

# Strategic Plan 2014-2019



June 2014

1. Executive summary
2. Introduction: themes and challenges
3. Papworth: an assessment
4. Meeting specialist cardiothoracic healthcare needs
5. Providing safe, high quality care
6. Improving cardiothoracic care in the wider healthcare community
7. Maintaining financial, operational and clinical sustainability
8. The new hospital - realising the opportunities
9. Ensuring success

- Papworth Hospital NHS Foundation Trust has a track record of successfully meeting growing demand for its specialist cardiothoracic services, adapting to local and national changes in the healthcare system, pioneering and establishing new treatments and procedures, and ensuring its continuing clinical and financial sustainability. However, the next five years will be a critical period, with major financial challenges for the NHS (both nationally and locally), changes in the healthcare system, and meeting increasing demand within the constraints of the current hospital site whilst planning and implementing the long-awaited relocation to a new hospital on the Cambridge Biomedical Campus.
- In developing this Strategic Plan, the Trust has identified the key strategic themes and major challenges that it needs to address, and these form the focus of its plan. The strategic challenges are:
  - Meeting increasing demand for its specialist healthcare services given the capacity constraints of the current site
  - Continuing to attract, develop and enable the best people to deliver excellent care
  - Increasing the impact and influence of Papworth’s clinical expertise to improve cardiothoracic care through its tripartite mission of clinical services, research and education
  - Meeting the financial challenges given the current NHS budget constraints and ensuring the affordability of the new hospital
  - Planning and relocating to the new hospital, and realising the benefits of a new purpose-built facility and the opportunities of colocation on the Cambridge Biomedical Campus
- With activity projected to increase by 36% over the period of this Plan, Papworth will meet this demand through a combination of increasing patient throughput initiatives, providing additional capacity (at Papworth or at other centres), improving scheduling and operational management to optimise utilisation and patient flows, and extending operational hours to provide additional capacity and access.
- Papworth has an excellent reputation for high quality patient care: the calibre and commitment of its staff are the key to this. The organisation will continue to attract and develop its people, ensuring it recruits the right numbers and skill mix of staff, improving staff retention, and establishing and reinforcing a values-based organisational culture.
- In a challenged local health economy Papworth will continue to work closely with other organisations to effect service change. As a specialist cardiothoracic centre it will work with NHS England on specialised commissioning developments, as well as developing its own service innovations to improve patient care.
- Increasing Papworth’s research profile and impact is a key strategic initiative, working with partners in CUHP towards the opportunities provided by the planned Heart & Lung Research and Education Institute. Strengthening Papworth’s role as a clinical education provider is also a significant opportunity.
- To achieve the Trust’s Long Term Financial Model, realising the benefits from the Service Improvement Programme is a strategic priority, with major focus and resources assigned to this.
- This Strategic Plan has identified 15 Strategic Initiatives that will provide a focus for the organisation to meet these challenges. This Plan will be reviewed and refreshed as progress is made, and new challenges and opportunities are identified.
- The relocation to the new hospital in 2017/18 is a major opportunity for Papworth, with significant clinical, research and financial benefits and opportunities for its future development.

“As Papworth approaches its centenary, we are embarking on a journey that will ensure our patients continue to receive world class care for the next century”

*Professor John Wallwork, Chairman*



“We want Papworth to be the hospital of choice for patients with heart and lung disease. The strategies outlined in this plan will achieve that objective, increasingly working collaboratively with other organisations”

*Stephen Bridge, Chief Executive*



# Introduction: strategic themes and challenges

Papworth Hospital NHS FT's previous Strategic Plan covered the 5 years from 2007 to 2012: it was developed following approval of the new hospital Outline Business Case, and set the direction and plans for the period leading up to the planned relocation to Cambridge in 2013. This provided the framework for the Trust's strategy, and was further developed and informed by the detailed planning work that underpinned development of the Appointment Business Case. Strategic management by the Board of Directors focused on achieving this plan, continually reviewing progress and organising resources accordingly, including refreshing the detailed projections and taking strengthening action where appropriate.

Delays in approval of the new hospital have resulted in further challenges as Papworth strives to meet increasing demand for its specialist cardiothoracic services within the constraints of the current site, and to achieve its financial objectives at a time of increasing NHS financial pressures. With relocation to the new hospital now planned for 2017/18 this Strategic Plan focuses on how the organisation will meet these challenges over the next 3-4 years on the current site whilst preparing for the opportunities presented by the new hospital on the Cambridge Biomedical Campus.

This strategic plan covers the period leading up to the planned relocation to the Biomedical Campus at Cambridge. These next 5 years are a critical time during which Papworth needs to:

- successfully manage services on the current site given capacity constraints, achieving high quality care and outcomes, and striving to further improve patient safety, care and experience
- develop its tripartite mission (in particular strengthen its research profile and impact, and develop its role as a specialist clinical education provider in the changed clinical training environment), working with partner organisations within the developing health system framework
- seek opportunities to develop and improve its impact on cardiothoracic care across the region (and beyond)
- continue to value and develop its people and their contribution to delivering excellent care and improving cardiothoracic outcomes
- adapt to NHS system changes, including competition risk and new commissioning organisations – 'survive, thrive, and influence'
- achieve its Long Term Financial Model [LTFM] - to ensure the affordability of the new hospital and ensure financial robustness - in a challenging period of severe NHS financial constraint
- design, build, equip and relocate to the new hospital
- use appropriate technology to enhance patient care and improve operational effectiveness



Our strategic plan is structured around four 'strategic themes' through which the organisation will achieve its purpose; and for each of these themes we have identified the major challenge which we need to address over the period of this plan. The focus of our strategic plan is on how we will tackle these challenges.



# Papworth Hospital - an overview

Papworth is the largest provider of specialist adult cardiothoracic services in the UK, including:

- highly specialised nationally commissioned services such as **Pulmonary endarterectomy [PEA, or PTE]** (the only UK centre), **Heart and Lung Transplantation** and **Respiratory ECMO** (in both cases one of 5 national centres)
- **cardiac and thoracic surgery**, including Coronary Artery Bypass Grafts and Heart Valve Surgery
- **cardiology** services, including percutaneous intervention [PCI] for coronary artery disease (Papworth is a regional centre for Primary PCI for heart attacks), cardiac rhythm management (including cardiac ablation and complex pacing), structural heart disease (Papworth helped pioneer Transcatheter Aortic Valve Replacement [TAVI]), and complex echocardiography and other non-invasive cardiac assessment
- nationally commissioned **Cystic Fibrosis** and **Pulmonary Hypertension** services, and the treatment of **chronic respiratory infections** such as bronchiectasis and **interstitial lung disease**
- advanced diagnostics and surgery for **Lung cancer**
- the assessment and treatment of **sleep disorders** by the Respiratory Support and Sleep Centre

The Trust is committed to develop its tripartite mission of **service, research and education**, in particular strengthening its research profile and role as a cardiothoracic clinical education provider, and working with partner organisations within the developing health system framework to implement service innovations.

