Oxfordshire Transformation Programme

Case for Change

Draft

The overarching 'case for change'

The population of Oxfordshire currently enjoys good overall health but access and outcomes are not consistent across the county. The health needs of the population are also changing, driven by increasing chronic disease and ageing as well as births from the growing populations of Bicester and Didcot.

The Oxfordshire Transformation Programme was established in March 2015 to address these changing needs. It began by examining demographic trends, health needs and performance data.[1] This found relatively low mortality rates for preventable diseases and top quartile performance for many national health metrics. However, there were several outcome areas where the county should be performing better (for example, diabetes and mental health for children).

The data analysis showed that Oxfordshire has relatively low levels of hospitalisation compared to other CCG areas but outcomes are not uniform across the county. It also revealed that over 80% of the county's hospital resources are used by around 10% of the population.

The overall picture was one of a health and social care system increasingly struggling to deliver good access for the population when they require it. This is exacerbated by workforce shortages and the financial challenges facing all public sector organisations.

The Transformation Programme also considered national targets and expectations alongside information about international best practice in healthcare. Together this information was used by partners from across the Oxfordshire health and care system to develop a shared vision for the future of healthcare in the area. This vision was presented in the form of a 'storyboard' and used to engage stakeholders in discussions about transformation (see Appendix 1).

The feedback from these stakeholders helped inform the development of the overarching 'case for change' which has seven elements.

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[1] Graphs summarising this data are included in the Oxfordshire 'Storyboard' (see Appendix 1)

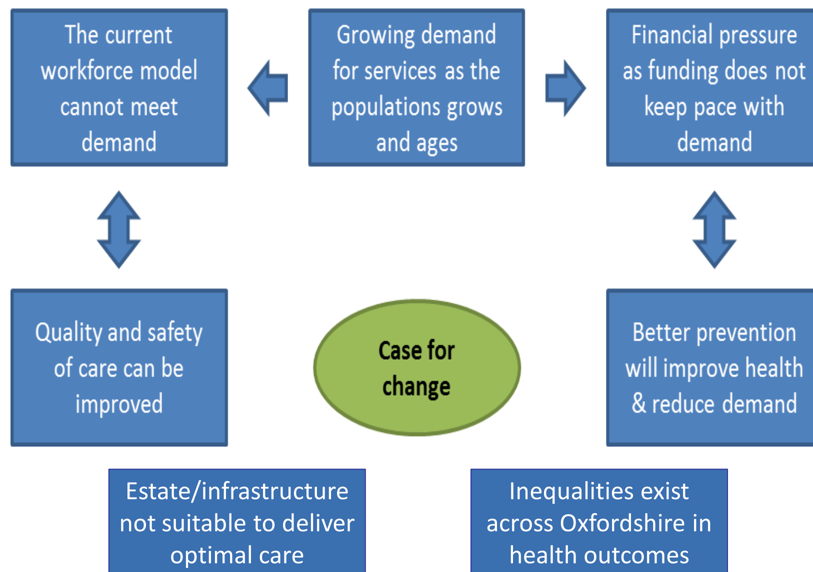

Figure 1 - **The overarching 'case for change' for the Transformation Programme**

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1. Increasing Demand

Oxfordshire has a growing, ageing population (with the number of over 85s in the county expected to rise from around 15,000 to around 24,000 between 2011 and 2026). Increases in life expectancy mean that people are living with good health for longer and new treatments mean people are also living longer with long term chronic conditions. There is a growing prevalence of co-morbidities and patient needs are increasingly complex.

The ageing population will be increasingly ethnically diverse: this means that the pattern of disease will change. For example, people from parts of Asia and the Indian sub-continent are more prone to develop diabetes and its complications at lower levels of obesity.

While Oxfordshire's population is ageing overall, there other changes in specific areas including growing populations across parts of the county, particularly Cherwell and Didcot.[2]

Demand for both children's and adult's social care is growing at a faster rate than would be expected by population growth, suggesting that previously unmet need is coming forward.

[2] 22,000 new homes are due to be built in Didcot and 23,000 in Cherwell (including Bicester).

2. Workforce Shortages across the Healthcare System

Like most places in the country, Oxfordshire is facing workforce shortages across the healthcare system from challenges to replace GPs as they retire and a high turnover of residential care and social care staff, to difficulty in recruiting specialist acute doctors. There are current shortfalls in obstetricians that have driven a temporary closure of services in the Horton Hospital.

The situation is exacerbated by: the proximity to jobs with London weighting and the high cost of living in Oxfordshire; the limited availability of key worker housing schemes for essential staff groups; and competition with other businesses (given Oxfordshire's high level of employment).

3. Quality and Safety

The overall quality of health services provided in Oxfordshire is good. However, there are some aspects of care that must be improved, especially where access and outcomes are not consistent across the county.

This will include tackling the workforce issues above, meeting relevant standards and performance targets, ensuring that buildings are fit for purpose to deliver high quality care, and redesigning pathways to improve patient outcomes.

Oxfordshire is committed to learning from best practice and making the changes needed to provide high quality 21st century services.

4. Financial Pressures

Oxfordshire CCG and local providers have a track record of good financial performance but there is a gap between the costs of anticipated future demand and funding. This gap needs to be addressed to ensure that the health and care system in the county is sustainable.

The CCG has modelled a 'do nothing' scenario over the next five years. This compares known allocations to commissioners (which will increase by £125 million over the next five years) with the expected costs of providing services, allowing for rising demand and inflation. This exercise demonstrates that by the end of 2020/21, if no action is taken, the local system will face a financial gap of approximately £134 million.

5. Prevention

While the health of people in Oxfordshire is good compared with elsewhere, services are geared to detect disease and provide treatment rather than prevent ill-health. For example, the growing proportion of the population who are overweight or obese is reflected in the higher diagnosis rates for diabetes. Health services identify and treat those with diabetes but do little to stem the increase in obesity.

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Some geographical areas and groups within the Oxfordshire population also suffer from health that is far worse than the county averages. For example, there are higher rates of early death from cardiovascular disease in more deprived communities and among those who continue to smoke, those who drink above recommended maximum limits of alcohol, or who are physically inactive.

