Delivering choice safely

Local Maternity System Board Plan

Women's Participation

I am a first time mother living in rural Worcestershire who has struggled to get pregnant for many years. I am so excited, I am pregnant. I met my midwife last week at a home visit where she gave me lots of information and lots of advice, she filled out pages of paperwork and then told me I am high risk. I know I smoke and I know I am overweight but didn't realise my BMI was 38. The midwife has said that being aged 39, smoking and being overweight means my baby is at risk of being born small, or in really severe cases could die before birth or in the first year of life.

To help my baby I will need to go to the hospital and have lots of scans and tests. She has said I need to try to not put on any weight and I should try to stop smoking. I don't know how I am going to get to the hospital as we only have one car and my husband takes that to work and the buses don't go to Worcester. The midwife said I wasn't to worry as a new plan for maternity services was starting and it would help me get the right care. What is this plan she talked about?

Head of Midwifery

The plan is a new way of delivering maternity and new born care. It is designed to give women access to a single point of contact to get an early midwife appointment when you know you are pregnant and then offer you midwife, GP and consultant care in the geographical area you live in. We will have the main hospitals of Wye Valley NHS Trust and Worcestershire Acute Hospitals NHS Trust where all of our inpatient beds will be based but we aim to be able to give you all of your antenatal and postnatal care in the Hub with some appointments if needed in specialist centres or the hospital.

We envisage being able to do all of the scans you need in the Hub and we will have help for you or signposting for you to get help with your diet and smoking. The Hub, we hope will become a health and social centre where you will meet other mothers to be and you can support each other, have group learning about caring for you and your baby and then after delivery, have postnatal care either at home or in the Hub.

You said the midwife gave you lots of information and asked you to make lots of decisions and you were overwhelmed. We know that happens, so we plan to delay place of birth decisions until we know more about you and how your pregnancy is developing. That way we will also be able to offer place of birth choices and you will be able to have a personalised care plan which is achievable. We aim to be able to offer you continuity of carers.

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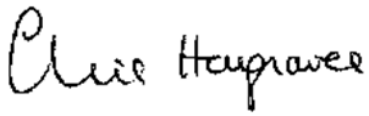
Foreword by LMS Board Chair – Christobel Hargraves

The safe delivery of a child and the health of the mother during this process are paramount and have been since the beginning of time. However, despite many developments in the delivery of care by multiple health professionals over many years, there are unfortunately too many incidents during pregnancy and delivery that have a long term effect on families. Many users of our maternity services in Herefordshire and Worcestershire have good stories to tell about their experiences but sadly there are some who do not. In the 21st century, it is beholden upon each of us involved in maternity care to do the best we possibly can for the sake of mothers and babies. None of us can sit back and leave improvement to others. At the same time we need to ensure that mothers are as informed as they possibly can be in order that they play their part in ensuring the delivery of a healthy baby.

This Local Maternity System Plan aims to turn the vision of Better Births into a reality for the residents of Herefordshire and Worcestershire. The LMS Board must not feel that it has met the milestone of producing a plan and then sit back – the work to effect change is only just beginning. So the plan is not a plan that is completed and can now be put away. It will need to evolve over time as we further develop and enhance our clinical pathways to improve the safety of maternity care and improve the choice and personalisation of our services. This will require us to listen to, and meet the needs and desires of mothers and to this end it is essential that we hear their voice as we move forward. To this end a vital part of our plan is to continue to develop and enhance our Maternity Voices Partnerships in both counties with common terms of reference to enable us to clearly hear from our service users.

Our vision "Delivering choice safely" will be at the forefront of our minds in all that we do and whatever part we have to play in this journey. As Chair of the LMS Board I pledge to do all I can to make a difference in the years ahead.



Revd Christobel Hargraves

1 Executive Summary

"The birth of a child should be a wonderful, life changing time for a mother and her whole family. It is a time of new beginnings, of fresh hopes and new dreams, of change and opportunity; it is a time when the experiences we have can shape our lives and those of our babies and families forever. These moments are so precious, and so important. It is the privilege of the NHS and healthcare professions to care for women, babies and their families at these formative times". (5 year Forward Review for Maternity Services – Better Births. 2016.

To deliver this vision Baroness Cumberledge, set out an ambitious new model of commissioning – The Local Maternity System (LMS). At the same time the Secretary of State asked for a 20% reduction in stillbirths, neonatal death, maternal death and neonatal brain injury by 2020 and a 50% reduction in the same by 2025. Alongside this there is also a national ambition to reduce pre-term births (24-36/40) to 6% by 2025 and to reduce smoking at time of delivery to 6% by 2022.

Local Maternity System (LMS) will also implement the recommendations from the Marmot Review (2010) and the Annual Report of the Chief Medical Officer, Our Children Deserve Better: Prevention Pays (2012) which states that the health and nutrition of expectant mothers is critical to the physical, emotional and intellectual wellbeing of their unborn babies, both pre and post birth. The Local Maternity System (LMS) will ensure that midwives, the broader workforce and agencies involved in supporting women and their families play a crucial role in enabling every child to have the very best start in life and in reducing health inequalities across the life course.

Our LMS has been established on the Sustainability and Transformation Partnership (STP) local population footprint of Herefordshire and Worcestershire. The purpose of the LMS is to deliver this vision and provide place-based planning and leadership for transforming the way maternity care is delivered to women and new-borns.

This Plan has been co-produced with local providers, commissioners, Local Authority, Public Health, Worcester University, West Midlands Ambulance Service, third party organisations and service users from across the system. Through a joint working approach we have identified a number of key local actions for delivering the national priorities for maternity by the end of 2020/21. These are summarised in the diagram 1, below:

Diagram 1: National priorities and summary of local actions

2017 → 2021

National Ambition

Improving choice and personalisation of maternity services so that:

- All pregnant women have a personalised care plan
- All women are able to make healthy choices about their maternity care during pregnancy, birth and postnatally
- Most women receive continuity of the person caring for them during pregnancy, birth and postnatally
- More women are able to give birth in midwifery led settings (at home and in midwifery units).

Improving the safety of maternity care so that by 2020/21 all services:

- Will have reduced stillbirths, neonatal deaths, maternal deaths and neonatal brain injuries by 20% by 2020 and by 50% by 2025
- Are working towards reducing the numbers of pre-term births (24-36/40) from 8% to 6% by 2025
- Are working towards reducing smoking at time of delivery rates to 6% by 2022
- Are investigating and learning from incidents and sharing this learning through their Local Maternity System and with others
- Are fully engaged in the development and implementation of the NHS Improvement Maternity and Neonatal Health Safety Collaborative.

Actions

- Explore what personalised care and continuity of carer means to local women
- Research to involve a variety of mediums and incorporate the voices of all local women. Maternity Voices Partnerships to lead this work
- Develop a Personalisation and COC Strategy
- Develop Community Hubs with women's feedback and voices at the centre
- Extend birth choices offered and explore providing place of birth conversations after the 30th week to enable credible confidence in choice
- Develop a local maternity offer through a dedicated website and online resources to support a healthy pregnancy and aid birth planning
- Explore the relationships between women and professionals and how women can be supported by providing unbiased information
- Work as a system to understand and improve the social and health influences related to stillbirth and neonatal death
- Implement clinical strategies to reduce clinical variation
- Implement the recommendations from Saving Babies Lives
- Embed shared incident reporting and learning, translate learning into shared guidance and practice that will be audited
- Allocation to Wave 3
- Provider organisations signed the Safety Collaborative and assigned Board Safety Champions. Training plans in place and monitored through HEE
- An ultrasound training plan has been signed off and starts in 2018
- Safety Collaborative to be signed April 2018/19.

Key Outcomes

Good experience and choice – Personalisation, Choice and Continuity of Carer

Improved Patient Safety

Good Health and Wellbeing

Reduced Morbidity and Mortality

Jointly Commissioned, Equitable Services with a Fair Payment System

An Innovative and Engaged Multi-Disciplinary Workforce - Workforce are well trained and motivated

Co-production with women, their families and our workforce

The key drivers for developing our LMS Plan have been:

- Patient voices – women and their families
- National recommendations and ambitions
- Local Sustainability and Transformation Partnership priorities and objectives
- The drive to provide safe and sustainable services and to reduce clinical variation across the system

Through extensive engagement with service users, staff and stakeholders, a detailed analysis of public health data and a gap analysis assessment, we have identified what we need to achieve as a LMS and what our future model of maternity care will look like. From this we have been able to produce a detailed project plan outlining how we will achieve this vision.

We recognise that delivery of our vision will be challenging given the significant shortfall of maternity tariff and neonatal income against the costs of service provision. The deficit is partly driven by birth volumes at both acute providers being below the financial viability threshold assumed in the tariff. We recognise that the financial challenge is significant and are committed to addressing factors within our control, including maximising efficiency and driving down the costs of service provision. Workforce requirements and infrastructure detail is uncosted, and this will be worked on intensively over the coming months. As our costed plans begin to develop, further engagement and consultation will be required.

To summarise by 2021 we aim to be able to provide:

- A single point of access for all local women
- Locally shaped Community Hubs in a variety of locations
- A range of services to deliver localised care
- Choice throughout every step of the maternity pathway
- Continuity of Care based on what local women want
- Integrated support services
- A system where all women feel empowered to achieve their personal birth goals
- Holistic care through an integrated health and social model

2 Our Purpose, Vision and Values

2.1 Our Purpose

The purpose of our Local Maternity System (LMS) is to meet and deliver the recommendations of:

- Better Births, National Maternity Review. NHS England (February 2016)
- Saving Babies Lives. NHS England (March 2016)
- Maternal & Newborn Health Safety Collaborative. NHS England (December 2016)

In doing so we will work towards delivering the Secretary of States ambition to reduce stillbirths, neonatal death, maternal death, neonatal brain injuries, pre-term births and smoking at time of delivery.

This document aims to outline how we will work together as a system to deliver these national priorities, and provide place-based planning and leadership, through co-production with women, for transforming the way maternity care is delivered.

Better Births

A National Maternity Review was commissioned as part of the NHS Five Year Forward View and the review findings were published in February 2016 as 'Better Births'. 'Better Births' sets out wide-ranging proposals designed to make care safer and give women greater control and more choices.

Whilst there have been significant improvements in the quality of care, despite an increasing birth rate and increasingly complex cases, the review identified meaningful differences across the country, and further opportunities to improve the safety of care and reduce stillbirths. Prevention and public health have key roles to play, particularly around maternal smoking and obesity. There are seven key priorities to drive improvement and ensure women and babies receive excellent care wherever they live.

- Personalised care
- Continuity of carer
- Safer care
- Better postnatal and perinatal mental health care
- Multi-professional working
- Working across boundaries
- A fair and adequate payment system

Saving Babies Lives

Saving Babies' Lives is a care bundle designed to support providers, commissioners and healthcare professionals to take action to reduce stillbirths. Saving Babies' Lives is designed to tackle stillbirth and early neonatal death. It brings together four elements of care that are recognised as evidence-based and/or best practice:

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

Maternal & Newborn Health Safety Collaborative

A three-year programme to support improvement in the quality and safety of maternity and neonatal units across England. The programme aims to make measurable improvements in safety outcomes for women, their babies and families. The national maternal and neonatal health safety collaborative will help all maternity care providers and commissioners to:

- improve clinical practices
- reduce unwarranted variation
- report on how they are contributing to achieving the national ambition

The document aims to outline how we will deliver the following national priorities by the end of 2020/21 across the STP footprint of Herefordshire and Worcestershire:

- **Improving choice and personalisation of maternity services so that**:
  - All pregnant women have a personalised care plan.
  - All women are able to make healthy choices about their maternity care during pregnancy, birth and postnatally.
  - Most women receive continuity of the person caring for them during pregnancy, birth and postnatally.
  - More women are able to give birth in midwifery led settings (at home and in midwifery units).

- **Improving the safety of maternity care so that by 2020/21 all services:**
  - Will have reduced stillbirths, neonatal deaths, maternal deaths and neonatal brain injuries by 20% by 2020 and by 50% by 2025,
  - Are working towards reducing the numbers of pre-term births (24-36/40) from 8% to 6% by 2025
  - Are working towards reducing smoking at time of delivery rates to 6% by 2022
  - Are investigating and learning from incidents and sharing this learning through their Local Maternity System and with others.
  - Are fully engaged in the development and implementation of the NHS Improvement Maternity and Neonatal Health Safety Collaborative.

2.2 Our Vision

The overarching vision for our LMS is ***'Delivering Choice Safely'***. This vision was created and agreed by the LMS board and is at the forefront of the systems thinking throughout this plan and beyond.

Our vision aligns to the local STP vision of ensuring that:

'…our citizens have access to high quality, safe and sustainable, acute, women and new-born/neonatal and mental health services localised where possible and centralised where necessary.'

2.3 Our Values

As a system a set of values have been agreed that underpin everything our LMS does. These values have been developed in conjunction with partners, stakeholders and the public. The values of the LMS are a commitment to:

- Listening to women and families
- Achieving personalised care
- Learning together
- To be better than the national average
- Working together to sustain viability

We aim to deliver these commitments by ensuring that true co-production, with women and their families, is applied throughout the planning, delivery and evaluation of the LMS plans. The voices of women and families, clinicians, partners and stakeholders will be essential in ensuring that future maternity services, across Herefordshire and Worcestershire, are able to deliver choice safely to the highest standard possible.

2.4 Our key stakeholders

The aims of this plan can only be achieved when all our stakeholders work together and commit to improving choice, personalisation of maternity services and safety of maternity care. Co-production and engagement has been a key foundation in the development of this plan and will continue to form the basis of all our future work.

The LMS programme is overseen by the LMS Board, which was established in March 2017 and meets on a bi-monthly basis. The Terms of Reference of the LMS Board are available in Appendix 1. The Board incorporates all partner organisations including:

Service Users Voices:

- Healthwatch Herefordshire – receives all documents
- Healthwatch Worcestershire – receives all documents
- Maternity Voices Partnership

Commissioners:

- Worcestershire Clinical Commissioning Groups
- Herefordshire Clinical Commissioning Group
- Public Health
- NHS England, NHSE Specialised Commissioning

Providers:

- Worcestershire Acute Hospitals NHS Trust
- Wye Valley NHS Trust
- Worcestershire Health & Care NHS Trust
- West Midlands Ambulance Service
- Herefordshire Council
- Primary Care

Other:

- Worcestershire County Council
- University of Worcester
- Health Education England

Other partner organisations will be co-opted on to the LMS Board as appropriate and when required.

3 Background

The LMS Board recognises the importance of understanding the demographic profile and health needs of the systems population in order to ensure any transformation to maternity services truly reflects the requirements of the people it serves. In the initial stages of planning the LMS considered the population profiles across the footprint; physical factors; health deprivation and the needs of its culturally diverse communities as well as specific public health data which determines and influences fetal and maternal wellbeing.

3.1 Our Population Profile

The LMS is based on the Sustainability and Transformation Partnership (STP) footprint and encompasses two of the largest counties in England, Herefordshire and Worcestershire, which together have one of the smallest populations. The population is approximately 785,000 and is centred around two main cities, Worcester and Hereford. The population mix of the footprint is 97%

white with 2% Polish and Eastern European, and 0.5% Asian and Afro-Caribbean. The LMS has a growing number of women of childbearing age from Polish and Lithuanian backgrounds. This has already been identified to the LMS and will be incorporated into the programmes research and planning.

The LMS footprint has a large rural population which means that there are migrant and casual labourers as well as an extensive Gypsy and Romany traveller community around Evesham and Hereford. Although there is a lower proportion of Black and Minority Ethnic (BME) people than nationally, there has been a significant increase in the BME population between 2001 and 2011, which is likely to continue. The highest proportions of BME population are in the Redditch and Worcester districts. Currently there are 1,200 people employed by the Armed Forces living in Herefordshire according to the 2011 Census, with an associated 1,450 family members (spouse, partner, child or step-child) living with them: a total of at least 2,650 members of the currently serving Armed Forces community. This number is likely to have grown considering the increase in the number of regular Armed Forces stationed in the county. We recognise that these demographic shifts are important and endeavour to ensure these are reflected in our plans in order to provide person centred care.

In 2016 it was estimated that around 18,500 children were living in low income families across the LMS with the highest proportion living in Worcestershire. Life expectancy across the footprint for both men and women is higher than the England average, although inequalities are present between some of the most deprived and least deprived areas. The age profile of the system as a whole is older than the average for England and Wales.

Teenage conception rates have reduced overtime although some districts within the system have higher rates and this is usually associated with deprivation. Breastfeeding rates are also the lowest amongst young mothers particularly from deprived areas. Data also shows that in recent years there has been a general shift in the social and economic backgrounds of mothers with an increase in births in women from more deprived areas, across the system, and a decrease in births in women from more affluent areas.

In terms of the population of the LMS living with a disability rates are similar to the national average. The LMS currently provides personalised planning for women with disabilities. Christianity was stated as the largest religion across the system with growing numbers of Muslims, Hindus and Buddhists. This data is based on the latest national census.

A rapid growth in housing is planned across the footprint. This is important as it will potentially mean large changes in the population. Most likely a steeper increase than is currently being projected.

Overall health across the footprint is identified as generally better than the national population. However, there are large numbers of people living in poorer health and there are significant inequalities in health outcomes particularly between advantaged and disadvantaged communities. In the systems rural areas, health inequalities can be masked by sparsity of population but we know differences exist which need to be tackled, including issues of access.

There are some outcomes across pregnancy, early years and into childhood that are lower than expected across the footprint with a wide gap between the least deprived and most deprived populations. In particular these include: smoking during pregnancy, breastfeeding rates, premature birth rates, low birth weight, rates of caesarean sections, stillbirth and perinatal mortality rates, levels of maternal and child obesity and school readiness.

3.2 Physical Factors

Generally there is a good road infrastructure across the LMS with the M5 running through the centre of Worcestershire and the M50 running from the M5 to South Wales through Herefordshire. By way of example, the distance between the systems' two acute hospitals, Hereford County Hospital and

Worcestershire Royal Hospital, is more than 30 miles and typically takes more than an hour to drive on single carriageway roads.

Public transport services are considered very poor with many villages in the most rural areas around Evesham, Malvern, Ledbury, and Bromyard not having access to a daily bus service. Train links between the main cities in the LMS are good with regular services. There is, however, more local issues e.g. no direct bus or train line from Redditch to Worcester or Hereford. This means the population of Redditch have to travel via Birmingham or Bromsgrove to access hospital services at Worcester when using public transport.

3.3 Maternity Snapshot

In 2015 the LMS had 7783 Live births, based on the area of usual residence of the mother (Office of National Statistics, 2015 data).

Table 1, below, illustrates births by hospital trust across the LMS in 2015/16, highlighting the broader choice of birth setting particularly for women who live on the borders. This data outlines the birth choices by each of the registered populations of the CCGs and doesn't include births coming into the LMS area from women registered at neighbouring CCGs.

Table 1: Births by hospital Trusts in 2015/16 by Herefordshire and Worcestershire CCGs

	Wyre Forest CCG	Redditch and Bromsgrove CCG	South Worcestershire CCG	Herefordshire CCG	Total
Worcestershire Acute Hospitals NHS Trust	1071	1542	2727	41	5381
Wye Valley NHS Trust	-	-	23	1538	1561
Birmingham Women's NHS Foundation Trust	15	218	20	7	253
Shrewsbury and Telford Hospital NHS Trust	-	-	-	9	9
Gloucestershire Hospitals NHS Foundation Trust	-	-	91	51	91
South Warwickshire NHS Foundation Trust	-	15	-	-	15
Sandwell and West Birmingham Hospitals NHS Foundation Trust	5	16	-	-	21
Other Provider	55	36	26	12	129
Total Births	1146	1827	2887	1658	7518
Total Births out of LMS	75	285	137	79	576

Below is a snapshot of our maternity population:

LMS Maternity Snapshot

Delivering Choice Safely

Live Birth Rate: 7783 in 2015
based on residence of the mother

Caesarean Section (C/S) as a % of total deliveries (2015/16): **29.4%**

Home Births:

2015/16 – **102**

2016/17 - **105**

In 2015/16 **576** delivers took place outside of the LMS in neighbouring providers, based on data from the CCGs.

