Sandwell and West Birmingham Hospitals NHS Trust

Midland Metropolitan Hospital Project

CLINICAL SERVICE MODEL for 2020

FEBRUARY 2014

Version 3

CONTENTS

1. PURPOSE

This document provides a blueprint for the development of our clinical service model for 2020 post opening of the Midland Metropolitan Hospital (MMH). It supports our Clinical Strategy and forms part of the MMH Project.

The document has been developed by our clinical leads across a number of versions to describe how our clinical service offering will be delivered in MMH when it opens in 2018 and how we will provide clinical services in our Community Facilities and other locations. Our transition to this future service model will be incorporated in our integrated change plan.

This version of the clinical service model will be used to inform the 2014 OBC update for MMH. It varies from the previous version in that it captures:

- Our provision of community services following *Transforming Community Services* in 2011.
- Outputs from our LTFM and the updated Activity and Capacity Model (version 5.7b)
- Outputs from the MMH Architecture Design Refresh (ADR) undertaken in the autumn of 2013.

2. BACKGROUND

We are developing a new model of patient care in line with the vision agreed by our local health economy under the *Right Care, Right Here Programme*. Within this service model we will deliver clinical services in multiple locations including:

- Patient's own homes
- Primary care and health centre settings
- The Trust's own Community Facilities i.e: Rowley Regis Hospital (RRH), Sandwell Treatment Centre (STC), Birmingham Treatment Centre (BTC), Birmingham and Midlands Eye Centre (BMEC) and the adjacent Sheldon Block and Leasowes intermediate care facility.
- The new MMH.

In summary this vision requires a major step change in service provision across the health economy through service redesign and investment with a re-balancing of capacity to reflect a greater focus on delivering care in community and primary care settings and MMH (the new single site acute hospital) operating at maximum productivity.

For the Trust the implications of this vision can be summarised as:

- The vast majority of outpatient attendances and planned diagnostics will be provided outside of the acute hospital in community locations by a mixture of secondary care specialists and primary care professionals. This will include a new model of care for Long Term Condition management.

- A significant reduction in the average length of stay in the acute setting supported by new intermediate care bed capacity in community locations and community services.

- Increased community-based urgent care and out-of-hours services to provide alternatives to attending the acute hospital Emergency Department.

- Increased day surgery rates with the majority of day surgery being provided in dedicated day surgery units in three community locations (BTC, STC and BMEC).

- Better physical environments for service users and staff which encourage more rapid recovery and provide greater privacy and dignity.

- The development of MMH, a new single site acute hospital, with a reduced number of beds but a greater critical mass of services within larger clinical teams so reducing professional isolation and enabling the delivery of high quality care through greater sub-specialisation, robust 24 hour senior cover and on-going service development. Emergency and inpatient services will be available 24 hours, 7 days a week, and the majority of other services will be operational for extended hours during the week and for some time at the weekend.

Table 1 below summarises these implications in terms of split of activity and capacity between MMH, Community Facilities and other providers.

Table 1: Activity and Capacity by MMH, Community Facilities and Other Providers

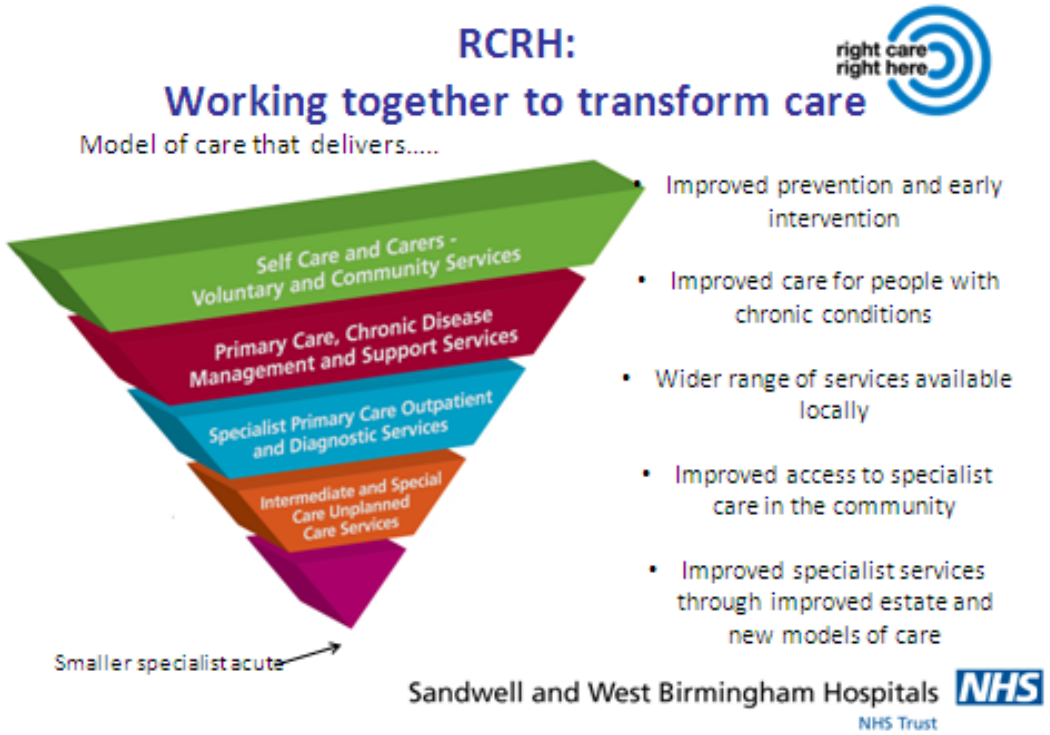
	New Acute Hospital	Trust Community Facilities	Other Providers
Outpatient Attendances	13% (Antenatal and Paediatrics)	71% provided by Trust in community locations 23% being Ophthalmology attendances in BMEC	7% provided by new providers in community locations with the Trust's community services providing 75% of this activity for Sandwell residents 9% absorbed as part of routine working in primary care
Beds & Length of Stay	Circa 670 beds Average length of stay: 3.1 days	Circa 158 beds Average length of stay: 17.05 days	
Catchment Loss	3% A&E attendances and adult emergency inpatient admissions	None assumed	Emergency catchment loss primarily flows to: Walsall UHBT DGoHFT HEFT
Emergency Department	58% total ED & Urgent Care attendances	30% delivered in Urgent Care Centres at STC & RRH 12% delivered in BMEC	Urgent care activity in primary care Urgent Care Centres (i.e. Summerfield)
Day Case Rates: 86%	Children's day surgery * Medical Day Case Unit	Adult day surgery in BTC, BMEC & STC Medical day cases (including chemotherapy) in BTC and STC	

*service model under review in terms of clinical support required to deliver some children's day surgery in BMEC and BTC

3. STRATEGIC VISION

3.1 RIGHT CARE RIGHT HERE PROGRAMME

We are a key partner along with the CCG, local authorities, mental health care providers and others in the *Right Care Right Here Partnership (RCRH)* which seeks to deliver an ambitious redevelopment of local health services. The objective of the *RCRH Programme* is to deliver redesigned acute, primary, community and social care services in the Sandwell and West Birmingham areas. The *RCRH Vision* is summarized in figure 1 below.



This vision requires a major step change in service provision across the health economy through service redesign and investment with a re-balancing of capacity to reflect a greater focus on delivering care in community and primary care settings and MMH the new single site acute hospital operating at maximum productivity. Lead clinicians from the Trust along with lead community and primary clinicians have been involved throughout the Programme in developing the *RCRH* vision and in identifying the high level service model required to deliver this vision. Following a successful public consultation, implementation of the RCRH Programme is underway with a growing range of traditional secondary care services now being provided via new models of care and in community locations.

Work from the *RCRH Programme* has informed the development of our Clinical Strategy and future clinical service model including how we will provide services across MMH, Community Facilities, other community and primary care settings.

3.2 OUR STRATEGY

Our ambition is to become renowned as the best integrated care organisation in the NHS and to be a key active partner in improving the health and wellbeing of the population we serve. A key role for us is to help 'keep people well.' We undertake this role in several ways including:

- Preventing illness through medical and lifestyle means i.e. *health promotion*
- Delivering planned health care such as surgery for conditions requiring diagnosis and treatment but not on an emergency basis i.e. *elective care*
- Providing care and support to people with long term health conditions such as Diabetes and Rheumatology to allow as much of this care to be undertaken outside of an acute hospital setting in a planned way and in partnership with other health and social care providers in order to promote self- management, maintain well- being and minimise the need for unplanned hospital admissions i.e. *integrated care*
- Provide rapid assessment and treatment 24 hours a day, seven days a week for people when they are acutely unwell i.e. *emergency care.*

We currently provide community services for people resident in the Sandwell area. This creates an exciting opportunity for providing truly seamless care for people with long term conditions and the complex problems of ageing through the integration of our acute and community services and further integration with services provided by other partners to these people and in particular primary care and social services. Our ambition includes the expansion of this opportunity into the West Birmingham area of our catchment population either through partnership with Birmingham Community Health Trust or through the expansion and development of our own community services.

Our strategy is to strengthen our position as provider of the highest quality integrated and seamless services to our local population both in hospital and closer to home.

We will drive innovative solutions to achieving the best possible health outcomes for our population. Our aims, the intentions of our commissioners and the funding outlook for the NHS means that in general terms that our secondary care activity will reduce slightly, while our community based services will grow. However, in a small number of targeted areas, where we believe our position and market conditions permit, we intend to grow our activities for example, in Ophthalmology.

