**Appendix 1**

Bradford Teaching Hospitals
NHS Foundation Trust

# Bi-annual Midwifery Staffing Report, July 2019

## Background:

The previous bi-annual staffing paper, presented to EMT in January 2019, recommended that the agreed midwifery establishment remained unchanged, and that a full evaluation of the impact of obstetric theatre staffing, and 24/7 Maternity Assessment Centre (MAC) opening was reported in the July paper. It was also recommended that an analysis of 'Red Flag' incidents, particularly in relation to one to one care in labour would also be provided in the 2nd bi-annual paper.

The paper also recommended that the Birth Rate Plus tool was not re-commissioned during 2019, whilst an impact assessment and evaluation of the service changes was made. It is also expected that the tool will be reviewed nationally to account for continuity of carer.

The purpose of this report is also to evidence:

- A systematic, evidence-based process to calculate midwifery staffing establishment and that the maternity unit meets the recognised best practice in assessing and deploying its workforce.

In addition this report provides the minimum evidential requirement for Trust Board to meet Maternity Incentive Scheme (MIS) safety action 5.

## Current Midwifery staffing position:

The current midwifery establishment (end of May 2019) bands 5-7 is 195.63 WTE, with a current vacancy of 4.86 WTE and 22.16 WTE support staff with a current vacancy of 0.

It is anticipated that in line with previous years the maternity service will over recruit during the summer months for the annual intake of newly qualified Midwives. However, the financial impact of this needs to be fully considered.

## Impact evaluation following staffing changes:

Maternity Assessment Centre (MAC)

An increase to the midwifery establishment of 4.57 WTE midwives and 2.4 WTE support staff, enabled the 24/7 opening of MAC in November 2018. The impact of the extended opening hours has been extremely positive for a number of reasons:

- Increased number of women presenting to MAC outside of working hours in a timely manner with reduced fetal movements, allowing for prompt assessment and intervention.

- Improved staff morale due to fewer occasions of late shift finishes.

- Increased opportunity of achieving one to one care in labour, due to MAC taking all telephone triage calls and managing women presenting with non-labour issues who previously would have been admitted to labour ward.

- Improved safety of women due to the rapid availability of assessment 24/7 in a dedicated area with dedicated staff.

The impact on one to one care in labour is described in more detail further in the report.

Theatre staffing

Labour ward staff report a positive response to the provision of an additional registrant on every shift to cover obstetric emergency theatre. Again, this has contributed to the increase in ability to provide one to one care in labour, as midwives are now rarely pulled from intrapartum care to scrub for emergency theatre cases. In addition to this, when emergency theatre cases are not in progress, the theatre practitioner supports with the care of high risk women releasing further midwifery time for one to one care.

Induction of labour suite

Since the January bi-annual midwifery staffing report, the service has changed the provision of care for women requiring induction of labour (IOL). This service change has been possible due to a different way of utilising the midwifery establishment, and has not incurred further cost. Women are now cohorted in 2 x 4 bedded induction bays, with dedicated staff in each bay. This has improved the experience for women and reduced the risk of clinical incidents occurring during the induction process.

Women are also kept away from the labour ward environment until they require additional intervention or intrapartum care, again contributing to the increased opportunities to provide one to one care in labour.

In summary, the notable changes to the service described have had the desired effect and have improved both quality and safety for women and babies, in addition to improving flow across the maternity unit and improved staff morale.

**Calculation of midwifery staffing establishment required:**

As requested in the January staffing paper, there have been no changes to the agreed midwifery establishment between January and June 2019. The tools utilised to calculate the required establishment for the birth rate include:

- Birth Rate + tool methodology

- Midwife to Birth ratio

- Planned versus actual midwifery staffing levels

- Supernumerary co-ordinator status and 1:1 care in labour data taken from the 4 hourly score card (acuity tool) completed on labour ward

- Red flag incidents associated with midwifery staffing

**Birth Rate + tool methodology:**

Birth Rate + exists as the only recognised tool to calculate midwifery staffing levels, and was initially commissioned in May 2017, with a report being received mid-2018. Following the January decision to not re-commission the tool in full, we have applied the Birth Rate + methodology to calculate the required establishment against the 2018/19 of 5,364 births.

The recommendation is to provide total care to women and their babies throughout 24 hours, 7 days a week inclusive of 22% for annual, sick & study leave allowance, 10% for travel in community and 1% for the Professional Midwifery Advocate model.