Safer Maternity Care

Making services safer, kinder and more personalised

Neonatal Death:

Deaths of infants aged <28 days in 2013/15 across the LMS was 3.4 (rate per 1000 births) compared to the national rate of 2.7

Prematurity:

Premature live and still births in 2013-15 was 91.6 (rate per 1000 births) across the LMS, significantly higher than the national rate of 78.4

Maternal Death:

The system has had 2 maternal deaths since 2015

Still Birth Rate:

In 2016 there were a total of **28** stillbirths across the LMS. As a rate per 1000 births this equates to 4.9 for 2013-15 which is above the national rate of 4.6.

Good maternal health and wellbeing during pregnancy is essential for child's health, wellbeing and education outcomes.

Breastfeeding initiation

% of mothers who breastfed their babies in the first 48 hrs (post delivery) in 2014/15 was:

69.5%

Obesity

% of women who were classed as obese at time of booking appointment in 2016/17 was:

22.3%

Smoking

% of women who are known to be smokers at time of delivery in 2016/17 was:

11.7%

Figures have been provided from the latest annual data available for each indicator

3.4 Joint Strategic Needs Assessment and local policy links

Local authorities and local health services are required to undertake a Joint Strategic Needs Assessment (JSNA) of the health and wellbeing of the populations in their health economies. This process aims to identify emerging trends and threats in the region and provide updates on health priority areas, which local Health and Wellbeing Boards (HWBs) then use to produce a Joint Health and Wellbeing Strategy.

Local strategic priorities across the LMS have been identified as to improve mental health and wellbeing and to tackle lifestyle behaviours that increase the risk of poor health such as alcohol, smoking, physical inactivity and unhealthy diet. Mental health and wellbeing and lifestyle behaviours are inextricably linked and demonstrate marked differences between deprived and non-deprived areas. The LMS proposals have been developed in line with these local plans and priorities. The provisional LMS plan was ratified by the Herefordshire and Worcestershire Health and Wellbeing Boards in September 2017.

The strategic intention for our LMS is to offer local services for local people and where necessary the centralisation of some services, if required. The strategy is based around joint transformation to improve the outcomes of mothers and babies, across the footprint, leading to a healthier population.

One of the key drivers for change is the public health data, listed in Appendix 2 and in section 5.1, which clearly articulates areas across the LMS that need to be addressed in order to reduce clinical variation and to ensure rates are in line with national standards and to improve outcomes. A key element of our LMS strategy will be to ensure all geographical boundaries are removed to support women in accessing the right care in the right unit and, in turn, offer and enhance the choices and opportunities available to them.

Local Policy Links

Our Local Maternity System Plan links with, and is influenced by, other plans/strategies:

Worcestershire Health and Wellbeing Strategy	**http://www.worcestershire.gov.uk/download/downloads/id/7051/joint_health_and_well-being_strategy_2016_to_2021.pdf**
Herefordshire Health and Wellbeing Strategy	**https://www.herefordshire.gov.uk/download/downloads/id/3677/health_and_wellbeing_strategy.pdf**
Herefordshire and Worcestershire Sustainability and Transformation Plan (STP)	**http://www.hacw.nhs.uk/yourconversation/the-plan/**
Worcestershire Early Help Strategy	**http://www.worcestershire.gov.uk/download/downloads/id/8060/early_help_in_worcestershire.pdf**
Herefordshire Early Help Strategy	**https://www.herefordshire.gov.uk/info/200227/support_for_schools_and_settings/245/education_in_herefordshire/6**

Herefordshire and Worcestershire Local Digital Roadmap	**https://www.herefordshireccg.nhs.uk/who-we-are/publications/strategies-and-plans/sustainability-and-transformation-plan/1240-herefordshire-and-worcestershire-local-digital-roadmap**
Worcestershire Being Active at Every Age **Physical Activity Plan**	 Worcestershire being active plan.pdf
Reducing harm from drugs and alcohol	 The Reducing Harm From Alcohol At All Ac
Worcestershire Children and Young Peoples Plan	http://www.worcestershire.gov.uk/cypp
Safeguarding Strategies	http://www.worcestershire.gov.uk/info/20377/safeguarding_children
Herefordshire Safeguarding Children Board Neglect Strategy 2017 – 2019	 neglect-strategy-v8-final-26-06-17.pdf
Worcestershire Good Mental Health and Wellbeing throughout life action plan	 Good mental health and wellbeing throug
Healthy Child Programme 0-5	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/167998/Health_Child_Programme.pdf

The LMS Board Terms of Reference (Appendix 1)and reporting lines of accountability have been ratified by all provider organisations, commissioning organisations and the Local Authorities through their executive team, Board or governing body.

We are actively working with the West Midlands Clinical Senate, Southern Midlands Maternity and Neonatal network, the Midlands and East Maternity Alliance and Local West Midlands maternity and

new-born alliance. The LMS is also actively participating in research through CLAHRC WM [the west midlands collaborations for leadership in applied health research and care] Place of Birth.

3.5 Alignment STP

The LMS is a key workstream within the Herefordshire and Worcestershire Sustainability and Transformation Partnership (STP) plans and provides regular highlight reports to the partnership board for review and assurance. The LMS plan harnesses the STP core priorities of:

- Maximise efficiency and effectiveness
- Prevention, self-care and promoting independence
- Developing out of hospital care
- Establish clinically and financially sustainable services

The plan also aligns to the STP key objectives in a number of ways, including:

- To establish sustainable services through development of the right networks and collaborations across and beyond the two counties to improve maternity services;
- To provide more care closer to home;
- To provide equity of access across the footprint, whilst personalising care to meet individual need;
- To embed at scale delivery of evidence based prevention interventions across the health and social care system, achieving population behaviour change, and improving health outcomes;
- To embed prevention using the four STP prevention key delivery platforms; digital inclusion, social prescribing, making every contact count (MECC) and behaviour change programmes. If these are implemented at scale, there will be an impact on demand and outcome improvement.

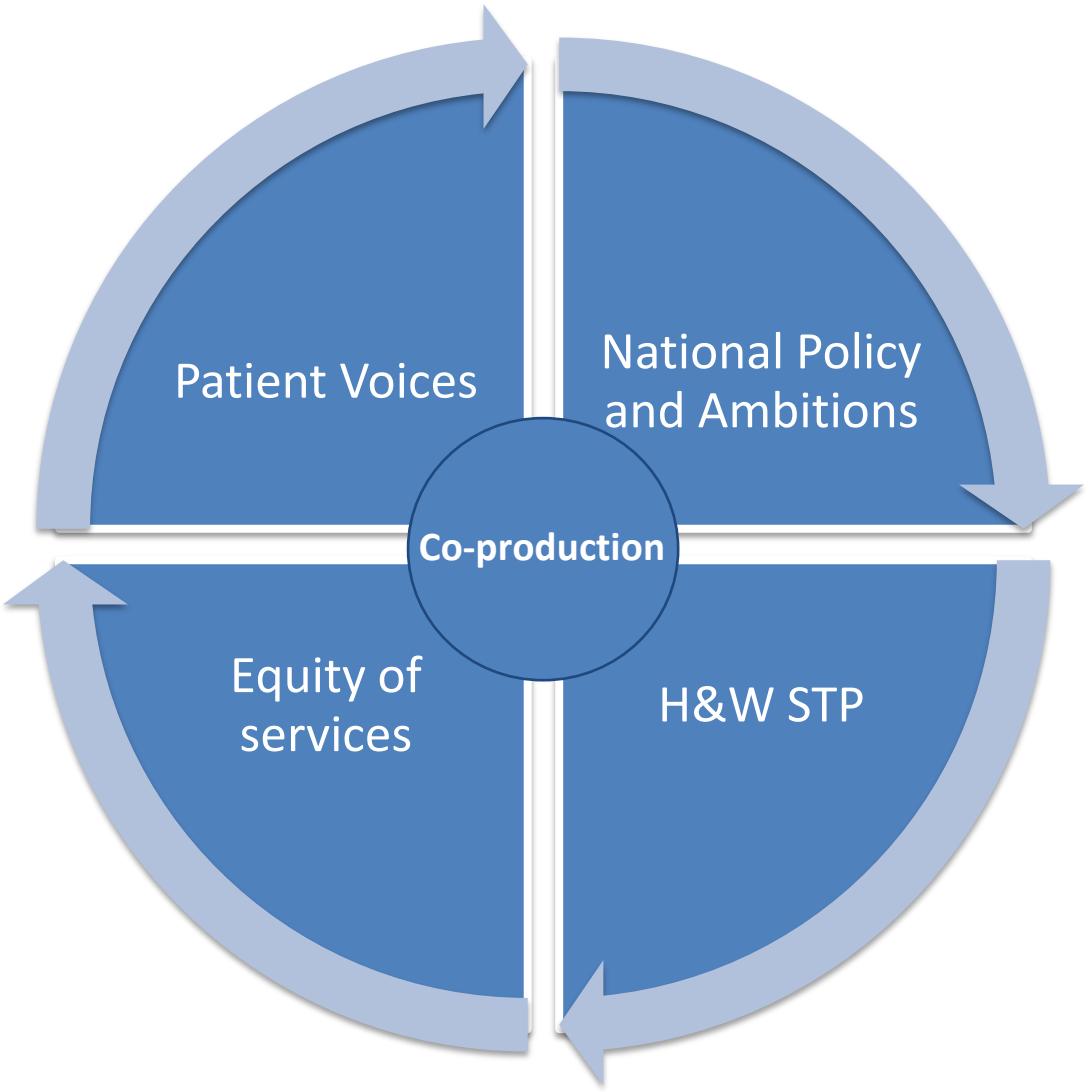
The LMS is supported by the STP through the STP Communications and Engagement workstream, Information Technology workstream and Organisational Development. The Herefordshire and Worcestershire STP has identified a Communications and Engagement Lead for the programme in order to ensure co-production with local women and our workforce takes place every step of the way.

In order to ensure there is consistency and joint working across the STP the LMS Consultant Lead regularly attends the STP Board and inputs into the other workstreams developing collaborative relationships. For example in STP workforce discussions, joint roles for obstetricians and gynaecologists, and paediatrics and neonatology are being discussed in relation to the maintenance of level 2 networked care and training of generalist to continue to support rural units. In the STP elective care and primary care workstreams, fertility care and management plans are scheduled to be discussed following our commissioned service specification being published.

4 Why is this plan needed?

4.1 Key drivers

Diagram 2: Key Drivers for local change:



These four elements are the key drivers behind the development of our LMS Plan and are instrumental in ensuring that the system embraces a more collaborative culture with newer ways of working, across the system, and true co-production at the centre of everything we do.

Patient Voices

Listening to local women and their families is a key driver to transforming maternity systems across the system. Significant work has taken place across the footprint in recent years to improve maternity services ensuring that they are safe and sustainable. By building on these foundations and listening to our local communities we can ensure that our model of maternity and new born services provides local women with meaningful choices, tailored to their individual needs and delivered safely as close to home as possible. Co-production with women is key to ensuring that our maternity transformation meets the needs of our local women.

Patient voices have been paramount in the development of this plan and will continue to be a key driver through further development, implementation and evaluation.

National Policy and Ambitions

The national vision for maternity services is for them "to become safer, more personalised, kinder, professional and more family friendly; where every woman has access to information to enable her to make decisions about her care; and where she and her baby can access support that is centred on

their individual needs and circumstances". Achieving this national vision is a key driver of the LMS and its plan.

In order to achieve this the LMS will plan to deliver the recommendations of:

- Better Births, National Maternity Review. NHS England (February 2016)
- Saving Babies Lives. NHS England (March 2016)
- Maternal & Newborn Health Safety Collaborative. NHS England (December 2016)

As well as:

- To achieve the Secretary of State's national ambitions to reduce stillbirths, neonatal death, maternal deaths and neonatal brain injury as well as pre-term births and smoking at time of delivery;

- Implementing the recommendations from the Marmot Review (2010) and the Annual Report of the Chief Medical Officer, Our Children Deserve Better: Prevention Pays (2012) which states that the health and nutrition of expectant mothers is critical to the physical, emotional and intellectual wellbeing of their unborn babies, both pre and post birth.

Herefordshire and Worcestershire Sustainability and Transformation Partnership (H&W STP)

As highlighted in section 3.5 above, our LMS plan forms a key workstream within the Herefordshire and Worcestershire Sustainability and Transformation Plan. As such, the LMS plan has been developed with our local STP core priorities in mind, ensuring that 'our citizens have access to high quality, safe and sustainable acute women and new-born/neonatal and mental health services localised where possible and centralised where necessary.

The LMS provides regular highlight reports to the H&W STP Partnership Board and members of the Board also sit on the LMS Board. Regular communications also take place with the other workstream leads in order to ensure consistency across the footprint and to benefit from joined up working. Through this close contact, potential economies of scale can also be achieved by linking with other services for families across the STP footprint; this is particularly important for the development of the Community Hubs.

Clinical Variation

Maternity services across the LMS are delivered by four separate providers, each with different models of care provision. More importantly, outcomes for both women and babies differ across the footprint and women's perceptions of care can also differ. A key driver for change is to ensure that there is equity of service across the system and to ensure that all women can access the highest standards of services localised where possible and centralised where necessary.

During the analysis of the public health data and baseline work it is apparent that there is also a need to improve performance across the LMS as it is an outlier against national norms for range of public health, maternity and neonatal outcomes.

4.2 Financial Case for Change

The Herefordshire and Worcestershire STP clearly sets out the huge financial challenges which all services face over the next five years. In addition, there is recognition of the need to invest in priority services to ensure their sustainability and improvements in health outcomes. The STP identifies a proposed increase of £1m in expenditure for maternity services by 2020. This will largely accommodate the increases in the population as well as improvements required to achieve national and local targets.

At this stage in the development of the plan, an initial evaluation of existing expenditure has been completed (see section 9). It has been agreed within the STP that any maternity and newborn efficiency savings achieved will be reinvested into maternity and newborn and services. However, further analysis of the current expenditure and capacity planning will be required to ensure the proposed clinical model will be affordable and deliver value for money. In addition to the modelling, it would be helpful to undertake analysis of coding of care and recharging of cross border care to ensure we have sufficient financial flexibility to ensure women are able to choose their place of care.

The STP Partnership Board agreed that the maternity and neonatal vision could only be met if any savings created through the plan be reinvested in to the emerging workforce plan.

5 Developing Our Plan

We recognise that communications and engagement with service users, their families and staff are key to driving and producing our LMS Plan and should be undertaken at every stage of the process. Understanding local women and their families' experiences is key to ensuring the LMS delivers quality, effective and safe services. Engagement with service users and staff has and will remain at the forefront of the development of this plan.

5.1 Public Health Data

During the early stages of the LMS planning the two Local Authorities provided Public Health data across the LMS which determine and influence fetal and maternal wellbeing based on the national priorities. From this data the LMS undertook an analysis to identify trends and to establish priority areas of focus. A summary of this data and analysis is listed below. The full data set can be found in Appendix 2.

	Year	LMS	England	Notes
Smoking in Pregnancy (percentage of women who are known to be smokers at time of delivery)	2016/17	11.7%	10.5%	Across the LMS the percentage of women smoking at time of delivery (SATOD) is significantly higher than the national average.
Breastfeeding initiation (% of mothers who breastfed their babies in the first 48 hrs post delivery)	2014/15	69.5%	74.3%	Across the LMS breastfeeding initiation rates are significantly worse than England. Of those women that begin Breastfeeding the proportion of mothers who continue for at least six to eight weeks after birth has increased over the last 3 years. Breastfeeding rates are the lowest amongst young mothers particularly from deprived areas
Obesity (percentage of women who were classed as obese at time of booking appointment)	2016/17	22.3%	20.0%	This is linked to areas of deprivation. The most recent data for deliveries during 2015/16 shows the discrepancy in health levels across deprived areas. This is a consistent pattern over time. Public Health data suggests that the overall percentage of pregnant women who are obese is increasing over time across the LMS

Teenage Conceptions (number of conceptions per thousand females aged 15-17)	2015	15.8	20.8	The LMS has teenage conception rates which are significantly lower than England. Under 18 conception rates are generally higher in more deprived areas particularly Worcester City, Redditch Districts, North Leominster and South Wye.
Caesarean Section (C/S) as a percentage of total deliveries	2015/16	29.40%	26.30%	The percentage of Caesarean Sections across the LMS are statistically significantly higher than the national average in 2015/16. Across the LMS caesarean section rates have been higher than England since at least 2008/09. Locally provided data have shown a fall in C/S rates in 2016/17.
Neonatal Death: Deaths of infants aged <28 days per 1000 live births	2013-15 (3 years pooled)	3.4	2.7	In 2015 the LMS had a combined crude Stillbirth and Neonatal death of 6.43. This puts the LMS in the lowest quartile. This figure has been used as the bases to form our systems trajectories to achieving the SOS 20% reduction by 2020.
Stillbirth (rate per thousand births)	2013-15 (3 years pooled)	4.9	4.6	
Perinatal Mortality (rate per 1000 births)	2013-15 (3 years pooled)	7.4	6.6	The LMS has a higher Perinatal Mortality Rate (PMR) than England. It has been noted that the PMR has been rising across the LMS and will be carefully monitored.
Maternal Death (directly standardised rate per thousand females aged 15-44)	2012-14 (3 years pooled)	0	0.39	More recent data from the LMS acute providers has been provided that identifies that since 2015 there have been 2 maternal deaths across the system.
Prematurity (premature live and stillbirths per 1000 total births)	2013-15 (3 years pooled)	91.6	78.4	The LMS has a statistically significantly higher rate of premature births (less than 37 weeks) than England, which appears to be increasing. The LMS recognises that there is a significant clinical variation in Worcestershire and reasons behind these will be explored as part of the plan.
Low birthweight (percentage of all births where baby is born with a birthweight <2500g)	2015	8.2%	7.4%	The percentage of all live births at term (at least 37 weeks) with low birth weight is below national average across the LMS. This suggests that there is a larger proportion of low weight preterm babies than nationally and this is most prominent in Worcestershire.

The public health data identified that the LMS had higher than average levels of maternal risk factors such as smoking, obesity, mental wellbeing, low breastfeeding initiation and higher than expected still born and neonatal crude mortality rate. As well as a higher than expected level of both prematurity and low birth weight. Although the local cause is unknown nationally, these are linked to the management of diabetes, obesity, growth retardation linked to smoking and obesity and the management of multiple pregnancies.

The cause of stillbirth and neonatal death are both nationally linked to:

- prematurity
- maternal age of the mother
- smoking
- obesity
- deprivation
- drug and alcohol abuse
- clinical variation and understanding
- lack of continuity of carer
- poor breastfeeding initiation

It can also be linked to poor uptake of care engagement, family and mothers' knowledge and uptake of immunisation, environmental issues and housing as well as language barriers.

The LMS data shows that our LMS has:

- Higher than average smoking at booking and variations in available services across the LMS
- A Polish speaking population who is hard to reach
- A transport-deprived rural population
- A higher than average obese population
- Higher than average older mothers delivering
- Clinical variation in clinical teams
- Lower than national average breastfeeding initiation but above average breastfeeding at 6 weeks
- Above average diabetes
- Above average depression rates amongst the population

From this work it was identified that a number of key risk factors would need to be addressed and improved as part of our LMS plan. In particular these were around smoking, maternal obesity and breastfeeding initiation. Specific actions for improving these risk factors have been included in the project plan that can be seen in Appendix 3. In order to drive forward these initiatives it was agreed that outcomes for these areas, and others, would be regularly reviewed through our LMS dashboard and as key outcomes in the joint maternity services specification.

