

Strategic Plan Document for 2014-19

**Liverpool Heart and Chest Hospital NHS Foundation
Trust**

Strategic Plan Guidance – Annual Plan Review 2014/15

The cover sheet and following pages constitute the strategic plan submission which forms part of Monitor's 2014/15 Annual Plan Review.

The strategic plan must cover the five year period for 2014/15 to 2018/19. Guidance and detailed requirements on the completion of this section of the template are outlined in Section 5 of the APR guidance.

Annual plan review 2014/15 guidance is available [here](#).

Timescales for the two-stage APR process are set out below. These timescales are aligned to those of NHS England and the NHS Trust Development Authority which will enable strategic and operational plans to be aligned within each unit of planning before they are submitted.

Monitor expects that a good strategic plan should cover (but not necessary be limited to) the following areas, in separate sections:

1. Declaration of sustainability
2. Market analysis and context
3. Risk to sustainability and strategic options
4. Strategic plans
5. Appendices (including commercial or other confidential matters)

As a guide, we would expect strategic plans to be a maximum of fifty pages in length.

As a separate submission foundation trusts must submit a publishable summary. While the content is at the foundation trust's discretion this must be consistent with this document and covers as a minimum a summary of the market analysis and context, strategic options, plans and supporting initiatives and an overview of the financial projections.

Please note that this guidance is not prescriptive. Foundation trusts should make their own judgement about the content of each section.

The expected delivery timetable is as follows:

Expected that contracts signed by this date	28 February 2014
Submission of operational plans to Monitor	4 April 2014
Monitor review of operational plans	April- May 2014
Operational plan feedback date	May 2014
Submission of strategic plans (Years one and two of the five year plan will be fixed per the final plan submitted on 4 April 2014)	30 June 2014
Monitor review of strategic plans	July-September 2014
Strategic plan feedback date	October 2014

1.1 Strategic Plan for y/e 31 March 2015 to 2019

This document completed by (and Monitor queries to be directed to):

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Date	30 th June 2014

The attached Strategic Plan is intended to reflect the Trust's business plan over the next five years. Information included herein should accurately reflect the strategic and operational plans agreed by the Trust Board.

In signing below, the Trust is confirming that:

- The Strategic Plan is an accurate reflection of the current shared vision and strategy of the Trust Board having had regard to the views of the Council of Governors;
- The Strategic Plan has been subject to at least the same level of Trust Board scrutiny as any of the Trust's other internal business and strategy plans;
- The Strategic Plan is consistent with the Trust's internal operational plans and provides a comprehensive overview of all key factors relevant to the delivery of these plans;
- All plans discussed and any numbers quoted in the Strategic Plan directly relate to the Trust's financial template submission; and
- The 'declaration of sustainability' is true to the best of its knowledge.

Approved on behalf of the Board of Directors by:

Name (Chair)	Neil Large
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Signature



Approved on behalf of the Board of Directors by:

Name (Chief Executive)	Jane Tomkinson
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Signature



Approved on behalf of the Board of Directors by:

Name (Finance Director)	David Jago
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Signature



1.2 Declaration of sustainability

The board declares that, on the basis of the plans as set out in this document, the Trust will be financially, operationally and clinically sustainable according to current regulatory standards in one, three and five years time.

Confirmed

Liverpool Heart and Chest Hospital NHS FT (LHCH) is the hub for cardiovascular and chest care in Cheshire, Merseyside, North Wales and the Isle of Man. Our vision is to be the “best cardiothoracic integrated healthcare organisation” with our model of care being underpinned by safety, clinical quality and value for money and the patient and their family truly being at the heart of everything we do. We provide a number of specialised heart and chest services offered in a limited number centres in the UK using the latest techniques and equipment and delivered by world class clinicians, this combination achieves outstanding clinical outcomes. The Trust serves a catchment area of 2.8 million people, including Merseyside, Cheshire, Isle of Man and North Wales. Whilst we have seen some repatriation of Welsh patients to North Wales, further loss is unlikely as there are no plans for a surgical unit in North Wales.

The Trust is now well-established as high volume, high quality provider of cardiac and thoracic care with unparalleled patient experience and outcomes. The Board of Directors feel that this model is key to successfully meeting the challenges of the NHS ahead. LHCH has successfully resisted the setup of new, smaller services provided locally; instead we have developed excellent clinical relationships that allow care to be integrated across organisations. A key strand of the Trust’s stakeholder management strategy is to ensure that, by maintaining good clinical relationships, that the traditional referral patterns from local District General Hospitals(DGHs) is maintained. This is either by supporting their diagnostic services or by joint consultant appointments which facilitates the appointment of cardiologists to DGH providers and ensures good quality access to cardiovascular care to their surrounding population. The large number of in-reach consultants ensures good clinical relationships that facilitate rapid treatment and repatriation, reducing delays and improving patient flow across the health economy. Over the next five years, the Trust will be more closely involved in managing the provision of cardiology at DGH level. This hub and spoke model will streamline clinical pathways and ensure that reliable, high quality care is available to all patients in our catchment area.

LHCH has developed a national reputation for the delivery of clinical excellence. As a very high volume specialist provider we aim to continue to drive this model to deliver economies of scale and outcomes of the highest quality. Investment of £2 million in our new day case (Holly) facility allows all elective percutaneous coronary intervention (PCI) to be performed as day case procedures in a patient and family-centric environment. This development will enable LHCH to perform more procedures as day cases. Additionally, rapid admission and stabilisation is facilitated in this facility, delivering new novel, cost-effective treatments such as rapid stabilisation of patients in heart failure. This development articulates our ambition to use our unrivalled clinical expertise and estate to shorten length of stay whilst optimising outcomes and patient experience.

