Sandwell and West Birmingham Hospitals NHS Trust

Midland Metropolitan Hospital and Community Facilities Project

ACTIVITY, PERFORMANCE & CAPACITY ASSUMPTIONS

February 2014

Version 2

CONTENTS

1. INTRODUCTION

The purpose of this paper is to summarise assumed activity, performance indicators and capacity for the Midland Metropolitan Hospital (MMH) and also for the services it is planned the Trust will provide in its Community Facilities.

2. BACKGROUND

The *Right Care, Right Here (RCRH) Programme* (formerly the Towards 2010 Programme) developed a jointly owned forecast of future activity for the local health economy in the form of an Activity and Capacity Model. The aim was for the model to provide future forecasts of activity and capacity that would be used by partners to underpin future health care development and associated business cases. In this context the model has been used as the basis for activity assumptions for planning the Midland Metropolitan Hospital (MMH). In doing this the Trust has developed further and made amendments to the RCRH Activity and Capacity Model (see below).

The Activity and Capacity Model (A&C model) makes forecasts about activity for the population of Sandwell and West Birmingham Hospitals (SWBH) NHS Trust (a catchment of circa 530 000 people in Sandwell and western Birmingham) regardless of commissioner.

The activity the model covers is all consultant inpatients, day cases, outpatient attendances, A&E attendances and the Trust's community services including elements of community service provision that will change as a result of clinical service redesign and more care moving from acute hospital to community locations. The model functions at HRG level.

This has been supplemented by additional analysis and modelling for Pathology and Imaging.

The Model starts from a baseline actual activity and produces a year by year forecast for ten years in detail.

The local health economy previously agreed a set of assumptions that form the basis of the modelling. These still underpin the model although with some adjustments (see below) and include:

- Assumptions about activity demand including Population Growth
- Assumptions about planned health care changes including admission avoidance, improved productivity, shifts in location
- Assumptions about future provider of health care services.

Further more detailed analysis has then been undertaken to predict capacity requirements in MMH and Trust Community Facilities for example theatre minutes.

The *RCRH* Activity and Capacity Model was first developed in 2004 for the Programme Strategic Outline Case and has then been developed through a series of versions. In summary the most significant versions have been:

- *Version 4.2 (2008)* formed the basis of the new Acute Hospital Outline Business Case (2008).

- *Version 5.1 (2010)* was developed by the *RCRH Programme* as part of wider review of the *RCRH Programme* linked to the change in financial conditions within the NHS. Version 5.1 included revised forecast activity and capacity for the new Acute Hospital (MMH).

- *Version 5.3 (2010)* was developed by the Trust following a value engineering exercise for MMH to recognise the changes in version 5.1 and also given the changes to the NHS financial conditions to reduce the size of MMH and improve affordability. In particular this resulted in a change in the split of activity between MMH and the Trust's future community facilities (retained estate). The Outline Business Case Update (2010) was based on Version 5.3 of the Activity and Capacity Model.

- *Version 5.7 adjusted (2013).* Over the last few years the Trust has amended the Activity and Capacity Model to support its LTFM submissions. Version 5.7 adjusted (V5.7a) forms the basis of the LTFM submitted in November 2013 as part of the assurance work and preparation for proceeding to the procurement phase for MMH. All modelling in V5.is based on 10/11 out-turn. The main adjustment has been to identify the difference between the 2013/14 contracted (LDP) plan and the modelled activity for 2013/14 in the earlier version 5.7 and then to apply the % difference to the future years trajectory. The model assumes MMH becomes fully operational from October 2018.

- *Version 5.7b (2014).* Includes the activity related to agreed LTFM service development income. This has been defined in discussion with Sandwell and West Birmingham CCG (S&WB CCG) and includes:
    - Activity growth in community as a result of transfer from acute services to community services in order to provide care closer to home. Additional growth is assumed as a result of integrated care opportunities though developing further joint working with our local GPs and social care partners. As part of this work we envisage extending our community service offering to the wider S&WB CCG resident population.
    - Change to the previous elective inpatient catchment loss rule on the basis that initial access is via outpatient and diagnostic services which we will continue to offer locally at STC, BTC and RRH. It is rare once patients have received an initial diagnosis and decision to admit, to choose an alternative clinical team and therefore provider for planned inpatient care. Our improved pathways and increased local access to outpatient and diagnostic services may also result in an increase in activity previously provided elsewhere.
    - Review of emergency inpatient and A&E catchment loss assumptions and based on our on-going joint redesign of pathways with GPs, new integrated service offerings etc., a reduction from the previous 11% assumption (in selected specialties) to a net 3% loss.

- The opening of MMH will return our birthing service to Sandwell MBC area resulting in new, improved facilities and babies delivered by us having a Sandwell birth certificate. We have therefore assumed a repatriation of births from neighbouring Hospitals in the Black Country.

The November 2013 LTFM is and remains the Trust plan. This LTFM includes income for service developments. Further discussion with Sandwell and West Birmingham CCG as the 2014/15 contracting round has progressed has begun to detail the activity associated with those service developments. This further refinement is shown within this paper. The income levels assumed in the November LTFM have not changed.

We will ensure that our LTFM is updated on a rolling basis. We will also review quarterly our productivity assumptions in line with our Board resolution on MMH. While it is acknowledged that they are more challenging than in 2009, they remain achievable .

Table 1: Summary of Changes Between V5.3, V5.7a and V5.7b

	2019/20											
	V5.3			V5.7a			V5.7b			Variance		
Activity Type/Capacity/Productivity Measure	Acute *	Retained Estate	Total	MMH *	Community Facilities	Total	MMH *	Community Facilities	Total	MMH	Community Facilities	Total
Spells												
Elective IP	6,746	-	6,746	6,828		6,828	7,876	-	7,876	1,130	-	1,130
Daycases	15,104	34,946	50,050	14,230	30,224	44,454	14,230	31,188	45,418	(874)	(3,758)	(4,633)
Emergencies inc Intermediate Care**	54,396	-	54,396	57,110	2,171	59,281	59,349	2,171	61,520	4,953	2,171	7,124
Intermediate Care	53	1,074	1,128							(53)	(1,074)	(1,128)
Total Spells	**76,299**	**36,021**	**112,320**	**78,168**	**32,395**	**110,563**	**81,455**	**33,359**	**114,814**	**5,156**	**(2,662)**	**2,494**
Outpatients												
New	47,274	118,635	165,909	35,017	158,348	193,366	35,239	161,864	197,103	(12,035)	43,229	31,194
Review	41,893	250,512	292,405	45,797	289,538	335,334	46,114	298,441	344,555	4,222	47,929	52,151
Total Outpatients	**89,167**	**369,147**	**458,314**	**80,814**	**447,886**	**528,700**	**81,353**	**460,305**	**541,659**	**(7,813)**	**91,158**	**83,345**
OPPROC ***	1,518	10,315	11,833	16,758	28,752	45,511	16,846	30,266	47,111	15,327	19,951	35,278
Maternity AN				9,802	630	10,432	9,914	630	10,544	9,914	630	10,544
Maternity PN				6,655	447	7,102	6,728	447	7,174	6,728	447	7,174
A&E and UC Attendances												
A&E	142,108	36,856	178,964	125,417	29,491	154,908	137,402	29,491	166,893	(4,706)	(7,365)	(12,071)
Urgent Care	-	78,014	78,014	-	72,258	72,258	-	72,258	72,258	-	(5,756)	(5,756)
Total A&E and UC Attendances	**142,108**	**114,870**	**256,978**	**125,417**	**101,749**	**227,166**	**137,402**	**101,749**	**239,151**	**(4,706)**	**(13,121)**	**(17,827)**
SCHS Contacts**												
Base			-		770,182	770,182	-	770,182	770,182	-	770,182	770,182
Developments			-		50,813	50,813	-	156,903	156,903	-	156,903	156,903
Total Contacts			**-**		**828,200**	**828,200**		**828,200**	**927,085**	**-**	**828,200**	**828,200**
Capacities												
Beds - modelled capacity	**666**	**120**	**786**	**697**	**73**	**769**	**697**	**73**	**769**	**31**	**(47)**	**(17)**
Beds- planned capacity*****	**666**	**120**	**786**	**666**	**158**	**824**	**666**	**158**	**824**	**-**	**38**	**38**
Theatres												
Elective IP	8.0		8.0	7.0		7.0	7.0	-	7.0	(1.0)	-	(1.0)
Daycases		11.0	11.0		11.0	11.0	-	11.0	11.0	-	-	-
Emergencies	4.0		4.0	4.0		4.0	4.0	-	4.0	-	-	-
Maternity	2.0		2.0	2.0		2.0	2.0	-	2.0	-	-	-
Total	**14**	**11**	**25**	**13**	**11**	**24**	**13**	**11**	**24**	**(1)**	**-**	**(1)**
Performance Measures												
New to review ratios******	**0.89**	**2.11**	**1.76**	**1.31**	**1.83**	**1.73**	**1.31**	**1.84**	**1.75**	**0.42**	**(0.27)**	**(0.01)**
Daycase rates	**69%**	**100%**	**88%**	**68%**	**100%**	**87%**	**64%**	**100%**	**85%**	**-5%**	**0%**	**-3%**
Overall Average LOS	**3.53**	**46.80**	**4.34**	**3.39**	**20.38**	**3.65**	**3.10**	**17.08**	**3.54**	**(0.43)**	**(29.72)**	**(0.80)**
Average LOS Elective inpt MMH	***3.44***			***3.31***			***2.81***			***(0.63)***	-	-
Average LOS Emergency inpt MMH	***3.55***			***3.40***			***3.31***			***(0.24)***	-	-
Occupancy Rates	**85%**	**95%**	**89%**	**85%**	**95%**	**89%**	**85%**	**95%**	**89%**	-	-	-