Specifically, to meet these challenges, we will:

- Sustain a broad range but reducing volume of secondary care services that are of the highest quality and efficiency
- Ensure that those services are seamlessly integrated with our primary and social care partners
- Provide an increasingly wide range of community based services that help patients avoid having to use hospital services
- Build on our existing areas of specialist work that is provided to a wider population
- Be a valued partner, driving innovation across our local health system
- Maintain and enhance our reputation for providing high quality teaching and research

Our six strategic objectives are designed to ensure we make progress towards the successful delivery of our Strategy, these are:

- Safe, High Quality Care
- Accessible and Responsive Care
- Care Closer to Home
- Good Use of Resources
- 21st Century Facilities

- An Engaged, Effective Organisation

Each year we will develop our Annual Priorities to support the delivery of these objectives.

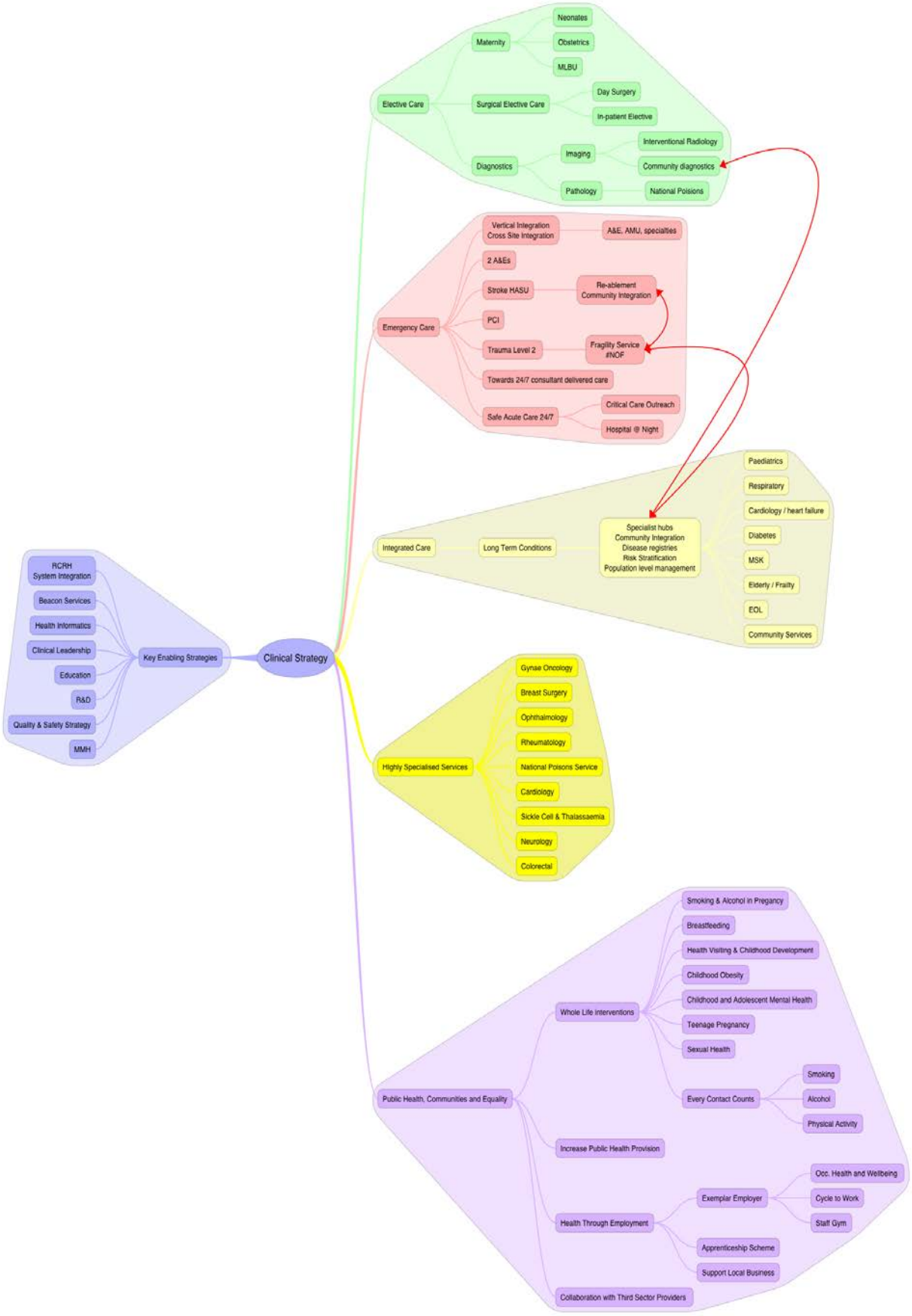
3.3 OUR CLINICAL STRATEGY

We will deliver consistently high quality, safe and improved care to our patients, working with our partners to transform the health and wellbeing of the people we serve and to provide integrated care for our patients with long term conditions.

Our Clinical Strategy outlines at a strategic level our thinking and aspirations for the future shape of our clinical services in order to deliver our strategic ambition and objectives and to maintain and develop further high quality and safe clinical services.

The clinical service model we will deliver post opening of MMH and described in this document is in line with our Clinical Strategy.

The key features of our Clinical Strategy are summarised in the diagram below.


Clinical Strategy
Elective Care
Maternity
Neonates
Obstetrics
MLBU
Surgical Elective Care
Day Surgery
In-patient Elective
Diagnostics
Imaging
Interventional Radiology
Community diagnostics
Pathology
National Poisons
Emergency Care
Vertical Integration
Cross Site Integration
A&E, AMU, specialties
2 A&Es
Stroke HASU
Re-ablement
Community Integration
PCI
Trauma Level 2
Fragility Service
#NOF
Towards 24/7 consultant delivered care
Safe Acute Care 24/7
Critical Care Outreach
Hospital @ Night
Integrated Care
Long Term Conditions
Specialist hubs
Community Integration
Disease registries
Risk Stratification
Population level management
Paediatrics
Respiratory
Cardiology / heart failure
Diabetes
MSK
Elderly / Frailty
EOL
Community Services
Highly Specialised Services
Gynae Oncology
Breast Surgery
Ophthalmology
Rheumatology
National Poisons Service
Cardiology
Sickle Cell & Thalassaemia
Neurology
Colorectal
Public Health, Communities and Equality
Whole Life interventions
Smoking & Alcohol in Pregancy
Breastfeeding
Health Visiting & Childhood Development
Childhood Obesity
Childhood and Adolescent Mental Health
Teenage Pregnancy
Sexual Health
Every Contact Counts
Smoking
Alcohol
Physical Activity
Increase Public Health Provision
Health Through Employment
Exemplar Employer
Occ. Health and Wellbeing
Cycle to Work
Staff Gym
Apprenticeship Scheme
Support Local Business
Collaboration with Third Sector Providers
Key Enabling Strategies
RCRH
System Integration
Beacon Services
Health Informatics
Clinical Leadership
Education
R&D
Quality & Safety Strategy
MMH

THE HEALTH OF OUR POPULATION

Working with our local community partners and with external agencies, we will take all necessary steps to transform the health and well-being of the population that we serve.

The people in our catchment area suffer deprivation amongst the worst in the country: West Birmingham is 10th and Sandwell 12th worst of 326 English authorities for deprivation & the ranking is getting worse year on year.

The likelihood of death under the age of 75 and chronic ill health from multiple long term conditions is again extremely high with our population having a high number of excess years of life lost with over half being the result of 6 diagnoses: Pneumonia, COPD, Alcoholic Liver Disease, Stroke, Lung Cancer and Coronary Heart Disease.

Within our population:

- 25% of the population smoke
- 15% drinking at increasing risk
- 5% drinking at high risk levels
- 25% of men & women are obese (BMI 30+)
- More than 70% do not eat 5 fruit/vegetables a day
- 60% of men do not meet physical activity levels
- 70% of women do not meet physical activity levels

All these injurious habits are more common in our community than in England as a whole, again among the worst in the country, and are clearly associated with high levels of social deprivation.

More than half of the contacts we make are with people with two or more long term conditions. It makes sense to reduce the number of people requiring our interventions by addressing the causes not the consequences of poor health. We need to address both the habits already established and the social determinants of poor health in our community. The Department of Health has come to the view that hospitals are well placed to deliver clinical health promotion around the recognised risk factors, and contribute to the health of their local community as well. This rings true: *we know who we need to target, and we already see many of them and their families regularly*.

Our Public Health Plan looks at how we address risk factors in our patients, their families, our staff, our membership and the local population as a whole. In addition it shows how we will help to improve the social determinants of disease by contributing to our local community.

4. CLINICAL SERVICE DESCRIPTION

To facilitate delivery of our future clinical service model our Strategy includes transformation of the estate in which we deliver our clinical services. A key component of this is building MMH which we expect to open in 2018, along with developing our Community Facilities, namely: the BTC, BMEC and Sheldon Block, RRH, STC and Leasowes intermediate care facility. We will also continue to develop the range of community services we provide in people's homes and through other community and primary care facilities.

Our aspiration is that patients attending our services for investigation or treatment, whether for planned elective care or unplanned acute care, will have excellence in clinical care with rapid availability of clinical expertise at all points of their individual care pathways. At the same time where quality, safety and outcome are improved by care closer to home we will deliver in community settings and will integrate our services both internally and with our external partners in order to provide seamless care.