6. Inequalities

There are many areas of inequalities explored in the Director of Public Health report.[3]

A stark example used below is deaths from Cancer by District and wards. Looking at death rates gives us insight into how disadvantage plays out in the County. The chart below shows characteristic findings for Oxfordshire

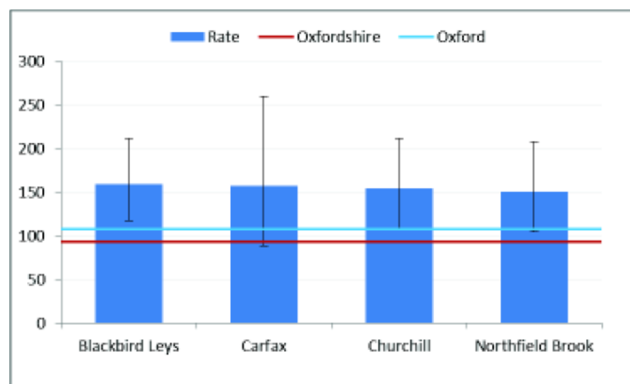

Figure 2 – **Wards with High Cancer Mortality Rates in Oxfordshire**

The chart shows that:

- Disadvantage has very tangible results – in this case higher death rates from cancer in Oxford City than in the rest of the county.
- The bars on the chart show the death rates for the highest areas in the County. Death rates in the most disadvantaged wards are 50% higher than the County average.
- This pattern of the results of disadvantage is mirrored in many statistics about death and disease and underlines the reasons for tackling disadvantage head on.

The Health and Wellbeing Board has sponsored a more detailed review of disadvantage. This analysis should inform the Joint Health and Wellbeing Strategy, Local Authority plans, the Clinical Commissioning Group's 5 year plan and the work of the NHS and County Council Systems Leadership Group and Transformation Board. The Health and Wellbeing Board has sponsored an independent Commission on Health Inequalities and the work is due to report in the Autumn. It has taken

[3] Director of Public Health Annual Report for Oxfordshire Report IX, May 2016, Jonathan McWilliam

evidence from a wide range of sources and has had access to local data. The results of this work will further inform how we address inequalities.

7. Estates and Infrastructure

There is a community Hospital closed in Wantage because of the risk of Legionella. The size and nature of service in much of our community estate needs to be reviewed to ensure we can offer optimal care pathways through the range of services offered, any benefits of scale and sustainable workforce skill mix. This work is under review and is likely to result in a further public consultation on Community services during 2017.

In regard to the Horton an independent assessment[4] reported that the Horton General estate had many facilities that were in an "unacceptable" state. Making changes piecemeal to this estate is expensive. The replacement of the current CT scanner with modern equipment is anticipated to cost £3m, rather than £900k, because of the additional cost of addressing poor quality estate. Any new build at the Horton General would not only lead to a state of the art facility that increases and improves clinical care on this footprint, but could also realise the savings of scale from a planned and coordinated estate improvement plan, which will be required on any account.

The PCBC sets out a vision for maternity care in which informed choice for women goes alongside clinical safety and operational capacity. Some further services are provided from an estate which is not fit for purpose - Wantage houses a MLU currently. Additional temporary theatres for gynaecology surgery have been rented to accommodate interim arrangements on obstetrics.

This overarching 'case for change' demonstrates that 'doing nothing' is not an option if the Oxfordshire population are to continue to enjoy good health. It is also crucial that access and quality issues are addressed to ensure that everyone in the area has access to high quality care when they need it.

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[4] Green and Kassab and AECOM reports (2016) to Oxford University Hospitals NHS Foundation Trust

The clinical 'case for change' for acute hospital services

The Transformation Programme's overarching 'case for change' gives an overview of the challenges that the Oxfordshire health and care system faces.

To support this, a more detailed clinical 'case for change' has been developed. This 'case for change' looks at the three of the areas that are the focus of Phase One of the acute sector changes.[5]

- Three specific elements of Urgent and Emergency Care:
  - Critical Care facilities
  - Stroke Care
  - Changes to bed numbers in order to move to an ambulatory model of care
- Planned Care (Elective Care, Diagnostics and Outpatients)
- Maternity Services

Two hospital sites in Oxfordshire – the John Radcliffe Hospital and Horton General Hospital – are the focus of discussion as these are the direct admission sites with undifferentiated take.

This 'case for change' considers the issues identified in the overarching case for change in more detail. It also reviews current performance in the light of both national and college standards / guidance and briefly considers best practice for each area.

Urgent and emergency care, including stroke care and critical care

Current Provision

- **Urgent, Emergency and Critical Care**

  Urgent and emergency care services provide life-saving care 24 hours a day 365 days a year.

  In Oxfordshire this is provided by two Emergency Departments (ED), two Emergency Multidisciplinary Units (EMU), three Minor Injury Units (MIUs), two First Aid Units (FAUs), One Emergency Care Practitioner Unit, One Rapid Access Care Unit (RACU) (scheduled to be launched in quarter four of 2016/17) and GP Out of Hours (OOH) operating in each of the six locality areas of the county.

[5] Emergency Departments will be part of Phase Two but the 'case for change' for all aspects of urgent and emergency care have been included in order to provide context for the proposals around critical care.

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Emergency and Urgent Care Services are also provided by NHS 999 and 111 services.[6]

Oxfordshire's two **Emergency Departments** are intended to deal with genuine life threatening emergencies such as:

- loss of consciousness
- acute confused state and fits that are not stopping
- persistent, severe chest pain
- breathing difficulties
- severe bleeding that cannot be stopped
- severe allergic reactions
- severe burns or scalds.[7]

The **Minor Injury** facilities[8] can treat any injuries that are less severe than those mentioned above.

The two **Emergency Multidisciplinary Units** (EMU) provide assessment and treatment for adults with sub-acute care needs as close to patients' homes as possible. Providing medical, nursing and therapist assessments and treatments, the units are designed to offer patients a faster and more convenient alternative to admission to an acute hospital.[9]

From 2017 the Townlands Hospital in Henley **Rapid Access Care Unit** will provide a next day service led by a consultant and a team of health and social care professionals including community nurses, physiotherapy and occupational therapy practitioners, social care staff, mental health staff and hospital clinicians. The RACU which will have lead Clinicians from Royal Berkshire Hospital Foundation Trust will provide assessment and treatment of patients with a crisis or deterioration in their health or long term condition – including patients with complex medical, social and/or mental health needs. The service will offer a next day clinic so that patients can be assessed by a consultant and then, if needed can receive diagnostic tests or treatments such as blood transfusions and intravenous antibiotics all on the same day.[10]

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[6] Oxfordshire CCG commissions each of these services. ED is provided by Oxford University Hospitals Foundation Trust (OUHFT). EMU, MIU, FAU and OOH are provided by Oxford Health Foundation Trust (OHFT). NHS 999 and 111 services are provided by South Central Ambulance Service (SCAS).

[7] http://www.nhs.uk/NHSEngland/AboutNHSservices/Emergencyandurgentcareservices/Pages/AE.aspx

[8] The two Emergency Multidisciplinary Units (EMU), three Minor Injury Units (MIUs), two First Aid Units (FAUs), and one Emergency Care Practitioner Unit.

