

Sandwell and West Birmingham Hospitals



NHS Trust

Sandwell & West Birmingham
Hospitals NHS Trust

Research & Development Plan
2017 - 2020

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Purpose

The Trust vision is that we are recognised as a centre of national and international research excellence, delivering high-quality research across all service lines, affording staff and patients ready access to research opportunities. The R&D strategy is closely aligned with the Trust 2020 vision, focusing on embedding innovation and research for improved safety and quality of care. This reinforces research as core Trust business and will raise awareness of the value of research that underpins practice.

Aim

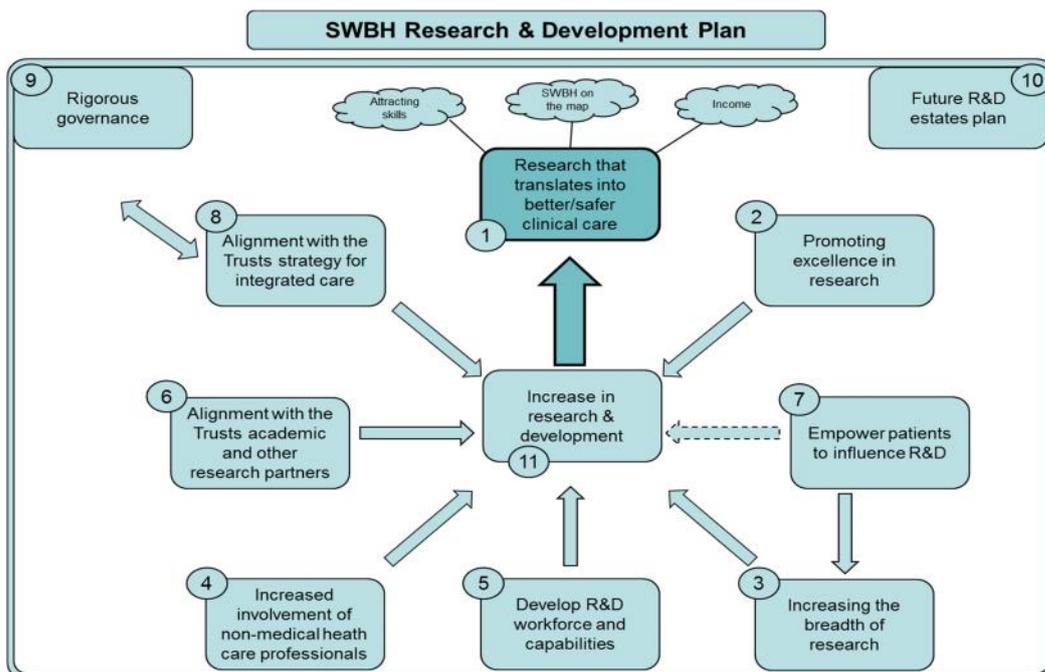
The 2017–2020 SWBH Research & Development (R&D) Plan provides a framework through which R&D will become integral to the culture of clinical practice at SWBH. The aim is to deliver an enhanced quality and quantity of research and development that translates into safer clinical care and better patient outcomes. This will in turn promote the profile of SWBH as a centre of outstanding R&D, attract clinical and non-clinical talent to SWBH, and improve staff motivation, workplace satisfaction and retention rates.

Objectives

The 2017 – 2020 R&D Plan will be achieved through the following objectives:

	R&D Plan Objectives
1	Translating research and development into better/safer clinical care
2	Promoting national and international excellence and leadership in research and development
3	Increasing the breadth of research and development
4	Increasing involvement of non-medical healthcare professionals in research and development
5	Developing the research and development workforce and capabilities through redesign and new ways of working
6	Empowering patients to influence research and development
7	Enhancing alignment with the Trust's academic and other research partners
8	Enhancing alignment with the Trust's strategy for integrated care
9	Ensuring rigorous research and development governance processes
10	Ensuring that the future estate for research and development supports the planned growth in activity
11	Increasing Research & Development activity (number of recruits)

R&D Activity



Scope

Assignment of the objectives is set through the R&D Committee and whilst some objectives are speciality specific others are cross cutting over several specialities.

