# Better Start Bradford Innovation Hub

## End of contract report – Personalised Midwifery
## May 2018

*This is a report provided by the Better Start Bradford Innovation Hub (BSBIH) for the Better Start Bradford (BSB) and the Personalised Midwifery team.*

*The document provides an overview of the Personalised Midwifery project's performance and findings from the implementation and feasibility  effectiveness  evaluations. The design of this evaluation is described in more detail in the Evaluation Plan Summary, which was approved by key stakeholders from the BSBIH and BSB.*

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**Approved by:**

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# Better Start Bradford Innovation Hub End of Contract Report for Personalised Midwifery – Executive Summary

## Project overview

In its first commissioning period from October 2015 until the end of September 2018, the Personalised Midwifery project provided women with continuity of care from a named midwife and buddy during the antenatal and postnatal period. The project included pregnant women at selected GP practices in the Better Start Bradford area. This evaluation report includes findings from a range of data sources including routine maternity and health data, project monitoring data, a questionnaire survey and qualitative interviews with midwives and women.

## Project performance summary

- Progression criteria selected for this project were implementation, fidelity and satisfaction.
- Implementation: the average caseload target of midwives in the Personalised Midwifery team was 60 women. From October 2015 to March 2018, the average caseload was 55.2 women, placing the project in **green** for this criterion.
- Fidelity: The continuity target was that women would see their named midwife or back-up buddy for at least 90% of their appointments. Antenatal continuity was 94.4%, postnatal continuity was 70.3% and overall continuity was 82.4%, placing the project in **amber** for this progression criterion.
- Satisfaction: Of the 67 women who completed the postnatal satisfaction survey, 100% recommended the Personalised Midwifery service to their friends and family, placing the project in **green** for this criterion.

## Other key findings

- Women were significantly more satisfied with their care from the personalised midwifery team than women receiving usual care.
- Key components of the model including reduced caseload sizes, extended appointment times, flexible and autonomous working patterns, and consistent administrative and maternity support staff all facilitated the successful delivery of the personalised model.
- High levels of job satisfaction reported by midwives in the personalised team contrasted with high levels of stress and burnout reported by standard care midwives.
- There was some indication of positive differences in maternal and infant health outcomes. However, because of small sample sizes we cannot confidently conclude that these findings indicate effectiveness of the model.

## Recommendations

**Recommendation 1 – Facilitate continuity of care across community midwifery teams** through extended appointment times, reduced caseloads, flexible working patterns that promote a cohesive and stable working environment and increased administrative and maternity support across all community midwifery teams.

**Recommendation 2 - Provide equitable midwifery care across the district by reviewing the on-call and home-birth service** for the city and **increase integration and communication** between community and hospital midwives to increase women's satisfaction with their birth experience.

**Recommendation 3– Full future effectiveness evaluation**
With a further 825 BiBBS women receiving Personalised Midwifery and improved recording of mental health data, we can provide evidence of the causal effect of this project on maternal mental health. Roll-out across the district would however hinder a future effectiveness evaluation as there would no longer be a control group.

**Recommendation 4 - Improve recording of mental health assessments**
Analyses of the primary outcome were limited by the lack of mental health data, particularly for the 6 to 8 week health visitor appointment; outcomes of mood observations were not consistently recorded, and we understand there are barriers to completion of more detailed assessments. Not only does this lack of routine data hamper evaluations such as ours, it also means that postnatal mental health problems may go unnoticed and untreated. We recommend that the outcomes of mental health observations are recorded more completely and consistently by health visitors.

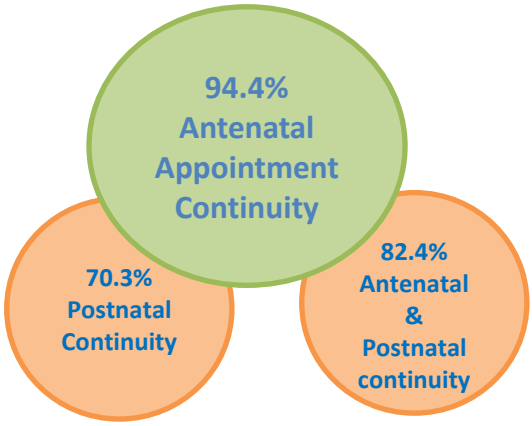
# End of contract report – Project Performance & Progression Criteria

## Implementation - What was the average caseload of midwives?

**Average caseload size: 55.2**

The maximum caseload for midwives was set at 60 women, the average caseload was 55.2 women so this places the project in **green** for the implementation progression criterion. For the first 8 months of the project (Oct 2015 - May 2016), the team accepted referrals from specifically attached GP practices, resulting in an average caseload size of 62 women. From June 2016 to March 2018, the average caseload was 52.6 following the removal of one GP practice and the team accepting referrals based on a combination of GP practice and geographical area.