[9] http://www.oxfordhealth.nhs.uk/service_description/emergency-multidisciplinary-unit/

[10] http://www.oxfordshireccg.nhs.uk/news-and-media/news-articles/plans-for-townlands-rapid-access-care-unit-given-clinical-support-but-with-conditions/

The **GP Out of Hours** service provides patients with the ability to speak with or see a GP if there have a medical condition that they would usually seek advice from their GP but cannot wait until their practice is next open.

Urgent and emergency care is supported in the community by the Hospital at Home service.

The Horton General has a 6-bedded **Critical Care Unit** (CCU). It is designated as a Level 3 critical care facility and is, therefore, expected to care for patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems, including all complex patients requiring multi-organ failure.

The CCU has served a number of purposes in its history including coronary care, high-dependency care and intensive care. Over the last three to five years, however, the demand for critical care at the Horton General has reduced because:

- Patients with myocardial infarction are now taken directly to Oxford for primary percutaneous coronary intervention (PPCI);
- Patients with major trauma are taken directly to the Major Trauma Centre at Oxford (since 2012);
- Emergency surgery services were relocated to the John Radcliffe in 2013.

This has resulted in a reduction in the number of patients requiring Level 3 critical care at the Horton General. There were only 488 Level 2 and 3 critical care admissions in 2015/6, 41 of which were for Level 3 care.

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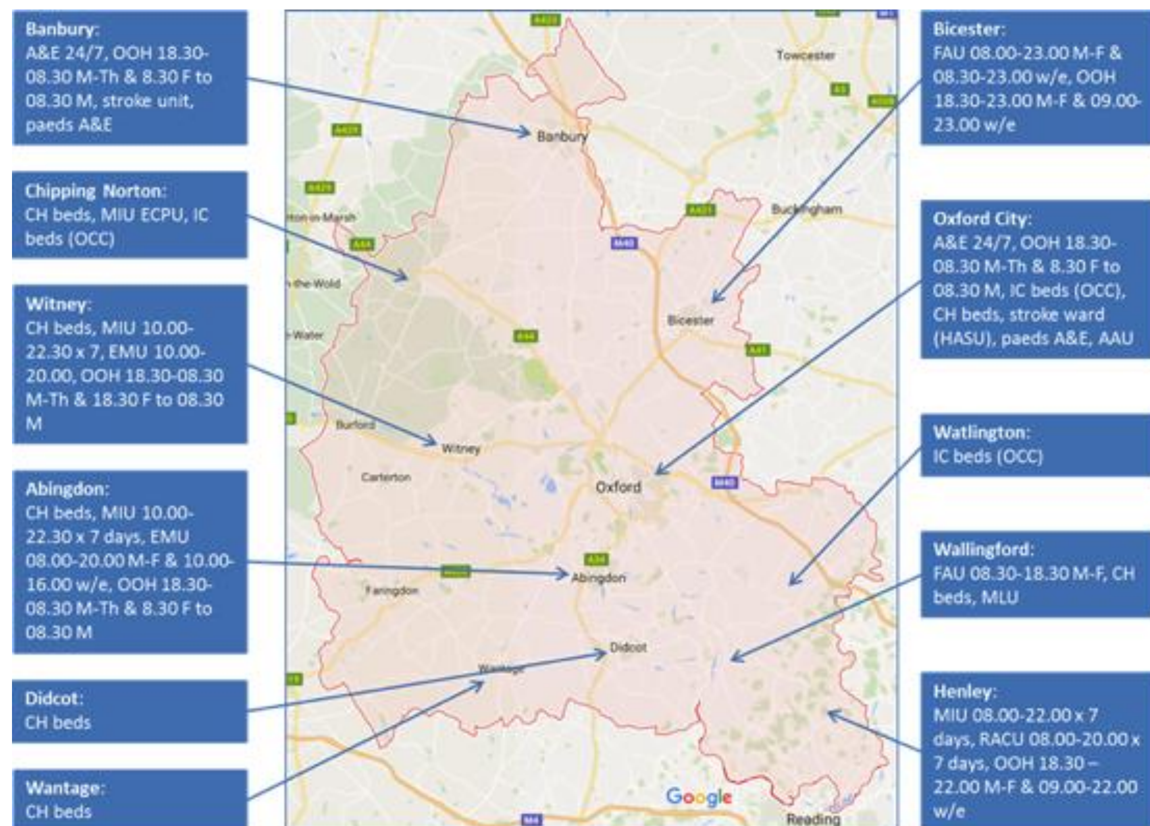

Figure 3 - **Urgent and Emergency Care in Oxfordshire**

The Oxford City (Headington Hospitals and in particular the John Radcliffe Hospital) also provide full acute services and tertiary support to the wider catchment of Wiltshire, Berkshire and Buckinghamshire.

- ## Stroke Care

Acute stroke services for Oxfordshire patients are provided by Oxford Universities Hospital NHS Foundation Trust (OUHFT). The majority of the patients admitted to an acute stroke service will be sent to the John Radcliffe Hyper-Acute Stroke Unit (HASU). During 2014/15, the John Radcliffe HASU saw 88% of the stroke patients in the county. The Horton General also provides acute services for stroke patients through the Acute Stroke Unit that is located on their Oak Ward. During 2014/15, the Horton saw 12% of the stroke patients in Oxfordshire.

The two hospitals also host inpatient rehabilitation and therapy. This is available for patients for up to six weeks and includes: Speech and Language therapy, Occupational Therapy and Physical Therapy, among others. The Horton Hospital national stroke audit results (SNNAP) demonstrates that the service is not meeting necessary standards for effective stroke care and thereby minimising the life changing impacts on health outcome in stroke care.

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Further stroke rehabilitation services are available in the form of Early Supported Discharge (ESD) services. These are provided by OUHFT in the city of Oxford and also Bicester. While ESD is a clinically appropriate and cost-effective rehabilitation solution for many stroke patients, it is not available across many Oxfordshire localities, and serves only half of the total population of the county.

- **Delayed Transfers of Care (DToC)**

The Oxfordshire health and care system has a history of poor performance in terms of delayed transfers of care (DToC). This is bad for patients and also creates budget pressures.

Data is published nationally once a month by the department of health. This breaks down all delays by hospital trust, local authority of the resident, reason for the delay and who was responsible for the delay (health, social care, both). The graphs below show performance in Oxfordshire to December 2015 when the 'Rebalancing the System' pilot project was introduced.