Geographically, the Trust has little local competition with a very high market share for cardiac work and most cardiology intervention; additionally it is the regional centre for lung cancer surgery and cystic fibrosis. LHCH also recognises areas of weakness in the provision of care in some surrounding areas; lung cancer resection rates are very poor in the Cumbria/Lakes area whilst the best nationally at within our footprint. The Trust will strive to reduce inequity in outcomes and pursue the delivery of value based care wherever possible by working in partnership with both commissioners and providers.

1.3 Market analysis and context

Determinants of our services

LHCH has reviewed the most recent joint strategic needs assessments and associated health and wellbeing strategies of our principal clinical commissioning groups, together with the relevant health profiles as published by Public Health England. The need for our services is driven by a relatively small number of determinants. The impact of these determinants on the future of our work is assessed in the table below;

Determinants	Disease Affected	Current Position / Anticipated Trajectory	Implications for LHCH
Disease prevalence	Cardiac, chest cancers and respiratory disease	Local CCGs report high prevalence and importantly wide gaps between observed and estimated prevalence.	Lots of disease coupled with high proportions undiagnosed. Latent demand will be identified via closer working relationships with primary care.
Age	Cardiac and chest cancers	65+ population to increase, in some CCGs by up to a third over next 20 years.	More disease requiring treatment in more elderly and therefore complex population.
Diabetes	Cardiac	Higher than average prevalence and high rates of pre-diabetes.	Diabetes is a risk factor for cardiovascular disease. The need to treat high levels of cardiovascular disease will parallel the prevalence of diabetes.
Ethnicity	Cardiac	High but static Asian population prevalence that is more susceptible to cardiovascular disease.	The Asian community is a hard to reach group – high levels of undiagnosed disease.
Smoking	Cardiac, chest cancers and respiratory disease	Smoking prevalence is reducing, but remains at or higher than national averages.	Continued need to treat high levels of smoking related diseases for at least another generation.
Mortality	Cardiac, chest cancers and respiratory disease	High standardised mortality ratios for cardiovascular, cancer and respiratory diseases.	Opportunity to exercise a greater impact on "top killer" facts in CCGs.
Disability Adjusted Life Years	Cardiac, chest cancers and respiratory disease	High prevalence of patients living with diseases we treat that significantly compromises quality of life.	Opportunity to intervene early to minimise impact of disease on ability to live a life of good quality.
Deprivation	Cardiac, chest cancers and respiratory disease	Our CCGs serve some of the most deprived people in the country (e.g. Liverpool is the worst).	Correlation between high levels of deprivation and both poor access and poor outcomes. Consequently, we operate in an environment of high prevalence of undiagnosed disease and suboptimal outcomes.
Wider determinants of health (income, employment etc, single parent households)	Cardiac, chest cancers and respiratory disease	Our CCGs have some of the poorest socio-economically classified residents (many multiple times national average in worst groups).	Health is influenced by the economy, and the economy is affected by the health of the population. Disease prevalence will at best remain static and most likely get worse.

The health of the population we serve is generally worse than the England average; for example, premature cardiovascular death is 6th worst in the country in Liverpool, 17th worst in Halton and 27th worst in Knowsley. Large inequalities exist across our health economy; life expectancy is 11.9 years lower for men and 9.4 years lower for women in the most deprived areas of Sefton than in the least deprived areas. Rates of deprivation are higher and lifestyles more unhealthy; in Knowsley, estimated levels of adult 'healthy eating' and smoking are worse than the England average and rates of smoking related deaths (e.g. lung cancer) are worse than the England average.

As a consequence of joint strategic needs assessments and the development of health and wellbeing strategies focused upon emerging priorities, commissioning colleagues have a good grasp of what needs to be done in order to improve the health of the population overall. There is, however, a significant and undisputable overlap between their priorities and the diseases LHCH are responsible for treating. This provides the Trust with an immediate opportunity to improve its contribution to reducing mortality, improving equity and enhancing the quality of life of patients and families through an improved service offer.

Capacity analysis:- Estates

Liverpool Heart & Chest hospital comprises of a mix of property ranging from newer stock (2005), to some accommodation that is pre-war.

Current Situation

The newer cardiothoracic centre facilities house the site main entrance and facilities shared by the Royal Liverpool & Broadgreen University Hospital Trust (RLBUHT). These facilities provide X-ray, MRI, CT, Pharmacy and Pathology, Pulmonary Function together with the LHCH operated Cedar Ward. In addition there is a 10 bed High Dependency Unit (HDU) on one level, Critical Care Unit POCCU and ITU facilities together with Oak ward on the lower level and two new Theatres.

The existing facilities in the older buildings include our own Trust entrance, Theatres, Cath Labs, the new Holly Suite, empty ward facility (Old Oak ward), private patient facilities in Maple, Elm, Birch and soon to be replaced Day Ward together with SAU, plus the support services of Domestic and Portering services, medical engineering and our new research centre.

The Trust has made a number of major investments in its estate over the last three years including the development of the new Oak Ward, a new Research centre and also the new Holly Suite which is a new innovative facility to deliver day case care.

Future developments

The Trust has identified a number of estates projects for delivery over the life of this plan building upon the work undertaken in 2013/14 which culminated in a 10 year capital programme based on the agreed priority developments of LHCH. Capital developments planned within this period include new cystic fibrosis facilities, same day admission unit, outpatient refurbishments and a new hospital main entrance.

Capacity analysis:- Catheter Laboratories

LHCH has a mixed estate, two of our five cath labs during the life of this plan will be replaced as part of our capital expenditure plans. In terms of productivity LHCH utilises its cath labs effectively and this has been acknowledged in the 2012/13 National Cardiac Benchmarking Collaborative report.

Capacity analysis:- Cardiac Theatres

LHCH capacity is as follows;

1. 5 Cardiac theatres
2. 2 Thoracic theatres
3. 1 Endoscopy

4. 1 Hybrid theatre

Capacity is available to be used within theatres sufficient to accommodate any potential growth in our surgical service lines detailed later on in this plan. Currently there is capacity to accommodate an additional 7 lists per week through spare capacity within our cardiac and hybrid theatre.