## Fidelity - What was the proportion of women's appointments that took place with their named midwife or back-up buddy?




In the personalised midwifery model, continuity was defined as the proportion of women's appointments with their named midwife or back-up buddy. The target was to provide continuity for at least 90% of women's appointments. For antenatal appointments, the target was exceeded as on average, women saw their named midwife or back-up buddy 94.4% of the time. Postnatally, however, average continuity was 70.3% resulting in overall antenatal and postnatal continuity of 82.4%, placing the project in **amber** for this progression criterion.

Of the 718 women for whom continuity data was available, 78.4% received continuity for their antenatal appointments, 33.5% of women received continuity for their postnatal appointments and 47.6% of women received both antenatal and postnatal continuity.

## Satisfaction - How satisfied were women with the care they received?

**100% of women (n=67) recommended the personalised midwifery service to their friends and family**

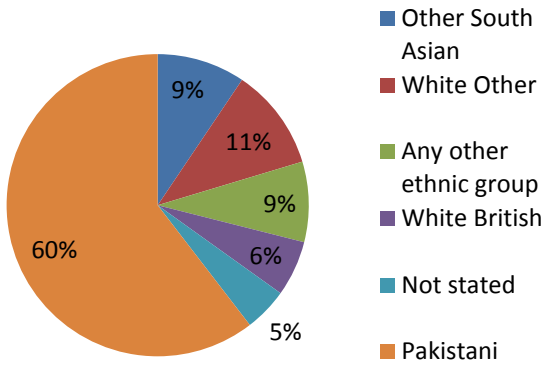
From June 2017 to October 2017, 67 questionnaires were completed by women at the end of their postnatal care with the Personalised Midwifery team. All women recommended the service to their friends and family, placing the project in **green** for this progression criterion.

# End of contract report – Project Implementation

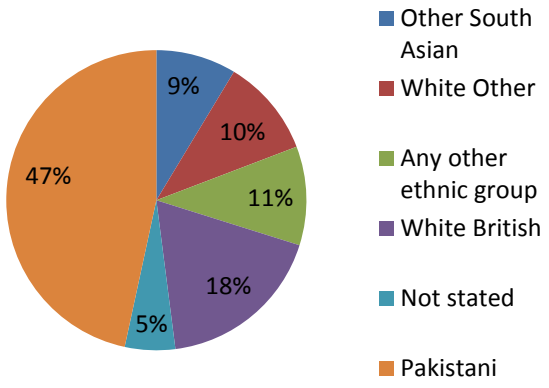
## How did the characteristics of BSB women who received care from the Personalised Midwifery team compare with women receiving standard care?

### Ethnicity

The majority of women receiving care from the Personalised Midwifery (PM) team were of Pakistani origin, consistent with the demographic profile of the main GP catchment area of the project (BD3). Whilst the proportions of White Other women appeared to be reflective of the BSB population, relatively few women from White British backgrounds received care through the PM project.

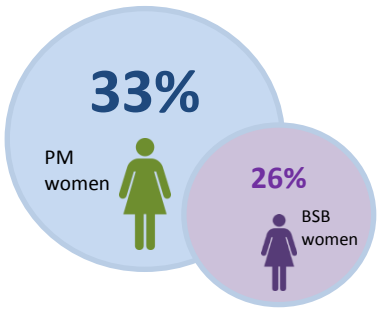



Ethnicity of women in Personalised Midwifery (n=1092)

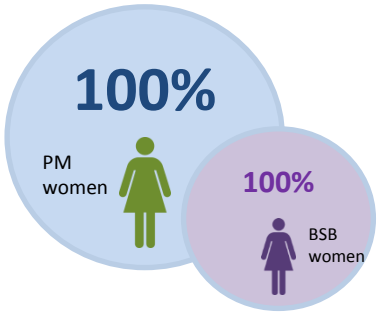



Ethnicity of women in BSB standard care (n=2086)