Notes

*** 2010 OBC for MMH had 2016/17 as the year of opening, 2019/20 has been used for comparison purposes.**

**** V5.3 showed intermediate care spells separately but in V5.7a they are included in emergency spells**

*****V5.7a includes a movement of c6000 daycase spells to Opproc, this has an imapct on DC theatres**

****** Community contacts weren't modelled for SWBH in v5.3 as SCHS transferred to SWBH in April 2011 under TCS**

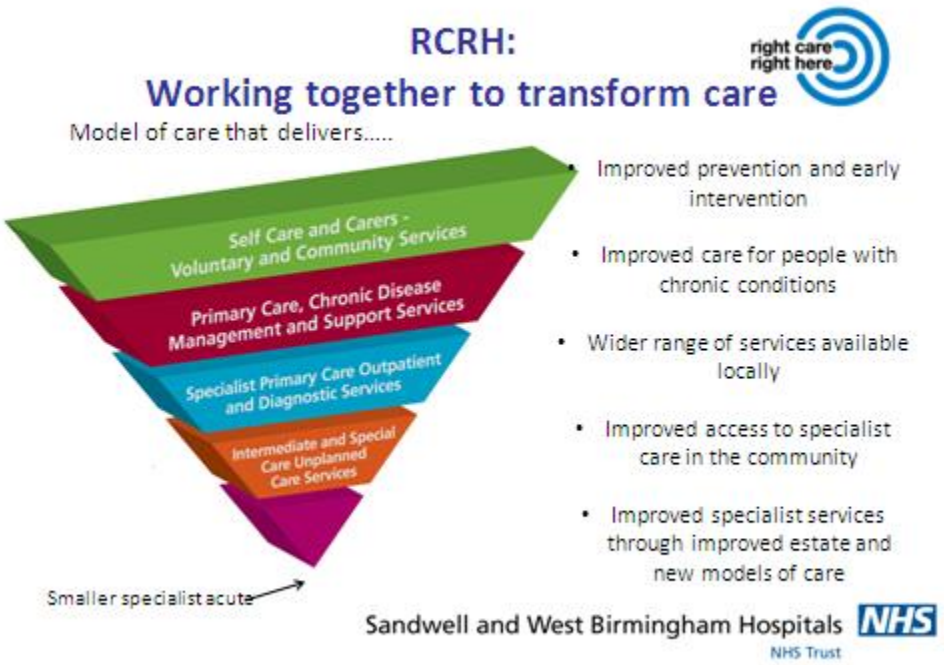
******* V5.3 excluded Leasowes IC beds as not provided by SWBH until April 2011; Following review of modelled future bed numbers in 2014 decision made to provide 30 acute bed modelled to MMH as Intermediate Care by lowering modelled day of transfer to Intermediate Care**

********OP New to review ratio excludes maternity pathway contacts in v5.7a & v5.7b**

3. SERVICE MODEL

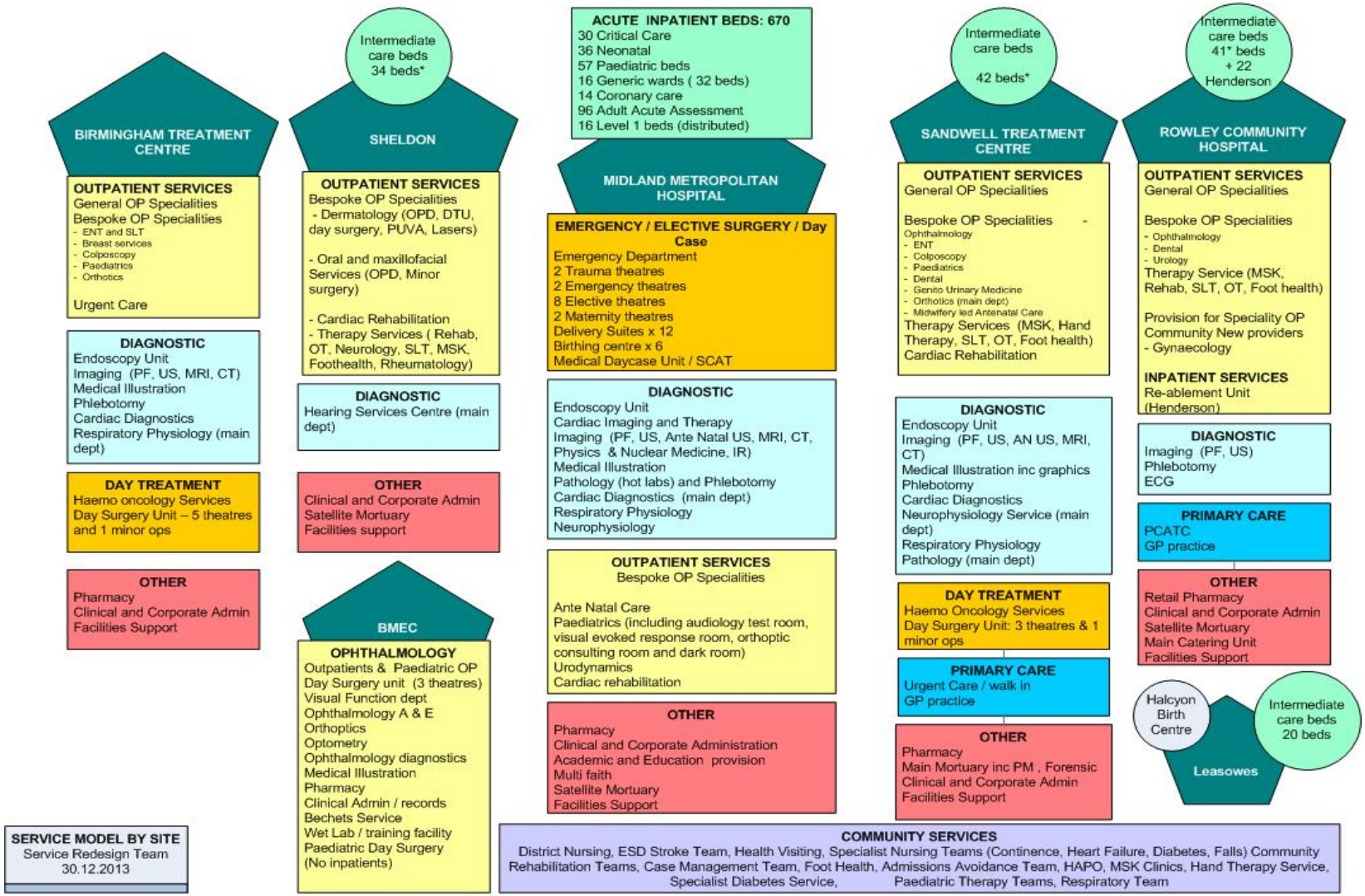
The objective of the *RCRH Programme* is to deliver redesigned acute, primary, community and social care services in the Sandwell and West Birmingham areas. The *RCRH Vision* is summarized in figure 1 below.