Current State

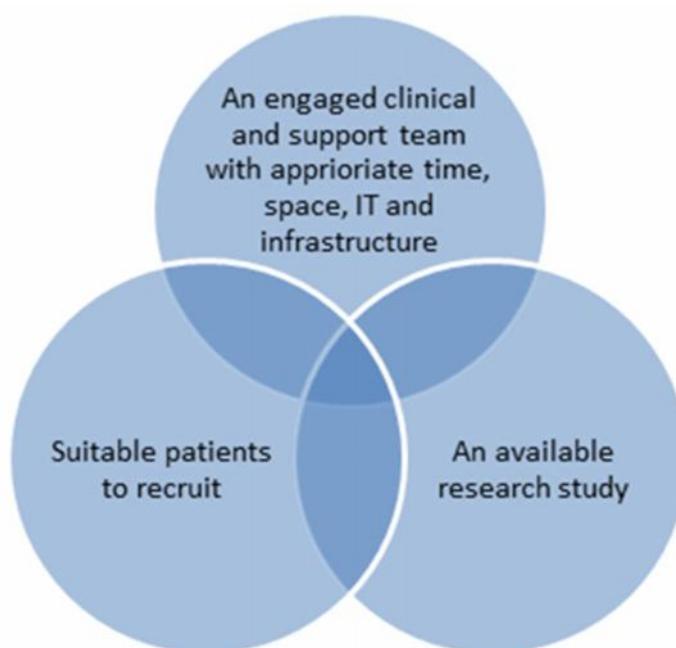
The outcomes of SWBH based research has been used to inform national and international guidelines to improve the management and care of patients with diseases such as Atrial fibrillation, Early arthritis, Pregnancy and rheumatic diseases, Parkinson’s disease, Gyane-oncology. Our researchers have successfully secured national and international grant funding for research across a range of disease areas including Inflammatory arthritis, Corneal scarring, Atrial fibrillation, Behçet’s disease and Faecal incontinence.

Since 2014 we have expanded the breath of our clinical portfolio with research activity taking place in a number of new specialties including Respiratory Medicine, Orthopaedics and Clinical Immunology. We have also seen an increase in the number of Allied Health Professionals involved in and leading research studies most notably our Physiotherapists. Growth to date is shown below.

Year	Research recruits	% growth
2013-2014	2015	
2014-2015	2092	4% (+77)
2015-2016	2629	26% (+537)
2016-2017	3200	22% (+571)

(2014 – 2017 = growth of 53% over the 3 years)

To continue growth in numbers three things need to be aligned.



Future State

In the future we will see:

- growth in research and development activity in areas where little or no research has been undertaken previously
- growth in research & development activity in two disease areas that are already active in delivery
- promotion of research in clinical nursing and midwifery with nurses/midwives in two areas being actively involved in research & development delivery
- expansion of the portfolio of research & development supported by physiotherapists
- expansion of research & development activity into new AHP areas e.g. optometrists, orthoptists, podiatrists, pharmacists, biomedical scientists, Medical Laboratory Scientific Officers
- delivery of research & development supported by high specification digital technologies
- our patients become more aware of and involved in research & development
- the development of new joint academic posts with local Universities
- the development of an integrated care model across the primary / secondary care interface supporting the delivery of research & development
- the development of a programme to support staff to obtain grant funding for research & development ideas
- SWBH working with CLAHRC-WM to institute changes in clinical practice resulting from research & development delivery

- health care professionals being encouraged to work with Specialty Advisory Groups and National (NICE) and international bodies to facilitate SWBH research & development being integrated into clinical guidelines
- our research & development workforce will be supported by a fully developed career structure with clear role definitions, career progression opportunities and training programmes and secondment opportunities for other Trust staff to experience research & development
- research & development being promoted across the Trust including dedicated R&D exhibition in the foyer of MMH, promotional materials available on other areas, a fully developed R&D section on the Trust website and a Trust R&D Twitter account