The overall clinical establishment for total of 5,364 births with Birth Rate Plus recommended overall ratio for all births 1:24.2 is summarised as follows:

**TOTAL CLINICAL WTE (incl. 1% midwifery PMA) 223.86 WTE**

A skill mix adjustment of 90/10% has been applied to the clinical total WTE of **223.86 WTE** (excluding PMA) this equates to 22.16 WTE competent and qualified support staff. Therefore 201.70 WTE Registered Midwives are required to meet.

Birth Rate Plus recommends that
The total clinical establishments for both services do not include the following roles:

| | |
|---|---|
| • Head of Midwifery & Matrons | 4 |
| • Supernumerary Labour Ward Coordinator | 5.22 |
| • Practice Development role. | 1 |
| • Clinical Governance roles | 3 |
| • Information/Maternity system role. | N/A |
| • Additional hours for antenatal screening over & above clinical | 0.5 |
| • Coordination for such work as Safeguarding Children. | 1 |

**Comparison of Birthrate Plus® staffing totals with Current Funded Establishment based on above dataset**

The method works out the clinical establishment based on agreed standards of care and specialist needs and then includes the non-clinical midwifery roles and skill mix adjustment of the clinical staffing between midwives and competent and qualified support staff can be applied.

The table below outlines the comparison of Birthrate Plus® results with current funded establishments based on above data and results;

**Comparison of Maternity Staffing**

| | | |
|---|---|---|
| BR+ Total Clinical WTE | 223.86 | The total clinical WTE for hospital & community calculated using Birthrate Plus methodology |
| BR+ Total Skill Mix Adjustment at 90% (inc. 1% for PMA) | 201.70 | 90% of total as midwives – bands 5 to 7 including PMA |
| Current funded clinical WTE (bands 5 – 7) | 195.63 | The current funded midwifery WTE includes Specialist Midwives clinical contribution but excludes non-clinical midwifery roles |
| Difference between BR+ WTE & current funded midwifery WTE | 6.07 | The variance between BR+ clinical WTE & funded WTE based on midwifery staffing |
| BR+ Total Skill Mix Adjustment for 10% | 22.16 | 10% of total as support staff who contribute to the clinical total in postnatal care and who can replace midwife hours |
| Current Funded Support roles (Band 3) | 22.16 | The Current funded support WTE for the postnatal aspect of care |
| Difference between BR+ Support roles to include in comparative total | 0 | Variance between BR+ Clinical WTE & Current Funded WTE based on support roles for the PN aspect of care |
| **Overall Difference between BR+ WTE compared with clinical WTE - bands 3 to 7** | **6.07** | **The actual difference between BR+ clinical WTE & current funded WTE combining midwives & appropriately trained support staff** |

The tool suggests that an increase to the current establishment of 6.07 WTE midwives is required. However, in addition to the funded midwifery establishment the service is also funded for 6.18 WTE theatre practitioners to provide 24/7 obstetric theatre cover. We believe that this is sufficient to meet the needs of the service and are not requesting a further increase to the midwifery establishment as a result of this calculation.

**Midwife to Birth ratio:**

Due to the high acuity of Bradford mothers and babies identified during the 2017 Birth Rate + full analysis, the midwife to birth ratio was recommended as 1:24. Review of a consecutive three month period is as follows:

| | March 19 | April 19 | May 19 |
|---|---|---|---|
| Ratio | 1:26.7 | 1:26.5 | 1:26.5 |

The ratio is calculated on the number of midwives employed and does not account for any monthly variations in staffing due to sickness and absence. Whilst the actual ratio is higher than the recommended ratio for Bradford, further mitigation includes the positive impact on midwifery staffing due to the provision of 24/7 theatre cover.

**Planned versus Actual midwifery staffing levels:**

Details of planned and actual midwifery staffing levels are available to view on the monthly 'Heat map' data produced by the Chief Nurse team. Data is reviewed at the monthly Chief Nurse Quality meetings and during confirm and challenge and establishment reviews.

**Supernumerary labour ward co-ordinator status and the provision of one to one care in labour:**

In March 2019, labour ward co-ordinators commenced 4 hourly acuity data collection, demonstrating compliance with the 100% supernumerary status described in safety action 5 of the Maternity Incentive Scheme, and evidencing the frequency of which one to one care in labour is achieved. Review of data collected between March and May 2019, indicates that the tool needs further refinement to provide the level of detail required to support midwifery work force planning. This is a recommendation of this report.

The Birth Centre also collect information regarding the provision of one to one care in labour, unfortunately review of the same 3 months consecutive data indicates that the information collected has not been interpreted correctly making it unusable for the purpose of this report. Review of the data collection tool is a further recommendation of this report.

Supernumerary labour ward co-ordinator status:

The labour ward staffing model is as follows:

1 x Supernumerary Band 7 co-ordinator.