Figure 1: RCRH Vision



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 a new single site Acute Hospital (MMH) operating at maximum productivity.

Within this context we will provide services in community locations and support services in primary care as well as providing services within MMH. The planned location of services is summarised below.


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

The development of a new single acute site at MMH will bring together clinical teams from the two current acute hospitals within our Trust and will result in:

- 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 being available 24 hours, 7 days a week, and the majority of other services being operational for at least 12 hours a day during the week and for some time at the weekend thereby offering patients greater choice of appointment times and making efficient use of facilities and equipment.

For the Trust the activity and capacity implications of the *RCRH* vision are summarized in table 2 below.

Table 2: RCRH Activity and Capacity Implications for SWBH

	SWBH in MMH	**SWBH in Community Facilities**	**Other Providers**
Outpatient Attendances: Based on a Trust Majority (including planned diagnostics) provided in community facilities by a mixture of secondary care specialists, community teams and primary care professionals.	• 13%	• 71% will be provided by SWBH in community locations • 23% being Ophthalmology outpatient attendances taking place in Birmingham Midlands Eye Centre (BMEC).	• 7% will be provided by new providers in community locations with the Trust's community services providing 75% of this activity for Sandwell residents • 9% will be absorbed in to primary care as part of routine working in primary care.
Beds & Length of Stay: Significant reductions in length of stay and acute beds. Increase in intermediate care.	• Average length of stay of 3.1days • Circa 670 beds	• Average length of stay of 17.08 days • Circa 158 beds includes existing beds at Henderson and Leasowes.	
Catchment Loss: As the result of	• 3% adult emergency	• None assumed	Emergency catchment loss primarily flows to:

change in acute hospital location. Catchment loss spread across several years.	inpatient admissions		• Walsall • UHBT • DGoHFT • HEFT
Emergency Department: Shift of low cost HRGs from ED to Urgent Care.	• 58% total ED & Urgent Care attendances	• 30% total ED & Urgent Care attendances in Urgent Care Centres at Sandwell Treatment Centre (STC) & Rowley Regis Hospital (RRH)* • 12% total ED & Urgent Care attendances in BMEC	• Excludes Urgent Care activity in existing primary care Urgent Care Centres (i.e. Parsonage Street and Summerfield)
Day Case Rates: Increased day case rate including extended recovery.	• No dedicated day surgery unit – only children's day surgery to be undertaken in MMH**	• 85% • Day surgery in Birmingham Treatment Centre (BTC), BMEC & STC	

*service model under review and likely that some urgent care activity will be undertaken in MMH within a co-located Urgent Care Centre or in the BTC

**service model for Children's day surgery under review and may result in some of this activity being undertaken in BMEC and BTC.

4. SUMMARY OF ACTIVITY, PREFORMANCE & CAPACITY CHANGES

Table 3 below summarises the main changes identified by the model for the period up to the opening of MMH. It includes all activity that will be delivered by the Trust, including activity delivered outside of MMH.

Table 3: Projected Trust Activity in 2019/20 by Location

Category	Type	MMH	Community	Total
Admitted Patient Care	Elective Inpatients	7,876	0	7,876
	Day Cases	14,230	31,188	45,418
	Emergencies (including intermediate care)	59,349	2,171	61,520
	Occupied Bed Days	215,450	25,916	241,366
Outpatients	New Outpatients	35,239	161,864	197,103
	Review Outpatients	46,114	298,441	344,555
	OP with Procedure	16,846	30,265	47,111
	Maternity	16,642	1,076	17,718
Other	A&E Attendances	137,402	29,491	166,893
	Urgent Care	0	72,258	72,258
Capacity	Beds	666	158	824
Community	Contacts	0	927,085	927,085

*assumes no co-located Urgent Care Centre at MMH but service model under review

The model also includes a set of shared assumptions about the likely speed of transition to the new models of care and therefore changes in activity volumes and location of activity.

5. ADMITTED PATIENT CARE

5.1 Key Activity Assumptions

Figure 2 below shows the key assumptions that have been applied to admitted patient care in the period of major change up to the opening of MMH.

Figure 2: Activity Modelling Assumptions – Admitted Patient Care

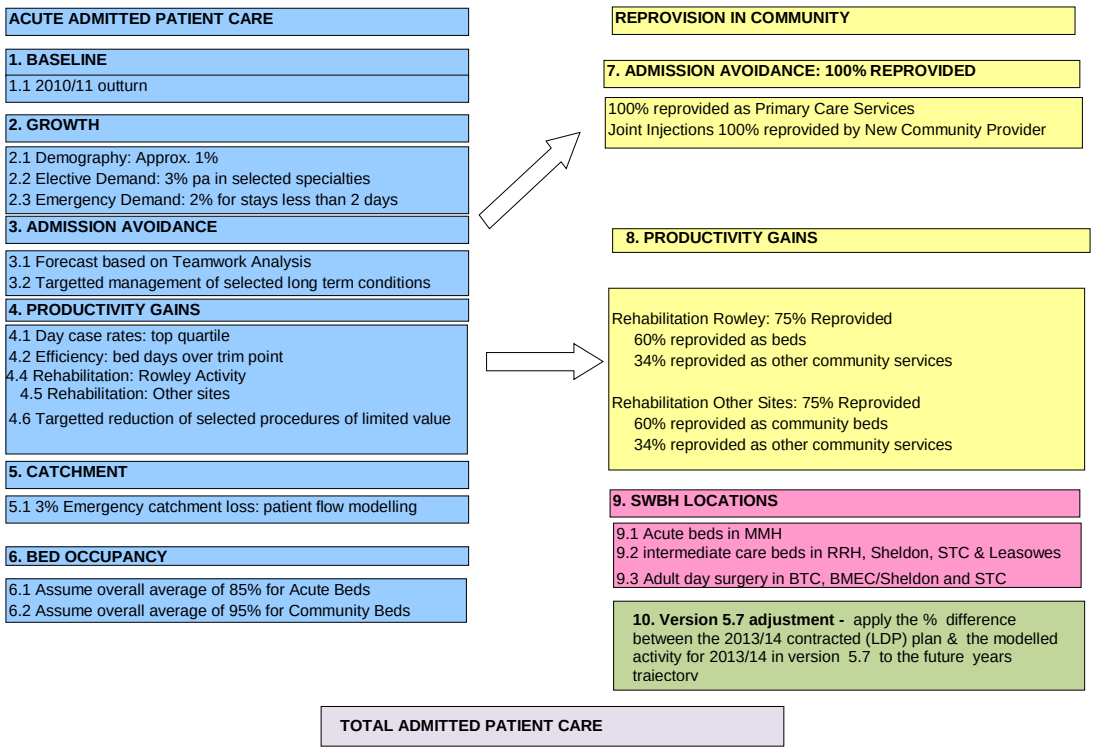


Table 4 below sets out the key assumptions applied within the model for admitted patient care in each of the modelling periods i.e. up to the opening of MMH and afterwards.