Capacity analysis:- Beds

The Trust estate currently comprises of a bed stock of 214 patient beds which are split across our directorates as follows:

Surgery:- There are currently 114 beds within the directorate which provide varying levels of care for our patients. Our Critical Care Unit has 11 Intensive Treatment Unit (ITU) beds (average occupancy in 2013/14 at 81%) and 19 Post-Operative Critical Care Unit (POCCU) beds from which we can provide level 3 and level 2 care. There are also 4 HDU beds on our Cedar Ward which means we have a total of 34 level 3 and 2 beds which equates to 30% of our surgical bed stock.

Cardiology:- Our Cardiology directorate has 100 beds which comprise a 10 bedded Coronary Care Unit (all single rooms) which provide level 2 care and 65 ward based beds. We have changed our model of Day Case care within Cardiology to a "lounge" model where our patients are treated in a more relaxed and informal clinical environment nearby our Cath Labs which take us away from the traditional bed based model.

Bed Modelling

To support delivery of these plans activity for 2014/15 has been modelled to see how this will impact on the current bed capacity and also to facilitate implementation of service improvement plans in areas of known pressure such as flow through critical care beds.

There is flexibility within the current bed base due to changes in clinical practice which have seen LHCH reduce the reliance on inpatient beds in Cardiology due to excellent day case rates (best in England) and upon the introduction of a consultant led early discharge, early surgery scheme to allow patients who can safely wait at home for surgery to do so, with a date for surgery agreed before they leave the hospital.

To deliver the national specification for cystic fibrosis from April 2015 LHCH will invest in this service line with plans to build new facilities in a currently vacant ward within the Trust and have this new, unit open by the early part of the 2015/16 financial year.

LHCH plans to develop a same day theatre unit to reduce length of stay for elective patients and has also made investments in other areas including staffing to help reduce length of stay and improve patient flow at the Trust.

Capacity analysis:- Staffing

LHCH Board of Directors recognises that the key component of bringing our care transformation strategy to life is through having the right workforce, the right numbers and right skills. To this extent the Board of Directors has been strengthened with the appointment of a Director of Strategy and Organisational Development in June 2014.

The Board of Directors will assess its development needs through reference to Monitors' "Well-led Framework" and will refresh its Board Development Programme to incorporate selected external commentators to challenge LHCH strategic thinking and to ensure continued focus on the quality and safety agenda through consideration of the AQUA development programme for Boards, Governing bodies and senior leaders.

It is recognised that staff working in specialised services are highly trained and experts in their field, they

are used to working flexibly and as part of a multidisciplinary team.

Future staffing requirements will be driven and influenced by the following;

- Rising patient complexity
- Evolving health care technologies ;and
- Educational initiatives e.g. LHCH specialist degree pathway

The nursing workforce forms the greatest part of the staffing at LHCH. There has been a focus on effective workforce planning and reviews within our nursing team for a number of years and since 2011 the senior nurse team has presented information to our workforce committee outlining various methods of determining safe staffing levels on LHCH wards. It is nationally acknowledged that there is no single national workforce tool that can determine accurate staffing and that triangulation with various methods is recommended to arrive at optimal staffing levels.

To date, five sets of data have been presented and reviewed at relevant assurance committees to provide on-going assurance that staffing levels reflect acuity and activity on the wards and departments. This review of workforce also included information on Registered Nurse: Patient ratio (which demonstrates that all wards are fully compliant with National guidance) and a breakdown of levels of experience within the nursing workforce. This will be a key on-going piece of work during this plan to ensure that LHCH have the right numbers and appropriate skill mix within our nursing teams that is both aligned to our activity and acuity levels.

On Friday 14th February 2014 the CQC carried out an unannounced responsive inspection due to whistleblowing concerns that had been raised with them in relation to staffing in the critical care unit. The inspection was carried out over a period of four days incorporating reviewing staffing numbers, interviews with staff and understanding the patient experience within the unit. With regards to outcome 13 (staffing) CQC has issued a moderate concern and for outcomes 14 and 16 (supporting staff and quality of service provision) CQC have raised minor concerns.

Following this inspection the Director of Nursing has led a programme of improvement to understand the staff experience concerns within the critical care unit. This has involved meeting with all staff groups supported by the Chief Executive to feedback the concerns raised to the CQC by the staff and to set out with the staff how we will work with them to address their concerns. A robust action plan containing key deliverables and milestones has been issued to the CQC and a follow up visit will occur during 2014. A component of this action plan is the investment in additional nursing at band 6/7 with a full year effect of £0.53m.

Funding Analysis

The Trust's main commissioners and contract values that have been built into our plan for 2014/15 total £98.6m.

In July 2013 NHS England and national partners launched "A Call to Action" which clearly articulates both the challenges and opportunities faced by health and care systems for the next five to ten years.

Liverpool CCG, Cheshire, Warrington and Wirral Area team in partnership with LHCH are clear on our respective responsibilities to ensure alignment and delivery of our service and financial plans.

The Merseyside health economy continues to face future significant funding threat. Its per capita funds are significantly higher than the English average. This gap is likely to close as forecast by Liverpool CCG through known and indicative allocations.

The challenges to the local health economy can be defined as; poor outcomes, ageing society, increase in

Long Term Conditions, increase in public expectations, increasing costs, limited productivity gains.

Liverpool CCG has developed a “Healthy Liverpool” programme in response to this call setting out its five year strategy to deliver improved outcomes. The programme will aim to deliver;

- *Improved and optimal health outcomes*
- *Delivery of first class quality care*
- *Clinically and financially sustainable services*

Within the hospital services setting review is a work stream called “Realigning hospital based care”. This work stream is very much in its infancy and LHCH will be an active participant.

With respect to our tertiary commissioners Cheshire, Warrington and Wirral local area team, the national challenge to specialist commissioners is translated to a local gap and challenge in 2014/15 of circa £13m.