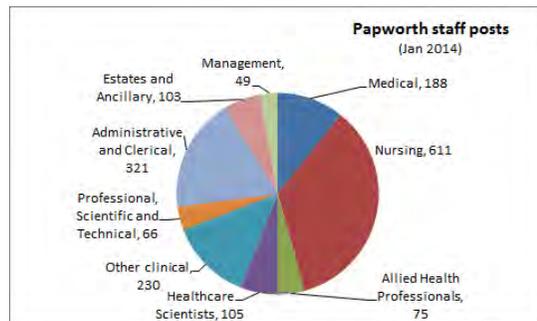
## Papworth: a snapshot view

Over 24000 Inpatient admissions and 82000 Outpatient appointments in 2013/14  
Total income: £140 million

293 beds  
5 operating theatres  
5 cath labs

Inpatient beds 223  
Day Case beds 33  
Critical Care / Recovery beds 37

c.1750 posts



The majority of Papworth's patients come from the East of England region of nearly 6 million people (4.5 million adults), but with a significant proportion from the rest of the UK and abroad, reflecting the Trust's clinical service portfolio comprising highly specialised, specialised and locally commissioned services

Resident location of Papworth's patients:

83% East of England  
16% rest of England or Wales  
0.3% Scotland, or Northern Ireland  
0.1% International



Source: Deloitte LLP, 2012 analysis



Reputation and track record for pioneering new treatments and procedures

- 1962 First artificial heart valve operation
- 1967 First cardiac pacemaker procedure
- 1979 UK's first successful heart transplant
- 1984 Europe's first successful heart-lung transplant
- First in the world for the chronic use of Prostacyclin for the treatment of primary pulmonary hypertension
- 1985 World's first transbronchial biopsy to detect rejection in lung transplants
- 1986 World's first heart, lung and liver transplant
- 1991 First in the world for application of Nitric Oxide for patients with pulmonary hypertension
- 1996 Papworth carries out its 1000th transplant
- 2006 UK's first beating heart transplant
- 2011 UK's first Total Artificial Heart patient discharged home

# Strategic assessment

Our assessment of Papworth's current position is:

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>national and regional specialist centre</li> <li>reputation for excellent care and pioneering new treatments</li> <li>quality (safety, experience, outcomes)</li> <li>staff commitment</li> <li>successful track record / management</li> </ul>	<ul style="list-style-type: none"> <li>capacity constraints</li> <li>limitations of current site resulting in operational inefficiencies</li> <li>current staff turnover</li> <li>information systems</li> <li>ageing estate</li> </ul>
<ul style="list-style-type: none"> <li>specialised commissioning</li> <li>new hospital / Cambridge Biomedical Campus</li> <li>CUHP</li> <li>7 day working / working differently</li> <li>increasing research and education impact</li> <li>improving outcomes in health economy</li> <li>cardiothoracic health system leadership</li> <li>delivering care through other centres</li> </ul>	<ul style="list-style-type: none"> <li>NHS budget pressures on income</li> <li>challenged Local Health Economy</li> <li>staff recruitment</li> <li>resistance to change/"the Papworth way"</li> <li>SIP targets not achieved</li> <li>competitor developments</li> </ul>

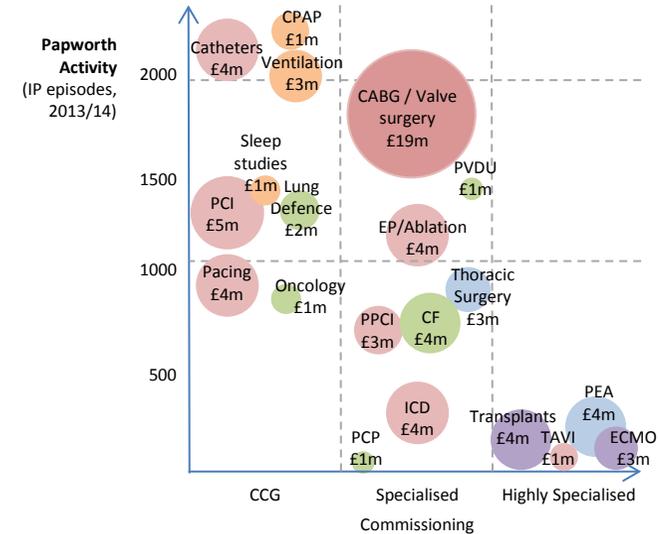
## Opportunities

## Threats

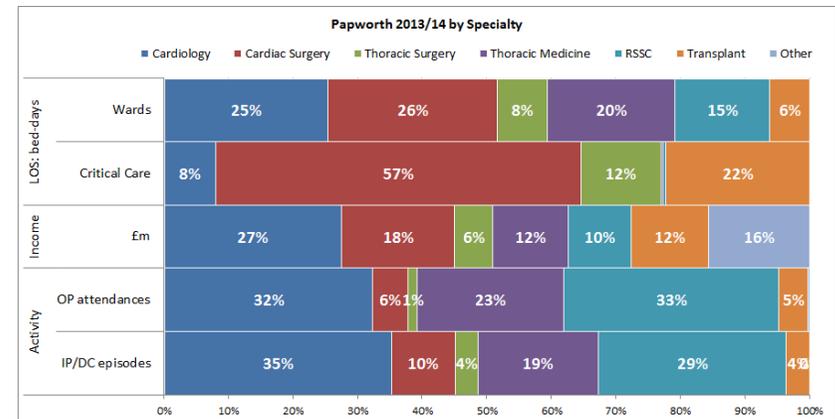
From this assessment the major challenges and opportunities that the Trust needs to address are:

- overcoming current capacity constraints to enable Papworth to meet the projected increased demand for its specialist cardiothoracic services
- ensuring that Papworth attracts and retains high calibre staff with the required skills to continue to deliver excellent care
- strengthen its research and clinical education activities to be able to realise the potential of CUHP and the Cambridge Biomedical Campus
- continue to engage proactively with commissioners, providers and other organisations across the regional health economy to influence and contribute to improving cardiothoracic care and outcomes
- meet the financial challenges given NHS budget pressures including driving forward a strong Service Improvement Programme of initiatives to improve operational efficiency
- plan and prepare for relocation to the new hospital to realise the operational benefits and opportunities and synergies of colocation with Cambridge University Hospitals NHS FT [CUH] on the Cambridge Biomedical Campus

The diagram below maps our major services by commissioning sector and activity levels:



Papworth's service portfolio includes both procedural interventions (e.g. PCI, Cardiac Surgery) and longer term management of cohorts of patients (e.g. CF, Lung Defence) and the progression of patients on journeys from assessment to procedural intervention (e.g. Transplant, PEA). These characteristics and the intensity and complexity of treatment determine the frequency and duration of patient admissions and attendances, and hence the facilities required.



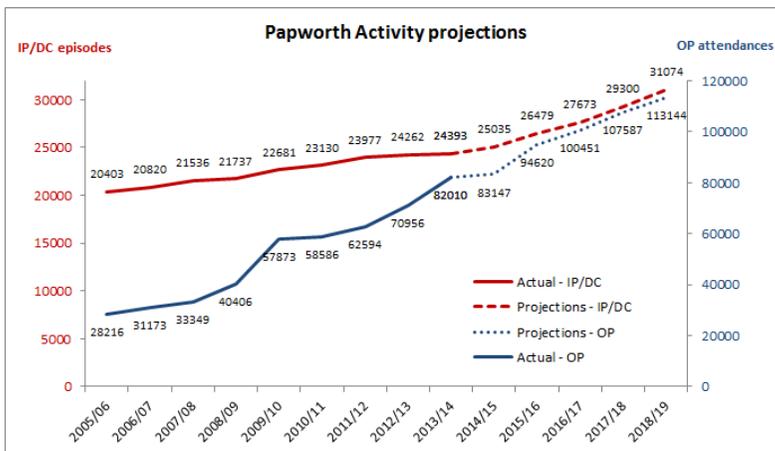
# Meeting specialist cardiothoracic healthcare needs

Demand for Papworth’s services has shown continuing growth historically, and Papworth has a track record of successfully meeting this increasing demand. As treatments such as angioplasty (PCI) have become established clinically and access widened through increased catheter lab provision, Papworth has worked with other centres across the region to help with the safe establishment of local services, and concentrated on the more complex and difficult cases and pioneering new treatments and techniques.