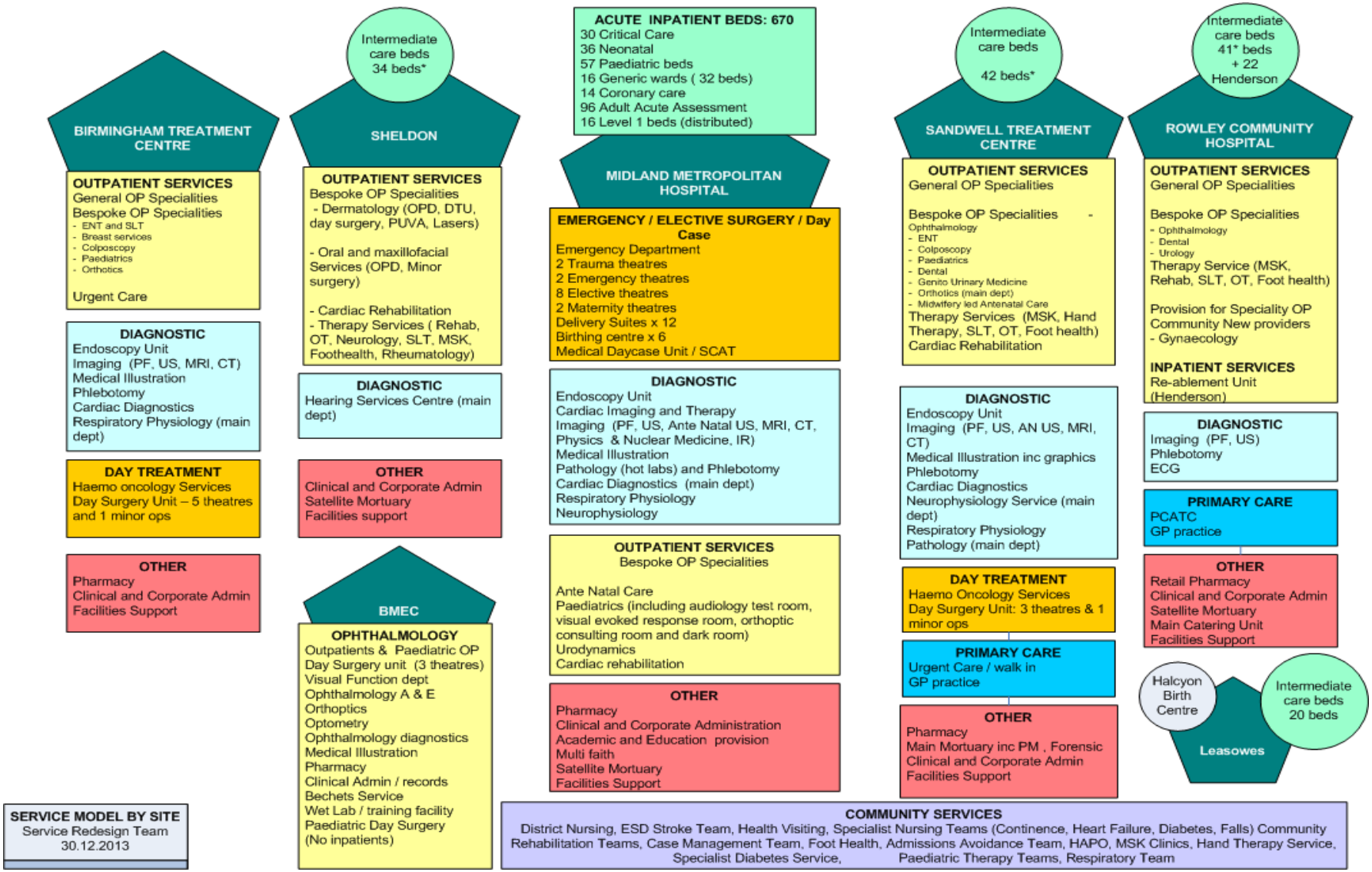
MMH will be a single site acute hospital in a modern purpose built facility and will allow us to centralise emergency and specialist inpatient care on one site with a critical mass of patients and staff that will enable development of skills and a greater level of senior on site cover throughout the day and seven days a week. This will facilitate delivery of:

- High quality care 24/7 and 365 days per year.
- Continuity of care through multidisciplinary teams working to pathways and protocols agreed by expert led teams.
- Initial assessment and treatment of patients requiring emergency care by experienced clinicians with consultant presence on site 24/7 in our most acute specialities, and on site 12 hours, 7 days a week for a number of others. Sub-specialty expertise across the entire range of non-acute specialties will be available to in-patients in a timely fashion.
- High-level diagnostic support, including imaging and pathology, immediately available 24/7.
- Separation of acute unplanned and elective patient flows with individuals responsible for elective care of patients not being simultaneously responsible for the delivery of emergency care.
- Leadership at the point of care delivery e.g. wards, departments and theatres will be provided by experienced clinicians with sufficient time to lead and supervise staff and standards.

This will also mean:

- A greater proportion of patients attending MMH will be acutely unwell, have complex conditions or require specialist assessment;
- The smooth transfer of patients to a community location or primary care once this level of acute care is no longer required will be essential;
- Clear patient pathways that cross organisations and professional groups will be essential to ensure seamless patient care without duplication or gaps and to ensure patients receive the right service in the right place at the right time;
- Smooth, timely flow of information, ideally in the form of an integrated health care record, between professionals and across locations and providers will be important;
- Changes to the workforce will be required to ensure staff with the right competencies are available at the right time in the right place; and
- We will continue to provide and develop a range of more specialist services to our local population and also to the wider population within the West Midlands and in some cases further afield. This includes our Gynae-oncology, specialist Ophthalmology, Sickle Cell and Thalasseamia and specialist Rheumatology services.

The diagram below summarises where our clinical services will be provided following the opening of MMH.


BIRMINGHAM TREATMENT CENTRE
OUTPATIENT SERVICES
General OP Specialities
Bespoke OP Specialities
- ENT and SLT
- Breast services
- Colposcopy
- Paediatrics
- Orthotics
Urgent Care
DIAGNOSTIC
Endoscopy Unit
Imaging (PF, US, MRI, CT)
Medical Illustration
Phlebotomy
Cardiac Diagnostics
Respiratory Physiology (main dept)
DAY TREATMENT
Haemo oncology Services
Day Surgery Unit – 5 theatres and 1 minor ops
OTHER
Pharmacy
Clinical and Corporate Admin
Facilities Support
Intermediate care beds 34 beds*
SHELDON
OUTPATIENT SERVICES
Bespoke OP Specialities
- Dermatology (OPD, DTU, day surgery, PUVA, Lasers)
- Oral and maxillofacial Services (OPD, Minor surgery)
- Cardiac Rehabilitation
- Therapy Services (Rehab, OT, Neurology, SLT, MSK, Foothealth, Rheumatology)
DIAGNOSTIC
Hearing Services Centre (main dept)
OTHER
Clinical and Corporate Admin
Satellite Mortuary
Facilities support
BMEC
OPHTHALMOLOGY
Outpatients & Paediatric OP
Day Surgery unit (3 theatres)
Visual Function dept
Ophthalmology A & E
Orthoptics
Optometry
Ophthalmology diagnostics
Medical Illustration
Pharmacy
Clinical Admin / records
Bechets Service
Wet Lab / training facility
Paediatric Day Surgery
(No inpatients)
ACUTE INPATIENT BEDS: 670
30 Critical Care
36 Neonatal
57 Paediatric beds
16 Generic wards (32 beds)
14 Coronary care
96 Adult Acute Assessment
16 Level 1 beds (distributed)
MIDLAND METROPOLITAN HOSPITAL
EMERGENCY / ELECTIVE SURGERY / Day Case
Emergency Department
2 Trauma theatres
2 Emergency theatres
8 Elective theatres
2 Maternity theatres
Delivery Suites x 12
Birthing centre x 6
Medical Daycase Unit / SCAT
DIAGNOSTIC
Endoscopy Unit
Cardiac Imaging and Therapy
Imaging (PF, US, Ante Natal US, MRI, CT, Physics & Nuclear Medicine, IR)
Medical Illustration
Pathology (hot labs) and Phlebotomy
Cardiac Diagnostics (main dept)
Respiratory Physiology
Neurophysiology
OUTPATIENT SERVICES
Bespoke OP Specialities
Ante Natal Care
Paediatrics (including audiology test room, visual evoked response room, orthoptic consulting room and dark room)
Urodynamics
Cardiac rehabilitation
OTHER
Pharmacy
Clinical and Corporate Administration
Academic and Education provision
Multi faith
Satellite Mortuary
Facilities Support
Intermediate care beds 42 beds*
SANDWELL TREATMENT CENTRE
OUTPATIENT SERVICES
General OP Specialities
Bespoke OP Specialities -
Ophthalmology
- ENT
- Colposcopy
- Paediatrics
- Dental
- Genito Urinary Medicine
- Orthotics (main dept)
- Midwifery led Antenatal Care
Therapy Services (MSK, Hand Therapy, SLT, OT, Foot health)
Cardiac Rehabilitation
DIAGNOSTIC
Endoscopy Unit
Imaging (PF, US, AN US, MRI, CT)
Medical Illustration inc graphics
Phlebotomy
Cardiac Diagnostics
Neurophysiology Service (main dept)
Respiratory Physiology
Pathology (main dept)
DAY TREATMENT
Haemo Oncology Services
Day Surgery Unit: 3 theatres & 1 minor ops
PRIMARY CARE
Urgent Care / walk in
GP practice
OTHER
Pharmacy
Main Mortuary inc PM , Forensic
Clinical and Corporate Admin
Facilities Support
Intermediate care beds 41* beds + 22 Henderson
ROWLEY COMMUNITY HOSPITAL
OUTPATIENT SERVICES
General OP Specialities
Bespoke OP Specialities
- Ophthalmology
- Dental
- Urology
Therapy Service (MSK, Rehab, SLT, OT, Foot health)
Provision for Speciality OP Community New providers
- Gynaecology
INPATIENT SERVICES
Re-ablement Unit (Henderson)
DIAGNOSTIC
Imaging (PF, US)
Phlebotomy
ECG
PRIMARY CARE
PCATC
GP practice
OTHER
Retail Pharmacy
Clinical and Corporate Admin
Satellite Mortuary
Main Catering Unit
Facilities Support
Halcyon Birth Centre
Intermediate care beds 20 beds
Leasowes
SERVICE MODEL BY SITE
Service Redesign Team
30.12.2013
COMMUNITY SERVICES
District Nursing, ESD Stroke Team, Health Visiting, Specialist Nursing Teams (Continence, Heart Failure, Diabetes, Falls) Community Rehabilitation Teams, Case Management Team, Foot Health, Admissions Avoidance Team, HAPO, MSK Clinics, Hand Therapy Service, Specialist Diabetes Service, Paediatric Therapy Teams, Respiratory Team