Trends in alcohol and substance misuse in pregnant mothers across the LMS were discussed and highlighted as part of the Public Health Dataset. It was agreed that the numbers of women being referred to these services were very low and fell below the national rate. It was therefore felt that the national priorities for drug and alcohol were not a major issue for the local footprint. Drug and alcohol treatment pathways will be considered as part of the systems plans, in order to ensure consistency and equity of services across the footprint, but are not considered a key priority.

As part of this work we also analysed our baseline for achieving the Secretary of State's ambition to reduce stillbirths, neonatal and maternal deaths and brain injuries by 20% by 2020 and by 50% by 2025. This baseline data was used to develop trajectories for delivering these aims that can be seen in table 2. These key deliverables also form a key part of our project plan in Appendix 3.

5.2 Gap Analysis

A gap analysis was also undertaken to fully understand the recommendations set out in Better Births and other national documents. A summary of the gap analysis is provided in Appendix 4.

This work identified that there were a number of gaps across the LMS and that ensuring these were met would form the main basis of the LMS Plan. The main gaps highlighted were around:

- Personalised Care
- Choice
- Continuity of Care
- Community Hubs
- Health and Wellbeing - smoking and obesity and identification of social risks
- Better perinatal Mental Health Services
- Safer Care

Personalised Care

The Better Births recommendation is that the maternity system provides personalised care that is centred on the woman, her baby and her family, based around their needs and their decisions, where they have genuine choice, informed by unbiased information. This includes:

- Women being able to develop their own personalised care plans
- Women receiving unbiased information
- Women being able to choose the provider of their antenatal, intrapartum and postnatal care
- Women being able to fully discuss the benefits and risks associated with the different options for place and type of birth

Currently, across the LMS, care planning is led by the lead professional with women's input. A cultural shift needs to take place to empower women to take charge of their own care planning. This work is in its very early stages but progress has been made, for example, a number of midwifes have agreed to participate in validating a research project called 'Place of Birth' rolled out by CLAHRC-WM aimed at providing unbiased information to women. It is planned that this training will be rolled out to all community midwives.

Choice

Better Births recommends that women should be offered options for their place of birth including home births, in a midwifery unit or at hospital. Currently the LMS offers home births, an alongside midwife-led unit and consultant led births. It is recognised that this offer could be increased to include standalone units in neighbouring providers.

Continuity of Carer

Continuity of carer is recommended in Better Births as a way of ensuring that the care women receive is based on a relationship of mutual trust and respect in line with women's decisions about their care. The key recommendations are that:

- Continuity is provided by small teams of four to six midwives throughout pregnancy, birth and postnatally
- Teams have a relationship with an identified obstetrician to ensure ease of consultation/referral and an understanding of their service
- Care is joined up in the community through the provision of community hubs

To aid us in understanding the levels of continuity we currently offer, the LMS undertook a survey of case notes baselining what continuity of carer we currently achieve. The survey highlighted that the LMS currently achieves 52-67% continuity of carer ante-natally and this falls to less than 7% postnatally. The survey of case notes also highlighted that for women who home birth (around 1% of births) the LMS still does not achieve the 70% continuity.

Our Maternity Voices Partnerships supported this view feeding back that women often felt that, particularly during the postnatal period, there seemed to be no consistence and a variety of midwives were seen.

Currently the LMS has a community Hub up and running in Kidderminster and this was evaluated in November 2017. The evaluation highlighted the great work taking place within the Hub, particularly with regards to achieving the better births recommendations. Plans are in place for the community Hub model to be rolled out across the LMS. Hubs have recently been established in Evesham and Redditch with new ways of working in an early phase of development. Plans for future Hubs are in place for Leominster and Bromsgrove and are due to be implemented in 2019/20. An evaluation will take place of all the Hubs in 2020 to identify if further Hubs are required. Possible locations have been identified in Malvern and Ledbury and Equality Impact Assessments will be undertaken to assess viability and need.

Health and Wellbeing

The Saving Babies Lives care bundle is designed to tackle stillbirth and early neonatal death. It brings together four elements of care that are recognised as evidence-based and/or best practice:

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

Currently smoking cessation is commissioned by the Local Authorities and cessation services are delivered in a variety of ways through pharmacies, apps, CO_2 monitoring and referrals for on-going smoking cessation. Midwives and health visitors are trained in Making Every Contact Count (MECC). Currently midwives, on making contact, establish a smoking history and undertake carbon monoxide testing. This is recorded and smoking cessation service referrals are made to a range of commissioned providers who will do home visits or make telephone contact. To support this, some midwives have had additional training in delivering Baby Clear, an additional risk perception intervention program for women continuing to smoke through the pregnancy. Parts of the LMS also offer a Behaviour Change service to women where the midwife can refer women for support for lifestyle change. This has proved helpful in all aspects of improving women's health and wellbeing.

In order to understand the problems and reasons why our LMS smoking at delivery rates remain high (above the national rate) a baseline audit of notes for 400+ deliveries was undertaken in Worcestershire in April 2016. This identified that less than 50% had been CO breath tested during pregnancy, of those that smoked (13%), only 55% were referred to a stop smoking service and only 13% quit. Also, 23% reported second hand smoke at home.

Interventions exist across the LMS but further research is required to understand why women are continuing to smoke during pregnancy and why the LMS rate remains high.

The LMS currently has a scanning skills deficit and more work needs to be done to workforce and training plans to support increased ultrasound training. The LMS capital plans must also support increased purchase of ultrasound equipment.

The LMS has access to a variety of resources and digital tools to support healthy weight and can signpost to a variety of weight management programmes that are available within the wider community. There are no specific services targeted at pregnant women. Midwives currently weigh women on first meeting them and they assess the women's BMI. The woman is then risk assessed but if the BMI is greater than 30 she becomes high risk and is seen in additional clinics and has serial scans. We know that obesity in mothers leads to an increased chance of fetal mortality and more needs to be done to combat this.

Better perinatal Mental Health Services

On perinatal mental health, Better Births calls for significant investment in perinatal mental health services in the community and in specialist care and strongly supports the recommendations contained in the recent Mental Health Taskforce report; in particular that each year at least 30,000 more women across the country should have access to evidence-based specialist mental health care by 2020/21.

There is currently a significant variation in services available to women for perinatal mental health. Currently, help is available for high-risk/moderate women in some areas of the LMS but there are no defined pathways for self-help and low morale/previous history. The LMS recognises that mental health is the largest cause of maternal death and it must commission a full service for any women who need help or support across the LMS.

Safer Care

Better Births states that the focus should be on culture, learning, reviewing data and good communication in order to improve safety. The need for openness, honesty, good review and learning processes and joined up working are all highlighted and are also key themes throughout the Saving Babies Lives care bundle and the Safety Collaborative. The key themes are:

- Women should be informed of risks and be supported to make decisions and lifestyle change
- Rapid referral protocols between professionals and across organisations should ensure that women and babies should have access to more specialised support when they need it
- Professionals should learn, train and work together in multi-professional teams
- Teams should routinely collect data on quality and outcome measures
- Boards should promote a culture of continuous learning and improvement, routinely monitor information on safety and quality and appoint a board level champion for maternity services
- Providers should work together in Local Maternity Systems in order to ensure that services both meet women's choices and are as safe as possible
- Serial scanning and providing care as close to home as possible

Currently, governance systems are in place to identify variation and reduce harm. Lessons learnt are discussed at provider level but themes continue to recur. There is a real need across the LMS to share and challenge more. There needs to be more multidisciplinary learning which involves families.

The LMS will be exploring rolling out an electronic review system to create uniformity of data capture and professional challenge across the sites. Currently providers have their own maternity dashboards and work is planned to create a joint maternity services dashboard, joint neonatal dashboard, shared risk registers and joint mortality and morbidity meetings to share common errors and find common solutions, as well as share good practice and learning.

Serial scanning to monitor growth is led from the hospital DAU. There is an appetite to provide this facility within the community Hubs if funding can be sourced.

In order to deliver the safety improvements, both acute provider trusts have joined the National Safety Collaborative; assigned Board Safety Champions and have been allocated to wave 3 for developmental support which will start in March 2019.

5.3 Governance

Appendix 5 illustrates the governance that has been implemented to oversee the development and implementation of our Local Maternity System plan. The Local Maternity System (LMS) Board was established in March 2017 to provide leadership to improve experiences and outcomes in maternity services across the system. This includes the spectrum of care from pregnancy through to the immediate postnatal period as encompassed through Better Births.

The LMS Board is the forum through which all maternity leads come together, along with patient representatives and other key stakeholders, to share knowledge, learning and best practice as well as develop collaborative relationships particularly where there will be benefit in working across boundaries that more accurately reflect patient flows. The LMS Board embeds true co-production with women and joint working as its key foundation in order to achieve increased efficiency, reduced variation and support the local maternity systems to provide high quality, safe and cost effective care.

All provider organisations, commissioning organisations and the Local Authorities have ratified the terms of reference and reporting lines of accountability through their Executive Team, Board or Governing Body. The Maternity Voices Partnership and Women and Family Support organisations have been involved in the development of the LMS. Patient groups and patient advocates have approved the development of the LMS and the proposed ways of working.

The LMS reports to the STP and maternity alliance as described in the governance structure. The STP receives quarterly updates against the project milestones and the Board has had two presentations from the LMS project lead.

The project lead is also a member of the rural LMS and digital networks.

Every provider and commissioning organisation has adopted a personalised governance model based on the model in Appendix 5. The outside line demonstrates the relationship with the alliance and the Maternity Transformation Board whilst the other arm represents the relationship with the STP.

Each organisation has personalised their organisational reporting/governance through the centre as described. The LMS Board has been assured that each organisation has approved the governance structure.

The STP Board is the accountable authority, with devolved authority to the LMS Board, who are responsible for delivering the improvement trajectories on objectives embedded in the Secretary of State's ambitions by 2020 and by 2025.

The LMS Board has three workstreams: Clinical Transformation and Governance, Non-Clinical and Experience and Choice, and receives regular updates from these and it will receive feedback from the Clinical Senate and Maternity and New born Network, HEE and PHE on any National or local developments.

Information sharing

In November 2017 each provider unit presented a closed Serious Incident (SI) to the LMS Board to start a learning conversation. Subsequently, a clinical meeting took place and it was agreed that a quarterly governance meeting will take place to continue to share clinical incidents and take the joint learning through training or clinical practice change and audit. This meeting will also review and analyse trends to be able to make proactive decisions to reduce the risk of poor outcomes for women and families.

A joint dashboard is being developed using the performance data available for both organisations. The data set compares and reviews: booking before the 12th week, smoking at booking, feeding intention, measurement of weight and actual BMI calculation, any indicator of mental health or other vulnerabilities or social risks, mode of delivery, patient satisfaction and delivery outcome. This data will complement the national data set submission. Other quality indicators will be identified through patient surveys, workforce barometers, complaints and educational evaluations.

Complaint responses will be completed in 20 days and SI and comprehensive reviews will be completed in 45 days to allow commissioner sign off and discussion. More importantly, the LMS recognises this is a rich source of information and learning to be able to improve the care for women and families.

The new MBRRACE national audit collection tool for reviewing stillbirth and perinatal mortality was launched in January 2018. Our LMS has been preparing for this throughout 2017 by adopting the local SCOR (standardised computer outcomes review) methodology and training. It is, therefore, in the LMS plan to move to the MBRRACE system and process by March 2018. This will also support our ambition of achieving a reduction of 10% in litigation premiums. This annual audit and data collection process will be a key plank of developing our LMS governance framework as it will bring clinical challenge, peer review discussion and debate. It will also identify variation and cultural norms which we know we will need understand to establish joint learning and sharing. Bi-annual joint Mortality and Morbidity meetings have been established for the LMS with local monthly meetings held at each provider.

A summary of case presentations will be shared with staff at perinatal and morbidity meetings.

The LMS maternity and neonatal dashboard outcome measures will be monitored at the LMS Board as well as forming part of each organisations governance framework.

When a suspected brain injury level 2 or 3 occurs, each organisation will notify their legal department who will inform the NHS early resolution scheme within 14 days. Duty of candour will form part of the parental discussion and a comprehensive or serious incident review will take place. This will involve the family and any care aspects they wish to understand will be included in the terms of reference.

To ensure we learn together, the consultants will review clinical cases from each organisation either as part of the investigation, through SI meetings or in mortality and morbidity meetings. This methodology has been adopted to encourage clinical challenge among two relatively small groups of clinical staff.

Workstreams

On review of all the data and analysis undertaken above, it was agreed that the LMS should have six key areas of focus around:

- Good experience and choice – Personalisation, Choice and Continuity of Carer
- Improved patient safety

- Good Health and Wellbeing – Mental Health Services and reduction of risk factors
- Reduced morbidity and mortality
- Finance, Performance and Commissioning
- Workforce and Training

The LMS board assessed the requirements within each of these themes and agreed that the work would be divided and lead by three workstreams. These workstreams would be responsible for overseeing the specific actions and objectives, required under each theme, through smaller Task and Finish groups. Each workstream would be represented on the LMS Board and would provide regular feedback. The three workstreams are:

- **Experience and Choice** – Led by Maternity Voices Partnerships
- Clinical Transformation Governance – **Safety**, **Health and Wellbeing, reduced morbidity and mortality**
- Non-Clinical – **Finance, Performance and Commissioning**, **Workforce and Training**
- **Experience and Choice Workstream**

The experience and choice workstream is led by the Maternity Voices Partnerships and concentrates on researching what local women want from personalisation, choice and continuity of carer and how we can all work together to achieve this.

A consultant midwife has recently been appointed to lead two key pieces of work to identify what women want and understand from personalisation and continuity. The national team are working on continuity models and our consultant midwife is a member of this working party. The discussion, locally, with women has looked at the employment of doulas, volunteer support in village communities to help with shopping or transport or independent midwives to have a home birth in isolated communities. This workstream will feed into all the work being undertaken in the other two workstreams and ensure that patient voices are listened to throughout the development, planning, implementation and evaluation of this plan.

Clinical Transformation and Governance Workstream

The Clinical Transformation and Governance Workstream will drive the development of clinical pathways using the maternity and neonatal networks clinical guidance as the bench mark of best practice. This work will be supported by public health to identify pathways and interventions to tackle obesity, smoking, alcohol and drugs, poor mental health and support families at risk. This workstream will focus on the core objectives around safety and improving maternal health and wellbeing. In order to achieve the objectives and priorities within these themes the workstream will establish a number of smaller Task and Finish groups including:

Task and Finish Groups	Year to Commence
Birth-rate Plus	2017/18
Shared governance learning	2017/18
LMS Dashboard development	2017/18
Continuity of Carer HEE pilot	2017/18
Saving Babies Lives – transformational bid submitted	2018
Promoting Healthy weight	2018
National neonatal screening targets (NIPE)	2018/19
Information governance protocol development	2018

MBRRACE national data collection to be adopted	2018/19
Breastfeeding Initiation and support in the community and Hubs	2018/19
Amniocentesis pathway	2018/19
Fetal Cardiac Scanning	2018/19
Extending cardiac antenatal clinics within the LMS	2018/19
A-equip LMS model	2018/19
Single Point of Access	2018 to 2020
Vulnerable women/families at risk	2018 to 2021
Developing new pathways for neonatal jaundice in the community	2018 to 2020
Developing new ways to support babies in the community with weight loss greater than 10%	2018 to 2020
Antenatal Hub development	2018 to 2020
Ultra-sound scanning training	2018 to 2020
Postnatal maternal and neonatal care in Hubs	2018 to 2020
Smoking Cessation	2018 to 2020
West Midlands Maternity and Neonatal Network clinical pathway roll out	2018 to 2021
Identification reasons for high prematurity rate	2019
Delayed booking place of birth	2019/20
Pre-conception health awareness and self-care	2019/20
Neonatal pathways – transitional care and outreach development	2019/20
Sudic/co-sleeping - To review pathway and interventions of front line staff accompanied by social marketing	2019/20
Mental Health Pathway development and support	2019/20

Audit and risk; training and education will also be key areas of work within the workstream. Initially the LMS will use the national audit material and formulate action plans to develop working together. The MBRRACE report of 2014/15 will start this process.

Non-Clinical Workstream

This workstream will develop all aspects of non-clinical care relating to maternity and new born services across the system. Establishing a joint service specification will be a key area of focus for the workstream as this will form the key driver of change for the LMS setting out workforce specification of births to midwives, standards of clinical practice and outcomes. This work will be based on the national specification but localised to meet the needs of the health of local women, babies and their families.

The group will also lead a financial sub-group reviewing tariff and ensuring the women are uniformly allocated to the correct clinical pathway.

Workforce will also be a key theme within this workstream and links with the university will be established to ensure student numbers meet demand and that changes in the curriculum produce midwives with the skills needed in the workplace. Bespoke work will be developed to review capital equipment costing's and requirements.

The workstream will also work closely with the Maternity Voices Partnerships to review the siting of the community Hubs. This will be modelled on patient flow and how the Hub plans to support the other workstreams within the local STP plans.

6 LMS Communication and Engagement Strategy

The LMS communication and engagement strategy will be integrated within the STP engagement strategy and part of all of the individual organisations who are working together for improved outcomes for mothers, babies and families.

A draft Communications and Engagement Strategy is available in Appendix 6.

Stakeholders

A short exercise in stakeholder mapping was undertaken in the initial phases of the LMS Board planning. The following stakeholders were identified as being integral to the development and co-production of the plan and have been invited to be members of the LMS Board:

- Maternity Voices Partnership Chairs/service users
- Worcestershire Acute Hospitals NHS Trust
- Wye Valley NHS Trust
- Worcestershire Health & Care NHS Trust
- West Midlands Ambulance Service
- Public Health England
- Worcestershire Clinical Commissioning Groups
- Herefordshire Clinical Commissioning Group
- NHS England
- Health Education England
- NHSE Specialised Commissioning
- University of Worcester
- Healthwatch Herefordshire
- Healthwatch Worcestershire
- Worcestershire County Council
- Herefordshire Council

Other stakeholders have also been identified such as local charities, NCT groups, support groups etc. and these are invited to sit on the Maternity Voice Partnership Forums.

Regular communications will be made to all stakeholders through a variety of mediums including:

- Regular stakeholder briefings
- Social Media
- CCG and Trust websites
- Worcestershire Mums Nets
- Local media

Engaging women and their families

Local women and their families play a vital role in the development, implementation, delivery and evaluation of our LMS and plans. We have engaged women in the development of this plan from the onset, through social media surveys; an online survey; workshops; smaller working groups; representation on the LMS Board and through participation in our workstreams.

Service Users designed our LMS logo which is now included on all our meeting papers and templates and is widely recognised amongst our partners.

The LMS currently has two established Maternity Voices Partnership groups, one in Herefordshire and one in Worcestershire. Both forums have been formed from the previous Maternity Service Liaison Committees. The Maternity Voices Partnerships meet on a quarterly basis and run small workshops in between their meetings as well as virtual groups and surveys.

Both Maternity Voices Partnerships have active Facebook groups with a combined membership of 451 people and a total reach for all posts of just over 12,000. The groups have been instrumental in distributing surveys, collecting women's opinions and inviting people to workshops and meetings to get more involved.

Engaging our workforce

Engaging staff in the co-production and implementation of the LMS plan is vital. Staff have been instrumental in the development of the plan through their involvement in workshops, the LMS workstreams, providing feedback in meetings and via joined up working.

Currently, regular communications are given to staff through verbal updates in professional meetings, divisional updates and team meetings. A workshop took place for health visitors, midwives and GPs in July 2017 focusing on understanding the key influences of stillbirth, neonatal and maternal death and working together. A further workshop and meetings are planned for 2018.