Table 4: Admitted Patient Care

Assumption	To Opening of MMH (2014/15-2016/17)	After Opening of MMH (2018/19-2022/23)
Growth in Demand	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand. Approx. 1% a year. ***Elective (Inpts & Day Cases)*** 3% a year additional growth up to 2016/17 in elective demand in T&O, Ophthalmology, Neurology and Gynae Oncology in recognition of current access rates, reduction in waiting	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand. Approx. 1% a year. ***Elective (Inpts & Day Cases)*** 2% a year additional growth in elective demand in Ophthalmology.

	times and increased patient presentations as electives not emergencies. ***Emergency*** 2% a year additional growth in emergency spells with a length of stay less than 2 days.	***Emergency*** 2% a year additional growth in emergency spells with a length of stay less than 2 days.
Admission Avoidance	HRG level assumptions about impact of admission avoidance based on previous Teamwork consultancy review of evidence. This activity is re-provided as either community beds (20%) or community alternatives to beds e.g. hospital at home teams (80%). 100% of joint injections transferred to a new provider in a community location. Selected procedures of limited clinical value removed or reduced at HRG level. Not re-provided.	Existing admission avoidance continues. In addition there will be some further increase in the proportion of short stay hospital activity that can be dealt with in the community.
Productivity Gains	***Day case rates:*** modelled at 85% (average). The majority of this undertaken in the community. ***Efficiency:*** improved hospital efficiency reduces length of stay by equivalent of 50% excess bed days. Re-provided in the community. ***Caesarean Section*** rate of 24%. ***Intermediate Care:*** 75% of activity at Rowley Regis Hospital re-provided as Intermediate Care in the community (60% beds, 34% community equivalents). 6% is not re-provided. 90% of bed days over 21 days for any inpatients staying longer than 28 days are converted to Intermediate Care. 100% are re-provided in the community.	Continued gradual reductions in length of hospital stays as a result of further incremental improvements in patient pathways.
Catchment	***3 % reduction in non elective inpatient admissions:*** Applied : 25% of loss in 2017/18,	***3 % reduction in non elective inpatient admissions:*** Applied : 50% of loss in 2018/19 25% of loss in 2019/20

		Based on postcode level modelling of patient flows predicting catchment of new acute hospital. The majority of this activity is lost to Walsall (with some to Dudley, HEFT and UHBFT). The modelling assumptions have previously been shared with Walsall Hospitals NHS Trust. ***Catchment stable after 2020/21***
Bed Occupancy	Average future bed occupancy of 85% (lower for specialist and assessment beds; higher for generic beds).	Bed occupancy stable after opening of MMH.

5.2 Productivity Assumptions

5.2.1 Length of Stay and Day Case Rates

The Trust average length of stay assumptions post opening of MMH (2019/20) 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
- Intermediate Care Inpatient Average Length of Stay: 17.08 days

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 assumptions for the adult acute assessment unit are:

- 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 following table sets out the 2019/20 average length of stay, current average length of stay for our acute services (excludes intermediate care) and how this has reduced in recent years.

Table 5: Average Length of Stay for Acute Services

	2011/12	2012/13	2013/14*	2019/20
Acute Care	4.2 days	3.8 days	3.7 days	3.1 days

*April-November 2013

The table below, sets out the average length of stay for intermediate care for 2019/20 compared to current performance and current benchmarks.

Table 6: Average Length of Stay for Intermediate Care

Intermediate Care	SWBH 2012/13	Benchmark 2012	SWBH 2020/21
Leaseowes	32		
Henderson	40		
Intermediate Care		27.5*	17.08**

(Source: *NHS Benchmarking Network; ** V5.7a)

This shows the current position is below the national benchmark (by 4-12 days) and that the 2019/20 modeled position is lower than the 2012 upper quartile benchmark by 7 days and requires the Trust position to reduce by 50-60%.

5.2.2 Occupancy

In order to find a balance in managing peaks and troughs in demand for inpatient admission the overall bed occupancy for MMH has been modelled at 85%. This is in line with findings from the National Bed Inquiry which concluded that levels greater than 85% create problems in handling peaks in demand particularly for emergency admissions. However it is recognised that services with high levels of emergency demand and/or requiring bespoke bed types that cannot be provided by other more generic areas will require a lower average occupancy in order to accommodate peaks in demand and maintain a smooth patient flow. As a result within the overall 85% occupancy there are variations with bespoke bed areas and high emergency demand areas having a lower occupancy than more generic areas. Table 7 below shows the occupancy rates by area.

Table 7: New Acute Hospital Bed Occupancy (2019/20)

Area	Occupancy %
Generic Adult Wards	88%
Adult Acute Assessment Unit	84%
Maternity	75%
Neonatal Unit	75%
Children's Inpatient Unit	75%
Critical Care Unit (ICCU)	75%
MMH	***85%***

(Source: V5.7a: all Clinical Groups Summary)

The bed occupancy for intermediate care beds is assumed to be 95 %.

5.2.3 Theatres

a) Theatre Minutes

Within the *RCRH* A&C model theatre minutes have been assigned to HRGs with a procedure. These minutes are cutting times (knife to skin to recovery) and were initially based on a bench mark exercise undertaken by Teamwork Consultancy. The theatre minutes have subsequently been tested with local clinicians and have been used along with number of cases per each relevant HRG to derive demand for theatre time.

b) Theatre Utilisation

In order to identify theatre capacity assumptions have been made about utilisation, cancellation rates, session times and sessions per week. In Version 5.7 these were updated in line with Transformation Plan assumptions (maintained in v5.7b). In summary these are:

Table 8: Theatre Performance Assumptions

Theatre Type	Sessions/Week	Weeks/Year	Utilisation Rate 2020/21
Inpatient Elective Theatres	10	42	90%
Day Case Theatres (Community Facilities)	10	42	90%
Maternity Theatres*	14	52	80%
Emergency Theatres**	14	52	60%

*2 maternity theatres required as a minimum to cover peaks in demand.
**includes 2 trauma theatres which have planned/urgent sessions and 2 general emergency theatres which have to be available 24/7 (2 of each required to cover peaks in demand).

The Trust's current (2013) utilisation for elective theatres (day case and elective) is 76% so a significant improvement is required to achieve the 90% in the Transformation Plan and modeled for 2020/21.

5.3 Capacity

5.3.1 Beds

The table below summarises inpatient beds within MMH and intermediate care and compares these to acute beds open within the Trust in 2013/14.

Table 9: Inpatient Beds

	2013/14	2019/20 Planned Capacity	Other Comments
Critical Care (levels 2 &3)	32 physical beds but circa 30 funded	30	Bed numbers vary as staffed on points basis.
Children's	62 (includes 5 winter/ flexible beds)	56	Includes Assessment Unit, adolescent beds (up to the age of 16) & capacity for children in all specialties (including day cases).
Neonatal	37 physical cots but 29 funded	36	Some transitional care will take place on the maternity wards (see below).
Maternity	42 (inc 4 Transitional care) & 6 couches in ADAU & 6 chairs in discharge lounge	64* (inc. transitional care, antenatal day assessment, antenatal & post natal care & transfer lounge)	*includes circa 10 transitional care beds although actual no. vary according to demand and flexible use with maternity beds
Adult Acute	120**	96**	**Reduced capacity to reflect direct admission

Assessment	Medical (includes 21 trollies)	(80 medical & 16 surgical)	from ED or ambulance to a number of specialties including stroke, trauma (fractured neck of femur), cardiology requiring immediate intervention, Ophthalmology etc.
Medical Adult Beds	374***	192**** (inc. 14 CCU beds)	***includes 100 extra beds across medicine and surgery opening in 2013/14 but planned to reduce by 2017/18. (48 beds in 2015/16; 36 beds in 2016/17; 32 beds in 2017/18) **** capacity reflects earlier transfer to intermediate care beds.
Surgical Adult Beds	195 (inc. SAU)	192*****	*****includes Emergency Gynaecology Assessment Unit (8 trolley spaces)
Sub Total	***874***	***666***	
Intermediate Care	42	158	
SWBH Total	**916**	**824**	

Within the medical and surgical bed numbers are 16 level 1 beds distributed across a number of wards.