4.1 EMERGENCY AND URGENT CARE

We will provide safe, robust, high quality emergency assessment and treatment 24/7 with access for unselected emergencies. At the same time we will work in partnership with primary care and other colleagues to develop and promote appropriate alternative pathways and services for those patients who do not require the facilities and expertise of an Emergency Department.

This means:

- A greater focus on seven day working with a priority to deliver consistent standards of emergency and inpatient services 24 hours a day, 7 days a week.
- An intense focus on providing safe acute inpatient care 24/7
- A reduction in attendances at our Emergency Departments through increased provision of community-based urgent care and out-of-hours services and the development of new ways of delivering care to patients with long term conditions.
- Concentration of Emergency Inpatient Services.

When MMH opens we will deliver all emergency and acute inpatient care on one site. Until then we will continue to provide EDs, Medical Assessment Units and Paediatric Assessment Units at both City and Sandwell Hospitals with 24/7 access for unselected emergencies. In the interim we will continue to develop our emergency services to ensure early, senior assessment and decision making is available with onsite consultant presence for extended hours in key areas. We are also committed to continue work with our commissioners and primary care colleagues to develop and promote alternative services for patients currently attending ED who could appropriately be managed in an urgent care setting.

4.1.1 Emergency Department & Urgent Care

When MMH opens:

- 30% of patients requiring urgent care but not a full ED service will be able to attend one of the community-based urgent care services, open 12 hours a day, 7 days a week, at STC and RRH or be managed in primary care through an out-of-hours service. Currently a number of different models of care are being developed including primary care led Urgent Care Centres in community locations, GP workstreams in the ED, a primary care assessment and treatment model attached to intermediate care beds. These models vary in detail and so we will work with partners to develop them further over time.

- 12% of emergency attendances will be for ophthalmic conditions and will continue to take place in the Eye Emergency Department at BMEC which will be open 7 days a week for 12 hours a day.

- 58% of emergency attendances will take place in the Emergency Department (ED) within MMH. These patients will typically have injuries and conditions requiring the level of specialist assessment, diagnosis and treatment that will only be available in an acute setting. Most patients attending the ED will be assessed, diagnosed, treated and discharged from the ED by the team of clinical staff based within the Department.

Key features of the ED will include:

- A dedicated children's area where children and adolescents attending the department will be assessed, diagnosed and treated (apart from those who are critically ill) by staff with the appropriate training and experience in caring for children
- An ambulance navigator who will meet patients arriving by ambulance and signpost them to the appropriate area within ED
- Initial triage and assessment areas for adults
- A minors area for adults
- A separate area for adults with major illness
- A dedicated area for critically ill patients (adults and children)requiring resuscitation and stabilisation
- Some dedicated Imaging facilities and near patient testing
- Pathways for mental health assessment with specialist staff and teams.

Workforce planning implications relating to our future ED provision:

- Regardless of the preferred model for urgent care there will be a requirement for an increase in Emergency Nurse Practitioner roles, an increase in therapies input and GPs.
- A higher proportion of the patients attending the ED will have injuries and conditions requiring clinical teams to have a high level of seniority present, specialist assessment, diagnosis and treatment skills leading to a richer skill mix requirement and additional skills training packages
- 24/7 on site consultant presence will be required in the ED
- 7-day working for therapists and diagnostic staff to ensure rapid assessment and diagnosis or on-going treatment
- Potential for increasing the number of new roles overall e.g. advanced nurse practitioners, emergency care practitioners and physician associates
- Pathways for mental health assessment will require specialist staff /teams.

A significant number of patients attending the ED will require further assessment by specialty teams and/or admission:

- For adults the flow will primarily be from the ED to the adult Acute Assessment Unit which will be located immediately adjacent (vertical or horizontal) to the ED.
- Some adult patients will be admitted directly from an ambulance or ED to a specialist area. For example, these will include:
- Patients with clear symptoms of a heart attack will be taken directly to the Interventional Cardiology Suite
- Patients with a fractured neck of femur will be taken directly to a musculoskeletal ward
- Patients with FAST positive symptoms indicating a likely stroke will be taken directly to the CT scanner suite and then onto the Stroke Unit.
- Children and adolescents will transfer from the dedicated children's area in the ED to the Paediatric Assessment Unit which will be part of our Children's Inpatient Unit.
- Other areas that patients may be directly transferred to include the Critical Care Unit, Operating Theatres, Delivery Suite, Coronary Care Unit.

4.1.2 Adult Acute Assessment Unit (AAU)

The central aim of the adult Acute Assessment Unit (AAU) will be rapid assessment, diagnosis, treatment and discharge or stabilisation before onward referral to the appropriate specialist team if a longer admission is required. This approach will be a key element in improving clinical safety, quality, and patient experience whilst at the same time reducing length of stay within MMH.

In order to determine the bed capacity required in the adult acute assessment a 0.5 day length of stay has been added to all adult emergency admissions (excluding Obstetrics) with an otherwise 0 day length of stay. The average length of stay assumption for the adult AAU is:

- 0.5 days for emergency adults with an overall length of stay of 0 days in MMH
- 1 day for emergency adults with an overall length of stay of 1-2 days in MMH
- 1.5 days for emergency adults with an overall length of stay of more than 2 days in the acute hospital.

The AAU will:

- Have 96 beds/spaces and will be divided into a Surgical Assessment Unit (SAU) and a Medical Assessment Unit (MAU)
- The MAU will be further subdivided into three zones – an ambulatory assessment and observation zone, a level 1 monitored bed zone and a zone for on-going care up to 48 hours length of stay
- The MAU will work on the basis that patients requiring a longer stay in hospital (i.e. over 48 hours) for further observation, investigation or treatment will be transferred to the appropriate specialty bed on a generic in-patient ward.

Workforce planning implications relating to our future AAU provision:

- It is envisaged that within MMH the MAU will have 24/7 on site consultant presence.
- We will continue our current work of developing the role of Consultant Physician in Acute Medicine in order to ensure rapid and senior level assessment, decision making and review.
- We will continue where possible ahead of MMH opening to expand our current onsite Consultant cover for our medical assessment beds (currently on site cover is available 8.00am-9.00pm alternate week days with 8.00am – 5.00pm the other weekdays, with weekend consultant ward rounds, on both our existing acute hospital sites. These consultants also cover the short stay medical wards).
- Continuation of therapists working in the MAU 7-days a week.

4.1.3 Critical Care

There will be a hospital-wide, whole systems approach to critical care with services which extend beyond the physical boundaries of the critical care unit and support the full range of specialties. The service will aim to ensure seamless management of the patient journey maintaining the highest levels of clinical care, patient privacy and dignity, improved communication regarding complex patient interventions and collaborative inter-disciplinary working.

The service will provide:

- ***Level 2 care*** to patients who require more detailed observation or intervention including support for a single failing organ system, post-operative care or 'stepping down' from higher levels of care and ***level 3 care*** for patients who require advanced respiratory support along or basic respiratory support along with support of at least two organ systems in an Integrated Critical Care Unit (ICCU). This will have 30 beds and a planned occupancy rate of 75% to ensure capacity to accommodate peaks in demand.

- ***Critical Care Outreach Service***, providing assessment and support from the critical care team to patients requiring or with the potential to require critical care and before transfer to the ICCU, in all areas of the new Acute Hospital.

- ***Children requiring level 3 critical care*** may be accommodated on the ICCU for stabilisation prior to transfer to a Paediatric Intensive Care Unit in another hospital. Children requiring level 2 or 1 care will be cared for on the children's inpatient unit, managed by the Paediatric team with support from the critical care team.

Level 1 adult care (for patients stepping down from higher levels of critical care or for patients requiring a higher level of care but before requiring level 2 or level 3 critical care) will be provided in a number of designated generic inpatient wards (including respiratory, neurology & stroke, gastroenterology) to recognise the specific specialty management required for particular conditions and interventions e.g. non-invasive ventilation. Level 2 care for maternity patients will be provided in Delivery Suite. This approach has the benefit of retaining experience and skills for caring for these patients with staff working on the generic adult inpatient wards.