A launch event is being planned for March 2018 that will invite representatives from all staff groups, women and stakeholders. The event is aimed at presenting the LMS plan and opening up discussions regarding how we can work together to drive forward this plan.

Development of Community Hubs

To deliver the objectives in Better Births, the LMS needed to establish the first community Hub by March 2017. This was identified and established in Kidderminster. This Hub has evolved as the women and the midwives have identified what could happen and what needed to happen in terms of service development.

To develop future Hubs, a Hub development meeting was held in July 2017. The invited audience included service users, community midwifery leaders and health visitors from both counties. This meeting allowed the community teams to hear the public health evidence to make change. The potential Hub sites were identified and models, according to dependency and need, started to emerge. Topics debated were:

- How do we improve communication around public health messages?
- How do we support perinatal mental health?
- How do we improve communication between health visiting/public health nursing and midwifery services?

The community midwifery team managers and health visitors were tasked to take the outcomes forward and to develop a further meeting in early 2018.

An evaluation of the Kidderminster Hub was undertaken in November 2017, taking into consideration the voices of women and the views of staff who work within the Hub. This evaluation will, and has already been, instrumental in developing future Hubs across the system and is available in Appendix 6.

A draft communication and engagement strategy is available in Appendix 6 with plans in place to develop a full strategy by April 2018.

The key elements of focus over the next year will be:

- Establishing regular newsletters/briefings for staff, women and stakeholders
- Staff are engaged and involved in the project , understand the key aims and objectives, and have the necessary information to become ambassadors
- Creating a website with an interactive platform to enable women to start to think about their healthy pregnancy, birth and care plans. The Maternity Voices Partnerships will be central to this development
- A launch event with all key stakeholders, representatives from all staff groups and organisations, local women and Chairs of the Maternity Voices Partnerships
- Building the Maternity Voices Partnerships membership with particular focus on the virtual groups
- Produce a four page summary of our plans
- Publish the local maternity offer

7 Local Maternity Services

Maternity Services across the Herefordshire and Worcestershire Local Maternity System (LMS) are provided through a range of NHS, local authority and third sector providers. These include:

- Worcestershire Acute Hospitals NHS Trust
- Worcestershire Health and Care NHS Trust
- Wye Valley NHS Trust
- 2gether NHS Foundation Trust
- GPs
- Social care
- Third Sector Providers

7.1 Current Maternity Services

In 2015 the LMS had 7783 Live births, based on the area of usual residence of the mother (Office of National Statistics, 2015 data). Not all births took place within the system with some women choosing to deliver in neighbouring units such as those in Gloucester, Warwick and Birmingham. Similarly some women from across the borders e.g from Shropshire, Powys and Warwickshire choose to give birth within the LMS rather than in their own counties.

Within our LMS antenatal care is provided in a variety of settings which include GP surgeries, children's centres, hospital antenatal clinics or from inpatient facilities and in some areas community maternity Hubs are becoming available. Each women will have her named midwife and she will either carry her own records or have a case record on a phone app. Care is mainly given by the midwife in the community and supported by the GP, health visitor and support services. On-line

support is also offered to develop parenting skills and healthy lifestyles. Some higher risk women will have hospital clinic appointments which may include seeing an obstetrician.

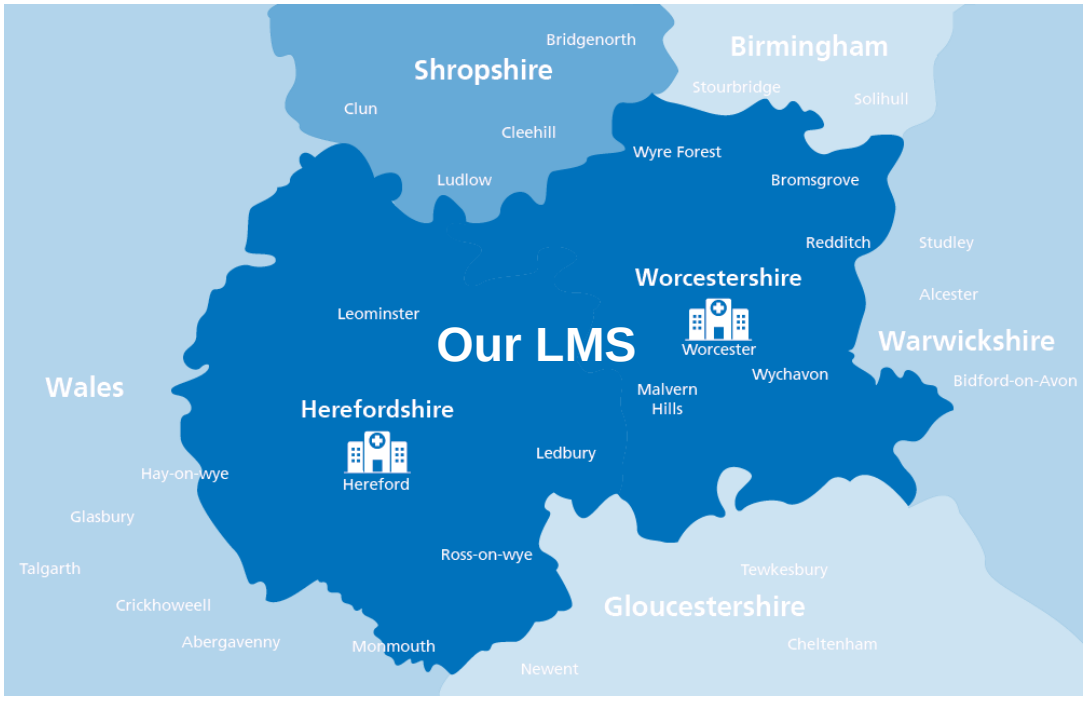
Ultrasound scanning is offered in a planned way according to the needs of the mother or the unborn baby. Universal screening is offered to mothers who are given information to enable them to make informed decisions about the impact of the screening.

A 24/7 maternity triage service is available for help and advice as well as a 24/7 community midwifery on call service. Day care is available in the two hospitals and this service will be extended to the Hubs in the future.

The LMS currently offers three choices of place of birth to women: homebirths, alongside midwife-led care and consultant care. This will be extended in the future to offer a standalone midwife-led care in Powys and Shropshire.

The LMS offers a home confinement service across the footprint to all local women. Home confinement rates have remained fairly consistent across the LMS with 102 in 2015/16 and 105 in 2016/17. The percentage of home births provided by Wye Valley NHS Trust is higher than the national average. Midwife-led care is offered across the LMS through an alongside Birth Centre at Worcestershire Royal Hospital. Women also have the option of Freestanding Birth Centre's outside of the LMS, in neighbouring provider units, at Solihull, Walsall, Sandwell, Ludlow, Bridgnorth and Powys.

The LMS has two obstetric based services: one in Wye Valley NHS Trust at Hereford County Hospital and the other in Worcestershire Acute Hospital NHS Trust at Worcestershire Royal Hospital. These are located in the map below:



Our LMS provides post-natal care following birth, at home, in the hospital, in an established community Hub in Kidderminster or in post-natal clinics booked with the community midwife.

Infant feeding support is initiated immediately following birth in the hospital or home and feeding advisers are on hand in the wards. Women and their babies are usually discharged home within 24 hours of birthing with community midwives offering on-going feeding support. It is envisaged that

the community Hubs, when established, will facilitate feeding support “day care” and it is hoped that women will create a social network to help each other, starting in the Hubs.

GPs support any medical needs mothers or babies may have after birth at home.

If a baby is born in our LMS and needs support it will be cared for by paediatricians and nurses with extended skills in neonatal care. Babies will either be cared for at mums bedside, in a unit for mums and babies or in a specialist neonatal unit. The LMS offers a level 2 Neonatal intensive care, high dependency, special care, transitional care and outreach care service at Worcestershire Royal Hospital and a level 1 plus special care unit at Hereford County Hospital.

Current feedback from women within the LMS concerning their maternity care is positive. The most recently published Friends and Family test data (July 2017) shows that, across the system, feedback from women has been consistently high and above the national average. Patient experience data is continually reviewed by the Maternity Voice Partnerships as a standing agenda item and has been used throughout the development of this plan.

7.2 Perinatal Mental Health Services

‘The impact of mental health problems experienced by women in pregnancy and during the first year following the birth of their child can be devastating for both mother and baby, as well as their families. By 2020/21, NHS England should support at least 30,000 more women each year to access evidence-based specialist mental health care during the perinatal period. This should include access to psychological therapies and the right range of specialist community or inpatient care so that comprehensive, high-quality services are in place across England.’ (Birth Trauma Trust, 2017)

Important, recent national strategies have also outlined perinatal mental health as a priority, where improvements to access and outcomes for women and families are required. These include NHS England’s Five Year Forward View for Mental Health (2016) and the maternity review report Better Births, Improving Outcomes of Maternity Services in England (2016).

Currently, there are inequalities across the LMS with regards to the provision of perinatal mental health services. Local statistics identify that just under 50% of women commence their pregnancies with varying levels of need with regard to emotional, depressive illness through to chronic disorders that predisposes them during their pregnancy and post-delivery to increased illness and poorer outcomes for their babies. It is paramount that the LMS works together to ensure that all women can receive the appropriate level of support as close to home as possible.

Currently, not all women across the LMS have access to Perinatal Mental Health services and it is one of the key aims of this plan to ensure that all women can access high quality and consistent services across the footprint. Women in Herefordshire, as this time, do not have a commissioned counselling referral pathway and no mental health referral support mechanisms. The Obstetrician and Midwives identify and monitor the mental health and emotional needs through careful assessment during planned and emergency contacts. Findings are recorded in the electronic patient record. There is no real referral pathway to psychologist or psychiatrist. Women with complex pre-existing factors often have Community Psychiatric Team support and treatment, however, those with lower level vulnerability do not. Worcestershire women, on the other hand, have access to a Community Perinatal Psychiatry Team who provide assessment, care and treatment for pregnant women and those with a baby up to 12 months of age.

The Worcestershire Community Perinatal Psychiatry Team service is commissioned to:

- Meet the needs of women with severe mental disorder in pregnancy and the post-natal period up to 12 months of the infants’ age, including those with bonding disorder.
- Screen for serious mental disorder during pregnancy and offer care to those considered high risk.

- Provide a service for the family network.
- Ensure that safeguarding is a priority and paramount; the service ensures that older children and other dependants are supported appropriately; this is often done via other services such as early help, children and family social services and the health visitor.
- Develop joint working relationships to facilitate admissions to a mother and baby unit if necessary.
- Antenatal mental health screening clinic.

The delivery of care in this service is holistic and collaborative across all services and professionals, promoting person centred care, maternal mental health and family support. This will include mother and infant bond, psycho-social and psycho-therapeutic interventions, treatment planning and extensive specialist assessments, medication and risk monitoring. Although Worcestershire has a perinatal mental health service, it is only for those pregnant women who are diagnosed with a more severe mental illness. National figures show we can also expect 10% to 20% of new mums to have post natal depression (PND) which leads to poor outcomes for mother and child and later costs across the system. The LMS plan aims to scale up the community provision, system wide, for low to moderate mental health needs

A local bid for NHSE perinatal mental health development through the STP has been developed with 2Together NHS Trust, the mental health provider in Herefordshire and Gloucestershire, and we are awaiting the national call for bids to be submitted. The LMS Board received any updates on Mental Health Commissioning for 2019/20 and how income will be in the baseline. We are working to make sure this is reflected in our project plans.

A NHSE bid was also submitted to enhance the current model in Worcestershire to ensure that the team are fully NICE concordant. This will allow the recruitment of a psychologist, OT and community nursery nursing support to cover the gaps against national guidance. The team are working towards national Royal College of Psychiatry accreditation and the achievement of a successful bid will enable the team to achieve this.

7.3 Neonatal Care

Neonatal units in hospitals specialise in the care of babies born early, with low weight or who have a medical condition that requires specialised treatment. One in nine babies born in the UK will spend at least a few days in a neonatal unit which specialises in looking after preterm, small and sick babies.

Since 2013, neonatal services have been managed within Operational Delivery Networks. Wye Valley NHS Trust and Worcestershire Acute Hospital Trusts maternity and neo natal services work in a network linked to Birmingham and Coventry: South West Midlands newborn network. The network has hospital and neonatal services designated for deliveries involving the smallest, sickest babies and women; the women and babies who need less support and those where they are well and need minimal medical support.

Heart of England Foundation Trust, Birmingham Women's and Children's NHS Foundation Trust, University Hospital Coventry & Warwick are level 3 units who care for babies less than 27weeks. Worcestershire Acute Hospitals Trust, Sandwell & West Birmingham NHS Trust are level 2 who manage babies from 27 weeks. Wye Valley NHS Trust is a level 1 plus and manages babies from 29 weeks. Warwick Hospital manages babies greater than 34 weeks and is a level 1.

A recent review of neonatal services across England and Wales recognised that there are challenges to delivery of neonatal care which are due to inadequate capacity, staffing difficulties and uncertainty over the best models of care, particularly in the immediate perinatal period. The national maternity review findings outlined how maternity services cannot be considered in isolation and are inextricably linked to neonatal services which are key in delivering optimal outcomes for

babies. The national maternity review highlighted a number of concerns linked to neonatal medical and nursing staffing numbers, staff training, the provision of support staff and cot capacity, and safety and sustainability.

An interim report by specialist commissioning has identified the opportunity to increase cot occupancy at Worcestershire Acute Hospitals Trust and use the level 1 cots more efficiently at Wye Valley NHS Trust. This objective supports our LMS plan to identify babies at risk and offer the most appropriate place of birth. Further work and improved joint working across the system is required to enable the return of babies to the unit close to home to improve families' experiences and maintain cot capacity across the network.

7.4 Whole System Approach

Maternity services themselves are only one part of a whole system approach to securing the best possible outcomes for mothers and babies. Throughout the footprint there are a set of strategies and plans which contribute to making sure that every child has the best possible start in life. For example, Health and Well-being Strategies, Children and Young People's Plans, Domestic Abuse Strategies, Drug and Alcohol Plans, and Tobacco Control Plans all set out priorities and actions. Universal services such as primary care and health visiting have an important part to play, as do specialist services such as family support; sexual health; and children and adult social care. As the LMS Implementation Plans matures, all partners will work together so that the new maternity service is built on a shared understanding and commitment across the system, and women receive the right support as soon as they need it from a range of providers.

7.5 Quality Assessment of Existing Services

During the transition from existing services and the implementation of our proposed model, it is important that safe and effective services continue to be delivered to women and they have a good experience. In order to do so it is proposed that performance indicators are regularly monitored by clinicians and commissioners. Where concerns regarding service provision are identified, for example, if medical workforce becomes insufficient to provide necessary cover to services, action rectifying concerns can be swiftly taken.

The development of a quality dashboard will be led by clinicians with input from commissioners. The dashboard will be presented to the LMS Board, STP Board and the Clinical Reference Group providing assurance that services during the transitional period remain robust.

8 Proposed Model of Care

8.1 Description of the Proposed Model

Our model is essentially based on the traditional values where childbirth is a normal event and midwives are supported by primary care, obstetricians and paediatricians working together to achieve a healthy mother and baby. The model aims to have women and families leading their care supported by professional advice.

Women and families are at the centre of our model and have been instrumental in developing the LMS plans in order to ensure that services are meaningful to them and are delivered as close to home as possible. The LMS covers one of the largest geographical areas in the country, covering 1,500sq miles. The large geographic area requires the model to be flexible and adaptable to both rural and urban challenges which include transport deprivation, poverty, seasonal employment and social isolation. To this end, the role of primary care and shared care is essential, as is linking to

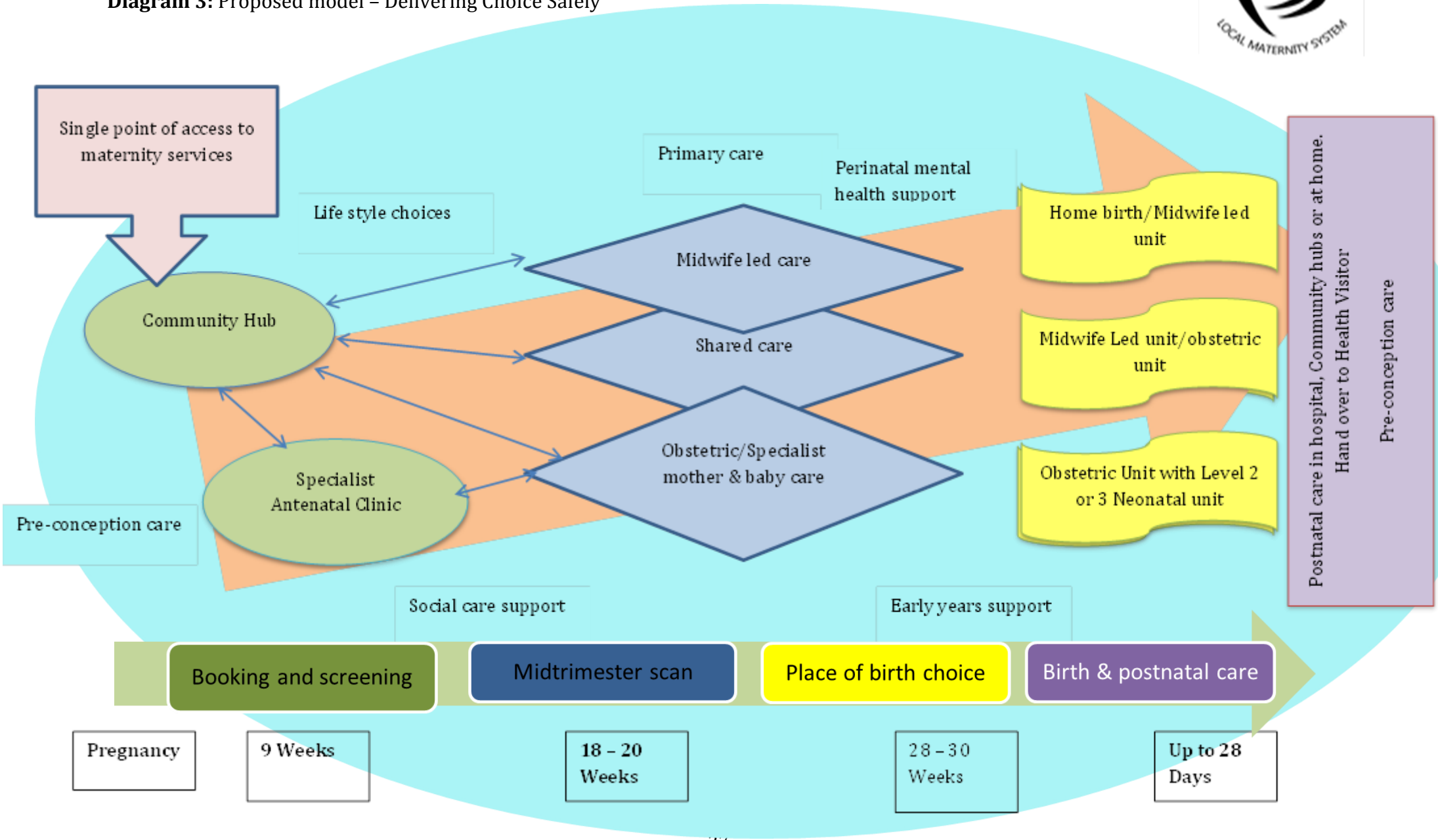
practice nursing, district nursing and the local authority support services in terms of health visiting, safeguarding, social care and social work, early help, education, childcare and schools.