Even with the expected continuing devolution of some services and transfer of activity to other centres, demand for Papworth’s specialist services is projected to grow significantly. The East of England population is projected to increase by 5% over the next 5 years, with the number aged 75 or over increasing by 13.5% (% CAGR 2.6% p.a., cf 2.2% 2014 vs 2010) <sup>1</sup> In Cambridgeshire & Peterborough, the over-75 population is projected to increase by 33% 2021 vs 2011<sup>2</sup> (30% overall in East of England<sup>3</sup>). Papworth’s activity projections have been developed in collaboration with commissioners and supported by independent expert reviews; including transfers of activity from Cambridge University Hospitals [CUH] assumed on Papworth’s move to the new hospital, activity at Papworth is expected to grow at an average rate of 6% p.a. over the next 5 years, increasing total activity (Inpatient [IP] and Outpatient [OP]) by 36%.

Papworth Activity projections		2018/19 vs 2013/14	
IP/DC (episodes)	2013/14 Act	2018/19 Proj	% CAGR* total growth
Cardiology	8576	12496	8% 46%
Cardiac Surgery	2415	3178	6% 32%
Thoracic Surgery (incl PEA)	859	955	2% 11%
Respiratory Medicine	4555	5509	4% 21%
RSSC	7088	7721	2% 9%
Transplant (incl ECMO)	900	1215	6% 35%
<b>Total IP/DC (episodes)</b>	<b>24393</b>	<b>31074</b>	<b>5% 27%</b>
<b>Total OP (attendances)</b>	<b>82010</b>	<b>113144</b>	<b>7% 38%</b>

\* CAGR (Compound Annual Growth Rate): the average yearly growth rate



	Factors affecting disease burden	Papworth’s principal clinical services	Factors affecting Papworth future demand
Cardiology	Rising prevalence rates, ageing population and rise in diabetes and obesity - growth rate of 5% estimated for cardiology related diseases <sup>3</sup> (Coronary Artery Disease[CAD], Heart Rhythm Disorders, Valve/structural heart disease)	Intervention: Angiograms ('catheters') for investigation, Percutaneous Coronary Intervention [PCI] (also known as angioplasty) for non-surgical revascularisation, Primary PCI [PPCI] for emergency revascularisation following heart attack	Transfer of Catheters activity from Addenbrooke’s on relocation to new hospital Devolution of PCI activity to new services (e.g. Ipswich), and Pacing to Norfolk and Norwich and Peterborough.
Cardiac Surgery	Hospital mortality reducing despite increase in patient risk profile. Expected rate c.580 per million population [pmp] <sup>4</sup> . Valve disease prevalence highest in over 75s: growth of 3.9% p.a. for valve surgery projected <sup>3</sup> . National CABG growth rate c.1% <sup>3</sup>	Coronary Artery Bypass Graft [CABG] surgical revascularisation for CAD; Valve surgery	Revascularisation: PCI:CABG ratio trends (2.9 assumed for region); Papworth only cardiac surgery centre serving region
Thoracic Surgery	Lung cancer: ageing population, 1% p.a. prevalence increase <sup>3</sup>	Surgical resections for lung cancer, chest wall surgery, pectus surgery, Pulmonary endarterectomy [PEA] to remove thrombus from pulmonary artery	Papworth could attract Thoracic Surgery referrals from other centres; only national centre for PEA (Papworth-supported establishment of 2 <sup>nd</sup> centre likely in medium term)
Thoracic Medicine	Increased awareness / referrals for Pulmonary Hypertension [PH]; Cystic Fibrosis genetic condition so linked to population growth	Specialised services treating patient cohorts for Cystic Fibrosis [CF], Pulmonary Hypertension [PH], Lung Defence [LD] (bronchiectasis /other infections), Interstitial Lung Disease [ILD], plus Lung Cancer investigations	Patient cohorts driven by new referrals and losses; clinical developments and new drugs influence treatment protocols and therefore frequency/duration of admissions /attendances and effective care at home
RSSC	Sleeping disorders becoming more common (obesity, diabetes; greater awareness leading to more referrals). Disease demographics show an annual increase in demand of 1-2% <sup>3</sup>	Management of respiratory and non-respiratory sleep disorders; ventilation support including Progressive Care Programme. Highly specialised Ataxia telangiectasia care	More local / community management of sleep disorder patients likely (Papworth piloting new patterns of care). Progressive Care Programme [PCP] small patient numbers but opportunity to grow
Transplant / ECMO	Donor organ availability the key factor affecting number of Transplant operations	Heart and Lung Transplants; Ventricular Assist Devices for heart failure patients awaiting transplant; Extra Corporeal Membrane Oxygenation [ECMO]	National commissioning strategy (including any changes in numbers of centres)

<sup>1</sup> ONS 2010-based population projections

<sup>2</sup>Cambridgeshire and Peterborough Outline Strategic 5 Year Plan 2014/15 to 2018/19

<sup>3</sup>Papworth Hospital NHS Foundation Trust Final Revenue Review Report, Deloitte, Dec 2012

<sup>4</sup> NHS England Specialised Services Adult Cardiac Surgery consultation 2014

## Challenge 1: Meeting increasing demand given current capacity constraints

The delay in relocating to the new hospital in Cambridge (planned for 2013 in the Outline Business Case approved in 2006) has put increasing pressure on Papworth's capacity on the current site, with the existing facilities under considerable strain as demand grows. Ensuring there is sufficient capacity so that the Trust can meet projected demand is a major challenge, but also strategically important (both in achieving the Long Term Financial Model [LTFM] to support the affordability of the new hospital, and in maintaining Papworth's ability to meet specialist cardiothoracic healthcare needs).