Workforce planning implications relating to our future critical care provision:

- 24/7 consultant on site presence in Critical Care

4.1.4 Interventional Cardiology

The Interventional Cardiology service within MMH will provide:

- Diagnostic and interventional procedures for patients presenting with acute coronary syndrome.
- Insertion of temporary or permanent pacemakers and other cardiac devices.
- A range of other procedures in the treatment of heart disease e.g. PTMC, reveal, pericardiocentesis.
- Procedures may be undertaken on an elective, urgent (within hours to days) or emergency basis. Many of the elective and urgent cases will be undertaken on an ambulatory basis (day case or outpatient) but may also be undertaken on an inpatient basis.
- Emergency cases will be undertaken on an inpatient basis and will include direct admission of STEMI patients to the Interventional Cardiology Suite from the ambulance service or Emergency Department allowing rapid intervention in cases where speed of intervention is key to a successful clinical outcome.
- Cases undertaken on a day case or outpatient basis will be accommodated on the Interventional Cardiology Suite. Cases undertaken on an inpatient basis will be admitted to the co-located Cardiology ward. Our Coronary Care Unit will be within the Cardiology ward.

Workforce planning implications relating to our future Interventional Cardiology provision:

- The new service model will require 24/7 on site specialist middle grade medical cover.
- The redesign of clinical pathways and the co-location of the interventional cardiology suite, cardiology ward and cardiac diagnostics in the new MMH will enable new ways of working that will create the opportunity for greater workforce efficiency and the potential for new roles such as a generic cardiac catheter laboratory practitioner.

4.1.5 Adult Inpatient Wards

Within MMH adult inpatients (apart from those requiring care in one of the specialist areas) will be accommodated on generic inpatient beds. The majority of emergency admissions will be admitted to these beds via the adult AAU as described above and the majority of elective surgical inpatients will be admitted following surgery via the Operating Theatre Department (including the central admissions area) as described under Elective Care. An important element of the new service model is a reduced length of stay and these pathways facilitate delivery of this by streamlining the admissions process and initial assessment and treatment. In addition early senior medical assessment and

decision making is essential to the pathways and a reduced length of stay. The Trust average length of stay assumptions post opening of MMH are:

- MMH Inpatient Average Length of Stay: 3.10 days
    - Elective Inpatient Average Length of Stay: 2.81 days
    - Emergency Inpatient Average Length of Stay: 3.31 days

Other key aspects of the adult inpatient service model include:

- The activity and capacity analysis has identified the need for 384 generic adult inpatient beds. These will be accommodated in 32 bed wards with a generic design and located in clusters of 3 in order to facilitate future flexibility in use. There will be 13 generic adult inpatient wards in addition to AAU and the maternity wards.
- Level 1 adult care will be provided in a number of designated generic inpatient wards to recognise the specific specialty management required for particular conditions and interventions e.g. non-invasive ventilation.
- The generic wards will have 50% single rooms with en-suite bathrooms and the remaining 50% of beds will be in bays of 4. This arrangement will improve patient privacy and dignity, will facilitate infection control and will offer patient choice between a single room and a bay of 4 beds in line with feedback from public engagement work.
- The occupancy assumption for these beds is 88% which when combined with the planned lower occupancy for specialist areas and acute assessment beds gives an overall occupancy of 85%.
- The need for robust discharge planning started at the point of admission and clear pathways across the health economy to facilitate the smooth transfer of patients to other services outside of MMH.
- The mix of general adult beds on each ward has been decided on the basis of groups of conditions that have similar pathways and nursing and medical care requirements and is summarised in the table 2 below.

Workforce planning implications relating to our future adult inpatient ward provision:

- Increased use of advanced practitioner roles to undertake tasks currently being undertaken by junior doctors in training
- 12 hour consultant on site presence in a number of specialties including emergency anaesthetics, general surgery, trauma & orthopaedics, stroke
- Skills development packages required to ensure that staff retain essential skills to continue to provide specialist care for particular conditions and interventions e.g. hyper stroke care, non-invasive ventilation
- Additional skills and competency requirements for staff to manage patients with higher levels of acuity and more multiple conditions than currently
- Staffing profiles to reflect new ward configuration and lay-out i.e. 32 bedded wards and 50% single rooms
- Detailed ward staffing rotas have been developed based on agreed shift patterns, supernumerary requirements, qualified/unqualified ratios and administrative support requirements to ensure that the wards can be safely staffed when the MMH opens. The Association of UK University Hospitals dependency (AUKUH) tool has been used to determine levels of dependency and acuity and guidance and benchmarks on mandatory nurse staffing levels and ward layout style, and professional judgement have been used to determine levels of dependency and safe staffing rotas.

Table 2: MMH Inpatient Beds by Condition Group

Condition Groupings	Specialties	Bed Numbers
Respiratory	Includes 4 level 1 beds & 10 isolation rooms	32
Acute Elderly	Includes acute elderly & mental illness	32
GI	Includes medical, acute GI bleeding, poisons unit beds, 4 level 1 beds	32
Musculoskeletal	Orthopaedics & Trauma	64
Haematology, oncology & Rheumatology	Haematological oncology, Haemoglobonopathy, Rheumatology	32
Maternity	Ante- and post-natal, Antenatal Day Assessment Unit & Transfer Lounge	64
Gynaecology & Gynaeoncology	Includes EGAU	32
Surgical Specialties	Colorectal Surgery includes 4 level 1 beds	32
Surgical Specialties	Urology, ENT, Interventional Radiology, Plastic Surgery, Breast Surgery & Ophthalmology	32
Short Stay Surgery	Includes dermatology	32
Stroke & neurology.	Includes 4 level 1 beds	32
Cardiology	Includes 14 CCU beds & cardiology step down beds	32
Sub Total		***448***
Adult Acute Assessment	All adult emergency inpatients (except maternity, fracture of femur, stroke, & acute chest pain): • 40 medical assessment beds • 20 medical monitored beds • 12 chairs & 8 trollies medical ambulatory assessment • 16 Surgical Assessment Unit trollies/beds	96
Critical Care (ICCU) level 2 & 3	All adult	30
Neonatal	Intensive Care, High Dependency and Special Care	36
Children	Includes Paediatric Assessment Unit, Adolescents, High Dependency	56
Sub Total		***218***
Total		**666**

4.2 ELECTIVE CARE

As much care as possible will be planned along agreed, easy to navigate care pathways based on best clinical practice.

To deliver this elective care will:

- Be based on agreed pathways that are understood by patients and are based on best clinical practice
- Be easy to navigate – all involved will know where they are on the pathway
- Respect the diversity of our patients and seek to respond appropriately to the full range of patient needs
- Be organised, thereby not wasting patient or clinical time or resources
- Provide planned care as locally as possible – only where clinically necessary will services be concentrated in more specialist centre.

This will mean:

- Appropriate and probably fewer referrals made along agreed care pathways (triaged within primary care with routine diagnostics undertaken and appropriate alternative services considered prior to referral to secondary care).
- A higher conversion of referrals to treatment/surgery.
- Our consultants and other specialist clinical staff increasingly supporting primary care through new means such as advice and guidance (as alternatives to outpatient appointments).
- One stop approach to appointments with the majority of these being delivered in our Community Facilities.
- Reduction in elective inpatient surgery and increase in day case surgery. Adult day surgery will be provided in dedicated facilities in the BTC, STC or BMEC for (Ophthalmology).
- A focus on pre-operative assessment, preparation and scheduling of planned surgery.
- Reduced stay in hospital for the minority of patients that do require elective inpatient surgery. We will achieve this by admitting patients on the day of surgery and rolling out Enhanced Recovery Programmes across all elective specialties.
- High quality, timely and appropriate diagnostic investigations delivered primarily within our Community Facilities.

Workforce planning implications relating to our future elective care provision:

- Staff working across multi-site locations (MMH and community facilities)
- Routine 7 day and extended hours working in most specialties
- New Role requirements including an increase in surgical care practitioners, extended/advanced therapy roles in musculoskeletal conditions
- New ways of working related to enhanced recovery roles

4.2.1 Operating Theatres - Inpatient

All operating theatres in MMH (apart from the 2 dedicated maternity theatres in Delivery Suite) will be located in one operating theatre department comprised of 11 theatre suites, a central admissions area and central stage 1 recovery area, in order to facilitate flexibility and maximise productivity.

Key elements of the service model include:

- A Central Admissions Area for patients admitted for elective surgery in order to facilitate patient flow through theatres. All patients admitted for elective inpatient surgery will have received a pre-operative assessment and the majority will be admitted on the day of surgery direct to the central admissions area where the final pre-operative reviews and checks will take place. Patients will be taken from the central admissions area into the operating theatre suite. This patient flow is a key element in the reduction of average length of stay in tMMH. The model for pre-operative assessment needs further development at a speciality level but will include assessment in primary care or a Community Facility.

- The small number of patients for elective inpatient surgery admitted to MMH prior to the day of surgery (for clinical reasons) will be admitted to a generic inpatient ward but will then be transferred to the central admissions area on the day of surgery.

- Children's day surgery is planned to take place in MMH to ensure on-site back up support from a full Paediatric service. Children admitted for day surgery will be admitted to the Children's Inpatient Unit prior to surgery and will return there after stage 1 recovery (which will take place in the Operating Theatre Department) for stage 2 recovery and discharge. A clinical review is underway to identify elements of children's day surgery that could safely and appropriately take place in BMEC and possibly the BTC.