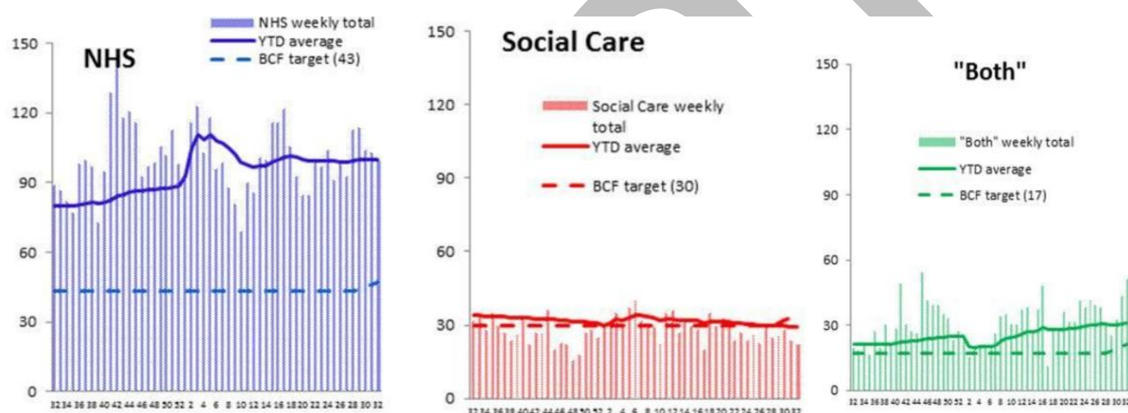

Figure 4 - **Delayed Transfers of Care (DToC) Performance 2015**

At any one time Oxfordshire had around 150 patients whose medical care had finished but who remained in hospital waiting to be discharged. A large number of these patients need some form of ongoing health and social care or rehabilitation in their own homes or nursing home care.

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National Perspective (standards, guidance and best practice)

- ### Urgent Care, Emergency and Critical Care

The NHS Five Year Forward View (5YFV) published in October 2014[11] described the need to redesign urgent and emergency care services for people of all ages. The vision it presented is as follows:

- For adults and children with urgent care needs, we should provide a highly responsive service that delivers care as close to home as possible, minimising disruption and inconvenience for patients, carers and families.
- For those people with more serious or life-threatening emergency care needs, we should ensure they are treated in centres with the right expertise, processes and facilities to maximise the prospects of survival and a good recovery.

Related to this the Future Hospitals Commission (FHC)[12] report considered how patients could in future receive 'safe, high-quality, sustainable care centred around their needs and delivered in an appropriate setting by respectful, compassionate, expert health professionals'.

The need for Integrated Care – improved quality through patient-centred coordination of complex care across traditional boundaries – led the FHC to conclude that the specialist resources available in hospital need to be deployed in a way that supports the whole community and the health and social care system. This means clinicians working both inside and outside hospitals, and more closely with community teams to provide a progressive, collaborative spectrum of support. This is illustrated in Figure 5 below.

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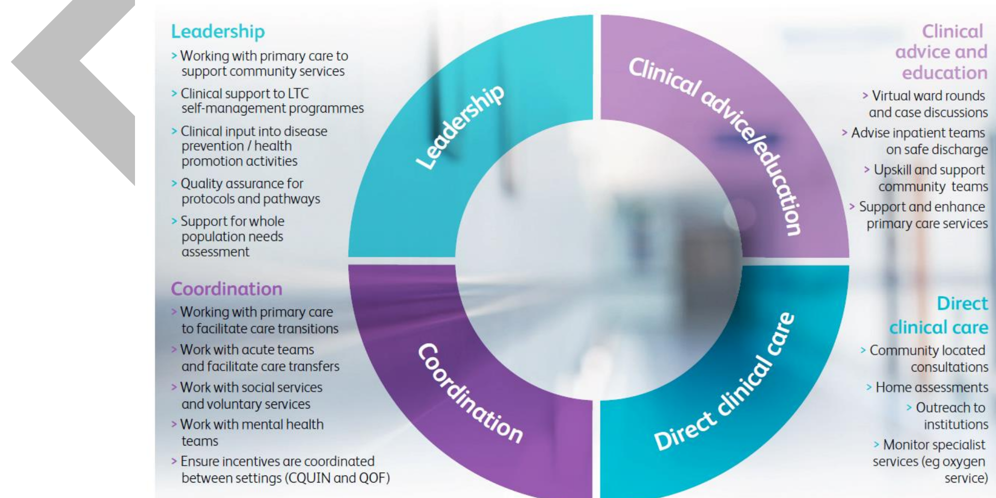

Figure 5 - **Components of the Future Hospital model**

[11] NHS England, Five Year Forward View, October 2014
[12] Future Hospitals Commission (2013) Future Hospital: Caring for Medical Patients A report from the Future Hospital Commission to the Royal College of Physicians

The FHC report advocates a model of 'hospital-based centres of acute care' supported by the extension of currently hospital-based services into or close to the patient's home, with staff linked to local hospitals working with primary and social care services. Preventing patient deterioration and crises in care at home should be a prime focus, but when a crisis does occur, the default should be to provide integrated, patient-centred care at home or in a community setting close to home; if care in the hospital is required, access should be provided without delay and then services must support prompt return to the community.

The care of patients with complex needs, delivered across settings and by several teams, requires excellent coordination. The FHC describes a Clinical Coordination Centre (CCC), as a base for the hospital's clinical teams co-ordinating care for patients with active clinical needs in both hospital and community. Crucially, the CCC supports clinicians (GPs, nurses, ambulance practitioners and others) outside hospital with 'patients in crisis', with advice in determining the best immediate care and ongoing care pathway, and with the direct provision of care whenever appropriate.

Such a change to partnership working and collaboration has the potential to deliver the necessary quality and value improvements for the population and to overcome fragmentation in pathways and service delivery.

- **Stroke Care**

Stroke commonly causes death or severe disability. In the first hours of a stroke, immediate access to advanced tests, treatments and teams results in better outcomes. These include Computerised Tomography (CT) and Magnetic Resonance Imaging (MRI) scanning, thrombolysis (clot-dissolving drugs) and increasingly thrombectomy (physical removal of clots from arteries supplying the brain), and the 24-hour presence of specialist stroke doctors and nurses, and complementary specialist teams such as neurosurgery and neuroradiology.

The clinical evidence is that the best outcomes for patients are delivered within units that have adopted these measures. These outcomes are seen when the initial care of all patients with acute stroke (other than rare exceptions such as end-of-life care) are assessed initially in a Hyper-acute Stroke Unit (HASU) with access to all the services that might help survival and recovery. As soon as the hyper-acute phase is over, care is then transferred to a specialist team providing rehabilitation in a stroke rehabilitation ward, or when possible at home (Early Supported Discharge). Research has found that patient satisfaction and outcomes are better for home rehabilitation than for rehabilitation in hospital.[13,14]

[13] Ramsay AI, Morris S, Hoffman A, et al. (2015) *Effects of centralizing acute stroke services on stroke care provision in two large metropolitan areas in England. Stroke 46: 2244–2251*

[14] *Fearon P, Langhorne P (2012) Early Supported Discharge Services for reducing duration of hospital care for acute stroke patients. Cochrane Database of Systematic Reviews Issue 9*

Draft

The 'case for change'

1. Increasing Demand

There are growing pressures on Oxfordshire's urgent and emergency care services. Increased demand is being driven by an ageing population whose medical needs are becoming increasingly complex. Over 65s in Oxfordshire currently make up 17% of the population and this figure is predicted to rise to 23% in the next 10 years. The over 85 population is also predicted to rise by 30%. This will put an increasing strain on all services including primary care, dementia and community care. With older age comes increased likelihood of multiple complex physical and mental comorbidities. For example, in 2014, 42% of non-elective hospital admissions in Oxfordshire were for people aged 60 or over.