A decision was made to group adult beds in MMH by condition rather than traditional specialty in order to facilitate delivery of new service models. This was done by analysing the admitted patient care by HRG Chapter. The beds derived from this analysis were then grouped into units of 32 and where one group of conditions required less than 32 beds consideration was given to the most appropriate co-location with other groups of conditions. This process was also used in determining how the 32 bed units should be grouped into clusters of 3 (in line with the design vision). It should be noted that at an operational level there will be some flexibility in use of these beds.

5.3.2 Theatres

The number of theatres in 2019/20 was derived using the theatre cases for 2019/20, analysed by emergency, maternity, inpatient elective and day case procedures. The performance assumptions outlined previously (cutting minutes, utilisation rates, etc) were applied. For emergency and dedicated specialist theatres (e.g. maternity) a rounding up of capacity was made to ensure capacity and availability to deal with demand. The elective inpatient analysis also included the day cases that will take place in MMH (i.e. 23 hour stay surgery). In v 5.7a the theatre utilisation assumption for elective and day case theatres was amended to 90% to reflect the rate modeled for the Transformation Plan. The table below shows theatre capacity in MMH, BTC, BMEC and Sandwell Treatment Centre and compares this to the historical and current position.

Table 10: Theatre Capacity

	2013/14	2019/20	2019/20 - Other
Emergency (including trauma)	3	4	Includes: 2 Trauma; 1 Laproscopic 1 General
Elective Inpatient	10	7	Includes: 2 Orthopaedic 2 Laproscopic 1 IR capacity 1 Ophthalmic &ENT capacity I gynae-oncology
Maternity	2	2	In Delivery Suite
Sub-total	***15***	***13***	***MMH (2019/20)***
BTC	6	5	& 1 minor op
BMEC	4	3	
Sandwell	3	3	& 1 minor op
Sub-total	***13***	***11***	***Community (2019/20)***
Total	**28**	**24**	

5.3.3 Birthing Rooms

The Trust currently provides all high risk maternity care on one site (City Hospital). This provision includes a Delivery Suite and a co-located midwifery led birthing centre (Serenity Birthing Centre). In addition there is a stand- alone midwifery led birthing centre (Halcyon Birthing Centre) in a community location. High risk maternity care will transfer to MMH including the Delivery Suite and co-located midwifery led birthing centre and the Halcyon Birthing Centre will remain in its current location. The number of births is forecast to increase to circa 6,574 by 2019/20.

Table 11: Birth Capacity

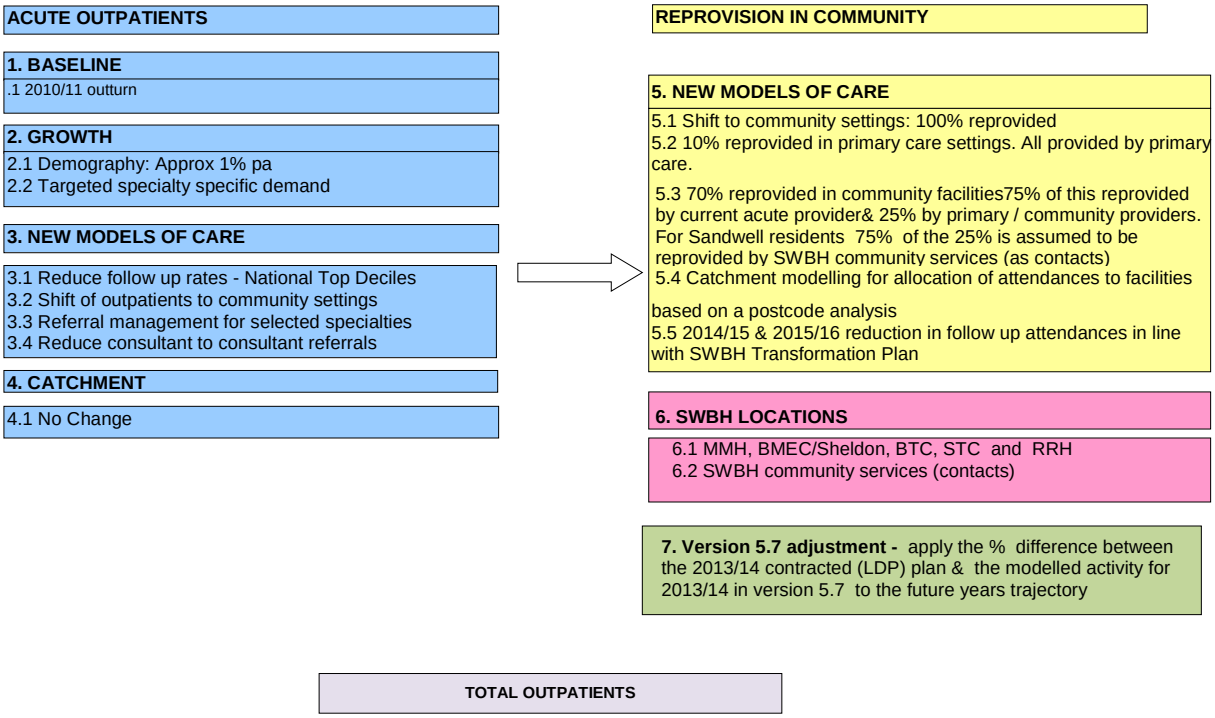
Capacity	2013/14	2019/20 MMH	Key Performance Factors	2019/20 Community Sites	2019/20 Total
Birth Rooms	20 (12 high risk & 8 midwifery led)	18 (12 high risk & 6 midwifery led)	In addition within Delivery Suite there are: 6 Induction spaces	3 birth rooms in Halcyon Birthing Centre (stand alone midwifery led centre)	21

6. OUT PATIENT CARE

6.1 Key Activity Assumptions

Figure 3 below shows the key assumptions that have been applied to outpatient care in the period of major change up to the opening of the MMH.

Figure 3: Outpatients



The table below sets out the key assumptions applied within the model for outpatient care in each of the modelling periods i.e. up to the opening of MMH and afterwards.

Table 12: Outpatient Care

Assumption	To Opening of MMH (2014/15-2017/18)	After Opening of MMH (2018/19-2022/23)
Growth	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand. Approx. 1% a year. Variations in additional growth in elective demand by specialty in recognition of current access rates, reduction in waiting times and increased patient presentations as electives not emergencies. OP Growth — 13/14-16/17 — 17/18-20/21 110 - Trauma & Orthopaedics — Outpatients — 3% 130 - Ophthal — Outpatients — 5% 400 - Neurology — Outpatients — 3% 410 - Rheumatology — Outpatients — 3% 503 - Gynaecological Oncology — Outpatients — 3% 320 - Cardiology — First Appts — 4% 501 - Obstetrics using Bed or Delivery — Outpatients — 2% 420 - Paediatrics — First Appts — 4%	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand. Variations in additional growth in elective demand by specialty: 1% a year in T&O, Neurology, Rheumatology Gynae Onc, Cardiology, Paeds. 2% a year in Ophthalmology
New Models of Care	***Follow-up rates:*** reduction of new to follow-up ratio to England upper decile (as at 2011/12) ***Referral Management:*** attendances reduced by 0.3% in selected specialities as a result of improved referral management. 60% reduction in consultant to consultant referrals based on improved referral systems. ***Shift to community:*** major shift of activity to the community. Activity re-provided in a range of settings according to specialty including primary care and community facilities.	