Papworth's strategy to increase its effective capacity to meet the projected activity over the next 3-4 years on the current site consists of four key elements:

- i. a programme of initiatives to **increase patient throughputs**
- ii. providing **additional capacity** on the current site and at other locations where necessary
- iii. reviewing the **scheduling and operational management** of key facilities such as labs, theatres and critical care are being reviewed to ensure optimum utilisation and efficient patient flows.
- iv. **extending operational hours** in a phased way including evening and weekend cath lab and theatre sessions and more weekend working

**Increasing Patient Throughput projects** are critical to increasing effective capacity at the current Papworth site by releasing significant capacity from current facilities. These projects are managed as part of the Papworth Service Improvement Programme [SIP] and include:

- reducing patient length of stay [LOS]:
  - Elective cardiac pathway
  - Enhanced recovery
  - In House Urgents
  - same day admissions (Cardiac)
  - reduce delays for transfers to and from DGHs
- improving Cath Lab utilisation
- 23 hour Cardiac Day Ward
- increase in ward rounds to enable timely clinical decision making

These initiatives will enable Papworth to treat more patients, with important benefits to patients including shorter stays and streamlined pathways

**Additional capacity** will also be provided to ensure Papworth is able to meet the projected activity levels:

- providing an additional 12 beds in a new extension to the Varrier-Jones ward (opening June 2014)
- 24/7 opening of all Critical Care beds (currently 2 beds are not open on Sundays)
- increasing the use of the 10 bed 'step-down' Progressive Care Unit to ease the pressures on Critical Care capacity
- exploring opportunities to use available capacity (theatre, critical care and ward beds) at other hospitals
- in particular, undertaking Thoracic Surgery cases using other centres' facilities could enable the conversion of other beds to Critical Care
- discussing with Cambridge University Hospitals opportunities for joint site provision of cardiology and surgery services, utilising theatre and catheter lab capacity at Addenbrooke's Hospital until the new Papworth hospital is built

**Reviewing the scheduling and operational management** of key facilities to optimise utilisation, including:

- understanding the implications of statistical variance in Length of Stay in planning bed capacity
- managing the scheduling of surgical patients through the theatre – critical care – ward system in anticipation of available capacity
- ensuring effective scheduling and utilisation of theatres and cath labs including reviewing operational hours where appropriate

### Extending operational hours

The Trust will continue to adjust operational hours to provide additional capacity as activity demands, including:

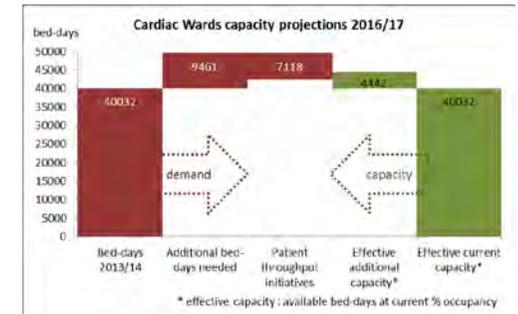
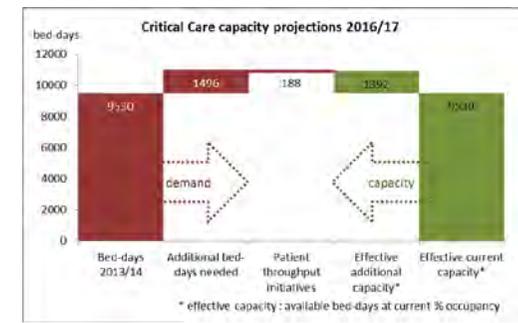
- further increases in theatre and cath lab sessions including evenings and weekends (2 theatres currently open for Elective procedures at weekends)
- extending Outpatient clinics (e.g. weekend clinics are being piloted for some Thoracic specialities)
- increasing access to diagnostic services (e.g. on-call arrangements with cardiac physiologists to extend out-of-hours cover)

Whilst all facilities on the current site are coming under pressure due to increasing demand and the delay in relocating to the new hospital, Papworth's **Surgical and Critical Care capacity** is of particular concern. Critical Care [CC] bed capacity was increased from 25 beds to 32 beds in 2010; however, in the past 3 financial years the number of Critical Care bed-days used has increased by 23%. Two factors affecting Critical Care bed capacity in particular are:

- Papworth treats many complex and difficult cases, and some of these result in long stays in Critical Care. Whilst few in number, such cases (across all surgical specialties) can have a significant impact on available capacity, with consequent implications on scheduling of future patient admissions and operations. Using 25 days CC stay as an illustrative example, episodes with longer stays can account for 20% - 30% of total CC bed-days usage. In effect this implies that over the course of the year 6-7 of the current 33 CC beds are being used for long-stay episodes.
- Another important factor affecting available capacity and with implications on the scheduling of surgical cases is the need to accommodate emergency activity such as Heart and Lung Transplants, where immediate response is triggered by the availability of a suitable donor organ. Such requirements are a key consideration in planning and managing the capacity of the hospital and the scheduling of surgical activity

Specialised high care (Level 3/2) beds are a critical facility: the delay in relocating to the new hospital has resulted in the need to increase the effective capacity of such beds whilst on the current site from the current 33 towards the 46 planned for the new hospital.

Modelling these initiatives (increasing patient throughputs *and* additional capacity) shows that sufficient additional bed capacity can be provided whilst on the current site to meet projected requirements for Surgery, Transplant and ECMO:



## Providing safe, high quality care

Papworth has an excellent reputation for high quality care, both in terms of clinical outcomes and patient experience. Papworth's commitment to delivering high quality care is an integral part of its culture: [patient safety](#), [patient experience](#) and [effectiveness of care](#) are reviewed against national and local quality indicators using a comprehensive range of measures and reported to the Board of Directors and the Council of Governors at every meeting, with bimonthly critical review by the Board's Quality and Risk Committee. Monthly unannounced inspections are undertaken by members of the Nursing Advisory Committee, Governors and Non-Executive Directors.

Patient safety	Patient experience	Effectiveness of care
<ul style="list-style-type: none"> <li>• Safety thermometer</li> <li>• Medication errors</li> <li>• Serious incidents</li> <li>• Never events</li> <li>• Health Care Associated Infections</li> <li>• Safeguarding</li> <li>• Safety focus groups.</li> <li>• Staff survey</li> <li>• Nursing care indicators</li> <li>• Safe staffing levels</li> </ul>	<ul style="list-style-type: none"> <li>• Patient stories and feedback</li> <li>• Patient survey</li> <li>• Staff survey</li> <li>• Complaints</li> <li>• Patient Recorded Outcome Measures</li> <li>• Patient Led Assessment of the Care Environment</li> <li>• Nursing care indicators</li> <li>• Governor feedback</li> <li>• Healthwatch UK</li> <li>• Patient experience report (quarterly)</li> </ul>	<ul style="list-style-type: none"> <li>• Mortality rates</li> <li>• Mortality and morbidity meetings</li> <li>• National audits</li> <li>• National returns</li> <li>• Implementing NICE guidance</li> <li>• Waiting times</li> <li>• Clinical outcome indicators</li> <li>• Productive Series</li> </ul>

Papworth's [quality priorities](#) are decided following consultation with clinical teams, Governors, Patient & Public Involvement Committees and Healthwatch UK representatives. No Care Quality Commission [CQC] concerns were raised at Papworth during 2013/14; the Trust underwent a successful CQC Inspection in August 2013, and achieved the lowest risk rating (Band 6) in the new CQC Intelligent Monitoring System in Quarter 4 2013/14; the objective is to maintain this.

Papworth achieves excellent clinical outcomes and has high levels of reported patient satisfaction (with recent response rates of over 70%, indicating a high level of patient engagement, and a 'Friends and Family' Test score of 85%). Staff engagement and feedback is reviewed continually through both formal and informal communication channels, including comprehensive staff surveys

The Trust's [Quality Strategy](#) will be revised during 2014/15 to:

- incorporate the Chief Nurse's 6 C's (care, compassion, courage, communication, competence, commitment)
- address actions from the gap analysis carried out against the key recommendations of the Francis Report and the 7-day working report
- include a review and analysis of annual quality metrics trending

[Papworth's strategy](#) is to strengthen its ability to continue to deliver - and improve - high standards of patient care whilst also implementing changes to meet its other strategic challenges, by:

- *managing risk*: using the Board Assurance Framework [BAF] as a dynamic tool for improvement
- *managing quality*: using the Quality Accounts and CQUINs to focus on key opportunities to improve

Patients rate their experience at Papworth very highly, with a personal touch complementing the high standards of caring and good clinical outcomes. The aim is to build on this strength by understanding better the factors that contribute to this, and developing these across the organisation to achieve excellence consistently across all interactions with patients.