As a provider of tertiary specialised service LHCH is acutely aware of the scale of challenge facing NHS England and the challenge set out in the “Call to Action”. The response from CWW area team in respect of this challenge is set out in their five year strategy for specialised services.

The funding base for LHCH is made up of Tertiary (specialist) 65%, secondary 16%, Wales 15% and Isle of Man 3%.

LHCH has been very successful through our fully integrated pathways of care establishing a very strong regional presence. Through our cohesive branding and communication of our distinctive brand across all key stakeholders and with strong clinical alignment with colleagues from district general hospitals we have secured a relatively stable and in a number of areas, growing service lines.

LHCH has engaged external advisers to support the Trust and ensure it maximises the potential commercial benefits from being a specialist centre, with clinical teams with regional, national and international reputations delivering “best in class” clinical services within first rate facilities.

The LHCH model of care is underpinned by safety, clinical quality and value for money and the patient and their family is truly at the heart of everything we do. We provide a number of specialised heart and chest services offered in only a few centres in the UK using the latest techniques and equipment and delivered by world class clinicians, this combination achieves outstanding clinical outcomes.

Our approach to care recognises our patients as part of a group of relatives, friends and carers and we embrace these into our ethos of care which has resulted in our unique patient and family centred care method. Improving the quality, safety and experience of care for patients and families is a key strategic objective for LHCH.

Competitor analysis

Liverpool Heart and Chest Hospital NHS FT (LHCH) is the hub for cardiovascular and chest care in Cheshire, Merseyside, North Wales and the Isle of Man. We provide a number of specialised heart and chest services offered in only a few centres in the UK using the latest techniques and equipment and delivered by world class clinicians, this combination achieves outstanding clinical outcomes. The Trust has a very high market share for cardiac work and most cardiology intervention; additionally it is the regional centre for lung cancer surgery and cystic fibrosis. Other services either have a strong tertiary or a community element.

The Trust serves a traditional catchment area of 2.8 million people, across Merseyside, Cheshire, Isle of Man and North Wales. Concentration of services in a specialist centre such as LHCH, working collaboratively with other centres and providers undoubtedly provides better results for our patients who present with some of the most complex and severe conditions.

A key strand of the Trust's stakeholder management strategy is to ensure that, by maintaining good clinical relationships, that the traditional referral patterns from local District General Hospitals is maintained. Geographically, the Trust has no local competition but recognises areas of weakness of provision of care in some surrounding areas. Lung cancer resection rates are very poor in Cumbria whilst the best nationally at LHCH. The Trust will strive to reduce this inequity by offering an extended service through commissioning plans.

LHCH has developed a national reputation for the delivery of clinical excellence; as a volume specialist provider we aim to continue to drive this model to deliver economies of scale and outcomes of the highest quality. The new investment of £2 million in a day case (Holly) suite allows all elective PCI to be performed as day case procedures in a patient and family- centric environment.

The advantages of a high volume specialist provider are clearly demonstrated in the field of aortic surgery. The Trust, over the last 15 years has invested to develop both the estate and clinical expertise to become the largest centre nationally for the provision of complex aortic surgery. The mortality achieved for management of emergency aortic dissection is 50% of the UK national average, and as good as internationally recognised centres such as Stanford and Houston. This comes at a significant financial cost to the Trust as tariff does not yet reflect the true costs of this most complex surgery.

The Trust continues to strengthen its relationship with surrounding DGHs. This is either by supporting their diagnostic services or by joint consultant appointments. This facilitates the appointment of cardiologists to DGH Trusts and ensures good quality access to cardiovascular care to the surrounding population. The large number of in-reach consultants ensures good clinical relationships that facilitate a policy of rapid treatment and repatriation, reducing delays and improving patient flow across the health economy.

Whilst the Trust is recognised for the provision of excellent tertiary services, we have in the last five years developed integrated cardiovascular and COPD care models in the Knowsley borough of Liverpool. These services put the clinical expertise available within LHCH in close collaboration with primary and community care. The outcome has been very successful and the service has received a number of national awards. Market shift and future trends are undoubtedly influenced by our patient demographics, disease prevalence and co-morbidity incidence levels. Increased prevalence of cardiovascular disease, ageing population and survival of acute events will lead to higher incidence of heart failure, hypertension, coronary artery disease and peripheral artery disease as detailed in the determinants of our service. There is still a significant amount of undiagnosed disease and consequent latent demand for clinical services offered by LHCH.

The complex invasive cardiology consultant establishment comprises of highly skilled clinicians, supported by excellent cardiac physiology and specialist nurse support. High volumes of activity combined with optimal of length of stay enables highly efficient patient management. Robust peer review and delivery of overall high standards of care ensures our patients receive the best care and outcomes.

Cardiac surgery is provided by first class surgeons generating outstanding results for patients. The team at LHCH is well established and facilitates excellent links from the tertiary sector to DGH sector. For many years the Trust has had a robust MDT process in place with increasingly closer working between interventionists and surgeons on the revascularisation agenda complexities and co-morbidities.

Service Line Competitor Analysis

Devices:-LHCH is nationally the highest Cardiac Resynchronisation Therapy (CRT) implanter by some margin. Enhanced screening and diagnosis will potentially see this service line growing further in 2014. The Trust is engaging strongly with primary care colleagues around the provision of enhanced screening facilities. During September 2014 it is anticipated that announcements will be made in respect of changes to NICE guidance.

Cardiomyopathy:-The service specification for this disease of the heart muscle poses some potential challenges to the Trust and a gap analysis has been produced to identify actions required to close the gap.

Electrophysiology (EP) Services:-The Trust continues to see increasing referral levels in this service line with no change to competitor landscape with LHCH enjoying dominant market share. EP services at LHCH are expected to continue to drive future cardiovascular business growth. Over the last three years LHCH has seen growth in EP outpatients by 19% with a high conversion rate. This growth demonstrates the rising demand (in conjunction with undiagnosed latent demand) in atrial fibrillation (AF) alongside improving technology and clinical knowledge of AF pathology.