- All surgery requiring an overnight stay will take place in MMH.

- The planning assumption is that the elective theatres will operate over a 42 week year, 10 sessions per week with a 90% utilisation rate.

- The majority of patients admitted for emergency surgery will be admitted pre-operatively via the adult AAU to a generic inpatient ward. Prior to surgery they will be transferred to the central admissions area and from there to the operating theatre suite. This flow will help to reduce delays and maximise use of the emergency theatre capacity. There will be some exceptions to this – notably critically ill patients who will be taken directly to the operating theatre suite.

4.2.2 Day Surgery

All adult day case surgery will take place in dedicated facilities in our Community Facilities (STC, BTC and BMEC). These facilities will be open 12 hours a day allowing for an extended recovery (but not overnight stay) so facilitating the higher day case rate. There will also be dedicated minor operating facilities in these sites for procedures not requiring a full operating theatre suite. This model will support the separation of planned from emergency surgery for most of our elective operating so reducing the risk of delays to planned surgery. It will also provide local access for many patients.

For some specialties where specialist skills, equipment and facilities are required day surgery may be concentrated on one site e.g. Breast Surgery in the BTC.

The table below summarises our future theatre provision.

Table 3: Future Theatre Provision

	2019/20	2019/20 - Other

Emergency (including trauma)	4	Includes: 2 Trauma; 1 Laproscopic & 1 General
Elective Inpatient	7	Includes: 2 Orthopaedic; 2 Laproscopic; 1 IR capacity; 1 Ophthalmic &ENT capacity & I gynae-oncology
Maternity	2	In Delivery Suite
MMH Sub-total	***13***	
BTC	5	& 1 minor op
BMEC	3	
Sandwell	3	& 1 minor op
Community Sub-total	***11***	
Total	**24**	

4.2.3 Outpatients

Once MMH is open, apart from high risk antenatal clinics all adult outpatient clinics will be held in our Community Facilities, supported by diagnostic provision to facilitate delivery where possible on a one stop basis. Table 4 below summarises the planned future locations for our outpatient provision.

In addition our future service model includes a shift in provision of outpatient care from consultant based services in acute hospital settings to care delivered by other health care professionals in community settings and primary care with direct access to secondary care expertise. This will involve our consultants and other specialist clinical staff working alongside primary care colleagues to deliver alternative services. We will pilot consultations using voice over internet protocol (VoIP) for consultations not requiring physical examination. With increased sophistication of technology, we will continue to increase the use of alternatives to traditional referral and follow up with electronic advice and guidance for GPs and patients, self-monitoring, telemedicine using Skype and similar technologies and patient held records.

To deliver this we will also be expanding and developing our community services for example Community Muskuloskeletal services.

As a result of these changes we are planning a significant reduction in our outpatient attendances and in particular review attendances. This will result in a new to review ratio of 1.74 (compared to 2.19 in 2012/13).

Table 4: Outpatient Locations in 2019/20

Specialty	MMH	BTC	SGH	RRH	BMEC	City (Sheldon)	Victoria H/C	Neptune H/C	Other Community Locations
SURGERY A									
Breast		✓							
General Surgery		✓	✓	✓					
T&O (inc Fracture Clinic✓)		✓✓	✓✓	✓					
Gastro Intestinal		✓	✓	✓				✓	
Urology		✓	✓						
Vascular Surgery		✓	✓						
Plastic Surgery		✓	✓						
SURGERY B									
ENT		✓	✓	✓					✓
Ophthalmology			✓	✓	✓				✓
Oral Surgery						✓			
Dental			✓	✓					
WOMENS AND CHILD HEALTH									
Gynaecology		✓	✓	✓					✓
Gynae-oncology		✓	✓						
Antenatal	✓		✓						✓
GUM/HIV			✓						
Paediatrics	✓	✓	✓						
MEDICINE AND EMERGENCY CARE									
Cardiology		✓	✓	✓					
Neurology		✓	✓				✓		
Rheumatology		✓	✓	✓			✓	✓	✓
Respiratory		✓	✓						
General Medicine		✓	✓						
Gastroenterology		✓	✓	✓					
Diabetes				✓					✓
Endocrine		✓							
Elderly Care		✓	✓	✓					
Oncology		✓	✓						
Immunology		✓	✓	✓				✓	
Paediatric Immunology	✓	✓	✓						
Haematology		✓	✓	✓					
Dermatology			✓			✓			

4.2.4 Diagnostics

The majority of our diagnostic activity will be undertaken in our Community Facilities however an element will be provided in MMH to support acute inpatient activity with an expectation that it is available 7 days a week over extended hours and where appropriate 24/7 to provide diagnostic investigations for rapid assessment and treatment of emergency patients.

Our diagnostic services support specialties in providing quality and timely patient care and work proactively with specialties where revised service models are required. They are integral to supporting a number of speciality service and care pathway redesigns.

We will pursue opportunities for our diagnostic departments to provide high quality diagnostic services directly to primary care clinicians who in turn will use the results to avoid referral to a secondary care service or where this is clinically appropriate make the referral to the most appropriate specialist with the diagnostic results available on referral.

Some of the larger diagnostic service models are described here whilst table 5 summarises future diagnostic provision by site.

Imaging

The majority of outpatient Imaging will be provided in our community facilities including MRI and CT at BTC and STC. We will also continue to provide support for some Imaging diagnostics (primarily plain X-ray and ultrasound) in other community and primary care locations.

Within MMH services will be centralised in the Imaging Department to ensure efficient use of facilities and staff, but with satellite services in agreed areas (ED and antenatal clinic) to ensure fast access and a smooth patient flow. The Imaging service will continue to include the specialist services of Nuclear Medicine and Radiopharmacy.

Key aspects of the service model will include:

- A likelihood of change in the mix of modalities used with a higher percentage of MRI and CT compared to plain X-ray.
- Routine 7 day and extended hours working will be introduced along with a robust 24/7 service (including reporting) to support emergency patient pathways where timely Imaging is essential (e.g. stroke, TIA, trauma etc).
- For some of our more specialist services we will work in partnership with other providers to ensure a critical mass of technology, equipment and patients to enable our specialists in these fields to maintain and enhance their skills and where appropriate an extended hours service for our patients.

Workforce Planning Implications:

- Multi-site working – MMH, community facilities and some primary care settings.
- Joint working with another hospital for key specialist areas including Interventional Radiology and Neuroradiology
- Routine 7 day and extended hours working – including on site consultant presence
- 24/7 on site working for some modalities (e.g. CT)
- New Roles through further development of advanced roles and Imaging Department Assistant
- New ways of working relating to changes in modalities will require additional skills
- Potential introduction of a Managed Equipment Service may change Trust workforce requirements, possible staff transfer.

- We have introduced a range of new and extended roles (e.g. Advanced Radiographers and Sonographers, Imaging Department Assistants) and will develop these further

Pathology

Our main Pathology Department will be located at STC in refurbished accommodation (the first phase of this was completed in 2013/14). Within MMH there will be an integrated essential laboratory that will provide an onsite service for emergency and urgent specimens. This will include the blood bank. A dedicated transport system will be required to the main Department.

The design and operational policy of the Pathology Department will allow for greater integration between specialities within Pathology and shared use of equipment and staff. Work will continue to explore options for providing a joint service with other providers of Pathology services in line with national guidance.

The Trust's main mortuary, including the forensic mortuary, will continue to be located within the newly refurbished department at STC (currently Sandwell General Hospital). All post mortem work will take place here. There will be an onsite mortuary at MMH for holding bodies prior to transfer to the main mortuary or a Funeral Director.

Workforce Planning Implications:

- Multi-site working – MMH and STC
- Routine 7 day and extended hours working – including on site consultant presence
- 24/7 on call/on-site service for key functions
- New ways of working – joint services with other providers, new investigations/range of tests

Cardiac Diagnostics

The main base for this specialty will be MMH in order to support the acute cardiology pathways. This service will be provided 7 days a week with an on-call out of hours provision. The service will also be provided in all of our Community Facilities to support the outpatient work of most specialties and also facilitate direct access for GPs

Respiratory Physiology

The main base for this service will be the BTC but there will also be service provision at STC. There will be a service to support inpatient activity only at the new MMH.

Neurophysiology

The main base for this service will be STC with some service provision at BTC. Currently the department provides a service to support other local Acute Hospitals on in-reach basis and this is planned to continue.

Endoscopy

Outpatient and day case endoscopy services will be provided at BTC and STC. The exception to this is bronchoscopy which will be provided at MMH to enable the best use of specialist facilities and allow for isolation of patients with TB and other conditions where isolation is appropriate. There will also be an inpatient endoscopy service provided at MMH which will include (as present) an out of hours on call provision.

Workforce Planning Implications:

- Further development of consultant nurse endoscopist and nurse endoscopist roles.

- The Endoscopy service also includes decontamination and this creates the requirement for us to continue to employ specially trained staff.
- There is a requirement to extend the provision of 7-day working and where appropriate 24/7 cover.
- The service model will require clinical staff to work across multiple site locations.