Scenario modelling

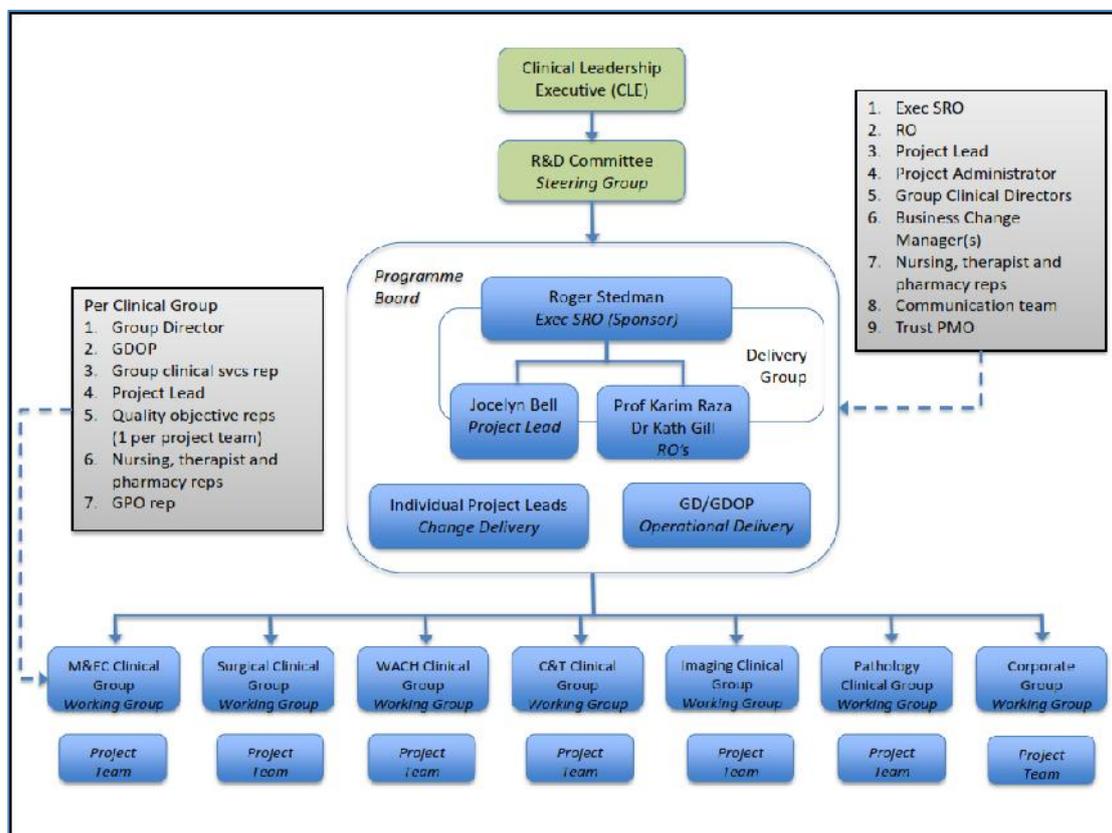
To understand the relationship between recruitment growth and income growth several scenarios were developed taking into account various options for growth, capacity and sustainability. Some options with a steeper trajectory to achieve growth in numbers over a shorter period of time would result in a shortfall in income due to the capping of income growth by the West Midlands Clinical Research Network (WMCRN).

The adopted scenario growth is detailed in Appendix A and the table below shows the growth that will be achieved using this model.

Year	FY	Growth
		+560/year
0	16-17	3200
1	17-18	3760
2	18-19	4320
3	19-20	4880
4	20-21	5440
5	21-22	6000

Organisation and governance

The R&D plan governance structure will use a programme board to define the R&D Plan improvements and working groups in each group will deliver the R&D objectives, supported by the Project Lead, Responsible Officers and Project Management Office (PMO).



Steering Group

The Research & Development Committee, chaired by the Medical Director, will act as the Steering Group to oversee the delivery of the Plan and hold the project SRO, Project Lead and Responsible Officers to account to deliver on time and to budget. This will be the forum for involving all parties impacted by the project. It will authorise the Plan, provide corporate direction as required, receive periodic updates on and advise on issues with progress.

Programme Board

The Programme Board is responsible for defining, planning and ensuring the delivery of the R&D Plan through:

- Sponsor (Exec SRO) – senior executive who champions the plan, and is the initial source for determining the plan's scope and objectives. The sponsor keeps the executive team informed of overall progress and upward escalation of issues for executive decision

- Responsible Officers (RO) – Director and Deputy Director of R&D who champion the plan, and are co-responsible for determining the plan’s scope and objectives with SRO and fostering an environment within the groups for plan delivery
- Project Lead – Author and owner of the master R&D Plan on behalf of the Exec SRO. Works closely with ROs and working groups to:
 - Facilitate planning within working groups to enable groups to deliver objective projects
 - Collate corporate oversight of rollout, project progress and exceptions to enable periodic reporting to the Steering Group
- Operational Delivery – Responsibility for delivery of the R&D Plan lies with the groups. This will be enabled by oversight through group directors of operations and directorate governance.
- Change Delivery – Individual Project Leads will provide the oversight to projects ensuring they add value to research & development