This is exacerbated by the lack of capacity in the health and care system. For instance, there is insufficient capacity within the primary care system to manage demand for appointments and offer all the preventative care GPs want to provide for their patients – particularly those with lots of complex conditions.

GP consultation rates increased by 11% between 2011 and 2014 but, despite this, patients often have to wait longer than they would want to with 29% of patients reporting that their length of wait for an appointment was unacceptable. For example, the Royal College of Emergency Medicine found that 15 per cent could have been treated in the community.[15] This is particularly the case in Banbury and The City which both have much greater rates of attendance at A&E.

A&E services in Oxfordshire have experienced year on year growth in attendance. In 2015/16, OUHFT saw an increase in attendances of 6,848 which is an increase of 5% or an extra 18.7 patients per day. In the four years between April 2012 and March 2016, activity in A&E increased by 16,771 patients: a rise of 13.1% or 46 additional patients per day. The continual growth and demand on services utilises a greater proportion of resources available to the emergency department resulting in longer waits to be seen, bigger queues and decreasing patient experience.

NHS England hold the A&E departments to account for their performance, using targets such as *"95% of patients must been seen within four hours of arrival"*. In 2012/13 93% of patients were being seen within four hours but by 2015/16 this had fallen to 89%.

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[15] (http://www.kingsfund.org.uk/projects/urgent-emergency-care/urgent-and-emergency-care-mythbusters#somewhere

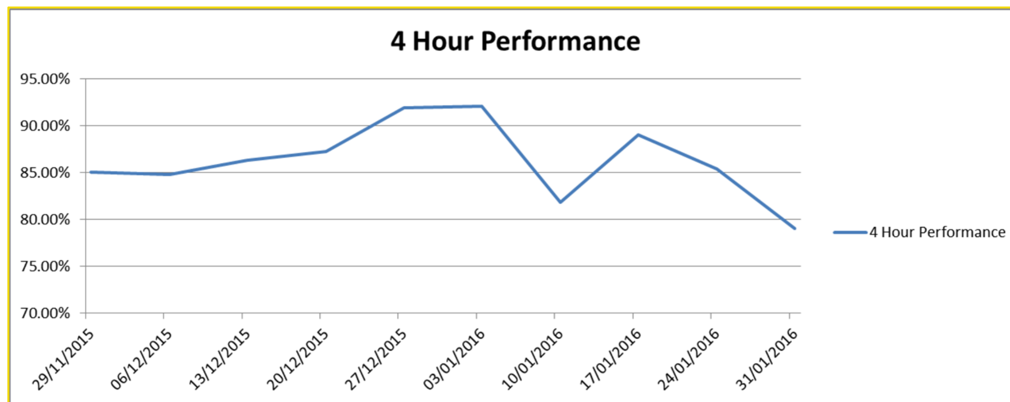

Figure 6 - **Four hour wait performance, OUHFT**

In June 2016, the position remained behind target and behind the England average:

Target	95.0%
England	90.5%
Oxford University Hospitals NHS Foundation Trust	86.3%

Table 1 - **OUHFT A&E four-hour performance, June 2016**

2. Workforce Shortages

- ### Urgent, Emergency and Critical Care

Staffing the Horton CCU is becoming increasingly unviable. The CQC inspection in February 2014[16] noted that there was a clear gap in the presence of appropriately trained staff to deliver the service in a consistent manner. There is a high vacancy rate for band 6 nurses and recruitment at any band is proving virtually impossible. This has led to a consistent failure to meet the Guidelines for the Provision of Intensive Care Services (GPICS) and has resulted in a current plan to transfer all intubated patients to Oxford in a planned manner.

3. Quality and Safety

- ### Urgent, Emergency and Critical Care

Pathways of care for patients requiring urgent and emergency care often cross organisational boundaries, contributing to impaired patient experience and outcomes. Current arrangements contribute to inefficient and repetitive assessments, excessive delays, and overcrowded facilities.

Current arrangements for referral, for advice, for supporting transitions of care, and for supporting joined-up care for the most complex patients outside hospital are time-consuming, unreliable and variable in quality.

[16] Care Quality Commission, Horton General Hospital Report, May 2014

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There are also specific issues in relation to the Critical Care Unit at the Horton. The current activity numbers are low and, therefore, impact on the ability of clinicians to maintain their skill set.

The Intensive Care National Audit and Research Centre (ICNARC) data for 2013/14 demonstrates that patients remain on the Horton General CCU relatively longer in relation to peer units in the Thames Valley and Wessex[17]. Later ICNARC data demonstrates that the unit has the lowest number of ventilated patients in this region but that its mortality for ventilated patients is the highest amongst peers.[18]

- **Stroke Care**

Oxfordshire currently has two ‘front doors’ for stroke services and this results in issues around timely entry to a specialist acute stroke unit, long lengths of stay in inpatient rehabilitation settings and difficulties with prompt discharge/onward referral. There is inconsistency in inpatient rehabilitation, a lack of psychological medicine (psychiatry and psychology) provision across the pathway outside of The Oxford Centre for Enablement, resulting in worse Sentinel Stroke National Audit Programme (SSNAP) scores at the Horton in particular and anecdotal reports of inappropriate use of tertiary referrals. In addition there is inequity in the provision of early supported discharge.

Planned Care (Elective Care, Diagnostics and Outpatients)

Current Provision

Planned care is the care received along a predictable pathway, often starting with self-management and which may lead to patients presenting to their GP or another healthcare professional. The management of the condition and treatment, if required, may be carried out locally within primary care or the community or may result in referral to hospital for treatment, with a health care professional who is an expert in their condition. Often diagnostics such as X-ray, MRI and ultrasound are part of this pathway. If the condition is very specific or rare it can lead to a consultation in a more specialist service in secondary care. Planned care includes management of elective surgery, treatment of cancer and long term conditions such as osteoarthritis.

Much of planned care is carried out in a hospital setting as are the associated diagnostics. Planned care services are offered at both the Horton General Hospital and at John Radcliffe Hospital.