Heart Failure:-No expected change to the competitive landscape with activity levels projected to be reasonable assured over the life of this plan. Enhanced screening, epidemiological factors and improved survival of cardiac patients points to increasing prevalence of heart failure.

Adult Congenital Heart Disease (ACHD):-With improved survival of paediatric patients leading to an increase in the numbers of patients coming to LHCH in transition from Alder Hey combined with increases in referrals from other healthcare organisations will result in additional activity numbers.

Left Atrial Appendage(LAA):-LHCH and commissioning colleagues have undertaken pilot work in this area given the clinical policy statement made by NHS England in April 2013 stating that Left Atrial Appendage Occlusion would not be routinely funded.

Cystic Fibrosis:-This service line is recognised as an established regional centre, with a clinical team forming a cohesive community striving to deliver excellence with an ability to provide a full seven day service. LHCH has a dominant market position in this service line. Liverpool Adult Centre at LHCH cares for all cystic fibrosis patients from Merseyside, North Wales, the Isle of Man, and parts of Cheshire and Lancashire and the Fylde Coast (children are cared for at Alder Hey and we have established working relationships with the team to ensure a smooth transition for our patients from paediatric to adult services). The population the Centre treats has risen in a linear and predictable fashion since it was opened in 1993 and currently stands at 280 patients. In 5 years the Centre will house between 355 and 380 patients. Compliance with national service specification in April 2015 when all inpatients must have en suite facilities will see this successful service grow.

Respiratory Medicine and Chronic Obstructive Pulmonary Disease (COPD):-This service line has delivered strong clinical outcomes historically and when combined with our innovative integrated model of care linking in community COPD services has seen material headway made in reduced levels of readmission and consequently delivered significant financial “added value” within the Knowsley local health economy.

Aneurysm:-Over the life of this plan this service line can expect to see a forecast increase of approximately 100 (20 additional cases per annum) major thoracoabdominal cases based on the last four years historical analysis. Clinical expertise within this service line is recognised at both national and international level.

Coronary Artery Bypass Graft (CABG):-With a relatively stable provider base and static referral trends this service line will remain in a static position for the next five years.

CABG/Valve:-The review of this service line is as above with no risk being identified with any downward trends reflecting a negative impact.

Cardiac Valve:-LHCH has established itself as a leading edge provider of minimal access mitral valve repair. Over recent years there have been improvements made in mitral valve repair outcomes leading to increasing activity levels.

Trans catheter Aortic Valve Implantation (TAVI):-This service line involves the percutaneous aortic valve implantation for surgically ineligible or high risk patients. The British Cardiovascular Society in their article “Changing Burden of Valve disease” estimates that by 2050 within Europe there will be an estimated 6.5m new valve cases.

Thoracic:-LHCH has highly trained surgeons, with well-trained specialist support staff. LHCH through its established video assisted thoroscopic surgery (VATS minimally invasive surgery) is seeing an increase in activity in this service line and an offer to a potentially wider demography of patients.

Upper GI Surgery:-Outcome improvements over the last ten years can be evidenced through participation in robust national audit arrangements. Current service provision model delivers high quality surgical treatments and management of advanced disease. LHCH has well developed algorithms of investigation and care. The Trust recognises that it is a high volume centre with excellent outcomes.

The LHCH Board of Directors at their strategic planning away days have completed both a SWOT and a PESTLE analysis when considering the long term financial and clinical sustainability of the Trust. The final SWOT analysis is set out below;

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong market share and presence • Commercially focussed Board and Executive • Strong local and national reputation for clinical quality and outcomes, patient experience and infrastructure • Accessible and modern single site location with low backlog maintenance • Ability to attract and retain high calibre clinical workforce • Loyal and committed workforce • Ability to develop pathways of care through partnerships and collaborative working • Ability to adapt and deliver change • Electronic Patient Record (EPR) and patient and staff benefits realisation from investment in EPR. • Mature and growing Research and Development(R&D) capabilities 	<ul style="list-style-type: none"> • Non profitable core business re cardiac surgery • Limited awareness of the LHCH brand outside traditional catchment areas • Potential capacity constraints in critical care • Evolving commissioning structures and lack of overall coordination • Tariff structural deficiencies not appropriately recognising complexity of work undertaken at LHCH • Potential complacency that referrers will continue to choose LHCH rather than refer more widely • Communications and marketing

Opportunities	Threats
<ul style="list-style-type: none"> • <i>Strong reputation provides opportunities for enhanced partnership and collaborative working across the NHS</i> • <i>Growth potential in a number of service lines both from recognition of clinical expertise and service specifications ultimately leading to market consolidation</i> • <i>Deliver patient-centred care by prioritising streamlined patient pathways regardless of commissioner or organisational boundaries</i> • <i>Promotion of LHCH brand outside traditional catchment areas</i> • <i>Increased numbers of clinical and commercial trials</i> • <i>Strong reputation offers opportunity to more aggressively market LHCH utilising our USPs</i> • <i>Disease prevalence across cardiac, chest cancer and respiratory disease combined with national and local strategies provides opportunities to further develop tertiary services in this area with support from health economy partners</i> • <i>Potential move to tariff setting using HRG4+</i> • <i>Fundraising</i> 	<ul style="list-style-type: none"> • <i>Pressure to disproportionately erode tariff across key service lines e.g. Cystic Fibrosis resulting in moving this from contributing a positive margin to a loss.</i> • <i>Commissioner contraction of number of centres of excellence</i> • <i>Specialist Services review strategy group and rationalisation of service lines e.g. respiratory</i> • <i>Boston consulting group review of specialist services and definition of co-located services</i> • <i>Failure to manage relationships effectively could result in the failure to maintain/grow current market share and further develop strategic alliances with other key providers</i> • <i>Specialised services facing escalating costs in a time of financial limitation</i> • <i>Ageing population with increased demand for services and long term care needs will place a greater burden on specialised services</i>

The above analysis and overall positioning of LHCH is further supported by NHS England's recognition that:

- *Currently there are too many sites, too much variety in quality, too high a cost*
- *Need to be concentrated in centres of excellence connected to research and teaching, delivering sufficient volume*

This view on specialised services clearly plays to the strength of LHCH services.