Delivery Group

The Delivery Group is a subset of the Programme Board with corporate responsibility for assuring the delivery of the plan through regular liaisons with the groups and directorates to ensure they:

- Understand process
- Develop credible delivery plans
- Regularly monitors feedback on progress of plans
- Provides feedback to exec PMO, R&D Committee and any other relevant committees

Group Engagement

The responsibility for delivering the R&D Plan objectives lies with the individual groups. This will require:

- A focus at group level to assure delivery of quality research & development – to be undertaken through group performance meetings. This can be an existing group meeting.
- A focus at directorate level to ensure engagement in the project. This will be led by the individual Project Leads who will be required to report progress to group performance meetings and to R&D Plan SRO, ROs and R&D Project Lead.
- Project Teams will be formed at group level and will be accountable for the implementation of the change and completion of the project. The team should be led by the individual Project Lead.

RACI

- Responsible – Groups are responsible for the implementation and management of projects to realise the Trust R&D Plan.
- Accountable – The Medical Director as SRO is accountable to the CEO for successfully designing, communicating, monitoring and controlling the overall Trust R&D Plan benefits, trajectories, targets and engagement with groups.
- Consulted – Initially discussed at R&D Committee meetings and with stakeholders at R&D QIHD in February 2017.
- Informed – A standard Trust wide communications mechanism will be used to keep all staff / groups in the Trust aware of the outline benefits, outcomes and activities associated with the R&D Plan.

Schedule

The objectives will be developed into projects in conjunction with the ROs, R&D Project Lead and individual Project Leads who will be supported by the PMO. Key areas of activity will be:

- Stakeholder identification – who is required to deliver objective/project
- Subject development – how can objective be delivered
- Development of project plan – detail of plan including timescales, KPIs, governance
- Signoff and implementation – SRO/R&D Committee