7 x Midwives including an additional Band 7 per shift.

1 x Obstetric Theatre practitioner. (This may be a theatre nurse or midwife).

Rosters are planned to meet the staffing requirement, and there are very few occasions when only 1 Band 7 is rostered, the majority of shifts having a minimum of 2 enabling supernumerary status to be consistently achieved. The acuity tool needs adapting to make this explicit, however review of the 3 months data indicates that this is achieved 100% of the time, verbally supported by the labour ward co-ordinators themselves.

Provision of one to one care in active labour and mitigation to cover any shortfalls:

Comparison of the average one to one care in labour rates taken from Medway for women giving birth in the 3 care settings of home, labour ward and the birth centre between December and May 2017/18 and 2018/19, demonstrate a positive improvement of an 14% increase from 63% to 77%. The month on month improvement since MAC opened in November 2018 is as follows:

| **Month** | **Percentage of One to One care 2017/18** | **Percentage of One to One care 2018/19** |
|---|---|---|
| December | 52% | 67% |
| January | 59% | 79% |
| February | 67% | 82% |
| March | 59% | 76% |
| April | 67% | 85% |
| May | 69% | 75% |
| **Overall Average:** | **63%** | **77%** |

Whilst we are delighted with this significant increase, the service recognises that more needs to be done to improve this figure further and includes a review of the mitigation in place to cover any shortfalls when one to one care in labour is not achieved and a number of recommendations are suggested.

Existing mitigation in place includes completion of the amber escalation paper work, when there are concerns that staffing levels are insufficient to provide safe care to the number of women on the labour ward. Failure to achieve one to one care in labour however, is not a

trigger to consider escalation on its own, and we recommend that the current maternity escalation policy is reviewed to reflect the actions that need to be taken when the labour ward co-ordinator is made aware that one to one care in labour is not being achieved either on the birth centre or labour ward. Following discussion with the Heads of Midwifery within West Yorkshire and Harrogate (WY&H) Local Maternity System (LMS), it is apparent that other units include failure to achieve one to one care in labour as an escalation trigger and interestingly these units report a one to one care in labour rate which is consistently over 95%. The risk to including one to one care as a trigger is that there is likely to be an increased need to divert services on a more frequent basis.

Review of the 4 hourly scorecards commenced in March 2019, indicates that one to one care for women in active labour is often not achieved due to the competing need to provide one to one care to high acuity, sick women who are not in labour. Whilst there are some clinical situations which require a woman to have one to one care, for example pre-eclampsia requiring magnesium sulphate, it is unknown if all of the reported cases truly required one to one midwifery care. An audit is therefore recommended to understand which cases are considered to require one to one care, and what solutions may be considered to manage this group of women in a different way.

A similar review of the data collected by the Birth Centre demonstrates a need to review the current staffing model and how staff are used to cover staffing shortfalls in other areas. Three midwives plus one maternity support worker is the current requirement for every shift, however the birth centre is generally the first area from where staff are redeployed to support other clinical areas. When the birth centre is taken down to two midwives, two rooms are closed; however this significantly affects the opportunity to provide one to one care if more than two women are in established labour. This happens on a very frequent basis and is affecting provision of care but also the morale of the staff working in that area.

With the national requirement of providing continuity of carer to 35% of women by March 2020 and for the majority (51%) by March 2021, the service plans to explore new models of care involving the birth centre and community midwifery teams, which will include a review of the current birth centre staffing model.

**Number of red flag incidents:**

The Maternity Incentive Scheme standard is that Trust Board are sighted on the number of red flag incidents associated with midwifery staffing, reported in a consecutive six month time period within the last 12 months.

Incidents associated with midwifery staffing are reported via Datix and are investigated by the maternity risk and governance team. In the six month time period December 2018 to May 2019, there were 26 Datix reported incidents relating to midwifery staffing. With the exception of 1 reported case of low harm these were all reported as no harm, and describe an inability to provide a level of care to the expected standard rather than physical harm or poor outcomes for mothers and babies. An inability to provide one to one care in labour due to midwifery staffing levels is most frequently reported by the birth centre.

| | |
|---|---|
| Low Harm | 1 |
| No harm | 25 |

| | December | January | February | March | April | May | Total |
|---|---|---|---|---|---|---|---|
| Birth centre | 1 | 0 | 2 | 1 | 0 | 5 | 9 |
| Labour ward | 0 | 0 | 2 | 3 | 1 | 6 | 12 |
| Maternity unit | 1 | 0 | 0 | 0 | 2 | 0 | 3 |
| Wards | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Total | 3 | 0 | 4 | 4 | 4 | 11 | **26** |

There have been no incidents requiring a level one investigation or serious incident (SI) report during the same time period, where midwifery staffing is directly cited as a causative or contributory factor.