6.2 Productivity Assumptions

6.2.1 New to Review Ratios

Within the *RCRH a*ctivity and capacity modelling assumptions, outpatient new to review ratios were modelled on the upper decile for England. These have subsequently been reviewed to be in line with the ratios in our Transformation Plan. Table 13 summarises the new to review ratios at a Trust level.

Table 13: Trust New to Review Ratio

Location	2012/13	2019/20
MMH	2.19	1.31
Community Facilities	n/a	1.84
Trust Total	***2.19***	***1.75***

NB: All outpatient activity in 2012/13 (apart from community service contacts) is recorded as acute but from 2018/19 activity undertaken in BTC, STC, RRH, BMEC/Sheldon (including Tertiary Ophthalmology outpatients) shows as Community Facilities in the A&C model.

6.2.2 Outpatient Throughput

In order to identify the outpatient capacity requirements assumptions were made about length of appointment times, numbers of sessions per week, etc. Whist there is some variation between specialties, in summary for Trust provided outpatients, in 2020/21 these assumptions are:

MMH:

- 16 sessions per week (8am – circa 8 pm Monday to Friday & Saturday morning)
- Each clinic held 49 weeks/year
- New outpatient appointments – 30 minutes
- Review outpatient appointments – 20 minutes

Community Facilities:

- 10 sessions per week
- Each clinic held 46 weeks/year
- New outpatient appointments range 15-60 minutes
- Review outpatient appointments range 10– 60 minutes

(NB: upper end of these ranges primarily reflect times for tertiary Ophthalmology appointments).

6.3 Locations and Capacity

Following a further review with our Clinical Leadership Executive all adult outpatient clinics (apart from high risk and consultant led maternity) will be provided in our Community Facilities. The table below shows planned specialty outpatient locations.

Table 14: 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			✓			✓			

NB: In 2013/14 the Trust also provides consultant outpatient clinics in a number of other community locations (see below) and this is expected to continue:

- Ashfurlong Health Centre (Sutton Coldfield)
- GP practices/health centres

The table below summarises outpatient capacity in terms of the generic and bespoke consulting rooms but there will also be a range of other supporting rooms such as counselling and treatment rooms (not specified).

Table 15: Outpatient Consulting Rooms

Specialty	SWBH 2013/14	2019/20 MMH	2019/20 Community	Community Locations	2013/14 Total	2019/20 Total
Generic Adult	35 BTC 21 SGH 5 RRH	0	35 BTC 36 STC 9 RRH	BTC, STC & RRH will have suites of generic adult consulting rooms for use by all specialties (apart from those requiring bespoke accommodation)	61	80
T&O	4 cubicles & 4 rooms SGH 6 cubicles & 2 rooms City	0	Use of generic adult rooms		16	Use of generic adult rooms
Breast	5 BTC	0	5 BTC		5	5
ENT	6 BTC 5 SGH	0	3 STC 6 BTC	Bespoke accommodation: BTC & STC	11	9
Oral Surgery	3 City	0	4	Bespoke accommodation: STC&RRH	3	4
Dental	3 SGH	0	2	Bespoke accommodation: STC&RRH	3	2
Diabetes	6 City 7 SGH	0	Use of generic adult rooms		13	Use of generic adult rooms
Dermatology	6 Sheldon	0	6 Sheldon	Bespoke accommodation: Sheldon	6	6

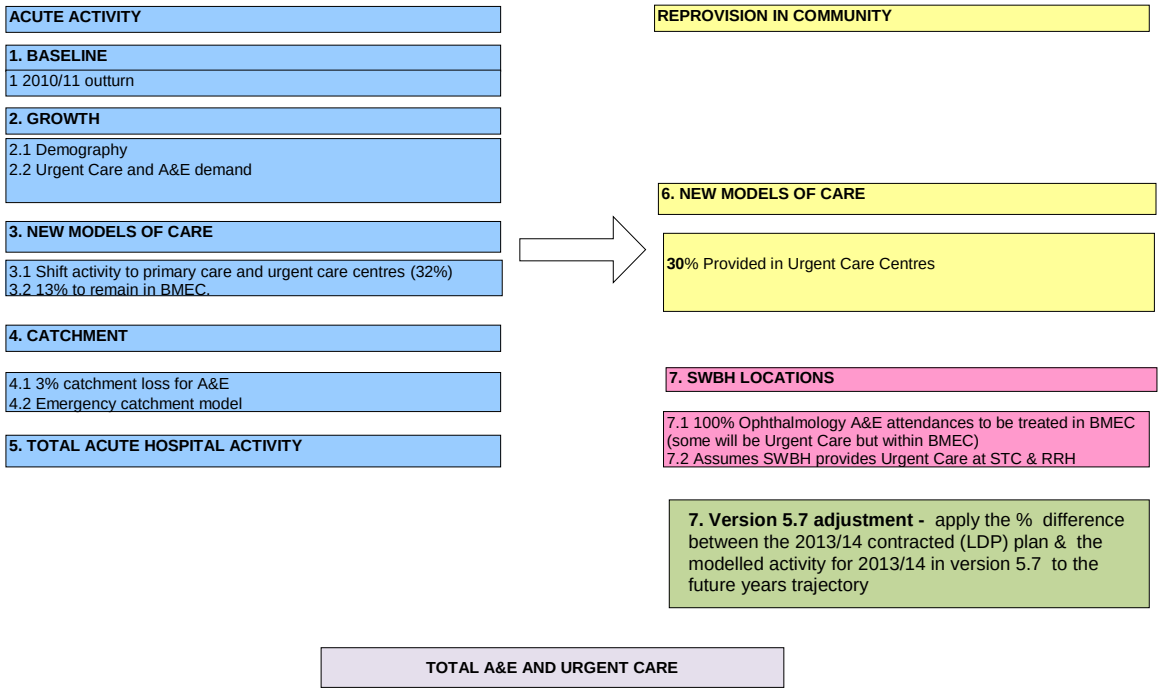
Antenatal	5 City 3 SGH	7	6 STC	Bespoke accommodation for Midwifery led antenatal clinics	8	13
Fetal Medicine	1 City	0	0		1	Use of antenatal clinic
Respiratory	5 SGH	0	5 STC	Bespoke accommodation: STC	5	5
Oncology	6 BTC (at SGH use generic adult rooms)	0	6 BTC 4 STC	Bespoke accommodation: BTC & STC (adjacent to chemotherapy day units)	6 BTC & use of generic adult rooms	10
Ophthalmology	27 BMEC 5 SGH Archer Ward	1*	39 BMEC 6 STC 4 RRH	BMEC	32 & Archer Ward	49
Paediatrics	6 BTC 6 SGH	6	6 BTC 6 STC	Bespoke areas: BTC & STC	12	18
Urodynamics	1 BTC	7. 1	0		1	1
GUM	8 SGH	0 HIV 1clinic/week	6 STC	Bespoke accommodation: STC	8	6
SWBH Total	**191**	**15**	**194**		**191**	**208**

*collocated with stroke ward

7. A&E AND URGENT CARE

Figure 4 below shows the key assumptions that have been applied to Accident and Emergency and Urgent Care services in the period of major change up to the opening of MMH.

Figure 4: Activity Modelling Assumptions – A&E and Urgent Care



The table below sets out the key assumptions applied within the model to A&E and urgent care centre activity in each of the modelling periods i.e. up to the opening of MMH and afterwards.