The key [risks](#) as currently identified are:

- non-achievement of the 62 day cancer waits for 2014/15: actions taken to mitigate this include recruitment of an additional dedicated thoracic surgeon and greater flexibility in theatre scheduling. The Trust has commissioned an external review of the thoracic surgery-oncology pathway at Papworth, led by the chair of the Clinical Reference Group for thoracic surgery, and the clinical lead for the National Cancer Intelligence Network
- implementation of SIP and cost improvement projects: the [quality impact assessments](#) and progress reports of all projects are reviewed by the Nursing and Medical Directors
- capacity constraints present a risk to access and waiting times (to be addressed by the initiatives in Challenge 1 above)

Ensuring the [right number and appropriate skill mix of nurses](#) is a key component of the Trust's quality strategy. Papworth is applying the nursing hours per patient day (NHPPD) tool to review this, and the Trust is taking the following measures to embed the staffing recommendations from the National Quality Board report (2013):

- in depth review of staffing and quality in each ward / department
- monitor NHPPD through the Nursing Advisory Committee escalating any concerns to the Quality and Risk Committee
- display staffing levels in each ward area
- conduct a review of staffing where there is a consistent difference between NHPPD and actual patient hours required or there has been or is to be a service change
- implementing appropriate technology projects ahead of the shared system being developed with CUH

Reviewing [medical staffing requirements](#) is also a key initiative: ensuring appropriate medical cover and organising this resource- and cost-effectively will become more challenging as operational hours are extended and the Trust works towards delivering 24/7 medical cover. Work is underway to develop robust plans to ensure alternative staffing strategies are in place, building on the success of the Alert team (Advanced Nurse Practitioners).

Initiatives include:

- *increasing advanced Nurse and other non-medical Clinical roles in 2014 - 2015*
- *In House Urgent pathway Nurses in 2014*
- *review the use of Progressive Care Unit and all level 2 and Level 3 provision 2014 - 2015*
- *increasing the use of Vital Pack - electronic observation and Mews calculation 2014*
- *Safety Culture Barometer using Manchester Patient Safety tool during 2014*
- *improve consultant led ward rounds 2014 - 2015*
- *annualised job plans*
- *improve decision making skills of all clinical staff 2014 - 2016*

## Challenge 2:

# Continue to attract, develop and enable the best people to deliver excellent care

There are 3 strategic initiatives involved in tackling this challenge:

### Strengthening the Trust's recruitment capabilities

The key workforce pressures are the **recruitment and retention of clinical staff**, notably Critical Care nurses, experienced nursing staff, junior doctors in training, allied health professionals and cardiac and respiratory physiologists. Staff vacancies in January 2014 were 4% of funded posts: any lag in filling vacant posts can result in the need to employ temporary and agency staff, at higher cost. In addition, there are several areas where clinical staff with the required skills are in short supply.

Initiatives to address these issues include:

- improved planning and projections of future workforce requirements
- early identification of anticipated vacancy 'hot spots'
- targeted plans for areas of clinical skills shortages, including overseas recruitment where appropriate
- dedicated Lead Nurse for recruitment and retention of nurses
- comprehensive recruitment plan including overseas recruitment for experienced nurses
- on-going recruitment to increase the staff available via the hospital's internal bank

### Strengthening the organisation's ability to change

The next 5 years will be a time of considerable challenge for everyone at Papworth, including continuing to deliver excellent care whilst facing significant cost pressures, implementing changes including working differently and extending operational hours, and relocating to the new hospital: dealing with these simultaneously will require considerable additional energy and exceptional leadership throughout the organisation. The commitment of people through such a period is critical to Papworth's continuing success and its strategic development as an organisation: key to help achieve this are:

- strong values, continually emphasised and lived
- professional development of roles and individuals
- recognition and rewards
- excellent communication and engagement

Leading the organisation through such major change will be challenging: critical in achieving support for this will be the focus on Papworth's values and in particular the benefits to patients and improvements in the quality of care. There is a need to engage and convince people, and overcome concerns about changes to established ways of working. The opportunities afforded by the new hospital to further strengthen Papworth's ability to deliver excellent care are an additional motivation to encourage people to ensure changes are implemented successfully.

The programme of change requires champions and clinical leadership throughout the organisation, building up a critical mass of involvement, with the right people enthused to involve others and influence change within the organisation. The pace will be dependent on the organisation's ability to free up people's time for this alongside the priority focus on patient care. An organisation-wide programme was developed and launched with external support during 2013/14 to train people in leading change, using a consistent framework and structured process ('3D' methodology: Discover, Design, Deliver), and make it clear how people can get involved; it is giving people the confidence and tools to demonstrate that they can deliver change. The initial focus is on the major SIP projects. Progress so far includes:

- **culture** – starting to think differently / belief / challenge
- **sense of team** – beginning to improve interdepartmental perspectives
- **ownership** – distributed; empowerment and trusting to deliver
- **data** – recognition that quality/robustness, multiple system sources present a risk to the programme:
- **leadership** – clinical and divisional, acting in distributed leadership way to empower others

### Improving staff retention

Recent staff turnover has been higher than desirable (15% in Q3 2013/14, with all staff groups exceeding the Trust's target of 10% p.a.. This has contributed to high expenditure on agency staff (peaking at the equivalent of £4.8m p.a. during Q2 2013/14): although this has since reduced due to a reduction in vacancies following concerted action on recruitment and the introduction of better controls on the hiring of temporary staff, improving retention levels remains a key strategic objective. Achieving a fully staffed and skilled workforce committed to Papworth and its values is the key to continuing to deliver excellent care.

Factors contributing to turnover include the previous uncertainty about the new hospital and relocation to Cambridge, and the pressures resulting from current capacity constraints and high activity levels. Extensive work has been undertaken during 2014 to identify staff views and concerns, and to develop a strategic approach to improve staff retention. Issues identified include: the need for clearer career progression structures; wanting to feel more valued and listened to by the organisation; more opportunity to contribute to changes and service improvement; behaviours and established ways of working that block involvement and progress.