In summary the basic elements of our model are:

- Locally shaped Community Hubs in a variety of locations
- A single point of access for all local women
- A range of services to deliver localised care
- A system where all women feel empowered to achieve their personal birth goals
- Choice throughout every step of the maternity pathway
- Continuity of Care based on what local women want
- Better identification of babies at risk to ensure better outcomes – right place for optimal care
- Integrated support services
- Holistic care through an integrated health and social model

Diagram 3 below gives an outline of the proposed model

Diagram 3: Proposed model – Delivering Choice Safely



Community Hubs

The Local Maternity System vision is to deliver services as locally where possible and only centralised where necessary. Current care models provided by community midwifery services are largely determined by local bases, place of work, place of home and family. In order to achieve the LMS vision local Hubs will be developed around the current bases for community midwives, where community services are already sited to ensure collaboration with primary care, safeguarding, health visitors and other support services available in the community. This will allow women and families to adapt how they access midwives and support services to suit their personal preferences. Community Hubs will be central in delivering the STP priority of prevention. The community Hubs will provide a central point through which initiatives for social prescribing and supporting behavioural changes can be delivered.

The Community Hub approach has been piloted in Kidderminster. A review of the Kidderminster Hub took place in November 2017 (Appendix 7) incorporating comments and feedback from women, their families and staff. Evaluation was extremely positive, highlighting the benefits for women and areas for further development.

Our Maternity Voices Partnership are working alongside the maternity system manager to consistently support a cultural shift from professionals acting for women to a culture of women being empowered to lead their care-planning to achieve their choices.

Kidderminster Hub

- A Hub has been established at Kidderminster Treatment centre. It's staffed by the geographical based community midwives and midwives who worked in the antenatal clinic.
- The team have a lead obstetrician who runs consultant clinics. The women are offered a variety of antenatal care options including 1st, 2nd and 3rd trimester scanning, DAU services and routine antenatal care.
- Exercise classes, weight management, parenting support, infant feeding and social events are all held in the Hub
- Postnatal drop in clinics are available as well as home visiting and clinic appointments

Feedback from women currently using the Kidderminster Hub:

"We share our problems and help each other over a coffee"

"I take my baby to a postnatal clinic as I walk and this helps me lose my baby fat and I meet my friends from ante natal"

"This service should be everywhere I have made new friends , I don't feel lonely"

"The midwives are looking for other ways they can help women but we can help each other now that we have a place and a purpose."

It is planned that our community Hubs will offer a bespoke range of services including antenatal screening, both routine and specialist, exercise, dietary advice and support, mental health outreach, health visiting, antenatal parent education, infant feeding support, antenatal and post-natal drop in clinics, scheduled antenatal and post-natal clinics and after birth counselling and VBAC service. The Hubs will become a social setting for mothers to meet, share, learn together and support each other.

Specialist disease related clinics such as diabetes, twins or multiple pregnancy, cardiology, blood and endocrine disorders will be based in the hospital centres of Hereford County Hospital and/or Worcestershire Royal Hospital.

Single Point of Access

The LMS aims to set up a single point of access across the LMS for early bookings. Research and working groups with women identified the need for Single Point of Access (SPA) and what this can offer. It is proposed that the SPA will provide women with access to early support from a midwife in a place of their choice to suit personal commitments including location of work, education, child care or home. This will aid access to information and advice on screening that should be completed by 8 weeks of pregnancy. By creating early contact, we have the opportunity to start building relationships and building early preventative care and advice around smoking cessation, smoke free families, healthy eating, folic acid intake, drug and alcohol advise and early referral to medical care for mental health care plans and joint care with diabetic, endocrinology or cardiac specialists. Early referral to social care or other early-help support will help families in need with housing and safeguarding support or family nurse partnership care. A pilot SPA has been running at Wye Valley NHS Trust and is being evaluated in January/February 2018. A report is due to be presented at the next LMS Board in March 2018.

Midwife care will be the normal booked pathway and women will need to opt out of this model if they choose to have consultant only care . The Hubs will be a base where care can be delivered to include antenatal booking and routine screening from a group of locality based community midwives with a linked obstetric consultant in each Hub. It is planned that ultrasound scanning will be offered from the Hubs by either midwives trained to do this or from a radiographer or obstetrician.

Ultrasound will be for first trimester, second trimester and third trimester. Where specialist scanning or consultant advice is required, it may need to be offered in the tertiary centre in Birmingham Women's and Children's Foundation Trust.

Empowering women

Pregnancy care plans will be developed by the women and her family and supported and informed by the locally based community midwives and, if need be, the linked or specialist Obstetrician. They will be personalised and offering choice. The midwives are completing training in giving unbiased information to ensure any personal bias does not influence women's choices. This is part of a research study led by CLAHRC-WM.

To ensure our local women are offered the widest choices in care but receive a bespoke care plan and modelling for them, we are proposing that place of birth discussions will take place later in the pathway. We want women and their families to be able to have as much knowledge about their pregnancy and health to make an informed choice. Moving these discussions to later in the pregnancy will reduce feelings of disappointment when women, who book early, are unable to achieve their birth choice.

Personalised Care planning will be led by the woman who will be able to access online resources to help start her birth plans so that they can then feel empowered to take to their antenatal appointments.

Should antenatal support be required a hospital triage service will be available to contact 24/7 or the women's locality midwife team will offer an on call advisory support service. Triage offers midwifery advice, advice to call an ambulance through 999, travel to the hospital where booked by car or stay at home and call through an agreed plan.

Antenatal inpatient beds are available across the LMS for monitoring of high risk pregnancies and induction of labour.

A joint agreement based on risk and the women's individual care needs and choices will be agreed at 30 weeks and constantly revised alongside the continual assessment and monitoring of the mother and baby`s wellbeing.

Birth discussions throughout the LMS will offer the same options of home confinement, midwife led care in an alongside birth unit, hospital based birth being midwife led and/or jointly managed with an obstetrician and midwife led care through standalone units provided outside the LMS area. Midwife one to one care will be offered during labour and delivery. Hospital services will include elective and emergency caesarean section. Pain relief will be dependent on place of birth. Delivery suite will have 24 hour access to a consultant obstetrician supported by obstetric anaesthetists.

Post-natal care will be at home, in the hospital setting and through community drop-in clinics in the Hubs. Hearing screening will be at the bedside if in a hospital setting. An oxygen saturation test will also be carried out on babies to screen for cardiac disease prior to transfer home.

Neonatal services will continue to be provided through the network with fewer babies, requiring the appropriate level of neonatal care, being exported outside of the LMS and more babies from level 3 units being transferred to level 2 or outreach. Outreach teams will be developed to pull babies out of transitional care and special care to create cot capacity and provide care closer to home.

Bereavement services will be offered across the LMS to women who have suffered a pregnancy loss.

A Summary of the future LMS Maternity pathway is described below:

- Single point of access to all maternity pathways
- Early midwifery assessment before 8th week, including screening bloods, social and medical assessment
- Ultrasound and booking bloods before 12 weeks
- Combined Test Screening (NT USS and bloods) between 11+2 and 14+1 weeks.
- If required, perform Trisomy 21 Quad Test Screening between 14+2 and 20+0weeks
- If required, perform Trisomy 21, 18 & 13
- Provide advice/information and administer Maternal Flu and Pertussis immunisations
- Pregnancy pathway risk assessment linked to referral to other services and plan of care
- Offer and Perform Fetal anomaly USS between 18+0 and 20+6 weeks
- Place of birth agreement 28-34th week with personalised care plan
- Delivery in place of choice

- Transfer home with support from the community team and drop in care opportunities in the Hub

Preconception advice

Preconception advice and care will be commenced during the postnatal period, as well as pre-pregnancy period for first time mums, to maximize the opportunity to have a healthy second pregnancy in optimal health. There is an appetite across primary care to offer more preconception advice, utilising contacts with their GP. This will mean that women of childbearing years, who seek advice from primary care, could also be directed for health screening including folic acid, weight management, haemoglobin, smoking cessation, alcohol and drug advice and review of mental health support systems and medication before planning for their first child.

8.2 Key Outcomes

The Local Maternity System (LMS) is committed to improving outcomes for women and their babies; working together to make the national "vision" a reality. This means genuine, palpable changes need to occur across the Maternity System. The key to successfully delivering improved outcomes is improving choice and personalisation of maternity services so that all women can make choices about their maternity care during pregnancy, birth and post-natally and they have a personalised care plan which reflects that choice.

A draft 'Outcomes Focussed' Maternity Service Specification supports the ambitions of the plan. This requires the providers to engage in quality monitoring of key performance indicators and innovations. The joint service specification has been co-produced with the two acute providers and commissioners and is carefully aligned with the key priorities and themes, outlined in the development of this plan.

By implementing the LMS clinical model, a number of key outcomes will be achieved across the system. A summary of these outcomes include:

- Good experience and choice – Personalisation, Choice and Continuity of Carer
- Improved patient safety
- Good Health and Wellbeing
- Reduced morbidity and mortality
- Jointly Commissioned, equitable services with a fair payment system
- An innovative and engaged multi-disciplinary workforce

Good Experience and Choice

- Will have the widest choice of maternity and neonatal services: Local where possible and centralised where necessary
- Women will receive optimal individualised care as close to home as possible
- Community Hubs will be established
- Women will receive care from a known midwife most of the time
- Women will choose their place of delivery most appropriate for them between 30 – 34 weeks and a detailed birth plan will be agreed with the midwife and/or obstetrician
- Women will be the drivers of thier own personalised birth plans recieving supportive unbiased advice from proffessionals

Improved Patient Safety

- Raised awareness of maternity safety
- All deaths will be reviewed in a standardised way with challenge from both consultant and midwifery panels
- Learning will be translated into policy or guidance changes to reduce stillbirth and neonatal death
- Less babies requiring neonatal care will be exported
- Babies from level 3 units will be transferred to level 2 or outreach
- A standardised method of reviewing deaths will have been implemented and the national statistics will be starting to shift in a positive direction

Good Health and Wellbeing

- Staff will be confident in Making Every Contact Count when providing health improvement information, advice and brief intervenions
- Breastfeeding will improve and lead to reduced perinatal mortality
- Smoking will decrease to a rate of 6% at time of delivery by 2022 and this will contribute to the reduction of stillbirth and neonatal death
- The staff in the maternity and community know how to access support for women who require mental health support

Reduced Morbidity and Mortality

- Stillbirth, neonatal death, perinatal mortality, maternal deaths and brain injuries will all be reduced by 20% by 2021 and by 50% by 2025
- Pre-term births will be reduced to 6% by 2025

Jointly Commissioned, equitable services with a fair payment system

- Will have commissioned a maternity and neonatal service delivering national specifications
- The maternity units and Hubs will have the resources to provide ultrasound to deliver care close to home
- All local women requiring perinatal mental health services will have access to a comprehensive commissioned service

An innovative and engaged multi-disciplinary workforce

- Fetal monitoring in labour will be improved
- Women will receive optimal holistic care from an excellent well trained service
- Midwives will offer a comprehensive antenatal screening service with scanning for first, second and third trimester
- Lessons learnt from stillbirtsh, neonatal deaths, maternal deaths and brain injury are translated to staff and parental guidance, policy changes and staff training will have been undertaken

8.3 Role of Other Local Services

Our Hub model described above predominately focuses on the midwifery model of care, supported by obstetricians. From listening to local women's feedback and through the evaluation of our Kidderminster Hub it is clear that there is much potential for further work in extending the model to incorporate other vital elements of care including:

- Pre Conception Services, ensuring Making Every Contact Counts is in terms of health improvement and screening prior to pregnancy and post-natally
- General health improvement opportunities focusing on smoking and obesity
- Better integration with health visiting, particularly in relation to 'vulnerable' families
- Role of primary care both during pregnancy and post-natally
- Role of other providers e.g. mental health, physiotherapy
- Role of early help, social care, safeguarding and other local authority services targeting and supporting vulnerable families
- Role of third sector and independent providers including birthing support, hypnosis, National Childbirth Trust that all contribute to the development of parenting skills and support during delivery and post-natally.

A number of task and finish groups will be established to define and develop the Community Hubs incorporating services from across the system. The Maternity Voices Partnerships will be key to leading this work.

9 Financial Analysis

The LMS have assessed the financial flows for maternity and neonatal services at a high level. The analysis has demonstrated that the current funding does not cover the costs of the services by approximately £10.5million across the LMS footprint. With the introduction of the Maternity Tariff payment system in 2014, it was acknowledged that for a maternity service to be financial viable, a single service needed to undertake at least 6,000 births per annum. Neither of the acute provider trusts within the LMS currently undertake this volume of work and the birth rate within the LMS is circa 7,000 births (2016/17). The LMS accepts that this analysis requires further work and acknowledges that this is an important and valid work stream.

The Herefordshire and Worcestershire STP made a commitment at the inception of the LMS that any financial saving realised within the LMS would be reinvested in to the maternity and neonatal services and not form part of the STP savings plan.

The review of the funding received by the two provider trusts of maternity and neonatal services has found that in 2016/17 the trusts received a total of £37,193,583 income from CCGs for maternity care and Specialist Commissioners for neonatal care. The combined spend by the acute provider trusts for both services was £47,773,139. The spend values for the trust include trust overheads, direct and indirect costs (including CNST premiums). The acute trusts have agreed to work together to ensure consistency and accuracy of the reporting.

CCGs and Specialist Commissioners fund maternity and neonatal activity outside the LMS footprint. In 2016/17, this totalled £2,573,745 for maternity care and £2,985,239 for neonatal care. Further work is required to understand the levels of activity that could be safely repatriated within the footprint and the non-clinical reasons why the work took place outside of the system. Under the current tariff system, repatriation of activity is likely to reduce the current deficit through the

management of repatriated activity at a marginal cost to the providers for which, full tariff would be generated with no additional cost to commissioners.

The review of spending for maternity and newborn care has highlighted that other services are funded separately to support care. Public Health provide a number of services for families and their financial spend for services has also been considered.

An important sub-group for the LMS is the Finance, Performance and Commissioning Sub-Group. To date this group have focused on the development of a shared Maternity Specification. The timeline below demonstrates the work plan for the group over the coming year and expected outcomes:

Activity	**Expected timeframe**	**Expected Outcome**
Agree and implement shared Maternity Specification across LMS footprint	By end of March 2018	Consistency of Commissioners expectation and trust understanding of requirements
Shared understanding of acute trust costings	By May 2018	Consistency across the acute trust providers
Review, evaluate and reach agreement of the acute provides methodology for maternity tariff invoicing out of LMS footprint	By June 2018	Consistent LMS approach to invoicing other providers for maternity tariff income
Evaluation of CCG methodology of implementing Maternity Tariff payment system	By April 2018	Provides receive the correct income for maternity activity
Further evaluation of Public Health spend across the LMS to understand the funding available in 2018/19	By April 2018	Ensure Public Health spending plans are as consistent as possible across the LMS and align to LMS plan
Evaluate the outcome of the BirthRate Plus exercise (report expected February 2018) for maternity staffing	By August 2018	A robust understanding of the expected midwifery staffing costs following clinical review of the numbers required to deliver the service
Understanding the funding implications of additional ultrasound scanning machines once the community hub models and locations are agreed and defined	By November 2018	Fully costed proposal to support the clinical need

The LMS recognises that there needs to be a significant review of their spending and is seeking ways to release funding to re-invest in the maternity and neonatal service to help realise and support the ambitions to reduce neonatal deaths, stillbirths, neonatal brain injuries and maternal deaths.

The potential opportunities identified to date to release funding for re-investment are:

- Explore retaining appropriate maternity and neonatal activity within footprint whilst not compromising patient choice
- Retaining and repatriating neonatal babies requiring Local Neonatal care, level 2, within the footprint ensuring capacity is maximised
- Explore the options for shared procurement of standard consumables between the acute trusts, buying in 'bulk' to increase the options of seeking volume discounts and reducing variability
- Explore and develop plans for shared infrastructure, where possible, to reduce overheads and increase consistency
- Reduce the CNST premiums by 10% by achieving the **'**Criteria for the Maternity Safety Strategy CNST discount'
- Develop a plan to introduce a shared nursing and midwifery recruitment process allowing staff to be recruited to the LMS footprint and saving dual recruitment costs
- Introduce a shared nursing and midwifery bank arrangement, allowing staff the freedom to work additional hours at a location of their choice and reducing infrastructure costs
- Expanding and developing the Transitional Care models of care and Neonatal outreach services to allow babies to be cared for at home with their families and release neonatal cots

These initial opportunities will form part of the priority work lists for Contracting and Finance Group once approved by the LMS Board.

The LMS is aware that Capital funding will be required to support the development of a consistent end to end, electronic maternity IT system. WAHT does not currently have this full facility and the estimated cost is circa £400k. To support patient choice and improve safety by rapid access to maternity records across the footprint, both acute providers will be required to use the same system and have equity of access. The LMS is also aware of the need to invest in high quality ultrasound machines for the community Hubs to provide care for women as close to home as possible. This will either require capital funding or additional revenue funding for lease option schemes. This work requires further development once the defined Hub plans are agreed and is within the workstream plan. Herefordshire have applied for funding to support the provision of perinatal mental health provision. If this is not successful, other funding streams will need to be explored.

The LMS have applied for transformational monies (£250k in 2018/19) to support the development of the clinical models and pathways. This work is expected to support further opportunities to release funding and the plans will be continually reviewed and revised.

Early analysis of activity volume suggests a decrease in numbers whilst seeing an increase in clinical acuity which is supported by the Public Health data around obesity, smoking and life style choices. This assumption will be tested within the Birthrate Plus exercise which will inform the future midwifery staffing projections.

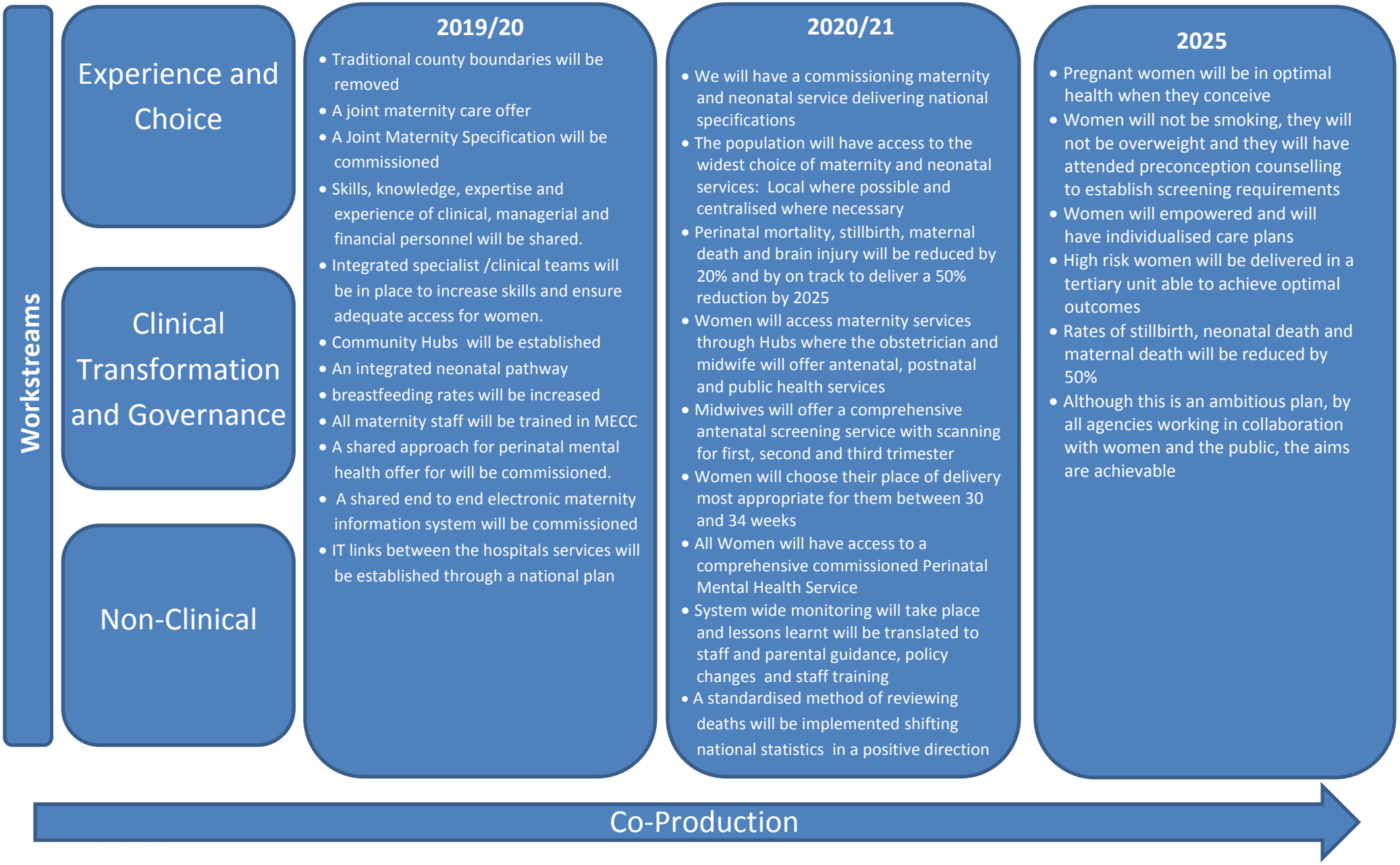
By achievement of the overall aims to improve outcomes for mothers, babies and families by reducing morbidity and mortality, the LMS will realise funding opportunities across the health economy to improve care for our families.

