</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of hospital stay</strong>&lt;br&gt;Feeling the stay in hospital after the birth was the right amount of time</td>
<td>8.1/10</td>
<td>Better</td>
</tr>
<tr>
<td><strong>Delay in discharge</strong>&lt;br&gt;Discharge from hospital being delayed</td>
<td>7.1/10</td>
<td>Better</td>
</tr>
<tr>
<td><strong>Reasonable response time after birth</strong>&lt;br&gt;If attention was needed after the birth, a member of staff helped within a reasonable amount of time</td>
<td>8.2/10</td>
<td>About the same</td>
</tr>
<tr>
<td><strong>Information and explanations</strong>&lt;br&gt;Receiving the information and explanations they needed after the birth</td>
<td>8.3/10</td>
<td>About the same</td>
</tr>
</tbody>
</table>
CQC Maternity Survey 2018 – care in hospital after the birth

- **Kind and understanding care**
  Being treated with *kindness and understanding* by *staff* after the birth
  9.0/10
  About the same

- **Partner length of stay**
  That their *partner who was involved in their care* was able to *stay with them as much as they wanted*
  5.8/10
  About the same

- **Cleanliness of room or ward**
  Thinking the hospital room or ward was *clean*
  9.5/10
  Better
Summary
What have we learned?

• Challenges within the community
• Mortality that is comparable for the WM region
• Cooling rates and term admission rates falling
• Already embedded actions that align with national drivers
• Appropriate intervention
• Low harm
• High satisfaction
What have we learned?

• Recognition that in individual circumstances things do go wrong
• We own the problem (now supported by HSIB)
• We are responsible for learning and continued improvement
• System wide improvement is required
Thank you