The Trust has identified the need to work on its values and culture as the foundation for a consistent approach to its relationship with all staff. These values will be reinforced through a consistent approach to people's relationship with the organisation, including:

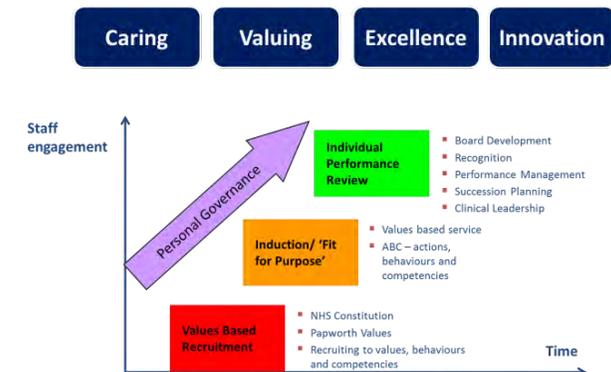
- recruiting to values, behaviours and competencies
- induction including assessment of 'fit for purpose' and focus on the attitudes and behaviours expected
- individual performance reviews: Actions, Behaviours and Competencies and an emphasis on Personal Governance responsibility
- supporting professional development
- recognition and rewards – fairness and transparency
- opportunities for structured career progression

Characteristics of the people Papworth needs:

- *highly committed*
- *fully engaged*
- *understanding organisation and culture*
- *every patient at the centre*
- *embrace challenge and change*
- *part of the Papworth team*

Papworth's **values and culture** are powerful, fundamental drivers of attitudes, behaviours and motivation as well as underpinning decisions and developments. Articulated successfully, they will resonate with people - both within the organisation and externally - and be recognised as capturing the essential 'heart' of the organisation.

Papworth's values have featured strongly in strategy discussions in recent months as the organisation has sought to invigorate itself to meet the challenges of change, and questioned what in the established culture is holding back its ability to achieve this. A 'working articulation' of Papworth's values has developed from discussions across the organisation; however, work on defining the desired values and culture is still evolving.



## Improving cardiothoracic care in the wider healthcare community

As the leading UK specialist adult cardiothoracic centre Papworth's tripartite mission is to improve cardiothoracic care through research and clinical education as well as service delivery.

Papworth is a founder member of [Cambridge University Health Partners \[CUHP\]](#), one of the Academic Health Science Centres whose designation has now been extended, which provides a powerful platform to drive forward high quality research in conjunction with the University of Cambridge and other partners, and to deliver specialist clinical education programmes.

Papworth is also playing a leading role in the [Eastern Academic Health Science Network \[EAHSN\]](#), which provides a collaborative vehicle for the dissemination of best practice care, the development of effective patient pathways and coordinated provider initiatives across the region. Papworth clinicians are leading initiatives including:

- review of revascularisation pathways from Primary Care to Tertiary Care
- introduction of radial lounge for day case diagnostic and interventional procedures
- Heart MDT within and across units (including iCloud facility and image transfer)
- patient tracking and case management across the system

Papworth's strategy is to influence service change in the regional health economy by:

- influencing through **education**: work with CUHP to develop and expand the range of clinical education and training courses provided
- influencing through **leadership**: continue to support Papworth clinicians in lead roles in Clinical Reference Groups, Clinical Senate, Royal Colleges and other specialist medical organisations
- influencing through **service innovation**: play a leading role in CUHP work to develop innovation projects – new products / techniques and service models
- influencing **by example**: demonstrating excellent safety, patient experience and effectiveness

**NHS England's Specialised Services strategy** (*Everyone Counts: Planning for Patients 2014/15 to 2018/19*) is to concentrate specialised services in centres of excellence, maximising quality, effectiveness and efficiency through working at volume and connecting to research and teaching. NHS England's review is likely to lead to changes in the number of centres providing NHS specialised services, require standards of care to be applied consistently across England and maximise synergy from research and learning: a concentration of expertise in some 15 to 30 centres for several specialised care services is envisaged, with Academic Health Science Networks playing an important role as the focus for many of these.

Papworth is well positioned to respond to the specifications and needs identified by NHS England in the review of specialised cardiothoracic services and to contribute to the development of centres of excellence, both as a leading specialist cardiothoracic centre and through its involvement with EAHSN and CUHP.

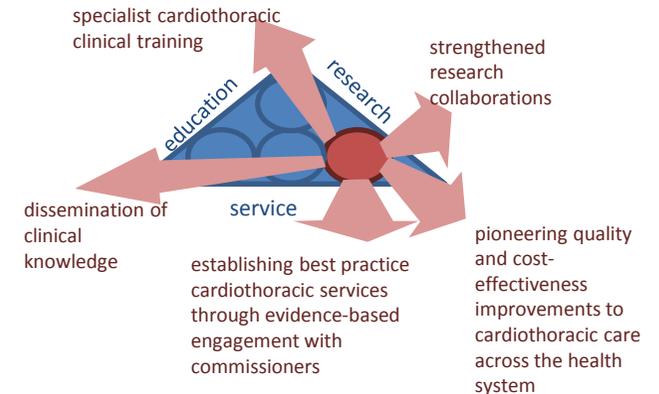
The 2014/15 programme of work being undertaken by [Cambridgeshire & Peterborough CCG](#) to address financial sustainability issues in the challenged local health economy is focusing on transforming services, including:

- more preventative services especially in the community, schools and out of hospitals for the young and frail elderly
- more integrated continuity of care out of hospital for people with long term care conditions
- achieving a step change in productivity and equity of access to clinically effective planned and elective care

Papworth is playing an active role in this programme, which could lead to changes in patient pathways and opportunities for Papworth to contribute to the development of improved preventative and community-based care.

Papworth can use its specialist expertise to develop other initiatives to improve cardiothoracic care, working in conjunction with commissioners and clinical colleagues in other centres and through EAHSN and CUHP where appropriate.

An example is the possible further development of the regional Inherited Cardiovascular Conditions [ICC] service in conjunction with CUH: *ICC Needs Assessment & Service Review* (2009) identified significant unmet need and recommended strengthening of UK ICC service provision, and Papworth and CUH can work together to respond to specifications developed by NHS England Specialised Commissioning for ICC to strengthen the service as required.



Papworth has an important responsibility to contribute to the development of safe and effective cardiothoracic services in other centres :

- to meet increasing demand
- to improve local patient access
- to disseminate expertise and support clinical colleagues when new treatments have become established
- to encourage best practice cardiothoracic care and help improve standards and outcomes

Considerations include current provision, appropriate timing, availability of resources, capabilities as well as capacity and financial implications to the health economy and to Papworth.

An example is PEA: Papworth is currently the only centre in the UK, and it is likely that NHS England's consideration of longer term needs will lead to the roll-out of this service to a second centre.

## Challenge 3: increasing Papworth's impact - research

Papworth's success at pioneering innovative treatments for heart and lung diseases has been an important contributor to its public and clinical reputations. However, in recent years Papworth's research profile and impact have not matched this and in 2011/12 the research strategy was reinvigorated to achieve greater impact, both whilst on the current site and also working towards realising the opportunity to establish a purpose-built Heart and Lung Research and Education Institute [HLREI] on the Cambridge Biomedical Research Campus with Cambridge University and other partners .

### Research Vision: "Research Today for Patient Benefit Tomorrow"

The Research Vision, reflecting the Trust's position as an NHS provider, is to deliver timely, high-quality, clinical research to drive forward improvements in patient care at Papworth, across the NHS and beyond. In addition to Papworth centred clinical studies the R&D directorate will instil and maintain a research focused ethos in the hospital such that all aspects of care are scrutinised and only best evidenced practice is encouraged. The systems of care and of informatics underlying the hospital will facilitate and encourage collaborative work across the continuum of research activity from bench to bedside. Through these activities as a core partner of CUHP, Papworth will make a major contribution to the Cambridge Biomedical Campus as a world-class centre for biomedical and clinical science. Papworth's *Strategic Research Aim* is "Clinical Translation of Clinical Research Evidence", the successful clinical translation of clinically relevant evidence from pragmatic clinical research trials undertaken at Papworth .