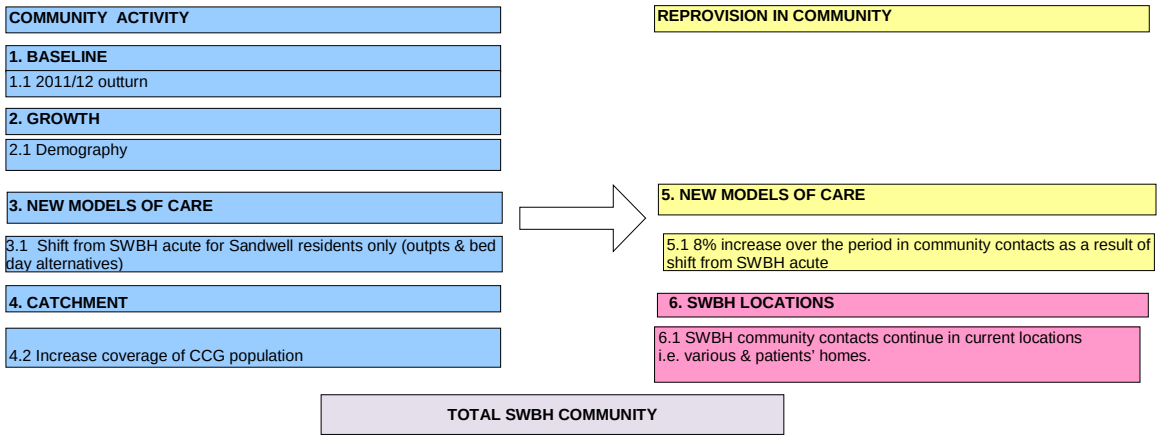
Table 16: A&E and Urgent Care

Assumption	To Opening of MMH (2014/15-2017/18)	After Opening of MMH (2018/19-2021/22)
Growth	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand. Approx. 1% a year. 2% a year growth in A&E and urgent care attendances prior to changes in location or model of care.	Impact of ONS forecast levels of population change in Birmingham and Sandwell on demand.
New Models of Care	Assumed that in future 54% of low cost A&E HRGs (VB 09Z & VB112) re-provided as urgent care.	Ophthalmology A&E attendances will be treated in the Eye A&E in BMEC. Some will become Urgent Care rather than A&E will be delivered in BMEC.
Catchment	A&E 3% catchment loss. Applied : 25% of loss in 2017/18	A&E 3% catchment loss. Applied : 50% of loss in 2018/19 25% of loss in 2019/20 Catchment stable after 2020/21.

8. COMMUNITY SERVICES

Figure 5 below shows the key assumptions that have been applied to SWBH Community Services (excluding maternity) in the period of major change up to the opening of MMH.

Figure 5: Activity Modelling Assumptions – SWBH Community Services



The table below sets out the key assumptions applied within the model to SWBH community activity in each of the modelling periods i.e. up to the opening of MMH and afterwards.

Table 17: SWBH Community

Assumption	To Opening of MMH (2014/15-2017/18)	After Opening of MMH (2018/19-2022/23)
Growth	Impact of ONS forecast levels of population change in Sandwell on demand. Approx. 1% a year.	Impact of ONS forecast levels of population change in Sandwell on demand. Approx. 1% a year.
New Models of Care	***Efficiency:*** improved hospital efficiency reduces acute length of stay. Re-provision of circa 75% as community bed day alternatives with SWBH community services providing 100% of this for Sandwell residents. ***Shift to community:*** major shift of outpatient activity to the community. 8% of this assumed to be provided by new community provider (as opposed to acute service in community location) with SWBH community services providing 75% of this for Sandwell residents.	Applies to all residents not just Sandwell
Catchment	Increase in coverage of S&WB CCG population.	Increase in coverage of S&WB CCG population up to opening of MMH in 2018/19.

The table below shows the activity trajectory for our community service including community development activity.

Table 18: SWBH Community Services Activity

	2014/16	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Community Services	740,529	745,206	750,296	755,497	762,769	770,182	777,744	785,469	793,323
Community Developments	30,484	52,740	85,257	116,341	143,585	156,903	157,770	158,449	160,033
Community Total	771,013	797,946	835,553	871,837	906,354	927,085	935,514	943,917	953,356

9. DIAGNOSTICS

Additional modelling work has been undertaken outside of the *RCRH* Activity and Capacity Model with service leads to identify diagnostic capacity requirements for MMH and community facilities. For Imaging and Pathology this work was undertaken in liaison with PCTs to forecast changes in activity including GP direct access demand. The diagnostic capacity by site is summarised below.

Table 19: SWBH Diagnostic Capacity Planned for 2020/21

Department	MMH	BTC	BMEC	Sheldon Block	STC	RRH
Imaging	2 Plain Film x-ray 2 Plain Film x-ray in ED 4 Ultrasound rooms 2 MRI 2 CT 2 Fluoroscopy room 1 IR (angiography)room 1 Dual function procedure room 4 Gamma Cameras	1 MRI 1 CT 1 Dexa Scanner 2 Plain x-ray rooms 4 Ultrasound rooms	N/A	N/A	1 MRI 1 CT 2 Plain Film x-ray 3 Ultrasound rooms (1 to be used as a vascular room)	1 Plain Film x-ray 2 Ultrasound rooms
Cardiac Diagnostics	1 Exercise tolerance testing room 3 ECHO rooms 1 Ambulatory monitoring room 2 ECG rooms 1 Device testing room 3 Cath Labs	1 Exercise stress testing room 1 Ambulatory monitoring room 2 ECG rooms	N/A	N/A	1 Exercise stress testing room 2 ECG rooms 1 Ambulatory monitoring room 1 Device testing room	1 ECG/ECHO room
Respiratory Physiology	1 Respiratory testing 1 Sleep diagnosis/therapeutic	4 Respiratory testing rooms	N/A	N/A	2 Respiratory testing rooms 1 Sleep room	N/A

	assessment room					
Neurophysiology	1 Nerve Conduction Studies 1 EEG Recording room	N/A	N/A	N/A	1 Ambulatory EEG room 2 NSC/EMG rooms 2 EMG/NCS & EP rooms 4 EEG sleep rooms	N/A
Audiology	1 Adult test room 1 Paediatric test room 1 Vestibular function room 1 Evoked response audiology test room	3 Audiology testing rooms	N/A	4 Adult test room 2 Paediatric test room	1 Audiology room	1 Audiology testing room
Phlebotomy	3 Phlebotomy rooms	6 Phlebotomy rooms	N/A	N/A	5 Phlebotomy rooms	3 Phlebotomy rooms
Colposcopy	N/A	1 Colposcopy room	N/A	N/A	1 Colposcopy room	N/A
Endoscopy	3 Endoscopy Rooms 1 Oesophageal Lab	3 Endoscopy Rooms			3 Endoscopy Rooms 1 Oesophageal Lab	
Breast Screening	N/A	3 plain film x-ray rooms 3 Ultrasound rooms plus Mobile units	N/A	N/A	N/A	N/A
Visual Functions	3 Diagnostic Rooms 1 Ultrasound Room 1 Visual Field Testing Room 1 Ocular Diagnostic Testing Room	N/A	6 Glaucoma rooms 2 OCT/CCT rooms 2 Visual fields rooms 1 Diagnostic room 2 OCT rooms 1 Colour Vision/Dark adaption room 1 Visual fields room 1 Ultrasound room 2 OCT rooms	N/A	8 Diagnostic rooms	N/A

			1 UBM room 1 Biometry room			
Orthoptic	6 Orthoptic clinic/examination rooms 1 Dark Room	N/A	9 Orthoptic clinic/examination rooms 1 Dark Room	N/A	6 Orthoptic clinic/examination rooms 1 Dark Room	1 Orthoptic clinic/examination rooms
Optometry	1 Optometry Room	N/A	6 Optometry rooms	N/A	1 Optometry Room	1 Optometry room
Urodynamics	1Urodynamic treatment room with en-suite WC	N/A	N/A	N/A	N/A	N/A
Antenatal Ultrasound	4 Ultrasound rooms	N/A	N/A	N/A	2 Ultrasound rooms 2 Phlebotomy rooms	N/A
Neonates	1 Hearing & ROP room	N/A	N/A	N/A	N/A	N/A
Dental	N/A	N/A	N/A	1 Occlusal x-ray room	N/A	1 Occlusal x-ray room
Therapies - Physio and OT	4 Therapy Rooms ADL Suite (3 rooms) Cognitive Therapy Room	N/A	N/A	15	13	9
Speech & Language Therapy	Access to therapy rooms	Access to consult exam rooms	N/A	Access to consult exam rooms	2	
Foot Health	N/A	N/A	N/A	3	4	3
Orthotics	1	2	N/A	N/A	4	N/A

9.1 Imaging

Table 20 below summarises the activity changes between 2011/12 (outturn) and 2019/20 by modality and the split between MMH and community facilities.