At LHCH our model of care has been consistently endorsed as the best by our patients. For the last seven out of eight years the Trust has been rated overall top in the national inpatient survey. Our approach to care recognises patients as part of a network of relatives, friends and carers and we embrace these into our ethos of care which has resulted in our unique patient and family centred care method. Improving the quality, safety and experience of care for patients and families is a key strategic objective which will be delivered by a well-defined quality strategy encompassing the LHCH Safe from Harm and Patient and Family Centred Care (PFCC) visions with clearly articulated outcomes. Our well-defined quality strategy which encompasses the Safe from Harm and PFCC visions with clearly articulated outcomes will continue to see LHCH at the forefront of the provision of high quality, effective care.

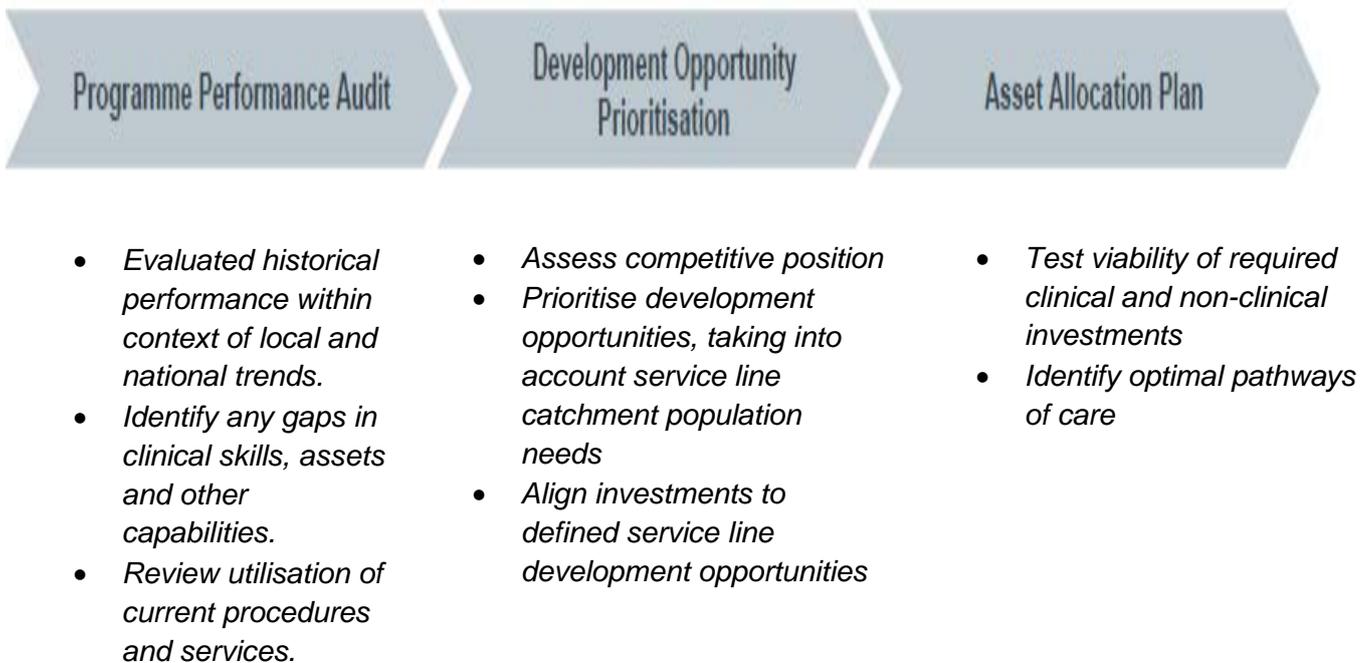
1.4 Risk to sustainability and strategic options

Over a number of years, innovation through clinical technology has played a key role in shaping the delivery of cardiovascular services. Building on this platform of technological innovation it is anticipated that future technological advancement will increasingly see the delivery of cardiovascular services in an outpatient setting. The service line that has seen technological change is Electrophysiology (EP), this is forecast to continue with outpatient growth anticipated into 2016 and beyond.

Demographic evidence points to an ageing population, this will directly translate to an expanding need for advanced heart failure care. Similarly as patients live longer the needs of this population will see cardiac surgical intervention becoming increasingly more complex. LHCH is acutely aware of the need for robust multidisciplinary management of cardiovascular diseases to ensure they remain viable and sustainable in the longer term.

The approach adopted by LHCH in undertaking gap analysis to provide a targeted plan for improving our competitive position is set out below;

Components of LHCH service line gap analysis



From the competitor analysis undertaken by LHCH it is clear that risks and opportunities have been identified across a number of key service lines summarised below;

- **Devices:** Minimal change to the provider landscape Materially a core component of our business at circa 25% of turnover .Clinical leads in this service line are engaging with primary care as LHCH believe there to be latent demand in this service line. LHCH is currently running a trial of an electronic referral tool in two GP practices and two hospital heart failure clinics
- **Cystic Fibrosis:** LHCH has robust transition arrangements with colleagues at Alder Hey which plans for patient transition starting at circa age of 14.From this there is good line of sight on new patients that come across and will continue to come across during the course of this plan. Review of past and likely future transition indicates circa 15-20 additional patients each year. Investment in

our infrastructure to ensure compliance with service specification standards by 2015 in respect of en-suite facilities has already been catered for in the early years of this plan.