Four strategic research objectives will allow the Trust to deliver the Research Vision:

- *Incentivising researchers* in the clinical groups to engage with the highest quality of research, by transparent and equitable job planning where research is judged as valuable to the mission of the Trust as clinical work and supported accordingly.
- *Building Capacity* through the appointment of 'research champions' and the more targeted use of existing funds
- *Raising the quality* of research activity, increasing the conversion to high impact publications with a major influence on clinical practice. This will be achieved by re-focusing approvals for studies through competitive tendering for internal funds and an increased drive for peer reviewed external funding, in particular National Institute for Health Research [NIHR] Portfolio studies
- *Collaboration and alignment* in particular with the University of Cambridge and our other partners in CUHP

£2m additional funding was provided over 3 years to help deliver this strategy, including a pump priming fund, research fellows to develop systems such as databases or new protocols within a sub specialist area , and senior researcher time allowing clinical teams to appoint research active personnel on contracts with up to 50% of their time dedicated to research activity.

### Progress to date:

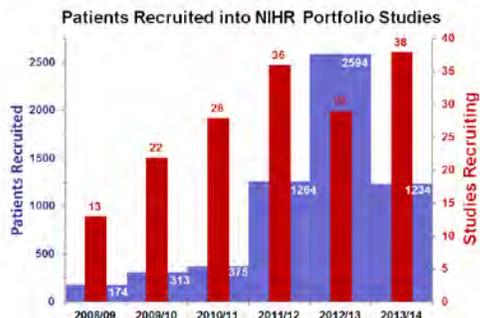
The Trust is currently funding 2 consultant level clinician-researchers (50:50), 5 research training fellows and has awarded £300K of 'pump-priming' money to develop research ideas into future grant applications. The success of this can be seen in the high proportion of Papworth initiated research studies (32% of total) that we are supporting both within the Trust and at other hospitals and through the rise of c 25% in research grant income over the past twelve months to £0.84m. During 2013/14 we enrolled 3,241 patients across a balanced portfolio of 75 studies open to recruitment, 51% being interventional (testing of new therapies and treatments) vs. 49% observational in design; 24% were commercially sponsored research, 32% Papworth Hospital sponsored research and 44% sponsored by other leading NHS Trusts and UK academic institutions. 327 papers, Cochrane reviews and book

chapters with Papworth authors were published during 2013 and 2014 to date including the conclusion of the MesoVATs led by Consultant Physician Dr Robert Rintoul which was accepted for publication in 'The Lancet'. A significant milestone is the recent appointment of a Papworth-linked full University of Cambridge Professor of Respiratory Biology, Dr Andres Floto.

No. of participants recruited per financial year

Type of research project	2010/11	2011/12	2012/13	2013/14
NIHR portfolio studies	399	1,037	2,645	1,363
Non-NIHR portfolio studies	684	366	899	633
Tissue bank studies*	2,151	1,966	1,719	1,245
			(1,991)	(1,450)
<b>Total</b>	<b>3,234</b>	<b>3,369</b>	<b>5,262</b>	<b>3,241</b>

\*Tissue bank studies: include two studies registered on the NIHR portfolio. Total figure given in brackets to avoid double counting as participants are included in the NIHR portfolio total.



Note: 'UK Lung Cancer Screening Trial' contributed 1,639 participants in 2012/13; no similar high participation study in 2013/14.

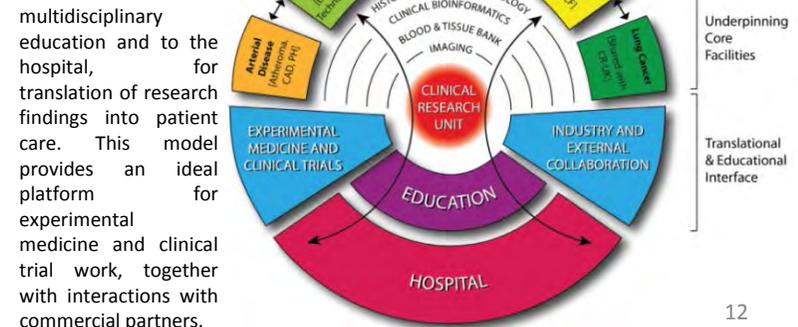
### Development Objectives 2014-2019

- To double the Research capacity (Research Fellows and Consultant PA's ) and outputs before the establishment of the HLREI
- To achieve Clinical Trials Unit accreditation (application 2015) - specialising in Surgery and Devices
- To increase patient and public participation in research at Papworth (working towards offering all patients at Papworth the opportunity to take part in research studies)

### Papworth Heart and Lung Research and Education Institute

The Papworth HLREI will provide purpose-built facilities for high-quality cardiothoracic research and education on the Cambridge Biomedical Campus. The HLREI will be physically separate but co-located with new Papworth Hospital, the Clinical School, Cambridge University Hospitals NHS Foundation Trust and all other major Campus infrastructure. The Institute will be funded by Papworth and the University via capital grants from charitable organisations and a major fundraising appeal. It will facilitate the Research Vision for Papworth by establishing a facility that ensures clinical research is driven by clinical problems and unmet need and by ensuring that new discoveries can be translated rapidly into clinical benefits. The Institute will be the largest dedicated cardiothoracic research facility on the UK: it will include basic science laboratories, an inpatient Clinical Trials Unit, a Clinical Investigation and Procedures Unit, an Outpatient Research Clinic Area, Seminar Rooms and Lecture Theatre facilities and supporting office accommodation.

This concept diagram shows the six major research themes within the HLREI, all underpinned by core facilities including the tissue and blood bank, imaging and informatics. It shows how these are linked through the clinical research unit to both multidisciplinary education and to the hospital, for translation of research findings into patient care. This model provides an ideal platform for experimental medicine and clinical trial work, together with interactions with commercial partners.



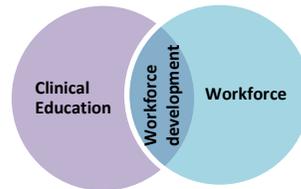
# Challenge 3: increasing Papworth's impact – clinical education

Papworth has a strategic opportunity to strengthen its role as a healthcare training provider:

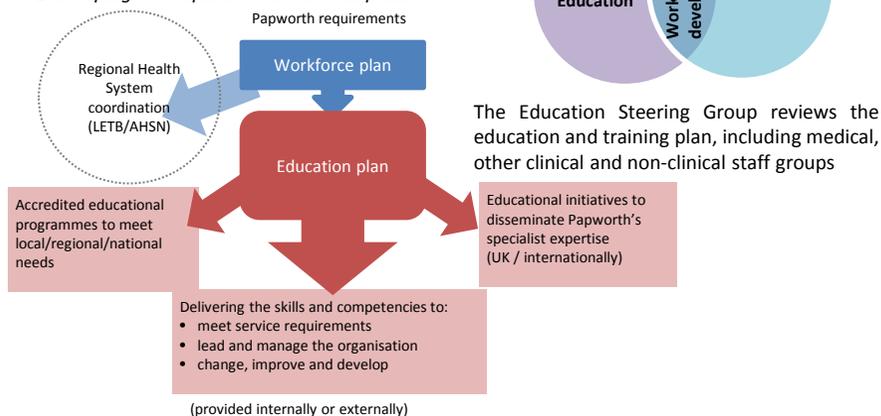
- play an influential role in shaping the Local Education and Training Board [LETB] as it takes responsibility for coordination of local health system workforce planning, education and training
- contribute to the development of CUHP and EAHSN and the leadership and innovation that these have the opportunity to provide
- utilise improved education facilities following relocation to the Cambridge Biomedical Campus
- become the specialist training centre for cardio-respiratory registrars across the Deanery
- develop as a national training centre offering enhanced training in those specialist areas in which Papworth has renowned expertise
- develop a strong external education programme to disseminate Papworth's specialist knowledge, best practice and clinical developments to relevant healthcare practitioners locally, regionally, nationally and internationally

Clinical education is delivered currently by a team within Human Resources and responds well to the basic core requirements of our staff, leads on some internal and external courses and delivers mandatory training. In addition to this, Corporate Services work with clinical teams to produce and deliver highly specialised study sessions. The Leadership team also provide leadership development programmes for staff, both clinical and non-clinical.