Table 5: Diagnostic Services by Site in 2020

Department	MMH	BTC	BMEC	Sheldon Block	STC	RRH
Imaging	Plain x-ray Ultrasound MRI CT Fluoroscopy room Interventional Radiology Gamma Cameras	MRI CT Dexa Scanner Plain x-ray Ultrasound			MRI CT Plain x-ray Ultrasound rooms	Plain x-ray Ultrasound
Cardiac Diagnostics	✓	✓			✓	✓
Respiratory Physiology	✓ Testing for Inpatients	✓			✓	
Neurophysiology	✓ Testing for inpatients				✓	
Audiology	✓ Paediatrics requiring anaesthesia	✓		✓	✓	✓
Phlebotomy	✓ Antenatal & paediatric	✓			✓	✓
Colposcopy		✓			✓	
Endoscopy	✓ Inpatients&Bronchoscopy	✓			✓	
Breast Service		✓				
Visual Functions			✓		✓	
Orthoptic	✓ for children & stroke		✓		✓	✓
Optometry			✓		✓	✓
Urodynamics	✓					
Antenatal Ultrasound	✓				✓	
Neonates	✓					
Dental				✓		✓
Therapies - Physio and OT	✓ for Inpatients			✓	✓	✓
Speech & Language Therapy	✓ for Inpatients	✓		✓	✓	
Foot Health				✓	✓	✓
Orthotics		✓			✓	

4.3 INTEGRATED CARE

Working in partnership we will provide a new integrated approach to care for people with long term conditions ensuring improved continuity, services which keep people well and out of hospital and care closer to home whenever possible.

In the UK, 15% of the entire working age population have a chronic illness or disability, termed a long term condition (LTC) and there are a growing number of people who suffer with more than one LTC. People who are diagnosed make up 31% of the population but account for 52% of GP appointments and 65% of outpatients appointments. There is therefore, a fundamental need to change the way services are delivered in order to provide a more holistic and integrated approach that can enable rapid diagnosis of those developing a LTC and care planning along a patient-centred pathway to ensure the best possible health outcomes.

We will continue to deliver and transform our clinical services within the context of the vision agreed by our local health economy under RCRH. A key element of this will be to work in partnership with our primary care, social care and community colleagues, and others, to develop and implement care pathways for people with LTCs that enhance self-care with support and ongoing monitoring close to people's homes from health and social care professionals in primary, social and community care. People with LTCs require rapid, accessible and credible alternatives to hospital admission for significant exacerbations of their condition and we will work with primary care, community and social care partners to deliver such alternatives.

The aspiration of our local health economy is to develop an integrated support model based on local services to fully meet identified health population needs. This vision of integrated care requires a major step change in service provision across the health economy through service redesign and with a re-balancing of capacity to reflect a greater focus on delivering care in community and primary care settings and services in acute hospital settings operating at maximum productivity. We will work with local partners in delivering opportunities resulting from the Better Care Fund.

Our lead clinicians have worked with clinical colleagues from primary care and commissioners in developing the RCRH vision, in identifying the high level service model required to deliver this vision and redesigning a number of care pathways. The CCG has confirmed its commitment to RCRH and has identified the opportunity to accelerate implementation of redesigned care pathways.

The implications of this vision for our services can be summarised as:

- A shift in provision of outpatient care from consultant based services in acute hospital settings to care delivered by other health care professionals in community settings and primary care with direct access to secondary care expertise. (described in elective care)
- A reduction in emergency admissions for people with long term conditions and in the average length of stay in the acute hospital setting and an increase in our intermediate care beds.
- A growth in our community services**.**

4.3.1 Intermediate Care Beds

To support the reduced acute inpatient care and bed capacity we will develop our intermediate care bed capacity and community services delivered in people's own homes.

We will run a new style of intermediate care, building on the model currently developed on Henderson ward in Rowley Regis Hospital with a focus on reablement so that as many people as possible are able to return to their usual place of residence following a hospital admission or a step up from home to one of these beds instead of an acute hospital admission. This new model of care will also deliver a reduced length of stay in intermediate care beds to an average of 17 days.

Once MMH opens we will provide intermediate care beds in the following locations:

- Rowley Regis Hospital – 63 beds
- STC – 42 beds
- Sheldon Block - 34 beds
- Leasowes – 20 beds

4.3.2 Community Provision in People's Own Homes

We will also develop and increase our community service provision for the Sandwell population in people's own homes as an alternative to admission to an acute or intermediate care bed. Again we will work with colleagues in primary care, social services and other community providers (particularly in Birmingham) to develop other services. We will also support our primary care colleagues as they develop their referral centres and risk stratification approach to the management of patients with long term conditions so that more patients can be cared for safely and appropriately within primary care and closer to home. In doing this we will build on our early supported discharge team model (for stroke), our integrated care community service (I-Cares) and early work with primary care teams on virtual wards. The virtual ward model will become the default position for all long term conditions management and will include primary care, community, consultants and urgent care staff to avoid more admissions.

Our ambition includes expanding the coverage of these services to a wider proportion of our local population in order to facilitate improved pathways and in time to provide the majority of community services for this population.

Workforce planning implications:

- Routine 7 day and extended hours working – community teams
- 24/7 on call/on-site service for key functions
- New Roles – extended roles for nurses and therapists e.g. enhanced assessment skills, independent prescribing, integrated working/shared competencies between therapists and nurses as far as is sensible, enhanced band 3 and 4 roles with appropriate training
- New ways of working – greater integrated working with primary care and social care as well as acute, change in skill mix more band 4s (with agreed enhanced training methodology)
- More band 3 generic support workers (enhanced training to mirror NVQ)
- Integrated staffing where appropriate with shared competences based in locality teams
- Therapists and nurses with advanced assessment skills to request and review diagnostic tests

- Physiotherapy Independent Prescribers in key clinical areas to include stroke, neurology, respiratory and musculoskeletal
- More nurse non-medical prescribers
- Case Managers for LTC
- 30-40% more specialist therapy staff to provide stroke and complex neurology for the rehabilitation delivery including acute/community/ESD

4.4 HIGHLY SPECIALISED SERVICES

Our specialist services will remain at the leading edge of clinical innovation.

We deliver a range of specialist services which have a regional and national reputation and are known for their innovation in clinical care and clinical outcomes. They take referrals from outside of our local population and are underpinned by strong clinical leadership, governance and research. They contribute to our delivery of safe, high quality care and to the recruitment and retention of excellent clinical staff both within these services but also more widely within our Trust. As such they support our strategic objectives of Safe, High Quality Care and being an Engaged, Effective Organisation. In summary our specialist services are:

	Current Service	**Future Development**
Gynaecology Oncology	We provide Gynaecology Oncology services for the West Midlands and for some procedures a wider population.	We will continue to develop our expertise in advanced radical surgery receiving referrals from other specialist Gynae-oncology centres. We aim to be recognised as a Supra-Regional Centre. Inpatient provision will be in MMH but outpatient and day case provision based in BTC.
Ophthalmology	We provide specialist Ophthalmology for adults and children. Users of our services come from a catchment that is significantly wider than the Birmingham and Black Country boundary. We provide the regional emergency Vitro Retinal service.	We will promote our eight sub-specialities. Our children's services and some adult services are part of the specialist commissioned portfolio. BMEC will remain the main base for Ophthalmology with a small inpatient provision in MMH.
Behçet's Syndrome Centre	We are one of three designated national centres. We provide the service in partnership with specialists based at University of Birmingham Hospitals NHS Foundation Trust.	The Centre was established in 2012/13 and will continue to embed and develop the service. The Centre will remain in Sheldon Block/BMEC post MMH opening
Sickle Cell & Thalassaemia Service	We are a specialist adult haemoglobinopathy unit caring for the Birmingham patients & receiving national referrals. We train health professionals at a regional level.	We will develop the service further as a regional centre and strengthen the transition of young people to adult services. We aim to offer a 'one stop' high quality service to adults with major haemoglobin disorders. We will continue to widen the range of training opportunities. MMH will become the main base for the

		service.
Cardiology	We have a well established Cardiovascular Research Department. We undertake a broad range of clinical and laboratory based research and as a consequence we are an early implementer of treatments. We have strong links with the University of Birmingham.	We will continue to build on our regional and national reputation for research. Our inpatient and interventional service will be based in MMH but outpatients will be delivered in our Community Facilities

We will develop these services further including the academic, research and education elements. In delivering these Specialist Services we recognise the importance of partnership working with other acute providers, clinical networks and commissioners to ensure an integrated approach to care for patients as they move between services along a care pathway.

In addition a number of our diagnostic services have a regional or national reputation and provide services to other Trusts. These include Radio-pharmacy, Neurophysiology and Toxicology. We will support the further development of these.

4.5 MATERNITY AND CHILDREN'S SERVICES

We will continue to deliver a wide range of services to women and children. Many of these will follow the pathways described above.

4.5.1 Children's Services

Children, young people and their families have specific needs and requirements that are quite separate to those of adults and so we will provide services for children from designated facilities by staff trained and experienced in caring for children. Our paediatric team will also have an overview of services for children in areas throughout MMH .

Children's Inpatient Services

Within MMH there will be an integrated children's inpatient unit (with 56 beds) accommodating all children requiring specialist assessment and admission (apart from level 3 critical care or neonatal care). The staff within the Children's Unit will provide a safe, family centred environment for the child and their family. Children, young people and their families will be cared for by appropriately registered and/or experienced staff who have the skills and knowledge to meet their specific needs in a sensitive, efficient manner. Our children's inpatient service will be supported by Paediatric consultant on site presence 12 hours a day in line with national policy.