Table 20: Trust Imaging Activity by Modality

	2011/12		2019/20		
Type of Scan	**Outturn**		**Outturn**	**MMH**	Community **Facilities**
Angiography	4,790		4,746	4,746	-
Bone Density	1,539		1,284	-	1,284
CT	25,843		44,089	20,393	23,696
Fluoroscopy	4,887		4,489	4,489	-
Mammography	5,026		8,636	-	8,636
Medical Physics	614		487	487	-
MRI	14,748		21,779	10,074	11,706
Nuclear Medicine	8,036		6,404	6,404	-
Obstetrics Ultrasound	30,826		32,315	32,315	-
Radiology (Plain Film)	178,719		161,023	74,480	86,543
General Ultrasound	45,503		64,647	29,902	34,745
Total Imaging Tests	**320,531**		**349,899**	**183,289**	**166,610**

In order to derive the required capacity the following utilisation assumptions were made for Trust provided Imaging services in 2019/20:

MMH:

- 16 sessions per week (8am – 8 pm Monday – Friday & 8am – 12pm Saturday)
- Utilisation rate 85%

Community Facilities:

- 10 sessions per week
- Utilisation rate 85%

Activity throughput assumptions were made for each modality based on national evidence and local clinical knowledge. These are outlined in the following table.

Table 21: Imaging Throughput by Modality for 2019/20

	Throughputs	
Imaging Modalities	Acute	Community
Angiography	4,000	4,000
Breast	4,000	4,000
MRI	6,000	6,000
CT	8,000	8,000
Fluroscopy	4,000	4,000
Nuclear Medicine	2,500	0
Obs Ultrasound	6,000	4,000
Radiology (Plain Film)	20,000	12,500
US Gen	6,000	5,000
Neurophysiology	1,500	1,500

9.2 Pathology

The table below summarises the activity changes between 2011/12 (outturn) and 2019/20 by modality and the split between MMH and community facilities.

Table 22: Trust Pathology Activity

	2011/12		2019/20		
Total Tests by Pathology Type	**Outturn**		**Outturn**	**MMH**	**Community Facilities**
BLOOD BANK	94,369		86,128	83,545	2,584
CLINICAL CHEMISTRY	5,400,881		4,980,046	2,303,489	2,676,557
CYTOPATHOLOGY	34,140		31,888	14,749	17,138
HAEMATOLOGY	899,535		823,473	380,892	442,581
HISTOPATHOLOGY	101,939		83,018	38,399	44,618
IMMUNOLOGY	119,737		109,150	50,486	58,663
MICROBIOLOGY	319,218		295,098	136,496	158,602
TOXICOLOGY	130,802		134,032	61,996	72,037
Total Pathology Tests	**7,100,621**		**6,542,832**	**3,070,053**	**3,472,780**

10.GOVERNANCE PROCESS TO MONITOR PROGRESS

It is important that progress against the A&C Model trajectories is monitored in order to ensure the Trust is on track 'to fit into' MMH and our Community Facilities and to allow time to implement mitigating actions if there is a significant variance from the trajectories.

Governance Process

In terms of a governance process to monitor progress the following has been agreed:

- Progress is overseen by the Clinical Leadership Executive via the MMH and Reconfiguration CLE Committee.
- The v5.7b trajectories inform the Trust's Transformation Plan which is currently being refreshed into an Integrated Transformation Programme.
- Trust and Clinical Group level Annual Plans take the activity and capacity levels in v5.7b trajectories into consideration .
- Bi-annual review of progress against trajectory at Clinical Group and Specialty level is undertaken at Clinical Group performance review meetings.
- Monitoring reports at a Trust level are presented to the MMH and Reconfiguration CLE Committee with an assurance report to the Configuration Board Committee bimonthly.
- The Executive report whole system progress to deliver the trajectories along with any material future system planning documents to the Trust Board on a quarterly basis from April 2014.
- Additional reviews are undertaken at key project milestones including appointment of preferred bidder and financial close.
- A formal review of progress with demand figures, bed numbers and outpatient supply is concluded no later than 15 months before the opening of MMH. The results of this should trigger mutual provider and commissioner formal re-confirmation of the safety of those assumptions for the due date, together with any actions agreed to mitigate risk. This overall assessment of risk will be made publically available.

Key Activity and Capacity Measures

The key activity and capacity measures it is proposed to monitor through this governance process are:

- *Emergency Care:* A&E attendances & Non elective admissions
- *Elective Care:* Elective admissions & day cases
- *Outpatients:* first attendances & review attendances
- *Bed Capacity:* bed days (split emergency, elective and intermediate care) and bed numbers
- *Community Contacts:* outpatient and bed alternative contacts

Monitoring for each of the above measures will include:

- LTFM/RCRH trajectory – at least current year and end point (2019/20)
- LDP/Contract trajectory – current year
- Actual performance – current year

11. DOCUMENT HISTORY

Document Location:

Version	Date	Location
Version 2	Feb 2014	Will be included in the 2014 OBC Update pre Procurement as an Appendix
Version 2 draft 1	Sept 2013	*MMH Project Assurance Briefing Report for CEO 19 & CEO12* and *MMH Project Assurance Briefing Report for CEO 11, Board AH & Board AG* as part of MMH Project Assurance Report
Version 1	Sept 2010	*Activity, Performance & Capacity Assumptions* in OBC Update Version 4.1 as Appendix 5b *Sensitivity Analysis: Activity, Performance, Capacity & Finance (version 2)* in OBC Update Version 4.1 as Appendix 5c

Revision History:

Version	Date	Author	Summary of Changes
V2 draft 8	Feb 14	Mike Sharon Director of Strategy and Organisational Development	Updated and agreed with CEO for submission to DoH and inclusion in OBC.
V2 draft 7	Feb 14	Jayne Dunn Redesign Director Right Care Right Here	Updated to reflect activity related to LTFM service development income as agreed with S&WBCCG
V2 draft 3-6	Jan 14	Jayne Dunn Redesign Director Right Care Right Here	Updated to reflect agreed MMH option without generic adult OPD
V2 draft 2	Nov 13	Jayne Dunn Redesign Director Right Care Right Here	Updated to include opening of MMH in 2018
V2 draft 1	Sept 13	Jayne Dunn Redesign Director Right Care Right Here	First draft of version 2 updated to take account of : • Revised A&C model (version 5.7adjusted) • Scenario modeling In preparation for Board assurance and approval to progress to MMH procurement in line with PF2.
V1	8/09/10	Jayne Dunn Redesign Director Right Care Right Here	Version used for OBC Update
V1 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 the SHA review.
V1 draft 1	30/7/10	Jayne Dunn Redesign Director Right Care Right Here	First draft to capture what is already agreed for the RCRH Programme, OBC and OBC refresh - service model and Activity and Capacity Model version 5.3.