Although not yet an agreed objective for the LMS, the plans outlined above do support the exploration of moving towards the principles of an Accountable Care Organisation for the Local Maternity System.

10 Journey to 2021

Our journey to 2021 started with the development of our LMS Board, workstreams and our Maternity Voices Partnerships. Establishing this infrastructure was essential for moving forwards. Through engaging and listening to the voices of local women and our workforce, analysing the public health data and a gap analysis we were able to identify how our LMS was currently performing and what needed to be achieved on our journey to 2021 and beyond. The diagram below briefly outlines what we aim to achieve and by when:

Diagram 4: Journey to 2021 and beyond



In order to implement the proposed model of care a detailed project plan has been put together using the STP project management software, Verto. From the early engagement work with women and staff, public health data and the gap analysis we identified six themes which were used to inform the creation of the programme's workstreams and the detailed project plan in Appendix 3. These six themes are:

- Good experience and choice – Personalisation, Choice and Continuity of Carer
- Improved patient safety
- Good Health and Wellbeing
- Reduced morbidity and mortality
- Jointly Commissioned, equitable services with a fair payment system
- An innovative and engaged multi-disciplinary workforce

10.1 Experience and Choice

Our journey to 2021 started with engaging and listening to our local women and developing our Maternity Voices Partnerships. Listening to our patients voices is one of the key drivers of this plan and we are committed to ensuring that co-production with women and their families takes place every step of the way.

The Maternity Voices Partnerships are leading the Experience and Choice workstream and are working closely with the other workstreams within the LMS to drive through priorities and plans to achieve personalised care and to make continuity of carer a reality for local women.

Personalised Care

Personalised care is a key deliverable within Better Births. The Maternity Voices Partnership groups are leading on work to develop what local women understand and want from personalised care. Better Births states clearly that personalisation is currently being driven by professionals and organisational structures and not by the women and their families. Our gap analysis in section 5.2 supports this view and highlights the development required to achieve this national vision for personalised care across our LMS.

The LMS recognises that every woman is different and will be starting their pregnancy journey from a different place. It is essential that all women should be able to make decisions about their care during pregnancy, during birth and after their baby's birth. In order to understand what this means for local women and how we can build systems to allow women to feel that they are being listened to and leading their own birth plans, we have initiated a variety of research through the Maternity Voices Partnerships.

The provider units along with the University have jointly appointed a consultant midwife in September 2017 for two years. The post holder was asked to develop a wider understanding of women's needs from the term personalisation. To date, this research has incorporated a survey, in Appendix 8, which was approved by the STP Communications and Engagement Board. The survey has been published on the newly created Maternity Voices Partnerships Facebook social media platforms. So far, the survey has collected more than 350 responses (as of 31st January 2018) and will be open until Monday 26th February. The Maternity Voices Partnerships will receive the results and help develop an action plan in response to the findings that will be presented to the LMS Board in March 2018.

The Maternity Voices Partnership groups are also leading two further Task and Finish groups to develop their ideas on choice and experience. This is evidenced on the social media platform where hard to reach groups are already participating in some of the debates. Back in the early stages of our project plan it was recognised that there was a growing population of women of childbearing age

from Lithuanian and Polish backgrounds. Whilst undertaking research, efforts have been taken to include such hard to reach groups via establishing key contacts and producing some materials into different languages such as Polish.

We recognise that in order to provide women with personalised care planning and to empower them to be able to make decisions about their own care, we need to change our midwives' ethos and the traditional culture of care planning. After speaking to our workforce, Midwives at Worcestershire Acute Hospital Trust agreed to participate in validating a research project called 'Place of Birth' rolled out by CLAHRC-WM. The research project is also being rolled out in another 3 large provider Trusts before being finalised and published nationally. Previous research has identified that midwives do not give unbiased information to women and this work is therefore around teaching midwives to give unbiased information in a uniform manner which, in turn, allows women to make true, informed choices. Training began to be rolled out in November 2017 and will be delivered to all the LMS Community Midwives over the next year.

Our early engagement work and research has shown that women are disappointed and feel let down when their place of birth is not achieved. In order for women to be able to make more informed choices about their care based on their health and wellbeing, that of her family and the baby, we are planning to delay the decision on their place of birth to between 28 and 34 weeks. This will enable women to make more informed decisions which are more likely to be realistic and achievable. This work is planned to take place through a small Task and Finish group in April 2018 and will link to the emerging advice on Tariff.

Women have asked that personalised care planning should allow them to have antenatal care during pregnancy near where they work and delivery close to home. Tariff will allow this but organisational structures don't nor do traditional professional practice habits. The LMS plans to challenge this and work with neighbouring LMS organisations to support this choice and desire for women. Cross border discussions have already started with Powys and Shropshire CCGs. This discussion will be widened to offer more choices for the LMS population by offering Powys midwife led care.

Other local work the LMS plans on undertaking includes volunteers being mobilized to help new mums who may be in transport deprived areas or be socially isolated to help with shopping, cleaning or cooking.

Once we have finalised our research and coordinated the results, we will work with the Maternity Voices Partnerships and our workforce to co-produce a personalised care strategy which will outline exactly how this will be achieved, based on what local women want, by 2021.

Actions	Timeline
Personalised Care and Continuity of Carer survey – ensuring all women's voices are heard	Launched January 2018 and closes 26th February 2018
Maternity Voices Partnerships Experience and Choice working groups	January 2018 with more planned for March 2018
LMS Plan launch event – begin conversations with workforce to change culture and ethos of care planning	13th March 2018
Place of Birth training for all Community Midwives to give unbiased information on choice	Training rolled out in November 2017 and will be delivered to all LMS Community Midwifes over the next year.
Place of Birth task and finish group to explore delaying place of birth discussions. This will also link to the emerging advice on Tariff.	April 2018

Cross-boundary discussions to allow women to have antenatal care near where they work and birth close to home	Discussions commenced in December 2017, discussions planned to complete by July 2018
Experience and Choice Strategy – Developed with the MVP and the local workforce	Strategy to be developed by September 2018
Working with groups of midwives to outline the content of the national personalisation strategy and identify individual midwives who would like to work in a different way	Starting March 2018
Develop a LMS website with interactive capability for women to gain knowledge and produce their own birth plans to initiate a conversation with their midwife	Starting March 2018
LMS representatives to join national LMS digital workstream to develop websites and digital solutions for sharing information and facilitating tariff to follow patient choice	Attended in January 2018 and will continue to attend
Negotiations with Shropshire and Powys in order to offer local women standalone midwife facilities	Commenced December 2017

Continuity of Carer

Continuity of Carer is known to improve outcomes for women and babies. Research into what Continuity of Carer means to local women is being led by our Maternity Voices Partnership groups.

We launched a survey in January 2018 intending to collect women's views on personalisation and Continuity of Carer. This survey is due to end on 26th February and will give us an excellent insight into what local women want. This survey is also being supported by smaller working groups that are taking place across the LMS.

A Birthrate plus study has been undertaken throughout the LMS and will be providing a report in February 2018 to gain an understanding of the community and hospital case load, acuity and birth to midwife ratio's. This will assist us in providing a baseline staffing to develop our Continuity of Carer model.

The LMS has agreed trajectories for Continuity of Carer which will require a whole system change in how our midwifery workforce currently runs and is managed. The Maternity Voices Partnerships are supporting this work so that we can achieve a balance between what women want and what we can deliver whilst driving improvement and maintaining a work-life balance for midwives. This work is being led by our consultant midwife and supported by a successful bid from Health Education England (HEE), one of four such bids in the Midlands and East region.

To recruit to the project, the consultant midwife and the project midwife are planning to hold workplace roadshows across the clinical areas in our LMS. These sessions will describe the work of the LMS and describe the trajectories and how the midwives can be involved. The midwives will be asked if they would like to be part of a small development team to care for discrete groups of women to test models and feed into the national project. Suggested groups will be those where we have pairs of consultant obstetricians caring for a group of high risk women and multidisciplinary team meetings are held to plan care for, and with, women and their babies. This may initially be our diabetic ladies or our obese ladies. Plans are underway to take forward this work further.

The second Task and Finish group will be to improve continuity, ante-natally and post-natally, for women now that we know our baseline levels from the survey of case notes and the initial feedback from the Maternity Voices Partnerships. Each community Hub will be given an improvement

trajectory and the midwives will need to work in the Hub to find solutions alongside the women. Initial thinking based on our engagement work is that we can look at constructing work hours differently and dividing the community locality teams differently.

Women, through attending the newly formed Hubs, are working with the midwives on expanding the "offer". To date this has seen the development of drop-in feeding support sessions, postnatal clinic development, exercise and smoking cessation support.

Actions	Timeline
Survey of case notes	Undertaken Oct to Dec 2017 Presented to Board Jan 2018
Evaluation Kidderminster Hub	December 2017
Birth Rate Plus analysis	Results expected February 2018
Personalised Care and Continuity of Carer survey – ensuring all women's voices are heard	Launched January 2018 and closes 26th February 2018
Maternity Voices Partnerships Experience and Choice working groups	January 2018 with more planned for March 2018
LMS Plan launch event	13th March 2018
Roll out of Community Hubs	Evesham and Redditch – 2017/18 Leominster and Bromsgrove – 2019/20 Evaluation 2020 Possibility further Hubs developed in Malvern and Ledbury 2020/21
HEE project and Roadshows – key aim to match groups of women with groups of midwives to develop one of the models of continuity through antenatal, intrapartum and postnatal care.	Roadshows to commence April 2018 and completed by June 2018
Task and Finish group to improve continuity antenatally and postnatally	Report will be Fed into Continuity of Carer final report for LMS Board in May 2018
Experience and Choice – Developed with the MVP and the local workforce	Strategy to be developed by September 2018

Choice

Our LMS offer will support and enable women and families to make choices in how their care will be delivered and where it will be delivered. The model will engage with women through primary care pre-pregnancy to influence health choices and achieve optimal health i.e. stop smoking, exercising, being in a normal weight range and having any medical conditions in a managed state. We plan on working with local women through the Maternity Voices Partnerships to develop resources for women and their families to gain information about their local choices through an interactive website, their GP, their midwife (if known) and the Single Point of Access.

We know that our midwife-led care numbers can be increased. Currently around 12% of women receive midwife led care across the LMS and we have an ambition to increase this to 25% by 2021. One of the ways we plan on doing this is by changing the default risk assessment process for all women to midwife led care unless they choose to opt out or they are assessed as needing consultant led care and agree this pathway. This process will be structured to ensure women better understand

and discuss care pathways and make an informed choice on where and how their care is delivered. The Clinical Transformation and Governance workstream membership have agreed this change in clinical practice is to be ratified through local governance boards prior to implementation for the 1st April 2018. We know that women who are high risk often don't get continuity of midwife care, our plan enables this for women through the development of our community Hubs and adopting the West Midland wide clinical care pathways and standards of care.

Through engagement with women across the LMS and discussions with our workforce, we have identified that women who are asked to make place of birth choices before the 12th week of pregnancy are often disappointed when this is not achievable or is changed. Women have told us that they don't know what to ask for or aim for in such early discussions. Our plan aims to change this and delay place of birth decisions until a time when the woman and her family know more about the pregnancy and her general health.

We will continue to offer home births, an alongside midwife birthing unit and obstetric hospital births for all women in our LMS. We also aim to offer more choice by offering standalone birthing unit choices at Powys and Shropshire. Guidelines are being reviewed to increase accessibility to the alongside birth unit at Worcestershire Royal Hospital to allow more women to be able to access midwife-led care.

The lead midwife manager for the LMS's alongside unit has implemented two clinic sessions per week to facilitate birth planning for those women who are seeking midwife led care but their medical or obstetric history prevents this. This allows the woman to clearly document her wishes and the midwives in the consultant unit will deliver this realistic plan wherever possible. The women who have experienced this service have given very positive feedback. The LMS recognises the potential in this approach for other women and will be looking to use it as a pilot for future personalisation planning.

Our LMS Maternity Voices Partnership have informed us that women want to be able to have antenatal care where they work and birth where they live. Our plans aim to ensure women are able to do this. The financial payment allows money to follow the women and so this will be enabled and tested to facilitate real choice in care delivery.

Women have told us that they want care delivered in a way that does not interrupt their busy lives, they want everything they need under the same roof by people who can make care decisions, we aim to do this through our geographically based Hubs with outreach consultant attendance and diagnostic facilities i.e. scanning and fetal cardio-tocograph monitoring.

Care planning will be an on-going process led by women rather than the midwife and obstetrician. Women will hold their pregnancy record and feel empowered through information to seek a birth plan which can be achieved. Women will have access to advice on the benefits of healthy eating, immunisation, breastfeeding and information on safe sleeping such as placing their baby in a cot back to back and not to co-sleep. Post-natal care choices will include, home visiting, booked clinic appointments, drop in Hub care and self-care.

Our care model offers the flexible choices women and families have requested and our plan enables us to "deliver choice safely".

Actions	Timeline
Creation of a LMS website	A working group has been established with service users at the core to produce site maps and commission a website company by March 2018
Create a Local Maternity Offer	Website and resources to be created

	and made available by 2019
Changes to the default risk assessment process for all women to midwife led care	April 2018
Delaying Place of Birth discussions	Task and finish group to begin September 2018 and work to develop in 2019/2020 specification
Discussions with Powys and Shropshire regarding offering Standalone Units as a choice	July 2018
Cross-boundary discussions to allow women to have antenatal care near where they work and birth close to home	Discussions commenced in December 2017, discussions planned to complete by July 2018

10.2 Improved Patient Safety

Improved Safety is the overarching objective to be achieved from the National maternity strategy "Better Births "and the government's "Maternity and Neonatal Safety Collaborative". This is evidenced as being prominent in the reduction of stillbirth, neonatal deaths, brain injury in neonates and maternal deaths.

Currently, we have internal systems to deliver safety within all our constituent organisations through governance and safety reporting structures from ward to board. We currently deliver the following across the LMS:

Baseline of safety measures currently undertaken across the LMS	
Datix levels above national average reporting	✓
Datix reviewed and actioned within 20 days	✓
Regular participation in risk reviews	✓
Investigate comprehensive and serious incidents within a 60 day turnaround with agreed action plan and internal and external sign off process in place	✓
Providers participate in external reviews to bring back learning across the LMS	✓
All commissioners receive 72 hour briefs from providers	✓
Established shared learning from incidents trends in Datix and near miss`s at clinical meetings across the LMS	✓
Joint perinatal mortality and morbidity meetings and use of SCOR to analyse data across the LMS	✓
Joint MDT planning for high risk pregnancy care planning across LMS	✓
Participation in MBRRACE audit and review with LMS actions	✓
Established Quarterly reviews of maternity services by Commissioners	✓
Families receive duty of candour leaflets and a personal discussion with the lead clinician	✓
Families are asked what questions they want in TOR of investigations	✓

Submissions to the NHS early resolution scheme are within 14 days	✓
Complaints are answered within 25 days and PALS enquiries are dealt with on the same day	✓
Learning from incident action plans are monitored monthly until audited and outcomes are embedded in practice	✓
A LMS joint clinical and performance dashboard is being produced	✓
Deep dive investigation task and finish groups have been established to understand deviation from national targets	✓
Staff are listened to through staff surveys the data is triangulated with patient experience data	✓
Staffing numbers and plans are regularly overviewed to ensure safe care is delivered in all staff groups	✓

Within our LMS both, provider organisations have recently been in special measures and one remains in special measures. The latest CQC inspections took place at Wye Valley NHS Trust in December 2016 and Worcestershire Acute Hospital Trust in January 2018. The most recent CQC overall assessment of Maternity Services were rated as requiring improvement at Wye Valley NHS Trust and as inadequate at Worcestershire Acute Hospitals Trust.

The CQC identified both Wye Valley NHS Trust (WVT) and Worcestershire Acute Hospitals Trust (WAHT) as hospitals in special measures. WVT came out of special measures in 2017 but WAHT continued to have an inadequate rating for safety and continues to be managed in a special measures regime. Both providers had a re-inspection from CQC in January 2018. Turnaround action plans are in place, specific support packages from NHS England have not been offered but turnaround directors have been working in the Trusts monitoring and advising on governance. The LMS safety agenda has been underpinned by the turnaround actions from the CQC. This includes strengthening clinical leadership, evidencing organisational learning, implementing robust ward to board reporting, supporting clinical investigations and strengthening Labour Ward team working.

A key element of the CQC report is around listening and engaging staff. Co-production with local women, their families and staff is and has been vital to the development of the LMS plan.

The CQC will find that our LMS providers are emerging learning organisations with organisational sharing and an emerging culture of trust. Within our LMS we have a coalition of organisations moving towards a joint governance infrastructure underpinned by a desire and passion to provide the best standard of care to local women.

To deliver the safety improvements we know that we need to make sure both provider trusts have joined the National Safety Collaborative and been allocated to wave 3 for developmental support which will start in March 2019. Action plans have been submitted to NHS England and these are monitored through quarterly returns to HEE and include:

- Safety board champions have been appointed at provider Board level
- Educational monies to support the safety collaborative are being spent on:
  - delivery suite management and leadership
  - human factors training
  - advanced CTG training
  - ALSO

  - PROPMT
  - MBRRACE
  - Ultrasound training for midwives, specifically first and third trimester

- A safety cultural barometer is being completed bi-annually to monitor the impact locally as the educational plan is rolled out

The LMS have adopted this work into our plan and have further developed the safety collaborative with Task and Finish groups. These groups are being designed to specifically address the gaps identified in the public health and local dashboard data detailed in section 5, as well as driving the implementation of the Saving Babies Lives care bundle.

The public health data in section 5 identified that the LMS has a higher than expected stillborn and neonatal crude mortality rate of 6.43 (per 1,000 live births) in 2015. The data has also identified a higher than expected level of prematurity (premature live and stillbirths per 1000 total births) of 91.6 from 2013 to 2015. Although the local cause is unknown nationally this is linked to the management of diabetes, obesity, growth retardation linked to smoking and obesity and the management of multiple pregnancies.