Communications plan

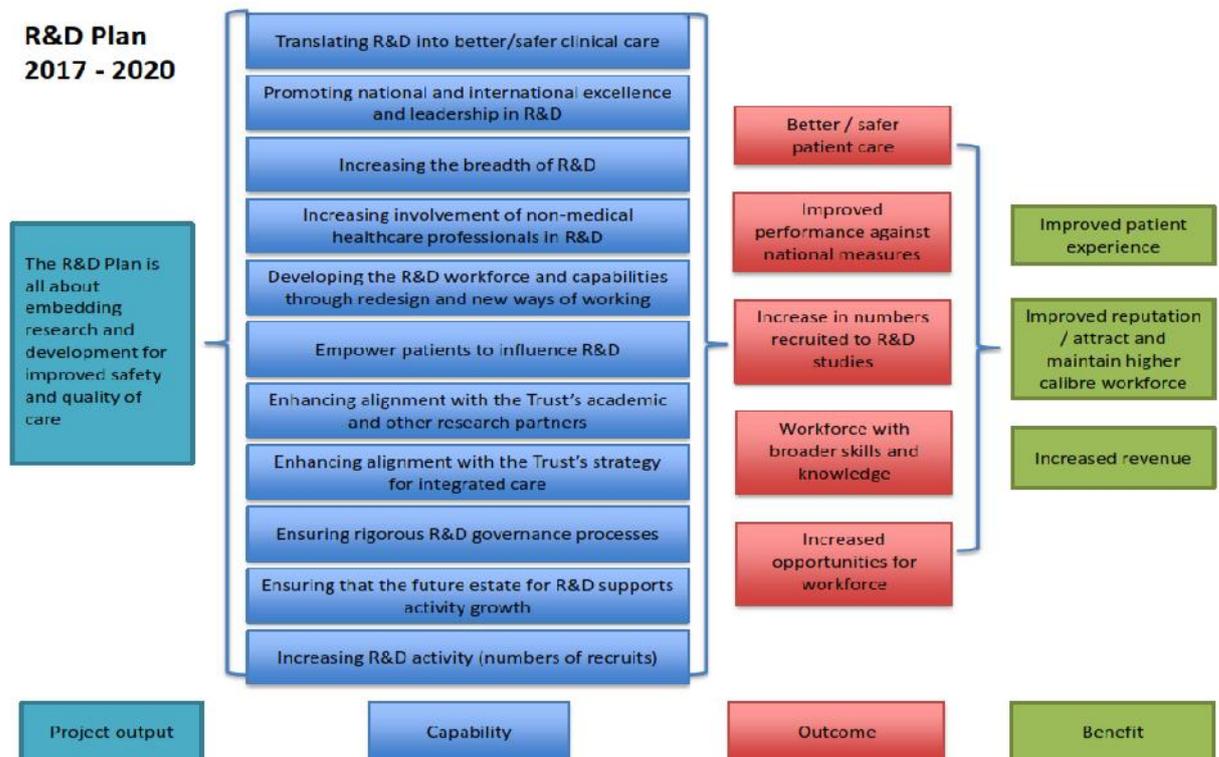
Stakeholder Analysis

To ensure all appropriate parties are informed of the R&D activity and are able to contribute towards the 2017–2020 R&D plan, the following stakeholders will be part of the communications plan.

Stakeholder	Messages	Delivery Methods
Clinicians	<p>Every clinician, whatever their job role or grade, can play a role in the Trust's research activities</p> <p>There are an enormous range of different research activities to get involved with – research is not just about drug trials</p> <p>Involvement in research is an excellent way to broaden experience – and to build a portfolio</p> <p>Patients involved in clinical trials are still patients – and clinicians are still clinicians. Those involved in research will find that their clinical skills are highly valued.</p>	<p>R&D pages on Connect</p> <p>R&D agenda item on QIHDS</p> <p>Grand Rounds</p> <p>Departmental Away days</p> <p>R&D Investigator meetings</p> <p>MDT meetings</p> <p>R&D page in Heartbeat magazine</p> <p>MMH foyer R&D exhibition</p> <p>R&D promotional information around the Trust</p> <p>Social media – SWBH R&D Twitter account</p> <p>R&D training courses</p>
Nursing / Midwifery / AHP's	<p>All patient facing staff, whatever their job role or grade, can play a role in the Trust's research activities</p> <p>There are an enormous range of different research activities to get involved with – research is not just about drug trials</p> <p>Involvement in research projects is a route to career development and greater job satisfaction</p> <p>Ward and clinics staff have unrivalled patient knowledge and are in the front line when it comes to identifying potential recruits for research studies</p>	<p>R&D pages on Connect</p> <p>R&D agenda item on QIHDS</p> <p>Grand Rounds</p> <p>Departmental Away days</p> <p>R&D Investigator meetings</p> <p>MDT meetings</p> <p>R&D page in Heartbeat magazine</p> <p>MMH foyer R&D exhibition</p> <p>R&D promotional information around the Trust</p> <p>Social media – SWBH R&D Twitter account</p> <p>R&D training courses</p>
Patients	<p>Patient care is at the heart of everything we do – including our research, which is expected to deliver real patient benefits, every time</p> <p>The key to providing better patient care now and in the future depends</p>	<p>Trust website</p> <p>MMH foyer R&D exhibition</p> <p>R&D promotional information around the Trust</p>

	<p>on the Trust's involvement in clinical research.</p> <p>The Trust is already a world leader in many areas of clinical research – and patients directly benefit</p> <p>There are an enormous range of different research activities to get involved with – research is not just about drug trials</p> <p>Patients are always welcome to volunteer to join research studies – and they can be proud that they're making a real contribution to the progress of medicine</p> <p>Patients are never 'guinea pigs' – they are partners, whose health and wellbeing always come first</p> <p>Patients can join groups to champion research activity within Trust</p>	<p>Social media – SWBH R&D Twitter account</p> <p>External communications e.g. Newspaper articles, radio and TV interviews</p> <p>International Clinical Trials Day</p> <p>Hospital radio</p> <p>Patient and Public Involvement</p>
General Public	<p>The public we serve can take pride in the fact that their hospitals are world leaders in medical research.</p> <p>The Trust's research makes a real difference to people's lives.</p> <p>Every Trust research project is carried out for the benefit of patients, now and in the future. It is about real people in the real world, not 'science for its own sake'.</p> <p>Clinical research is an integral part of the Trust's role</p>	<p>Trust website</p> <p>MMH foyer R&D exhibition</p> <p>R&D promotional information around the Trust</p> <p>Social media – SWBH R&D Twitter account</p> <p>External communications e.g. Newspaper articles, radio and TV interviews</p> <p>International Clinical Trials Day</p> <p>Patient and Public Involvement</p>