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[17] Intensive Care National Audit and Research Centre (ICNARC) data, 2013/14. See Appendix 2: Reference Slide 1
[18] See Appendix 2: Reference Slide 2 and 3

National Perspective (standards, guidance and best practice)

A number of issues are driving changes in the way planned care is delivered:

- Advances in surgical techniques, drugs and equipment enabling more surgery to be done on a day case basis or, where a stay in hospital is needed, leading to reductions in the time spent in hospital;
- A move to greater specialisation in surgery;
- Pressures to optimise productivity to meet growing demand: there is evidence of a need for improved productivity in some areas with clear pathways for specific conditions.

The steady increase in day case surgery in this country from 417,000 (7%) in 1974 to 6,300,000 (35%) by 2013/14 has not only resulted in better quality care and patient experience, but an average saving of 1.4% per year in the NHS from 1998/99 to 2013/14.[19] While it is imperative that a tertiary trust such as OUHFT provides urgent and emergency treatment for its immediate and wider catchment population, it is also important that such care does not interfere with the smooth planning and passage of planned or elective work. Failure to manage both effectively results in cancellations and postponements of elective work, which may lead occasionally to patient harm and usually leads to poor patient experience. The separation of urgent and emergency work from elective work, therefore, represents a clear benefit in terms of the quality of clinical care. Patients can plan their lives around procedures, pre-operative assessment and preparation can be organised, discharge plans can be put in place, and recovery and rehabilitation can be designed and delivered in a seamless fashion.

A Monitor study on elective orthopaedic and ophthalmic surgery explored opportunities for improving operational performance.[20] The study involved eight NHS Trusts and identified nine opportunities for operational improvement. These included: preoperative assessment and risk-stratification; day-of-surgery admission; improved theatre scheduling; standardised postoperative care and enhanced recovery and an increased proportion of virtual follow-up.[21] One centre which participated in this study, South West London Elective Orthopaedic Centre, reported not only improved operational performance but also a reduction of same-day cancellations to 1% and 0.5% for clinical and non-clinical reasons respectively, consistent delivery of 18-week targets, reductions in length of stay (LOS) and a reduction in infections to 0.02%.[22]

Monitor also reviewed the international elective surgery experience in five centres. At Alfred Health in Melbourne, Australia, operational separation of elective surgery from emergency and specialist or tertiary surgery resulted in reduced hospital initiated postponements from 28% to 6%, reduced LOS from a mean of 4.8 days to 2.3 days,

[19] Alderwick H, Ham C and Buck D (2015) Population Health Systems: Going beyond integrated care, The Kings Fund
[20] Monitor (2015) Helping NHS providers improve productivity in elective care
[21] See Appendix 2: Reference Slide 4
[22] See Appendix 2: Reference Slide 5

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increased same-day discharge to 95% and 100% patient satisfaction with the pre-admission process[23],[24].

The 'case for change'

1. Increasing Demand

Hospital demand is increasing (forecast to grow by 15% over the next five years across all age groups) as a result of a growing and ageing population.

Although many routine outpatients and cancer services are delivered within the key national targets (NHS Constitution standards), there are long waits for appointments in some planned care areas in Oxfordshire particularly in the high volume specialities such as: ear nose and throat, orthopaedics, gynaecology and cardiology services. In addition to this, whilst cancer waiting times have improved considerably over the last year across a range of tumour sites, there are some areas still in need of further work to ensure people are seen as quickly as possible to get them onto treatment pathways.

The table below gives a 'snapshot' of OUHFT specialties not meeting the target of treating 95% of patients referred within 18 weeks of the referral.

Specialty	Performance
Trauma & orthopaedics	84%
Ear, nose, throat	85%
Neurosurgery	78%
Plastics	91%
Gynaecology	90%

Table 2 - **OUHFT waiting times (RTT 18 weeks) performance, June 2016**

The ageing population means that the number of elderly patients being seen with long term conditions and frailty will continue to rise. This, in turn, increases the complexity of care and treatment. There is an increasing demand for elective services, particularly cataract surgery and hip and knee replacements.

Patients scheduled for planned surgery often have to wait when urgent and emergency care puts pressure on theatres, ITU and inpatient beds. This results in delays and cancellations. Hospital care is also under pressure due to:

[23] See Appendix 2: Reference Slide 6 and 7
[24] Alfred Health interviews; MJA (2011) Streamlining elective surgery care in a public hospital: the Alfred experience (https://www.mja.com.au/journal/2011/194/9/streamlining-elective-surgery-care-public-hospital-alfred-experience Alfred Hospital, Melbourne

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- Lack of up to date information on patients, leading to patients not receiving appointments and then having to be rebooked.
- Complex pathways that are disjointed.
- Poor communication and information systems. IT is not keeping pace with technological advances and there is a lack of shared information across all parts of the local 'system'.

2. Quality and Safety

Many patients from the catchment area of the Horton General Hospital are required to travel to Oxford for elective treatment as there is currently little scope to increase activity.

Patients from the catchment area also travel to John Radcliffe for diagnostic work due to either the absence of diagnostic equipment or because they are tied into co-location with outpatient services in Oxford.

The Horton General has many diagnostic facilities but not all that would routinely be expected to be found in a large DGH or tertiary hospital. This is most obvious in its diagnostic imaging capacity, with no Magnetic Resonance Imaging (MRI) scanner available for use. There is an MRI scanner on the hospital estate within the Ramsay Horton Treatment Centre (HTC) but this is only suitable for outpatient imaging. Horton General inpatients have to be transported to Oxford for an MRI scan. There is a single Computerised Tomography (CT) scanner but this is more than 10 years old, and is single energy, compared to the new dual energy scanners in Oxford. The CT scanning suite at the Horton is old and does not conform to modern configurations. There are no DEXA (Dual-Energy X-ray Absorptiometry) scanners to measure bone mineral density, and inadequate facilities and inadequate capacity to meet the demand for exercise stress tests, transoesophageal echocardiography, lung function tests, urodynamics, sleep studies and ophthalmic investigations.

The imaging capacity available at the Horton General is underutilised: each X-ray machine only produces 8 images each day and the single CT scanner delivers 23 scans each day, with an average of < 5 inpatients, in comparison to the more than 40 scans per scanner and > 10 inpatients on the Oxford sites.

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Maternity Services

Current Provision

The Oxford University Hospital Trust (OUHFT) provides maternity services for women in Oxfordshire and for up to 1,000 women from surrounding counties. Services are delivered in two separate obstetric units (at the John Radcliffe Hospital

and Horton General Hospital), one alongside maternity led unit (MLU) and three freestanding MLUs.

Obstetric-care is currently provided by 5WTE Obstetrics and Gynaecology consultants and 8 resident Trust Grade/Clinical Research Fellows at the Horton General. At John Radcliffe there are 10 WTE Consultants.