- **EP/Ablation services:** The UK has traditionally had low rates for ablation compared to other European countries. Even with the increases over the past few years the UK continues to lag behind other similar European countries in ablation rates at approximately 250 per 1.0m of population. Changes to guidelines in 2012 moving from ablation as next step solely after failure of both rate and rhythm control treatment to a first line of treatment have seen activity levels grow considerably by some 20%.
- **Community COPD/CVD services:** Whilst not a material element of our turnover at less than 3% the model of care delivered through this service line and its added value to the local health economy sees LHCH ideally placed to support the wider local health economy as it continues to seek develop more integrated services to improve care pathways.
- **Aortics:** The Trust is nationally recognised as a leading provider in this service line and particular at the high end complex activity. Small in activity numbers at circa 170 patients this whilst an area of clinical excellence the Trust is proud of presents a significant financial challenge and service line loss.
- **Upper GI:** A competitive procurement exercise will be undertaken during the life of this plan. LHCH is actively working with the Royal Liverpool and Broadgreen University Hospitals NHS Trust to provide a single site service which will streamline care for patients.

The Board of Directors at LHCH is clear that through increasing the awareness of the LHCH brand, our brand differentiation and ultimate preference will define a dominant position in the provision of value based care for the Trust. LHCH has defined four options (not mutually exclusive) as being available to secure the long term clinical and financial viability of the Trust. These options are set out below;

Option 1 Build an accountable care enterprise

Option 2 Seek affiliation with other entities

Option 3 Secure niche role in the market

Option 4 Pursue alternative payment and innovative payment structures

Embedding the learning from National Reviews

The Trust has considered the key learning including review of investment requirements from the Francis recommendations (2013) and Keogh review (2013) to inform its key priorities for 2014/2019. These have been embraced by the Trust with clear actions identified for how further improvements can be delivered to what has externally been acknowledged as an excellent patient and family experience. Our ambitions are to support people to deliver high quality, compassionate care, and to achieve excellent health and wellbeing outcomes. Our clinical quality improvement strategy for 2014-2019 is underpinned by six fundamental values, the 6Cs: care, compassion, competence, communication, courage and commitment.

The Trust has responded to the key learning from the Francis recommendations and the Berwick and Keogh reviews. Some of the key actions taken include:

- The Trust has signed up to the nursing times Speak out Safely campaign and reviewed its Raising Concerns policy to make it as easy and safe as possible for people to raise concerns
- Safety is our priority and we have invested in patient safety champions to improve safety

- *The delivery of reliable care is central to our quality and we are using our electronic patient record to enhance this*
- *Working in partnership with patients and their families across all our services is our ambition and why we have introduced the concept of care partners. We see families as another set of eyes to leverage safety and we welcome their involvement in care*

Our approach to quality is to deliver the best in care and reduce errors to a minimum whilst ensuring the best overall patient experience.

Safer wards and safer hospitals through harnessing technology

LHCH believes technology is crucial to the provision of better, safer care, ultimately driving improvements in patient outcomes. Our historical and continuous investment in technology will help to protect our patients and is aligned to our “Safe From Harm” vision. During 2013/14 the Trust invested significantly in an electronic patient record (EPR). LHCH launched its EPR just 15 months after commencing the project and staff and patients continue to see the benefits of the country’s first fully integrated care record.

This underpins our ambition at LHCH to continually improve our offer to our patients using all appropriate levers available.

Having this level of information management and technology in support of the care we deliver positively impacts on our patients and our clinical sustainability, effected through:

- *Comprehensive electronic data collection - having both the quality and breadth of information about the care our patients receive available for direct analysis and decision making facilitates real time and retrospective audits leading to improved clinical performance and better quality care.*
- *Clinical decision support – using the computing power of the electronic patient record to intelligently analyse the data collected about the patients in real time and provide decision support customised to the patients individual circumstances. Examples include dynamic risk assessments for adverse outcomes such as falls, pressure ulcers and sepsis. As a patient’s risk of these outcomes changes throughout their stay, risk based interventions to mitigate the outcomes will be automatically suggested to the health care provider for implementation. This will improve outcomes for patients and lead to the use of fewer resources.*
- *Order sets – standardising the order of a basket of tests, investigations or interventions that are associated with evidence based care relevant to the patient’s particular diagnosis or treatment plan. In this way patients will always receive care associated with the best possible outcomes and in an added value fashion.*

Our clinical quality improvement strategy provides the clarity on those quality and safety objectives the Trust needs to see improved, and by how much. These objectives are being used by the governance structures that support the electronic patient record optimisation process to dictate the priority of the necessary developments. In this way, we will ensure that the future development of the electronic patient record occurs in a way that best supports the achievement of IT enabled high quality healthcare.

A comprehensive suite of reports accompany each quality improvement initiative that will ultimately be made available for users to run directly from the electronic patient record. This will reduce the dependency of staff requiring feedback on their performance upon the informatics team who are the present gatekeepers to the Trust's information resources. This will result in more rapid and customisable use of information to improve quality of care.

The Trust is complementing improved reporting with a programme of transparency, so that information on the quality of the care we provide becomes more accessible to patients, families, other clinical teams (both internal and external), commissioners and regulators. This makes more visible our performance and accountability, a key driver for improving care further. LHCH believes it is at the forefront of delivering the national ambition and agenda for to all hospitals to move from paper-based systems for patient notes and prescriptions to integrated care records and the development of e-prescribing and e-referrals systems.

Research & Innovation

The research strategy embedded at LHCH will provide a supporting platform for our clinical and financial sustainability going forwards. At LHCH our contribution to research has been at both a national and international footprint. The Board of Directors are clear that through this strategy the research and innovation in place at LHCH will deliver better outcomes for our patients during the life of this plan and support our ambition of excellence. The HEAT trial not only offered excellent research results but has also generated cash releasing savings during 2014/15. The clinical evidence base provided by the research undertaken at LHCH will underpin our clinical progression enhancing our offer to patients and families.

The Trust has a comprehensive strategy for research which will see it improve its capacity and capability for conducting research in parallel with the delivery of this strategic plan.