Benefit analysis



Risks, Assumptions, Issues and Dependencies

Risks

- Studies to recruit to not available
- Investigators not having sufficient time in job plans to carry out research
- R&D dedicated estate not well structured to enable the efficiencies required to facilitate the growth plan within the planned cost model
- Staff retention in light of neighbouring organisations competing for skilled R&D resources
- Transition to new estates locations, during MMH transition, will impact delivery against the plan
- Non engagement of stakeholders to deliver the plan

Assumptions

- NIHR funding model for research activity remains consistent with the existing model
- R&D has sufficient estate on all Trust sites to facilitate the growth and delivery of the R&D plan

Dependencies

- EPR system will provide efficiencies in patient identification and tracking
- Imaging, pharmacy and Labs will have sufficient capacity and technology to support growth in research
- Growth is reliant on required increase in staff

Schedule

	R&D Plan Objectives	Schedule
1	Translating research and development into better/safer clinical care	Work with CLAHRC-WM to institute changes in maternity and educating mothers in choice of birth place. Work with Speciality Advisory Groups and National (NICE) and international bodies to facilitate SWBH research being integrated into clinical guidelines. E.g. in Atrial Fibrillation, Rheumatoid Arthritis, Lupus, Sjogens Syndrome , Parkinson's and Diabetes
2	Promoting national and international excellence and leadership in research and development	Expand the portfolio of research by further developing research within the Endobarrier programme e.g.-into Sleep Apnoea Expand the portfolio of research by further developing research within Bechet's e.g. microbial makeup of faeces linked to inflammatory disease Expand the portfolio of research by further developing research within Sjogren's syndrome and myositis
3	Increasing the breadth of research and development	Develop new research activity in three new disease areas and recruit the numbers stipulated within the study Expand the research activity in at least two areas already research active and recruit the numbers stipulated within the study Using the implementation of the new EPR to identify potential recruits for existing research

		programmes and identifying new research opportunities.
4	Increasing involvement of non-medical healthcare professionals in research and development	Promote active research within nursing with the support of the Chief Nurse New CNS actively involved in research delivery with delegated activities in two research areas Expand research activity in to other AHP areas Maintain profile of R&D in physiotherapy with a target of a minimum of 1 new study by April 2018 Expand research activity in two new AHP areas e.g. Optometry / Orthoptics / Podiatry / Biomedical Scientists / Clinical Pharmacists/Medical Laboratory Scientific Officers with a target of a minimum of 2 new studies
5	Developing the research and development workforce and capabilities through redesign and new ways of working	Development of a career structure that provides role definition, career progression, retains experienced staff and offers secondment opportunities for Trust staff to experience R&D Development of training packages to support new and existing roles Identify and develop research mentors to support trainees in their new roles Maintain full complement of staff to manage the planned increase in recruits Review best practice working to develop and implement new ways of working throughout R&D
6	Empowering patients to influence research and development	Working with MMH commissioning team to develop R&D advertising space in the MMH Foyer Develop a new R&D Patient and Public Involvement group in one disease area Developing the R&D website Working with EPR team to develop a flag system that identifies patients who have indicated an interest in research electronically
7	Enhancing alignment with the Trust's academic and other research partners	Development and recruitment to a post in integrated care with a partner the University of Birmingham Establish links with Aston University to develop and recruit to a joint post in e.g. Obstetrics, Cardiology, Ophthalmology Ensuring SWBH is integrated into the arthritis accelerated trials programme between Birmingham and Oxford Enhance collaborative working within the BCA e.g. FINCH
8	Enhancing alignment with the Trust's strategy for	Develop a new forum, with representation from Primary and Secondary care, to support R&D