In 2015/16 there were about 8500 births (including home births) at the OUHFT as outlined below:

Unit	Births
John Radcliffe Obstetric Unit	5729
Spires alongside MLU	844
Wallingford MLU	216
Wantage MLU	93
Cotswold MLU	142
Horton Obstetric Unit	1466
All	**8490**

Table 3 - **Births 2015/16**

As the table shows, there is a marked difference in activity between the two obstetric units in Oxfordshire with noticeably less women giving birth at the Horton General Hospital. Indeed, the obstetric unit at the Horton General is the ninth smallest in the country (out of a total of 160).

The case mix between the two hospitals is also very different with the John Radcliffe Unit dealing with a larger proportion of women who have a high risk pregnancy, or who have been referred for tertiary care. In 2014/15, for example, approximately 400 woman giving birth at the Horton General required obstetric-led care while in the same year 5,800 obstetric cases were managed at the John Radcliffe Hospital. Despite this difference in risk profile, the outcomes reported by both units are similar.[25]

There is evidence that some women from the Horton catchment choose to travel to Oxford to give birth. In addition to those who received their care at John Radcliffe Hospital as a result of assessed risk, 200 women from north Oxfordshire chose to give birth at the alongside MLU. Overall, nearly one third of pregnant mothers from north Oxfordshire are currently travelling to the John Radcliffe in order to receive maternity care.

[25] See Appendix 2: Reference Slide 8

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National Perspective (standards, guidance and best practice)

A good quality maternity service should always be able to provide women with options of care so they can make informed choices. Whilst recognising the need to support women's choice, the Royal College of Obstetrics and Gynaecologists (RCOG) in 2011 also noted that "there is a need to be mindful that choice has to be delivered in a realistic manner, balancing wants and needs with what is clinically safe and affordable and what resources can be made available without destabilising other services".[26]

There are national standards that every Trust providing maternity services must adhere to. This includes metrics for clinical care and staffing numbers.[27] Based on these principles and national standards, the models for the provision of maternity services are underpinned by the following:

- Pregnancy and childbirth are a normal life stage, but pregnancy is not risk free;
- Consistent quality of service and assessment of individual risk will enable women to make genuine choices and receive effective personalised care;
- Women with a low risk pregnancy should be managed in a Midwifery Led Unit (MLU) where they will have better outcomes (i.e. reduced likelihood of interventions such as induction of labour and emergency caesarean section);
- Robust, evidence-based, national standards of care for women with more complex pregnancies and high-risk pregnancy (such as twin pregnancies, morbid obesity and diabetes) demonstrate that care is more effective when delivered by specialised and dedicated services;
- Clinical outcomes are improved with early targeted interventions (e.g. prophylactic Fragmin to reduce the likelihood of thrombosis, low dose aspirin, assessment of cervical length in pregnancy etc.). Equity of access to this specialist care must be improved for all women, to reduce morbidity and mortality.

The Birthplace study, conducted by the National Perinatal Epidemiology Unit (NPEU) at the University of Oxford[28,29], examined the impact of intended place of birth on maternal and perinatal outcomes for low-risk mothers. It compared four birth settings: birth in hospital obstetric units; free standing (FMU); alongside (AMU) midwifery units; and home birth. The study looked at 65,000 births which included nearly 17,000 planned home births and 28,000 planned midwifery unit births from 2008–2010. It found that for women with no complications in pregnancy, childbirth is

[26] Royal College of Obstetricians and Gynaecologists (2011) High Quality Women's Health Care: A proposal for Change Expert Advisory Group Report
[27] Royal College of Obstetricians and Gynaecologists (2008) Standards for Maternity Care: Standards Database
[28] National Perinatal Epidemiology Unit (2011) The Birthplace Cohort Study, University of Oxford
[29] BMJ (2011) Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study

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generally very safe. The outcome for mothers was good in all birth locations. In 250 births, however, the baby had a poor outcome (4.3 events per 1000 births) across the four birth locations.

Key findings from the study included that:

- For first-time mothers planning to have a home birth, there was an increased risk of poor outcomes for the baby (9.3 per 1000 births at home compared with 5.3 per 1000 births in obstetric units). There was no increased risk for babies, delivered at home in women who were in their second or subsequent pregnancy.
- There was a 45% transfer rate to obstetric units for first-time mothers planning to deliver at home. The transfer rate for midwifery units was 36.3% (FMU) and 40.2% (AMU).
- The transfer rate for mothers who were in their second or subsequent pregnancy to obstetric units was 12% (home birth), 9.4% (FMU) and 12.5% (AMU).
- Lower intervention rates were reported in both types of midwifery units than in obstetric units.
- There are wide differences across the country in the availability of midwifery units, and in the way maternity services are organised and staffed, with 50% of trusts having no midwifery units in 2010.

The Birthplace study provides good evidence on the risks and benefits of each birth setting, which helps women and healthcare professionals make informed choices on locations for low-risk births. It supports the concept of configuring maternity services differently and with it the expansion of midwifery units, which deliver better outcomes for low-risk births.

With high-risk births, however, the Royal College of Obstetricians & Gynaecologists (RCOG) recognises that for maternity services to improve, obstetric care needs to be concentrated to deal with the expanding numbers of complex pregnancies and with women bring transferred from other birth locations. These obstetric units should provide continuous senior medical staff presence on the labour ward. This is not the case for either of the obstetric units in Oxfordshire. This can only be achieved by expanding the numbers of consultants in Obstetrics and Gynaecology[30,31,32]. Despite the number of women with complex pregnancies increasing both in Oxfordshire and nationally, the stillbirth and neonatal mortality rate has fallen by over 20% in the last ten years.

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[30] Royal College of Obstetricians and Gynaecologists (2005) The Future Role of the Consultant: a working party report. London: RCOG

[31] www.rcog.org.uk/resources/Public/pdf/future_role_consultant.pdf

[32] Royal College of Obstetricians and Gynaecologists, Royal College of Midwives (2007) Towards Safer Childbirth: Minimum Standards for the Organisation of Labour Wards.2007 London: RCOG

In February 2016, as part of the Five Year Forward view, the maternity review team published "Better Births: Improving outcomes of Maternity services in England"[33]. This report called 'for all staff to be supported to deliver care which is women centred, working in high performance teams, in organisations which are well led in cultures which promote innovation, continuous learning and break down organisational and professional boundaries'.

The 'case for change'

1. Demand

The Thames Valley Strategic Clinic Network Review carried out detailed analysis on population and birth rate projections and projected an increase in births across Oxfordshire of 8% over the next 10 years. This equates to between 0.5 and 1.0% each year. This analysis included assumptions made about expected housing growth particularly in areas with big developments including Bicester and Didcot.