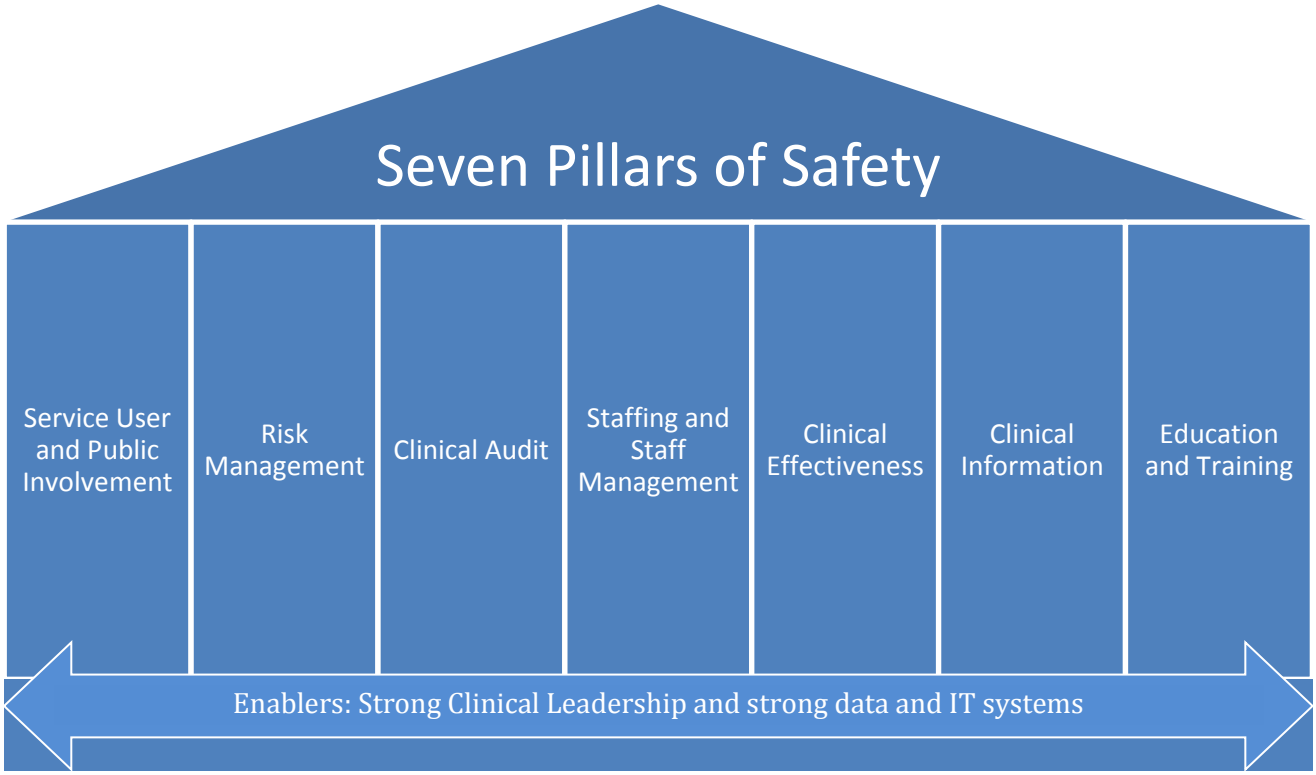
Safety task and finish groups have been established to tackle these issues. These will report through a performance dashboard and the project management update to the LMS board.

To ensure we gain clinical engagement, a midwifery project lead has been established to give oversight and challenge in organisational difference and a clinical obstetric and neonatal session has been developed giving dedicated time to implement clinical change at pace. A transformational bid has also been submitted to develop and challenge our Saving Babies Lives care bundle plans as we believe we need to do more at a faster pace. This need has been identified as the LMS is an outlier in terms of crude mortality and has a provider organisation in special measures. The bid outlines the need for clinical support in the workplace to help staff identify skill gaps, variation and difference. It aims to help coach and develop staff to reduce skill difference and help staff to identify and solve problems. The transformational actions and outcomes will be monitored though the dashboard and the LMS Board will report on progress to the STP Partnership Board and the Maternity Alliance.

Within our LMS we are establishing the following working groups through the Clinical Transformation and Governance workstream to drive forward work to improve patient safety:

- Fetal Cardiac Scanning
- Extending cardiac antenatal clinics within the LMS
- A-equip LMS model
- Saving Babies Lives
- Birth-rate Plus
- Ultra-sound scanning training
- West Midlands Maternity and Neonatal Network Clinical pathway roll out
- MBRRACE/Joint perinatal review
- Shared governance learning
- LMS Maternity and Neonatal Dashboard development

To ensure that these risks identified through the Public Health data are eradicated and the Secretary of State's ambitions are realised, our LMS has decided to utilise the 'Seven Pillars of Safety' as the cornerstones to our implementation plan:



Service User and Public Involvement

Women's voices are paramount to our LMS plan and to ensuring our services are safe and sustainable. Women and their families are helping to co-produce this plan and will remain at the centre of all our discussions from development to implementation, to evaluation and beyond.

The LMS Maternity Voices Partnerships regularly review patient feedback and surveys through the CQC maternity survey and the local Friends and Family test data. Listening to and understanding the experiences of local women and their families is key to ensuring that we build safe services together. The Maternity Voices Partnerships are passionate about ensuring that we build the best, effective and safe services and are planning to put together smaller working groups to explore safety. Patient representatives will also be part of our safety working groups exploring specific issues and co-producing plans to improve services.

Risk management

A risk register has been developed through our Project Management Tool, Verto. The risk register has identified six key risks to the delivery of the programme these include:

- The lack of capital to implement an end to end computerised patient record
- Ensuring Clinical engagement and support
- Lack of Funding for perinatal mental health services
- Lack of capital for ultrasound equipment
- Ensuring targets for the LMS are being met
- Lack of Financial appraisal of the plan

Mitigating actions have been put in place to reduce these risks. The full risk register can be seen in Appendix 9.

Clinical audit

The LMS is participating in national and local audit programs and learning will be linked to the acute provider's appraisal and local educational strategies. The LMS will monitor the joint maternity dashboard and assess deviation in dashboards or local audits to take corrective action.

Local trajectories have been developed (table 2) and agreed as part of the national delivery and regional performance of the LMS. The LMS is developing a system for capturing and recording the data to demonstrate delivery of the trajectories.

Staffing and staff management

The LMS Board has commissioned a Birthrate Plus exercise across the LMS to be able to establish a baseline for midwifery staffing and an understanding of the case mix and acuity of the patients. This will report to the LMS providers in February 2018, the LMS Board in March 2018 and the commissioning strategy will have change trajectories agreed by April 2018.

The providers have been sharing midwifery staff since the summer of 2016 when Wye Valley NHS Trust had a high level of maternity leave and Worcestershire Acute Hospitals Trusts midwives joined the Wye Valley NHS Trust's bank to cover shifts. This sharing has broken down many myths and developed a greater understanding of the challenges in each unit. At a strategic level, the provider boards will monitor safer staffing and present to their Trust boards bi-annually.

Medical staffing in the units is organised in different ways and cover is monitored closely.

Across the LMS, our provider organisations have directorate structures with clinicians leading the maternity teams. Training of the teams is multidisciplinary. The LMS will be monitoring the learning from incidents and serious incidents to track improvement trajectories and share learning across the system.

Continuity of Care has been identified as a key influence in the reduction of stillbirth rates. The LMS has been successful in bidding for £20,000 to work with Health Education England (HEE) to develop models of care to deliver continuity. The consultant midwife will lead this piece of work alongside workforce analysts from across the LMS. A project plan will be developed with HEE and shared and monitored through the LMS board.

Through our engagement lead, surveys and smaller working groups, we plan on engaging our workforce to help us understand specific safety issues and what can be done to ensure change.

Clinical effectiveness

Clinical effectiveness is promoted through the development of guidelines and protocols. The LMS has agreed to implement the West Midlands Maternity and Neonatal Guidelines. We believe that clinical guidelines will be the key to transformational change. To this end, we know this will be the most difficult area of work as it will mean tackling culture. Clinical leads have been identified and the LMS acute provider units met on 24th January 2018 to agree an implementation plan. This will reduce clinical variation and allow audit of practice in the LMS.

We aim to start with antenatal screening as both organisations need each other to be sustainable. Families will also benefit as it gives care closer to home and increases choice. The next pathway will

be cardiac scanning allowing women to have a cardiac scan locally, with a personalised care plan and delivery close to home where level 1 and 2 cots are available.

A-Equip midwifery strategy has been agreed with all the supervisors of old being trained in the new model. Work is on-going as the national pilot sites report on what will work best to support the midwifery workforce in terms of professional mentorship and support. This will challenge clinical variation and performance in the midwifery work place and allow corrective constructive learning with individuals as well as managing trends.

The LMS is developing a joint commissioning strategy, through the Non-Clinical workstream, with joint clinical and performance trajectories. The joint service specification is being signed off by the Herefordshire and Worcestershire Joint Commissioning Committee on 6th April 2018.

The LMS aims to have a joint clinical governance strategy agreed by 2019. During the transition phase each organisation will review serious incidents through local governance processes and the LMS will have oversight of outcomes and learning identified by the commissioners through their sign off process.

The LMS will share any national reviews or reports such as CQC, neonatal specialist commissioning, perinatal mortality, CPOD and monitor through the local provider or LMS actions.

The LMS will work closely with the systems' local authorities, public health and women to implement actions to address obesity, smoking cessation, understand prematurity and why breastfeeding initiation is poor. Public Health are passionate about leading on working groups to explore strategies and actions that could address issues of obesity and smoking.

Serious Incidents

The investigative process for completing a Serious Incident (SI) is nationally prescribed and recognised as the process being of variable quality. The national transformation team has identified that national investigators will be developed during 2018/19 for all maternal death and still birth investigations. Within our LMS we have:

- Reviewed the Route Cause Analysis (RCA) training completed by consultants and midwives
- A list of people who have completed the RCA training
- Reviewed the quality of investigations through external assessment due to CQC special measures status
- Meet the 72 hour deadline for reporting to external bodies
- Deliver a 60 day turnaround
- We involve parents in developing Terms of Reference
- CQC governance inspections and action planning
- Overview of our SI's by commissioners
- Action plans are reflected in changes in clinical guidance, audit and training

Through the Clinical Transformation and Governance Workstream we will be developing a shared Datix platform and processes for investigating across our provider organisations. We will also be developing one risk register, performance dashboard and commissioning specification and will have a buddy Trust through the Safety Collaborative to give on-going support and guidance.

Neonatal services

A neonatal Task and Finish group has been established to work with specialised commissioning to support babies being kept in the local neonatal network. The main focus of the group will be around:

- Reviewing unintended term admissions
- Reviewing exported babies and reasons for not being able to accommodate in our LMS if appropriate
- Reviewing audit and guidelines with the network
- Developing outreach team to pull babies out of transitional care and special care to create cot capacity
- Development of community jaundice pathways
- Development of managing babies with greater than 10% birth weight loss in the community
- Setting up infant feeding in the Hubs to improve breastfeeding continuation

During 2017 the clinical teams between both hospitals agreed that any mother or baby who requires level 2 care will be accommodated at Worcestershire Royal Hospital from Hereford County Hospital, regardless of capacity, as long as it is safe to do so, and this has been ratified by the acute Trust Boards. In return, conversations have commenced to ensure that Hereford County Hospital will always take level 1 babies, as long as it is safe to do so, from Worcestershire Royal Hospital to release capacity if requested. The clinical teams have also reviewed their cot locator conversations to a consultant and delivery suite coordinator to ensure the cot locator gains a broader picture of cot and bed availability throughout the day rather than at that moment in time. This will be monitored to assess impact on available cot capacity at both units.

A National Neonatal Critical Care Review was undertaken looking at capacity, workforce, pricing, education and models of care. The aim of the Review was to make recommendations that will support the delivery of high quality, safe, sustainable and equitable models of neonatal care across England. The review highlighted a number of concerns linked to staffing including neonatal medical and nursing staffing numbers, staff training and the provision of support staff. Workforce capacity planning will form a key element of our LMS workforce strategy. The LMS has begun to address these issues by evolving its workforce through developing Advanced Neonatal Nurse Practitioners (ANNP) roles to complement its middle medical grade rota. In 2017, a student from the LMS was seconded to Southampton to undertake their ANNP and in September 2018 another student will be commencing their training. In the long term, the vision will be for the ANNP roles and other neonatal staff to be rotated and shared through the two units, within the LMS, in order to maintain skills and exposure. Training and study days will also be shared in order to provide a more cohesive approach.

Clinical information

A Task and Finish data group has been developed under the clinical workstream. This group have merged the maternity and neonatal dashboards of each of the acute providers and this will be shared at every board meeting. Work has also started to develop shared risk registers and joint mortality and morbidity meetings to share common errors and find common solutions, as well as share good practice and learning.

A contract specification performance framework will be agreed as part of the contract negotiations and data will be captured for the National data set and the local dashboard to allow the CCGs and the providers to monitor performance and translate for contract and financial monitoring.

A level 3 data sharing agreement has been developed for the LMS to ensure all data is managed correctly and the organisational Caldicott guardians have signed the agreement. This agreement allows clinical discussions which cross organisational boundaries such as in mental health care or when mums or babies are exported to a level 3 or out of area to access cots or beds. This agreement also facilitates joint SCOR meetings, and the sharing of serious incident data/individual cases.

The board has agreed a schedule of work in order to review progress:

LMS Board agreed schedule	To be presented
Serious incident shared where a stillbirth had occurred	November 2017
MBRRACE action plan shared	March 2018
Perinatal mental health service and outcome review by Worcester health and care trust	March 2018
Risk Management	May 2018
National visit by lead midwife from the NHS early resolution scheme a year after implementation	July 2018

Education and Training

Education and training is a key component in ensuring our staff are competent and up to date in order to deliver safe and sustainable services. It also provides a framework through which shared learning can be distributed to staff to ensure lessons are learnt and our workforce have all the necessary skills across the system ensuring consistency and reducing clinical variation. SCOR training has been rolled out to staff across the LMS within our acute providers. A lead clinician from each provider has also been appointed and has a dedicated clinical session to review each death using the audit tool. The LMS has arranged an inaugural meeting in March 2018 to share each acute providers' MBRRACE data and develop clinical challenge and a professional curiosity session. Learning will be translated into an action plan and monitored through the provider governance systems and reported to the LMS Board.

Serious incident learning will be shared at the LMS board and any training and education will be supported locally through the training plan through personal development plans, Worcester University or medical schools.

Education audits will inform the providers and the LMS of culture and safety and act as an organisational barometer.

10.3 Good Health and Wellbeing

Prevention is a key priority of the local Sustainability and Transformation Partnership (STP) and is paramount to the LMS work to improve the health and wellbeing of women, their babies and their families from pre-conception through to the postnatal period and beyond. We are working to embed the four STP prevention platforms in our plans, these are:

- Social prescribing
- Making Every Contact Count (MECC)
- Digital inclusion
- Lifestyle change programmes

Through a system-wide approach we will be able to review and tackle local issues relating to health and wellbeing, highlighted through our public health data. In particular this focus will be around smoking, obesity and breastfeeding initiation.

Within our LMS we know that we have a range of different strategies to deliver Smoking cessation, healthy weight and breastfeeding initiation reflecting the different Local Authority and CCG commissioning intentions. The LMS recognises that variations exist and will work on producing a baseline analysing current services and their effectiveness.

Smoking Cessation

We know from our public health data that we need to concentrate on smoking cessation at delivery across the LMS to achieve the national target of less than 6% by 2022.

In order to develop our smoking cessation services and improve our rate at delivery we will establish smoking cessation in our commissioning specification and monitor outcomes through our LMS dashboard. Public Health will evaluate the effectiveness of the commissioned services through contract review. The LMS will also review the level of uptake for MECC training in the midwifery service and take action as required and monitor the referral rates.

Through communications with our workforce it is recognised that more carbon monoxide monitors are required and these will be rolled out to every clinic and community midwives. The LMS will ensure that midwives will also undertake carbon monoxide monitoring in the third trimester of pregnancy to support national data collection.

The LMS is passionate about ensuring that not only pregnant women can access smoking cessation services but that their partners and families will also be able to be directed to digital help and support to achieve smoke free homes. Currently, the LMS has a variety of digital solutions and these will be utilised to ensure that partners and families are aware of the services available and can readily access them.

As part of the LMS plan and 'Saving Babies Lives' women who smoke will be cared for in specialist clinics and giving increased scanning and fetal monitoring to reduce the risk of stillbirth and growth retardation of the baby.

Healthy Weight

The LMS has healthy lifestyle and healthy weight strategies for the whole population but none of which are specifically targeted at pregnancy. The local strategies link to the national initiatives, campaigns and tools such as One You and Change4Life. The midwives currently weigh women on first meeting them and they assess the women's BMI. The woman is then risk assessed but if the BMI is greater than 30 she becomes high risk and is seen in additional clinics and has serial scans. We know that obesity in mothers can lead to fetal mortality. Midwives will provide brief interventions when interacting with women. Across the LMS it is estimated that over 50% of expectant mums are overweight or obese and that the LMS is above the national average of 20% for maternal obesity. This is linked to areas of deprivation. The most recent data for deliveries during 2015/16 shows the discrepancy in health levels across deprived areas. This is a consistent pattern over time. Public Health data suggests that the overall percentage of pregnant women who are obese is increasing over time across the LMS.

Our LMS know we need to do something different and it is planned that we will form a healthy weight sub-group to make changes. This sub-group will sit under the clinical workstream. Our Maternity Voices Partnerships have told us that information regarding obesity and the risks to the baby are not clear and that many women are unaware of the effect that obesity has on the unborn

child. As part of our plans we will work as a system, in partnership with Public Health, to impact on maternal obesity.

We also plan to introduce weight management and exercise support into the emerging community Hubs where it is hoped that women, during pregnancy, will use this to support the health of their baby and also as a catalyst to change their lifestyle.

Breastfeeding

Through the public health data in section 5 we know that as a system we need to improve both initiation and continuation of breastfeeding and we know that we need to address healthy eating. Changing these key elements in our LMS will lead to reduced mortality and morbidity. In order to assess the current situation and variation in initiation and continuation after six weeks across the LMS, a Task and Finish group will be established. Currently, midwives seek to understand how women plan to feed their baby and they offer guidance as well as information to help women make informed feeding decisions. Our provider units are Baby Friendly assessed at level 3 and have embedded infant feeding system-wide training and audit programs. There are also established infant feeding coordinators supported by peer support and maternity support workers who will do home visiting in some areas of the LMS.

Through the small amount of research we have done with our Maternity Voices Partnerships and staff we know that early discharge from hospital has led to babies going home with little support in establishing feeding. Our LMS plan aims to address this by creating daily infant feeding drop-in sessions in our community Hubs. We will continue to offer telephone community support 24/7 but aim to be able to offer supervised feeding support to encourage continuation of feeding. Our data also shows that women and families want support in learning about their baby and the pregnancy, the birth and dealing with making changes in their lifestyle . To support women, we currently offer online parenting guides known as the “Solihull Approach”, and support through ante-natal classes titled “Birth and Beyond”. This self-directed learning and support, alongside targeted group classes, evaluates well with women. The data is yet to show incremental change but it is felt where uptake is good that results are improving in breastfeeding, smoking cessation and making healthy lifestyle changes.

We recognise that as a system we need to do more with vulnerable families, through identification and help. The LMS will embed social prescribing in the system and ensure digital inclusion to enable women and families to access digital support. The midwives will identify low level care and social problems and be able to refer to early interventions services, early help and social prescribing who will access suitable interventions for vulnerable families or families in need. The Community Hubs also aim to have a link to housing and welfare when the clinics are running to offer support and deliver a one-stop care.

Mental Health

Nationally mental health is the biggest cause of maternal death in the period from 6 weeks post-natal up to a year after birth. Perinatal mental health in pregnancy is one of our LMS`s biggest strategic risks due to the variability of the services offered and delivery of the model of care. We know from our service users and our staff that we do not offer what women and families want and need and we also know our staff are often in homes faced with situations they don’t feel trained to manage. Some of the community midwives have had training in the Solihull approach which supports midwives to deliver self-help and care to women. There are perinatal mental health pathways established but this is not a consistent picture for all women.