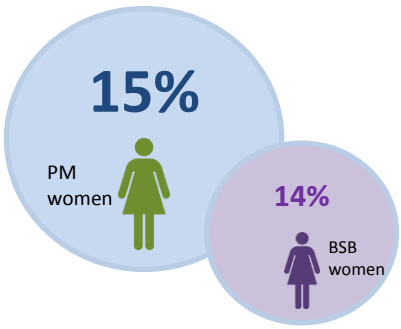
### Other characteristics




**Language**
Over a third of women who received care from the PM team required language support for their appointments. The proportion was slightly lower in other standard care BSB teams




**Women booked before 12 weeks**
All women were booked prior to the 12 week booking target. The mean gestation at booking for women in the PM project was 11.3 weeks and 11.9 weeks for women receiving standard care through other BSB teams




**Proportion of high risk women**
Similar proportions of women identified by midwives as 'high risk' at booking were seen across the PM and other BSB teams

# Satisfaction survey

**Women were on average very satisfied with their midwifery care during and after pregnancy in both the Personalised Midwifery team and in the BSB comparator group. Satisfaction was higher for the group who received Personalised Midwifery. All figures reported here indicate a statistically significant difference, which means we can be confident these differences are not due to chance. However, this small sample of women may not be representative for all pregnant women in the BSB area.**

## Who took part in the survey?

### Personalised Midwifery group

- **67** completed questionnaires
- **31%** first baby
- **77%** Asian/ Asian British
- **51%** English first language
- **62%** maternal age < 30

### Standard care in BSB area

- **77** completed questionnaires
- **24%** first baby
- **56%** Asian/ Asian British
- **61%** English first language
- **57%** maternal age < 30

## What did women say about their prenatal midwifery care?

### Personalised Midwifery group

- **76%** always saw same midwife
- **98%** midwives always had time
- **91%** breastfeeding information provided
- **95%** always given a choice of care

### Standard care in BSB area

- **32%** always saw same midwife
- **82%** midwives always had time
- **75%** breastfeeding information provided
- **64%** always given a choice of care

## What did women say about their postnatal midwifery care?

### Personalised Midwifery group

- **97%** always help with feeding
- **97%** definitely good care after birth

### Standard care in BSB area

- **73%** always help with feeding
- **80%** definitely good care after birth

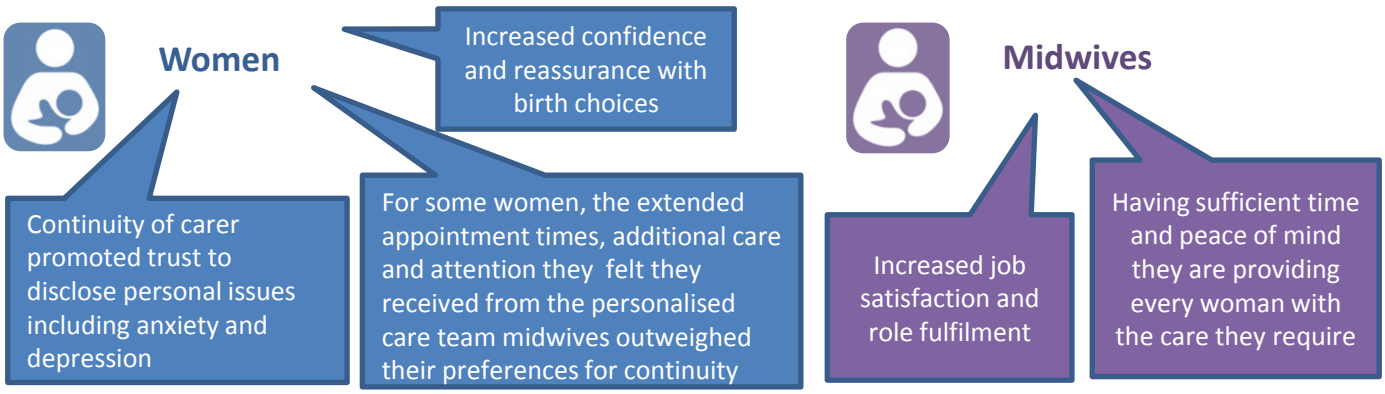
# Qualitative evaluation findings

We interviewed 7 midwives from the personalised care team, 7 midwives from standard care teams in BSB, 15 women who received their community midwifery care through the personalised team and 10 women who received standard care, to further explore implementation of the personalised model, the impact on women and midwives as well as considerations for broader expansion of the model.