The review by the Thames Valley Strategic Clinical Network noted that all maternity units in the Thames Valley are close to capacity but Oxfordshire is up to capacity in delivering 6,000 women in its consultant led obstetric units and work is needed to increase this capacity. Oxfordshire needs to work as part of a wider local maternity system to ensure effective management of future capacity.

2. Workforce Shortages

There are rigorous national standards that any Trust which provides maternity services must adhere to. However, recruitment of obstetricians is a national challenge. At present OUHFT struggles to meet the minimum staffing levels on obstetric wards at the Horton and the recommended levels at the John Radcliffe site.

OUHFT can usually appoint to any emergent midwifery vacancies at both the John Radcliffe and Horton General. Maintaining sufficient medical staffing capacity within the Horton General Obstetric Unit, however, represents a significant and increasing challenge.

In 2013 the obstetric service at Horton General lost recognition as a RCOG approved training centre, predominantly due to the low number of deliveries, which diminished the obstetric training experience. The number of births at the Horton has continued to decline: currently approximately 4 per day. Even with significant growth in housing planned for the surrounding areas, and the growth predicted by the Thames Valley Strategic Clinic Network Review, it is unlikely that the number of births will return to 2011-12 levels. It is even more unlikely that the levels recommended by the Royal College of Obstetricians and Gynaecologists will be reached. Dr Michael Bannon (Dean Thames Valley Health Education England) quoted to the Community Partnership Network on 21st October 2016 a

[33] National Maternity Review (2016) Better Births: Improving outcomes of maternity services in England A Five Year Forward View for Maternity Care

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figure of 2,000 to 2050 as a minimum that could be secured for obstetrics in remote places such as Scotland.

Since 2014 the 'middle grade' medical obstetric cover at Horton General has been provided by Oxford University Clinical Research Fellows (CRFs). However, it has become increasingly difficult to recruit and retain sufficient numbers of adequately qualified and trained CRFs and this academic programme has now been withdrawn.

The night obstetric service at the Horton General is currently carried out by a single resident middle-grade obstetrician and as such they require a high degree of operative and clinical skill to work alone. Such clinicians are in short supply throughout the NHS, in part because a number of units have lost recognition as a training centre and in part because of national shortages.

The John Radcliffe Hospital also faces recruitment challenges. The number of deliveries at the hospital means there should be 168 hours of consultant cover for the obstetric unit but, as of August 2016, there was 106 hours of cover.

In 2015/16, although the budget for obstetricians and gynaecology medical staff in the acute trust was 20WTE across the year, the actual staff in post level was between 12 and 14 WTE. There were 8 WTE specialist registrar unfilled University-funded posts and 3.4 WTE unfilled Trust-funded posts. Unlike other areas of medical staffing there are few, or no, Deanery trainees for obstetrics, so posts are required to be filled by middle grade doctors. There are currently nine required posts, of which only two will be filled from October 2016.

The Trust has undertaken a focused recruitment campaign but has had limited success in recruiting sufficient Obstetricians with the necessary experience to deliver a safe obstetric service. Additional attempts continue to recruit long-term Trust grade locum medical staff from national agencies.

The shortage of middle grade obstetric doctors forced the Trust to temporarily suspend obstetric services at the Horton General Hospital from 1 October 2016. A contingency plan was implemented with maternity services offered temporarily by a Midwifery-led Unit (MLU) at the Horton General Hospital, while efforts continue to fill vacant obstetric posts. Women requiring an obstetric-led birth will deliver their baby at the John Radcliffe Hospital. Other aspects of their care continue to be provided at the Horton.

3. Quality and Safety

It is nationally recognised that there has been an increase in case complexity caused by changing demographic factors including women giving birth later in life, obesity, multiple pregnancies and existing co-morbidities. Research suggests that women with complex pregnancies have better outcomes if they are looked after and/or deliver in specialist (obstetric led) units.

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Similarly research demonstrates that low-risk pregnancies can be delivered safely in midwifery units with reduced rates of intervention.

The low numbers of births at the Horton General makes it challenging for the general obstetrician to maintain their clinical skill set and this is a potential safety issue.

The maintenance of two obstetric units also impinges on the ability to main the RCOG standards for medical staffing (consultant and below).

It is important to note that neonatal (special care baby unit or SCBU) and maternity services are linked and cannot run independently of each other, because both services need a range of different consultants to be able to support mothers and babies. For example, an obstetric consultant may deliver a premature baby, but a paediatric consultant would also need to be available in case the new-born baby needed any treatment. Therefore, a SCBU must be located on the same site as an obstetric unit and should not be based on a site with midwife only led care. To do otherwise would present governance issues, has no precedence within the UK as a safe model of care, and is not compliant with the National guidelines and standards.

4. Finance

There is a need to review our balance of investment to improve Oxfordshire's maternity services. Technology is under-utilised and there is a need to embrace community based diagnostics and electronic care records.

The current maternity estate (some of which is not fit for purpose, some under-utilised and some requiring more capacity) needs to be reviewed and employed to the greatest effect to ensure consistent and high quality care for women and their babies. There is much estate cost dedicated to the current 4 midwife led units, these units are paid for on a daily basis but with some births occurring only every third day. There is a fixed tariff allowed for each birth - in one case, Chipping Norton, it appears the fixed overhead cost of housing the unit is considerably beyond any income achievable from tariff. The introduction of a fifth unit if we propose the Horton to become a permanent midwife led unit will further bring the need to review investment in overheads compared to the numbers of births supported. Any proposed configuration would still need to work to deliver reasonable access for all residents.

The CCG are currently funding the provision of two obstetric units. There is a premium (£3.5m covering obstetrics and paediatrics) being provided over tariff by the CCG to retain obstetric care in the Horton. Meanwhile we need to improve our medical risk assessment and improve breast feeding and other post natal support.

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5. Prevention

More could be done to improve the maternity pathway. For example, a clearer and more defined role is required for GPs to assess women early enough in pregnancy to achieve the best outcomes for both women and their babies. It is recognised that early targeted interventions such as reducing the incidence of anaemia, low dose aspirin, assessment of cervical length in pregnancy and venous thromboembolism prophylaxis significantly improves clinical outcomes but consistent access to this care has not yet been achieved. The pathway of care for low risk women should be reconsidered to ensure women are seeing the right professional at the right stages throughout their pregnancy, with appropriate guidelines for reassessing risk and escalating concerns should the risk change. High risk women should be identified early and supported by specialist services and teams.

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Appendices

1. The Oxfordshire 'storyboard'

At the outset of the Transformation Programme, the Oxfordshire health and social care system developed a shared vision for the future of healthcare in the area. This is described in the Oxfordshire 'storyboard' which was used to engage stakeholders in discussions about transformation

2. Reference Slides

This appendix provides nine slides with supporting information referred to in the footnotes.

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