Perinatal mental health is part of the Mental Health STP work steam and a LMS bid was submitted in April 2017 to the national team for pump priming and development but was unsuccessful. A second bid has been prepared whilst waiting for National monies to be made available.

A discussion is scheduled to take place at the next LMS Board in March 2018 to compare local women's outcomes to that of national data. We also aim to review the perinatal mental health survey completed in 2017 by the multidisciplinary team and agree where our local team of staff can make changes and improvements for women and families within the confines of their own knowledge and capacity. This will be led by the antenatal clinic lead midwives and link consultant obstetricians.

A neonatal task and finish group has been established to work with specialised commissioning to support babies being kept in the local neonatal network. This has initially seen an agreement between providers in the LMS to take babies of correct gestational age, as if they were in your own hospital, to prevent transporting out. The work plan will include developing transitional care and community outreach.

10.4 Reduce Morbidity and Mortality

Across the LMS provider organisations, mortality and morbidity meetings are currently held. The meetings are led by key clinicians appointed to take forward this important governance, safety, audit learning and development role. The meetings are structured and minutes recorded to reflect trust wide governance standards. The meetings are attended by the widest possible multidisciplinary teams.

Currently each baby death is scrutinised through internal investigation systems and outcomes and findings reported locally to the wider trust and to the commissioner. Alongside this, the death overview will be reported to the perinatal mortality meeting where clinical discussions are held and a standardised computer outcome review is completed. This is then submitted to the MBRRACE audit National data collection. Currently, the Trust will then take local actions and local learning pending any overarching recommendations from the annual MBRRACE audit being published.

Our LMS plans to ensure these learning and action plans are shared through joint review meetings to provide additional clinical challenge and scrutiny to practice.

When a maternal death occurs, this is reported as a serious incident and an investigation is set up with agreed terms of reference with the commissioner and family. The outcome of the investigation may be shared with the coroner and sometimes the police as well as the family. Our plan will ensure that any lessons learnt from the death will be shared across the LMS, other agencies and the wider clinical body locally and nationally, if required. This allows national learning and supports the reduction in mortality.

Morbidity is more difficult to measure and monitor as it relates to on-going problems following birth or giving birth.

For women, the LMS plans to:

- Monitor the rates of elective and emergency caesarean section as uterine scarring can cause problems
- Monitor and action perineal tears, specifically grade 3 and 4, as this can cause long term bowel incontinence and coital pain.
- Audit bladder care and urine retention to retain an overview of urinary incontinence post-natally.
- Other areas of practice monitoring will include, blood loss, infection admission to ITU and readmission rates.

For babies our plans include:

- To work in our neonatal network to get mums to the best place to deliver their baby safely, either in a level 3, 2 or 1 unit
- We will support the reduction of babies being admitted at term to NNU by keeping them warm after birth, giving an early feed and monitoring blood sugar and heart rate when needed

The transformation work in Saving Babies Lives will identify babies who will require help from neonatology .The identification of high risk pregnancies ante-natally, including twins, cardiac anomalies, IUGR and SFD, will have a planned birth plan completed at a MDT meeting jointly led by fetal medicine and neonatology. This will ensure the baby and mum receive optimal care and reduces the risk of long term care requirements.

Routine screening will be completed to include Newborn Blood Spot Screening (NBS), Newborn hearing screening (NHSP), ROP screening, Newborn Infant Physical Examination (NIPE) and O_2 saturation again reducing morbidity.

10.5 Finance, Performance and Commissioning

Our LMS incorporates organisations that have significant financial deficits requiring support from NHS England. Maternity and neonatal services in both acute provider organisations are in financial deficit with tariff not covering the true costs. Neonatal level 2 care occupied cot days supports other parts of neonatal care delivery which does not attract tariff or contract income or neonatal outreach. Our LMS does not have a level 3 unit, this means that we will need to be supported by level 3 units and this inevitably takes money out of our system, but in turn drives better outcomes for women and babies.

Our financial analysis in section 9 describes our current income and expenditure. It analyses the causes of the deficit and gives system ideas where economies of scale or different ways of managing our resources could balance our budget without sacrificing quality of care. Capital monies have been identified as being required for IT fundamental needs and investment in ultrasound equipment to deliver care close to home.

Our system plan will be underpinned by a commissioning strategy which will initially be for health, integrated by a lead CCG provider and, as we develop and mature, will include all of our LMS partners. We will aim to have a system wide commissioned plan by 2022.

By 2022, we will understand all elements of the income and expenditure and be able to move to an accountable care model, where we commission, set trajectories and deliver in a model of co-production with women and families.

Our financial plan will be developed through the Non-Clinical Workstream through the Finance, Performance and Commissioning Sub-group. This plan will include:

- a medical manpower plan
- a midwifery and support staff plan
- it will outline capital requirements and risks
- it will review procurement system opportunities
- it will make the case for retaining CNST savings as a means of investment in education and staff development

Our performance will be managed through dashboard meetings and reporting from the workstreams outlined in the governance model. Accountability will be through to the LMS Board and the STP Board. Our implementation plan will detail the incremental steps towards achieving this system wide change.

10.6 Workforce and Training

Our workforce is our greatest asset and understanding and listening to them is key to the development and success of this plan. Research has identified that staff working patterns and work life balance requirements are changing. The students of today are predicted to not want to work the patterns traditionally worked in hospital and community settings. Students in all professions are qualifying today and they are often not able to take up full time employment. This increases the numbers of staff whilst retaining the Whole time equivalent numbers static. This increases our staff cost base in terms of professional training, professional validation and recruitment.

The LMS has a stable workforce which is split into several groups; medical, nursing and midwifery, support and non-registered staff, allied health professionals. Turnover for trained midwifery staff is less than 10% as staff tend to move to Herefordshire and Worcestershire to live and don't move again. A breakdown of the system workforce split is summarised in the table below and full details can be seen in Appendix 10.

Obstetric Medical Staff - Consultants	Consultant			
	Funded		In Post	
	WTE	%*	WTE	%
Total across LMS	27.40	36.90	26.89	42.80
Total Midwives including community	Midwives			
	Funded		In Post	
	WTE	%	WTE	%
Total across LMS	281.49	79.19	284.83	79.64

* % of total maternity workforce

Medical staffing models across our LMS are different, reflecting the needs of services. Wye Valley NHS Trust has a consultant on-site model and Worcestershire Acute Hospitals Trust has a 79 hour on site labour ward cover on-call and on-site junior doctor in training. The RCOG medical staff guidance will need to be developed to ensure services can be managed safely. This work will be led by the divisional/directorate medical staff across the LMS.

To retain our workforce our job plans will need to be flexible. Our LMS plans to join training programmes across the provider units to create one training department with skills and drills training done locally. We will continue to work with our local universities to support pre and post registration training. Local authority and public health training support will also be targeted to support the development of holistic care for women to reduce stillbirth and neonatal death.

An ultra sound training strategy is in place across the LMS and interested staff have been identified for first and third trimester training. From discussions with staff it has been identified that there is a need and desire for providing mentorship across the LMS as this will be available as each unit needs support.

The LMS has submitted a transformation bid to NHS England on 31st January 2018, centred around developing a Saving Babies Lives Team through a 'hit squad' approach. This bid identifies a large number of bespoke training modules that will be developed through this work to reflect the needs of staff. Developing this bid has triggered a conversation of how we could facilitate combining the training resource within each organisation and deliver this remotely, through webinars or video conferencing, to avoid staff travelling.

The last part of our training plan links to the safety collaborative, where a training plan is in place and monitored through HEE bi-annually. This covers Human factors training, advanced CTG, leadership in labour ward, SCOR to prepare us for moving to MBRRACE, ALSO, PROMPT and NIPE.

Safe and Sustainable Workforce

The LMS currently has a safe and sustainable workforce. Currently, maternity services across the LMS are largely consultant led and structured around the hospital. Our LMS proposed model of care represents a fundamental shift in the culture of our service provision and workforce needs. In order to future proof this workforce and ensure that it is engaged and able to deliver the LMS vision a number of key actions are required.

There is a clear need to scope out future staffing requirement arising from the new model of care, and prepare a workforce plan to incrementally build capacity in the maternity services workforce. Work to provide a baseline of staffing has already begun through the initiation of the Birthrate Plus workforce planning system. It is clear from this work and the proposed future model that workforce planning will need to go beyond the core requirement of obstetricians and midwives, and apply across the entire multi-disciplinary team. Workforce planning and training capacity will need to be carefully considered and delivered through innovative ways to minimise the impact on the frontline. This work will be undertaken through the Workforce and Training sub-group.

Cross boundary working has already begun and clinical consultant job plans are being changed to reflect the need for aspects of fetal medicine and perinatal mortality. Work has also started through workshops with the community midwives and health visitors and GP CCG leads on integrated pathways to maximise every contact counts and ensure women get support over a planned period at different times rather than in one week. In fetal medicine the need was recognised for the consultant with specialist interests to maintain skill by retaining a session at the tertiary unit where they can book to see women referred from Wye Valley NHS Trust (WVT) and Worcestershire Acute Hospitals Trust (WAHT). That way, the women gains continuity and a care plan which facilitates them staying close to home. The breaking down of the boundaries is also demonstrated in the joint working last year when WVT had 16WTE midwives on maternity leave and the WAHT midwives joined their midwifery bank to fill the shifts and keep the unit safe. This helped WAHT understand the difficulties of running a small isolated unit and helped WVT midwives look at clinical practice differences in a positive way.

Professional isolation is a recognised problem in smaller units and identified in reports such as Morecombe Bay. Such sharing and support has been identified and requested for the nurses working in the level 1 NNU. The matrons from both providers have met and started to discuss rotation from WAHT to WVT. A trial program will be developed over the next 6 months.

A further example of working together is demonstrated in having joint perinatal mortality meetings. This brings challenges to thinking and clinical practice from and for both professional groups. A joint antenatal and neonatal WVT and WAHT MDT will be a future development.

The age profile of midwives across the LMS is one where the most experienced midwives are in the over 55 age bracket. It is recognised that this needs to be carefully managed as midwives can retire at 55 years. Flexible retirement and part time flexible working are options for the system to retain staff. Research from Aston University, Lancashire University and work based studies looking at the generational differences and attitudes from the baby boomers to generation Z needs to be carefully integrated in to our plan to ensure we have a work-force that is able to offer what women and families want from maternity services.

Delivering continuity and one to one care as an ambition in Better Births may not be what our work-force can offer. It is important for the LMS as a system to understand what continuity and one to one care means to local women. The Maternity Voice Partnership groups and the LMS Consultant Midwife are working with women across the counties to research their thoughts. This will be done through surveys and small working groups which will be led by the Maternity Voice Partnerships. This work will be completed by early 2018. A continuity model will be developed from this research and this will enable us to understand workforce requirements and establish work force models. From initial conversations, it is likely to include a range of models: case loading, team midwifery, traditional with flexible hours and the use of independent practitioners. The LMS will work closely and engage its workforce throughout the development of these models.

Both provider organisations have adopted the Professional midwifery advocacy role by the “old supervisors of midwifery" being trained in this new role. The LMS will adopt a formal model when the pilot sites report back to the national team what best meets our midwifery staff needs. The Birthrate Plus exercise has recognised the need to build this into the staffing establishment as every midwife will need a yearly interview.

Succession planning at a leadership level has been recognised as an emerging problem in roles such as the Head of Midwifery. In WAHT, the post was advertised 3 times and not filled and an interim has been in place whilst the role and content has been reviewed. In WVT, the Head of Midwifery has been in post for many years and the gap between the post and the matron role is large. To help this situation the LMS has identified three midwives, 2 in interim Head of Midwifery posts and a matron who is a rising star to attend the NHSE master classes for Heads of Midwifery. In addition, the interim Divisional Midwife who is an experienced HOM and DON has been mentoring and coaching the matrons and interim post holders.

In Neonatology there continues to be difficulties in achieving qualified in specialist nurses. This is due to difficulties in releasing staff to complete the specialist qualification course but, fundamentally, it is difficult to attract nurses to work in the speciality. That means we need to think differently and offer more creative routes through transitional care, secondments to the transport team, or level 1, 2 or level 3 units or outreach.

Medical staffing consultant numbers are achieving full establishment. There are different models in both units with consultant’s resident on call in WVT and a traditional on call system for WAHT. Both units have paediatric consultant rotas which cover Neonatology. WAHT has sub speciality paediatric services and it would be a longer term ambition to split these rotas. To assist with this, neonatal nurse practitioners are being developed, one per year is planned. These practitioners will work initially on the junior doctor rota and then the middle grade rota.

The main problem across the system is one where the doctors in training grades are not consistently filled by Health Education England, leading to difficulty in planning and delivering activity. The risk associated with this is an over reliance on locum or temporary staff which is linked to an increase in recorded serious incidents and Caesarean Sections. Workforce numbers for the different disciplines are provided in Appendix 10. Consultant meetings are planned along-side the job planning review to assess the RCOG staffing guidance of 2016 which no longer specifies hours of attendance. The Obstetric and Gynaecology on-call rotas have been split and the extended attendance on delivery suite up to 22.00hrs has supported improved quality and outcomes.

Our volunteer and non-registered work force is being expanded to support feeding, parent craft, theatre scrub and running, observations, flu and pertussis vaccination, housekeeping, procurement and audit. Level 4 assistant practitioners are in place for elective caesarean section and bereavement support and management of miscarriages. The LMS is actively employing apprentices in new areas of work and support roles in governance and audit as examples. More roles will emerge in the Hubs to support women and families.

10.7 Impact Trajectory to Achieve Objectives

The LMS has done some initial work with Public Health to identify baseline performance against national indicators. A trajectory has been calculated to identify the required improvements in performance in order to achieve national expectations outlined in reference documents such as Better Births.

In order to meet the Secretary of State's ambition, the LMS has put together a brief set of trajectories. More work is required to quantify this data further.

Table 2: Activity Trajectories

LMS	Number of births and projection for each year to 2020/2021				Stillbirths and neonatal deaths								Intrapartum brain injuries			
	Local baseline 2015	2018/19	2019/20	2020/21	Local baseline	Crude Rate	Trajectory March 2019	Crude Rate	Trajectory March 2020	Crude Rate	Trajectory March 2021	Crude Rate	Local baseline	Trajectory March 2019	Trajectory March 2020	Trajectory March 2021
H&W	7783	7000	6900	6900	50	6.4	44	6.3	37	5.4	35	5.1	No reliable data to baseline			
Notes	Baseline data from ONS 2015 data set. Projections based on bookings and birth trends from provider units and public health data. ONS projections identifies a 2000 birth increase by 2020/21 which does not equate to the trends within the provider population.				Baseline 2015 MBRRACE data from both Providers.								Awaiting national data. Research undertaken into available data through the legal department identified that during 2010 there were 10 cases across the LMS, we do not know if these are on-going or if they have been withdrawn			

	Number of personalised care plans				Number of women able to choose from three places of birth				Number of women receiving continuity of carer				Number of women giving birth in midiwfery settings			
	Local baseline	Trajectory March 2019	Trajectory March 2020	Trajectory March 2021	Local baseline	Trajectory March 2019	Trajectory March 2020	Trajectory March 2021	Local baseline	Trajectory March 2019	Trajectory March 2020	Trajectory March 2021	Local baseline	Trajectory March 2019	Trajectory March 2020	Trajectory March 2021
H&W	389	7	1035	1035	7783	7000	6900	6900	0	700	1035	1380	934	1050	1242	1725
Notes	All women carry hand held notes and have a womens care plan on page but we recognise it is not as interactive and self-populating as it has the potential to become. To support this we are doing a piece of research work to help midwives give unbiased information when planning care.				The LMS currently offers midwife led care (alongside), consultant led care and home births. We are planning to extend this by providing Midwive led care (Standalone) in Powys and Shropshire and discussions have commenced.				Continuity of Carer from Antenatal, Intrapartum through to Postnatal				Baseline taken from Alongside Midwive led care activity based on total births in the LMS in 2015/16. Plans are being formulated to extend the offer of midwife led care in Powys and Shropshire. We are also planning for all women to start their pregnancy journey as midwive-led care and will need to opt out as their needs change.			

10.8 Monitoring and Assurance LMS Plan

NHS England will be undertaking an evaluation of the plans to assure they meet national expectations and local priorities. The draft plan has been developed through several internal and external assurance processes including:

- Herefordshire and Worcestershire STP Partnership Board
- Herefordshire and Worcestershire Delivery Board
- H&W Joint Commissioning committee
- CCG Governance Structure
- Provider Boards
- LMS Board
- Worcestershire Health and Wellbeing Board
- Herefordshire Health and Wellbeing Board

The Herefordshire and Worcestershire Sustainability and Transformation Partnership Board most recently received version 2.9 of the LMS Plan and this was agreed virtually on 9th February 2018, feedback received as part of this process contributed to the final version submitted to NHS England.

The LMS provides updates and assurance to the STP Delivery Board and STP Partnership Board on a regular basis and will continue you to do so throughout the development, implementation and evaluation of this plan. The LMS reports into the STP in the following ways:

- Highlight reports submitted to the STP Delivery Board on a monthly basis
- Deep dive of LMS plan and progress to STP Delivery Board on a quarterly basis
- Updates and requests for support provided through the STP Communications and Engagement workstream, STP Information Technology workstream, STP workforce and Organisational Development workstream
- STP Partnership Board receives highlights, STP Delivery Board assessment and any escalations/key risks issues every on a monthly basis

The LMS Board will work with providers to agree how implementation will be reported and monitored. This will be agreed by April 2018.

The plan will also be monitored through the counties' Maternity Voice Partnerships and feedback to the LMS Board.

A risk register has been produced by the LMS Board to identify mitigating actions for areas which may present a challenge to delivery and implementation. There is an existing risk register in relation to the LMS Plan which will transition into the risk register for the implementation stage.

The clinical model identifies those services which will support and enhance maternity care such as primary care and mental health services. Interdependencies and impact on other services will be identified as the clinical model is developed further.

11 Summary / Conclusion

This LMS Board Plan sets out how the Local Maternity System of Herefordshire and Worcestershire aims to turn the vision of 'Better Births' into a reality and meet the expectations of the Secretary of State to reduce stillbirths, neonatal deaths, maternal deaths and neonatal brain injuries by 20%, by 2021, and by 50%, by 2025. As well as reduce pre-term births (24-36/40) to 6% by 2025 and reduce smoking at time of delivery to 6% by 2022.

It is widely recognised that this plan is a working document that will develop and evolve over time and that further work is required in order to ensure the LMS plans are safe, sustainable and achievable within the set timeframes. Key to the success of this plan is joint working and true co-production with local women and our workforce at every stage of the process. Only through involving women and their families, and working as a system can we ensure that there are improvements to the safety of maternity care and to the choice and personalisation of our services.

Appendix

Financial Plan

LMS Expenditure Plan:

Summary	Current Total £'000	Establish SPA £'000	Establish Hubs £'000	IT Infrastructure £'000	Continuity of Carer £'000	Support Service Integration £'000	H&SC Integration £'000	Neonatal Capacity £'000	Sub-Total: Gross Cost of Transform'n £'000	Benefits Realisation £'000	Net Cost of LMS Plan £'000
Worcestershire Acute Hospitals NHST	33,466								0		0
Wye Valley Hospital NHST	14,307								0		0
Recurrent Revenue	**47,773**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Non-Recurrent Revenue									**0**		**0**
Non-Recurrent Capital			440	400					**840**		**840**

Worcestershire Acute Hospitals NHST	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Direct Pay									0		0
Direct Non-Pay									0		0
CNST Premium									0		0
Sub-Total : Direct Costs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Indirect Costs									0		0
Overhead Costs									0		0
Total: Worcs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Wye Valley Hospital NHST	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Direct Pay									0		0
Direct Non-Pay									0		0
CNST Premium									0		0
Sub-Total : Direct Costs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Indirect Costs									0		0
Overhead Costs									0		0
Total: Here	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LMS Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**