In March 2019, labour ward co-ordinators commenced the 4 hourly acuity scorecard collections, and a number of red flag incidents were agreed as quality indicators. These include:

- Failure to provide 1:1 care in labour.
- Number of women waiting augmentation/induction of labour for >12 hours.
- Number of women waiting >30 minutes for epidural.
- Number of women waiting >30 minutes for analgesia other than epidural.

Review of March to May 4 hourly scorecards showed:

- 66 occasions where women were reported to have waited >12 hours for augmentation/induction. It is not possible to determine how many women this affected which is a flaw of the scorecard and needs amending.
- 13 occasions where women waited >30 minutes. It is not possible to determine if this was due to midwifery staffing or availability of the anaesthetist.
- No women waited >30 minutes for analgesia other than epidural.

Summary: Further modifications need to be made to the 4 hourly scorecards to determine if delays in care are due to midwifery staffing levels. It is clear however, that midwifery staffing levels are adequate in providing analgesia other than epidural in a timely manner.

**Challenges:**

Delivering Continuity of Carer:

Since the first bi-annual midwifery staffing paper in January, where the challenges of delivering Continuity of Carer pathways to the national mandated target were described, a number of cost neutral pathways have been developed which enabled the service to come very close to the March 2019 20% target. The March 2020 target of 35% is anticipated to be much more difficult to achieve for a number of reasons.

- Delivery of the 20% target was achieved almost completely by the Better Start Bradford, Big Lottery funded 'Clover Team' project. This is time limited to 18 months, and will be unaffordable when the project ends.

- A service redesign is essential to deliver the 35% and subsequent 51% and will have significant implications for the midwifery workforce, as well as a likely financial implication providing the evidence based community caseload model of 1:36 against the current caseload of around 1:90-100.

The Head of Midwifery will keep SLT and Trust Board informed of any plans to achieve the next trajectory and of any associated risks.

Removal of Specialist Midwifery roles to support vulnerable women:

This was reported as a challenge in the first bi-annual report of 2019, and a request for funding to provide a Specialist Midwife for Vulnerable Women was also rejected by EMT in the Birth Rate Plus paper presented in May 2018.

Since the two previous papers, the need to improve the provision of care for vulnerable women has been highlighted further; both by the WY&H LMS review of specialist posts where Bradford has been identified as an outlier in relation to perinatal mental health midwifery support, smoking cessation and substance misuse.

**Implications of External Reviews of Inspections**

The CQC Safeguarding Children review in April 2019 recommended the need to strengthen the provision of existing midwifery services for women with substance misuse and perinatal mental health issues. It is highly likely that this will be a key line of enquiry in the next CQC formal inspection anticipated in the autumn. The service requests that consideration be given, to the development and funding of a specialist post to co-ordinate care for women with vulnerabilities including substance misuse and perinatal mental health issues. It is anticipated that this would be a band 7 post and needs to be funded from within the totality of the care group budget or offset from the contribution to achievement of MIS year 2.

**Conclusion:**

The service believes that this report meets the Maternity Incentive Scheme required standard to demonstrate an effective system of midwifery workforce planning.

Applying the Birth Rate Plus methodology, supported by evidence from reported staffing incidents and data from the newly introduced, locally developed acuity tool, it is thought that the current midwifery establishment meets the needs of the service. It is acknowledged that actions to mitigate any shortfalls in the provision of one to one care in active labour can be further strengthened and that the service continues to build on the positive increase in the one to one care in labour rate.

The only establishment increase request is to support the role of a specialist midwife post for women with vulnerabilities including substance misuse and perinatal mental health issues.

On review we have concluded that a number of areas can be strengthened to improve reporting and future planning:

- The 4 hourly labour ward acuity tool is revised to include confirmation of supernumerary co-ordinator status, and further clarity around delays in augmentation and provision of epidural.
- The Birth Centre data collection tool is reviewed with the team and clarity provided as to the information required. The tool should also be adapted to include a trigger for escalation if one to one care in labour is not achieved.
- Review of the Maternity Escalation policy to include failure to achieve one to one care in labour as a potential trigger.
- Audit of women considered to require one to one care who are not in active labour.
- Review of the birth centre staffing model as part of continuity of carer plans.

**Recommendations:**

- The Board of Directors is asked to note the report and the assurance this provides.
- Development and funding of a Specialist Midwife for vulnerable women including perinatal mental health and substance misuse.