The patient flows will be:

- All children and adolescents requiring emergency specialist assessment or admission (apart from those requiring critical care) will be assessed in the Paediatric Assessment Unit and then if required admitted to a collocated inpatient bed. These children will arrive via the Emergency Department or directly as a result of a GP or children's community nurse referral, self referral

against an agreed pathway (for children with long term conditions) or referral from a specialist outpatient appointment.

- Children admitted for elective care will be admitted directly to the children's inpatient beds.

- There will be a day case area within the children's inpatient unit for medical or surgical day cases.

- There will also be a dedicated adolescent area (for up to the age of 18 years) within the Unit. Adolescents between their 16th and 18th birthdays who are not working (i.e. are in full time education) being admitted under a speciality other than paediatrics will be offered a choice of a bed on an adult ward or within the adolescent area.

- The planned occupancy for the children's inpatient unit is 75% to accommodate the usual seasonal variations seen in the admission of children.

With regard to services for young people going through the transition between childrens' and adult services, i.e. from circa 16 years to 23 years and typically young people who have long term conditions and/or conditions requiring regular inpatient admission the proposed service model is:

- Admission to a single room on a generic adult ward with the appropriate speciality beds. Apart from adolescents between their 16th and 18th birthdays who are not working (i.e. in full time education) and choose to be admitted to the adolescent area of the children's inpatient unit (as above).
- Dedicated nursing staff from the adolescent unit will provide outreach support to these young people admitted to an adult generic ward.
- These young people will receive outpatient care in joint clinics (held by a paediatrician and the relevant adult specialist) in either the children's outpatient department or relevant adult outpatient area in dedicated time slots.

Children's Outpatient Services

Paediatric outpatient clinics will be held in BTC and STC in dedicated facilities. There will also be a dedicated children's outpatient department in MMH for more complex outpatient clinics (e.g. allergy challenges) and those requiring a multi-specialty team.

Community Children's Services

We will continue to provide a community children's service to Sandwell residents. Community Children's services are provided within a prevention/intervention continuum with the concept of a tiered model of service provision.

These services include:

- children therapies,
- health visiting,
- safeguarding service for the Trust
- paediatric acute community team and
- family nurse partnerships.

Workforce planning implications:

- development of a safeguarding children's department and infrastructure

- expansion in Health Visitors (including trainees) to reduce caseloads
- develop an integrated workforce plan and review duplication of work to maximise outcomes and realise benefits
- increased on site cover out of hours by consultants in line with Facing the Future RCPCH standards
- work more collaboratively with adjoining Trusts to develop robust child protection rota

4.5.2 Neonatal Services

The aim of the neonatal service is to reduce infant morbidity and mortality and to maximise long-term health and well-being through the provision of safe research based care ensuring that babies admitted to the neonatal unit receive appropriate levels of care which is delivered in line with national (BAPM/DOH) and local (SWMNN) standards of care. An additional aim is to give continuous encouragement, support and education to parents to enable babies to reach optimum health and well being. This is achieved via a specialist team that provides support to babies and families in the antenatal period, immediately after delivery and in the post natal period through liaison with the obstetric service, care on the neonatal unit, on an outpatient basis and via a community liaison service.

We will continue to provide a designated (by SWMNN) level 2 neonatal service caring for babies from 26 weeks gestation. The neonatal unit within MMH will have 36 cots/incubators comprising of intensive care, high dependency and special care cots and transitional care rooms. Babies will be nursed in the type of cot/incubator most appropriate for the level of care required.

Babies will primarily be admitted to the neonatal unit from the delivery suite with an immediate adjacency being essential to ensure rapid and easy admission and enable neonatal staff to attend the delivery suite to assess and treat babies immediately after delivery. Some babies will be transferred from the postnatal beds on the generic inpatient ward or from other hospitals.

Workforce planning implications:

- A detailed staffing rota has been developed, based on discussions with Clinical Leaders for MMH. This took account of the latest recommendations from professional/regulatory bodies (British Association Perinatal Medicine - BAPM) on staffing ratios for the care of Neo-Nates. The workforce will be retained at current staffing levels i.e. c75% of BAPM guidelines but with a longer-term view of achieving recommended BAPM staffing levels.
- We currently employ a number of Neonatal Advanced Nurse Practitioners and it is anticipated that the requirement for this role will increase in the future to maintain compliance with BAPM standards and to undertake tasks currently performed by junior doctors

4.5.3 Maternity Services

Maternity services will provide safe, individualised evidence based maternity care to women and their babies in a clean woman friendly environment, while at all times treating women as individuals, respecting their privacy, dignity, culture and religious beliefs. The needs of the family will also be considered and birth at this Trust will be celebrated as a family event. We have one of the highest normal birth rates and 'normalisation' of birth is led by a consultant midwife.

Antenatal

Routine midwifery led clinics will be held in community locations including STC. All high risk consultant led antenatal clinics will be held in an antenatal clinic department in MMH. This will include ultrasound facilities. Women will be assessed as low or high risk with low risk women being booked for a midwifery led birth in either the Birthing Suite at MMH or the Halcyon Birth Centre or if they choose and clinically appropriate a home birth. This risk assessment is repeated throughout a woman's pregnancy and ensures the birth is booked to the most appropriate place.

Community Midwifery
We will continue to provide community midwifery services to the resident population of Sandwell and West Birmingham even if women then choose to deliver their babies in another Trust. We will continue the work with the CCG to review and reduce community midwifery caseloads in line with national guidance. Our community midwifery team will continue to include and develop a number of specialist roles to reflect the needs of our catchment population.

Delivery Suite
Women will arrive in the delivery suite in MMH, ambulant from home, from antenatal clinic, antenatal ward or day assessment service or be brought in by ambulance. Key elements of the patient flow will be:

- An initial assessment of all women arriving on the delivery suite. This may result in discharge home, admission to a maternity bed or admission to one of the areas below in the delivery suite.
- Mothers with straightforward pregnancies who wish to labour utilising active birth and minimal interventions in home life surroundings will receive care in a midwifery led birth centre (with 6 birthing rooms).
- Mothers with complex pregnancies will receive care in our high risk delivery rooms but may also require admission to the induction of labour room, a high dependency room (2) or bereavement suite (2 rooms)
- There will be two dedicated operating theatres for women who require caesarean sections or other birth related surgery.

Maternity Wards
Within the MMH there will be 64 maternity inpatient beds accommodated across 2 generic ward templates running as one unit. Of the 64 beds, 8 will form a transfer lounge for women due to be discharged. There will also be an Antenatal Day Assessment Unit adjacent to the ward.

Workforce planning implications:

- There will be a minimum of 96 hour onsite consultant Obstetric cover and 24/7 on site consultant obstetric anesthetist presence
- Ongoing review of community midwifery caseloads to meet national requirements
- Possible increase in Consultant midwife role and specialist midwife roles.

5. DELIVERY OF THE CLINICAL SERVICE MODEL

Our clinical services are organised and managed in 7 Clinical Groups each overseen by a triumvirate management team of Clinical Group Director, Clinical Group Director of Operations and Clinical Group Director of Nursing (or equivalent). These are:

- Medicine and Emergency Care
- Surgery A

- Surgery B
- Women and Children's Services
- Imaging
- Pathology
- Adult Community and Therapy Services.

Development of specialty specific strategies and action plans to deliver the future clinical service model will be led by our Clinical Groups and monitored through our integrated change plan. This will also encompass delivery of our cross cutting enablers (including clinical information systems and electronic patient records) with these being integral and essential to the delivery of our clinical service model.

This paper has not attempted to describe the detailed activity and capacity plans nor estates transformation that also underpin the clinical service model as these are presented in other papers.

DOCUMENT HISTORY

Document Location:

Document Location:

Version	Date	Location
Version 3	Feb 2014	Will be included in the 2014 OBC Update pre Procurement as an Appendix
Version 2	Sept 2010	in OBC Update Version 4.1 as Appendix
Version 1	Dec 2008	in OBC Version 4.1 as Appendix 5c

Revision History:

Version	Date	Author	Summary of Changes
V3	10/3/14	Jayne Dunn Redesign Director Right Care Right Here	Version used in the OBC Update version 4.7 to ensure congruency with OBC
V3 draft 1	14/2/14	Jayne Dunn Redesign Director Right Care Right Here	Reformatted & updated to reflect: • Changes to Trust clinical service portfolio including provision of Community Services for Sandwell residents • MMH Architecture Design Refresh • Version 5.7 b A&C model and in preparation for the 2014 updated OBC
V2	8/9/10	Jayne Dunn Redesign Director Right Care Right Here	Version used in the OBC Update
V2 draft 2	8/9/10	Jayne Dunn Redesign Director Right Care Right Here	Updated to take account of changes from further validation of activity and capacity data in line with the sensitivity analysis and comments from SHA review
V2 draft 1	29/7/10	Jayne Dunn Redesign Director Right Care Right Here	Move to Version 2 following value engineering work. Draft 1 – amendments made to reflect output of RCRH Programme Review and New Acute Hospital Project Value Engineering work
Version 1	Dec 2008	Jayne Dunn 2010 Implementation Director	Version used in the OBC
0.02	11/12/08	Jayne Dunn 2010 Implementation Director	Second draft to take account of comments from NAH Clinical Board and Core Team
0.01	6/11/08	Jayne Dunn Implementation Director with	First draft to capture what is already agreed for the Towards 2010 Programme (model of care and activity model), the new hospital

		Gayna Deakin Deputy Director of Workforce	operational policies, the functional brief and the top down workforce projections.