This plan clearly articulates the market position and strength that this provides to our long term clinical and financial sustainability. The clinical relationships established by LHCH firstly across the Mersey and Cheshire catchment but also extending beyond this geographical footprint are beginning to evolve into a hub and spoke model of care. It is through this combined with;

- *Unrivalled clinical expertise and excellence*
- *Brand awareness, differentiation and preference for LHCH models of care*
- *Unique integrated cardiovascular and COPD care models*
- *Premier outcomes aligned to our clinical quality and continuous improvement methodology*

that the Board of Directors at LHCH feel provides sufficient evidence that through these factors and the evolving hub and spoke models of care that strategically positions LHCH such that it is able to deliver against the critical challenges facing the NHS over the life of this plan.

1.5 Strategic plans

LHCH strategic plans as articulated throughout have been informed by the adoption of the template set out below;



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|---|--|---|--|--|
| <ul style="list-style-type: none"> • Review all documents focussing on CV services • National volumes, trends and forecasts | <ul style="list-style-type: none"> • Mission and vision • Overview of capabilities • Defining service area/ competitors • Progress from previous strategic plan, hurdles to implementation | <ul style="list-style-type: none"> • Growth prospects • Clinical quality • Operational Opportunities • Financial status • SWOT analyses • Value-based care strategy | <ul style="list-style-type: none"> • Prioritising initiatives • Feasibility and impact analysis for individual initiatives | <ul style="list-style-type: none"> • Dashboard • Business Plan • Marketing Plan • Capital Investment • Workforce Plan |
|---|--|---|--|--|

LHCH will continue to ;

- Identify where it can provide added value
- Uncover latent demand that exists across a number of service lines
- Secure referrals
- Explore alternative settings as a network of heart and chest care
- Ensure patient loyalty

A key challenge to specialised services over the life of this plan will be to limit the use of high end specialist services such as those provided at LHCH. Whilst LHCH is mindful of its role to ensuring it operates at optimal efficiency by providing care in the lowest cost setting, supporting the integration of care agenda through co-ordinating care delivery and reducing its cost base it is also acutely aware of the determinates of services provided at LHCH. Those determinants set out in detail earlier on in this plan will not significantly change over the course of the next five years. LHCH will continue to provide its portfolio of service albeit with some acknowledged risk to volumes.

In conjunction with the review of our service lines and competitor analysis LHCH has set out its strategy during the life of this plan across research and development, quality etc which are key themes underpinning all that we do at LHCH.

Over the life of this plan LHCH will;

Grow our clinical research base and associated resources:-

- We have co-opted Liverpool University as a second academic partner to our joint venture with the Royal Brompton and Harefield and Imperial College through the Institute of Cardiovascular Medicine and Science (ICMS). This will facilitate the acceleration of our programme of academic appointments.
- LHCH as a founding member of Liverpool Health Partners and working in the North West

coastal academic health science network (NCAHSN) has been asked to contribute its expertise in developing commercial relationships for those trusts working within the footprint of the network

- *Extend our research offer in surgery such that it accounts for 25% of our research portfolio by March 2017. Required research staffing infrastructure to support this has already been catered for.*

Continue to invest in new technologies and services to continue the differentiation in the LHCH brand compared to the limited range of our competitors

- *The capital programme for the life of this plan invests £18.1m to support our continued clinical excellence aspirations supported by £6.0m in information technology*
- *We will consolidate our existing service portfolio as reflected through our clinical income plans*
- *We will grow our cystic fibrosis service line in line with increasing patient numbers*

Invest further in quality improvements facilitating improved outcomes. This will assist in our marketing efforts that will begin in earnest in July 2014.

- *By September 2014 we will have recruited additional critical care nurses, in support of patient acuity.*
- *A financial plan that supports our quality and transformation ambitions.*

Continue to develop our excellent clinical relationships with other specialist, district general hospital and primary care colleagues. In the latter years of the plan our strategic ambition is to formalise these arrangements into a franchise model of care.

- *Joint appointments with DGHs.*
- *Continue strong working relationships with Alder Hey FT both in respect of cystic fibrosis and other services.*

Marketing and communications

- *The Trust has commissioned an external marketing communications company to develop a brand strategy that will enhance the recognition of LHCH and ensure a wider understanding of our value proposition. This will be achieved through a review of market insight and engagement with internal and external stakeholders to inform our marketing and communications plan to support the delivery of our stakeholder development work. Our aim is for the Trust to be recognised nationally and internationally as a pathway leader for adult cardiothoracic care. The plan will be completed by end of July 2014.*

Education and Training

- *Our education and training strategy will enable LHCH to prioritise its workforce skills training and succession planning, to ensure the maintenance of a highly skilled workforce over the life of the plan and across a required expanded seven day service delivery model.*

Staff Engagement

- *The Trust recognises that excellent care can only be delivered through an engaged and motivated*

workforce. A comprehensive staff engagement strategy has been finalised covering the three dimensions of staff engagement;

- I. Intellectual engagement – thinking hard about the job and how to do it better
- II. Affective engagement – feeling positively about doing a good job
- III. Social engagement – actively taking opportunities to discuss work-related improvements with others at work

Leadership Development

- An effective organisation is driven by competent leaders. A “leader at every level” approach will be deployed to provide targeted and effective leadership development for both current and emerging leadership talent at LHCH.

Stakeholder Engagement

- As part of a successful health system, LHCH recognises its role as an active and collaborative partner; we will continue to work with commissioners across Cheshire, Merseyside, Wales and the Isle of Man to identify, implement and support system wide solutions that will both enhance the health of the population and drive better value.

Governance Arrangements

- To strengthen the Trust’s governance arrangements in line with good practice principles, LHCH has reviewed how it can develop efficient and effective governance arrangements that will ensure accountability for performance management; help the Board of Directors to prioritise and direct its time towards what matters most via a new Assurance Committee structure, Board Assurance Framework, supported by streamlined reporting through development of an integrated information dashboard, underpinned by consistent use of a data quality kite-mark process.