	integrated care	<p>activities at the interfaces of care. In addition, the R&D group will develop a strategy for the forum</p> <p>Develop a structured working method with local GP's and other health professionals, to support studies and patient recruitment, for new research activity focussed on integrated care</p> <p>Using population health informatics and the Health information exchange to identify potential areas of research and collaboration across the health economy.</p>
9	Ensuring rigorous research and development governance processes	<p>Develop a formal feasibility assessment process for new research studies to ensure deliverability prior to confirmation of capacity and capability by the SWBH R&D Office</p> <p>Develop research governance and management Standard Operating Procedures (SOP's) approved and released in the Trust</p> <p>Integrate the new UK Policy Framework for Health and Social Care Research</p> <p>Monitor and implement any changes linked to the EU Regulations, planned for October 2018, and Brexit</p>
10	Ensuring that the future estate for research and development supports the planned growth in activity	<p>Work with MMH, Estates and Capital Projects teams to understand future configuration of R&D services</p> <p>Future OPD accommodation & R&D's access particularly at STC</p> <p>Available space and accommodation for R&D across all sites</p>
11	Increasing Research & Development activity (number of recruits)	<p>Increase to 3760 participants recruited to research studies – Year 1</p> <p>Increase to 4320 participants recruited to research studies – Year 2</p> <p>Increase to 4880 participants recruited to research studies – Year 3</p>

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R&D | Income and Recruits | SCENARIO 7 (560 recruits EXTRA Each Year) – FUNDED INCOME + 10%

GRAPH 1: RECRUITS BY YEAR	Description	GRAPH 1 Extra Information
<p>RECRUITS BY YEAR</p> <p>— Studies TARGET</p>	<p>GRAPH 1 shows study recruits by year from Financial Year 2016-2017 (this year) to 12 years in the future and the increase in recruits that can be obtained using the scenario outlined in GRAPH 1 Extra Information.</p>	<p>SCENARIO CONDITIONS:</p> <ul style="list-style-type: none"> FUNDED INCOME INCREASES BY 10% EACH YEAR BAND 1 STUDIES INCREASE BY CURRENT RATIO APPLIED TO 560 EACH YEAR BAND 2 STUDIES INCREASE BY CURRENT RATIO APPLIED TO 560 EACH YEAR BAND 3 STUDIES INCREASE BY CURRENT RATIO APPLIED TO 560 EACH YEAR NON-PORTFOLIO STUDIES INCREASE BY CURRENT RATIO APPLIED TO 560 EACH YEAR. WE EXCEED OUR AGREED INCOME % INCREASE EACH YEAR.
	<p>Results</p> <p>It takes 5 years to reach 5808 study recruits. This target will be reached in Financial Year 2021-2022.</p>	<p>GRAPH 1A SCENARIO PROPORTION OF RECRUITS BY BAND</p>
		<p>Caveat</p> <ol style="list-style-type: none"> We have the capacity to process the recruited studies outlined on this page each year. The type and amount of study recruits are available nationally. Our income can increase by the amount specified each year. Each Financial Year starts at 0 study recruits even though previous years recruits are still being worked on.
GRAPH 2: INCOME BY YEAR	Description	GRAPH 2 Extra Information
<p>INCOME BY YEAR</p> <p>Income E GAP FUNDED INCOME</p>	<p>GRAPH 2 shows the income each year against funded income obtained when the study recruits change in GRAPH 1.</p>	<p>SCENARIO CONDITIONS:</p> <ul style="list-style-type: none"> BAND 1 STUDIES ARE 1 UNIT AT £60 PER RECRUIT. BAND 2 STUDIES ARE 3.5 UNITS AT £210 PER RECRUIT. BAND 3 STUDIES ARE 11 UNITS AT £660 PER RECRUIT. NON-PORTFOLIO STUDY INCOME IS VARIABLE,
	<p>Results</p> <p>It takes 5 years to reach 5808 study recruits at which point we will have done 696k worth of unfunded studies.</p>	<p>GRAPH 2A SCENARIO PROPORTION/ACTUALS OF INCOME BY BAND</p>
		<p>Caveat</p> <ol style="list-style-type: none"> The Income tariff for each band does not change each year. Non-Portfolio income is unknown/variable at this stage and does not effect keeping within funded income target.

PURPOSE

To illustrate the effect of different scenarios on the R&D study recruit and Income totals each year with the aim to hit a target of 6000 study recruits within a financial year whilst staying within income constraints.

METHOD

Use current year April to Sept totals and forecasted actuals.

APPLY an increase to the income and also increase study recruits across bands 1,2,3 and Non-Portfolio.

CALCULATE Time(t) to achieve target using formula:

$$t = \frac{\ln(x) - \ln(y)}{\ln(1 + (z/100))}$$

where:
 x = target
 y = current recruits
 z = % increase

RESULTS