## What strategies facilitated implementation of the model according to midwives in the personalised care team?

- ✓ **Volume of women**: the reduced caseload sizes (55 on average) was a key factor in facilitating continuity compared to caseloads of 120-140 reported by midwives in BSB standard care teams
- ✓ **Extended appointment time** allowed sufficient time to address women's concerns, provide additional support and information and refer women to appropriate services
- ✓ **Flexible** working pattern and **autonomous diary management** enabled midwives to provide more **tailored support** e.g. additional home visits where necessary
- ✓ **Fixed and stable nature** of the team was deemed important for maintaining continuity and **familiarisation with the local population**, contrasting rotational working patterns in standard community midwifery
- ✓ **Team cohesion** and good **communication** between buddies ensured consistency in the quality of care received by women

## What was the impact of the personalised model on women and midwives?




## What are the challenges to implementing the personalised model more broadly according to all midwives interviewed and women receiving personalised care?

- ○ **Postnatal continuity** reported to be more difficult across all teams given the **unpredictable timing** of labour and fixed postnatal contact points
- ○ **Increasingly complex needs of women** including safeguarding issues, language barriers, cultural perceptions of maternity care and highly mobile population
- ○ **Increased time pressures** due to **a lack of administrative and midwifery support staff** and low I.T connectivity in the community
- ○ **High levels of stress and burnout** in community midwives risk the longer term well-being and retention of midwives
- ○ **Low staffing levels**, being **on-call** and **covering sickness/leave** across the city challenge continuity
- ○ Some **dissatisfaction** by women with their **birth experience** indicating a need for greater **integration** and **communication** between **community and hospital midwives**

# Feasibility effectiveness evaluation

This was a feasibility evaluation, which means we can provide initial evidence on the potential for effectiveness of the Personalised Midwifery project in the BSB area using data from the BiBBS cohort. The sample is too small to be confident that any differences mean the project is effective.

## Postnatal maternal mental health - Are women who received Personalised Midwifery care (N=410) less likely to have poor mental health postnatally than women who received standard care (N=768)?

### Personalised Midwifery

**7%** 7% of women had an indication of poor postnatal mental health (N=26, 95% CI 0.05; 0.10)

### Standard care in BSB area

**8%** 8% of women had an indication of poor postnatal mental health (N=64, 95% CI 0.06; 0.10)

**Indications of poor maternal mental health found in health visitor and GP records were much lower than BiBBS cohort data suggested previously (up to 40% poor maternal mental health during pregnancy). This limited the analyses we were able to do. It is possible that cases of poor mental health were not declared by the women, as well as there being limitations in the current data systems.**

## Secondary outcomes - Do women who received Personalised Midwifery care have better secondary outcomes than women who received standard care?

### Personalised Midwifery

- **6%** of babies were born prematurely (N=22, 95% CI 0.03; 0.08)
- **73%** of women who smoked continued smoking during pregnancy (N=25, 95% CI 0.58; 0.89)
- **68%** of women initiated breastfeeding (N=262, 95% CI 0.63; 0.73)

### Standard care in BSB area

- **7%** of babies were born prematurely (N=53, 95% CI 0.05; 0.09)
- **86%** of women who smoked continued during pregnancy (N=87, 95% CI 0.77; 0.92)
- **70%** of women initiated breastfeeding (N=495, 95% CI 0.67; 0.74)

- **All figures presented on this page are adjusted for the influence of maternal ethnicity on the relationship between Personalised Midwifery team allocation and outcomes.**
- **The numbers of a 95% Confidence Interval indicate we can be 95% certain that, for this sample, the true value will lie between the lower and upper number. If the 95% CIs of the two groups overlap, there is no statistically significant difference. None of the differences presented here were statistically significant.**
- **If the project were to be continued in the BSB area and more women would have indication of poor mental health recorded, a sample of 1244 BiBBS women who received Personalised Midwifery should be sufficient to carry out a full effectiveness evaluation and detect a small effect (3%), or 428 women to detect a large effect (5%).**
- **A more detailed report is available upon request from the BSB Innovation Hub.**