There is an overlapping relationship between clinical education, workforce development and workforce



Developing the Papworth educational plan:



The Trust's strategy to achieve its ambition focuses on the key areas of **Core Clinical Education** and **Specialist Clinical Education**.



## Core Clinical Education

We will build from the significant programme of core clinical education, which, along with other elements such as induction, preceptorship and student placements, is delivered through a comprehensive programme:

- new starter programmes - comprehensive and Trust wide – preceptorship, extended induction, rotation programmes
- successful external reviews – Nursing & Midwifery Council [NMC], General Medical Council [GMC], Quality Improvement & Performance Framework [QIPF]– new multi-professional clinical framework
- responding to staff feedback, we need to focus on improving post preceptorship CPD to ensure continuous CPD opportunities, enabling existing clinical staff to continue to further develop, resulting in leading edge excellent care.
- maximising opportunities through a collaborative approach to improve the patient experience and care at Papworth through excellent high quality multi-professional education

Our ambition is that all clinical staff have access to excellent core education and continuous professional development.

Core clinical education developments include:

- expanded to include basic cardiothoracic specific study sessions, ensuring practice remains up to date and developing.
- multi-professional wherever possible.
- build on success with undergraduate and pre-registration programmes.
- create exciting, fit for purpose curriculum.
- provide the opportunity to access structured reflective practice for all clinical staff.
- include clinical decision making.

## Specialist Clinical Education

The Trust already successfully runs courses such as Transoesophageal Echo [TOE], 3D Echo and the ECMO course.

Development opportunities include: Surgical Care Practitioner, Donor Care, Specialist cardiothoracic modules.

The Trust has successfully been accredited for the Band 4 foundation degree (first year) which is recognised by the NMC as an accelerated access programme to nurse training, recognised and recommended nationally (this pathway is already generating income from other Trusts). By utilising this skill and knowledge of curriculum development, the Trust can develop innovative specialist pathways.

Our ambition is that the Trust run specialist cardiothoracic programmes to ensure cutting edge, excellent care for every patient, every time. To achieve this we will:

- provide CPD for all clinical staff.
- offer the opportunity for structured reflective practice to all clinical staff.
- provide highly specialised post graduate modules.
- develop career pathways which benefit staff but ultimately ensure excellent care for every patient, every time (Surgical Care Practitioner, Donor Care, Advanced Practice, Academic Pathways).
- provide highly specialist cardiothoracic clinical study days.

## Sharing with the wider health economy

There is an opportunity for the Trust to share clinical education with the wider health economy through study days, post graduate courses and developing further partnership and delivery with Cambridge University Health Partners. (CUHP).

Our ambition is to provide specialist accredited cardiothoracic education locally, nationally and internationally in partnership with CUHP. The Trust is already working with CUHP to find a core mandatory training programme and exploring e-learning, and will build on this to develop further courses that will attract external clinical professionals by:

- developing the Trust's specialist modules and pathways to attract external professionals.
- developing further the overseas clinical professional Papworth experiences.
- developing a marketing strategy.

## Implementation plan

2014/15 - *strengthen resources / funding*: Include basic cardiothoracic study days in core clinical education programme. Key roles recruited. Core clinical education programme refreshed and offered externally with CUHP. Development of cardiothoracic post graduate module(s). Clinical education programme developed for 2015/16 and published. Increase of clinical staff accessing structured reflective practice.  
2015/16 - *develop 2 new programmes and 2 new study days*. Initiate core clinical education provision through CUHP. External clinical education programme marketed and delivered. Development of highly specialised study days (x 5) and post graduate modules (x 2).  
2016/17 - *deliver additional programmes / study days; develop further 3 study days*

## Maintaining financial, operational and clinical sustainability

Papworth Hospital NHS Foundation Trust has a track record of successful financial management resulting in achieving budget surpluses every year since being awarded Foundation Trust status. However, the pressures on NHS Budgets feeding through into a reducing level of tariff together with the need to achieve the Long Term Financial Model [LTFM] to support the new hospital require challenging management of the Trust's cost: income ratio.

The relocation of Papworth to the Biomedical Research Campus at Cambridge will bring major benefits, both from the improved efficiencies achievable from working in the new hospital and also the opportunities for [sharing support services](#) with the adjacent Addenbrooke's hospital. Both organisations are working together to explore opportunities to bring forward elements of this, and hence realise some of the benefits ahead of Papworth's relocation to the new hospital.

[Achieving Papworth's projected activity levels](#), and realising the resulting income is a critical factor in meeting the financial challenge. The activity model is based on ONS information on predicted population growth and demographic changes, combined with nationally tested estimates of intervention rates for many of Papworth's services. Papworth has a successful track record of meeting growing demand for its services, and its activity projections for the period covered by the strategic plan have been developed with the involvement and support of commissioners and endorsed by independent expert reviews. The delay in approval for the new hospital has put additional pressure on Papworth's current facilities, and hence the initiatives to increase the effective capacity whilst on the current site – as outlined in Challenge 1 – are critical to enable these projections to be achieved.

The Trust's [Service Improvement Programme \[SIP\]](#) is a principal driver for delivering the financial strategy, both in terms of delivering real cost savings and helping to improve productivity enabling the patient growth to be accommodated. The SIP brings together initiatives and financial targets within four themes:

- [Pay savings](#) – reducing pay costs through new ways of working, changes to workforce establishment and roles, and pay reform
- [Productivity](#) – activity related pay and non-pay costs increasing at a lower rate than activity, and holding constant fixed cost elements
- [Procurement](#) – savings to non-pay costs through more effective specification and purchasing
- [Lean/Budget](#) – reviewing usage of equipment and devices, and the use of the estate and assets

In addition, there are specific SIPs to be achieved facilitated by the move to the Cambridge Biomedical Campus and the improved facilities of a new, purpose built hospital in Cambridge. Progress is reviewed regularly by the Board of Directors, and the programme and expected benefits are revised and updated when appropriate

The Trust is also managing its [capital programme](#) carefully to ensure investments are prudent in the context of the relocation to the new hospital (e.g. the medical equipment replacement programme, refurbishment of theatres, labs and other facilities, and management of the estate). Major investment in IT is also required to enable significant benefits at the new hospital, with the opportunity to commit to working with Cambridge University Hospitals NHS FT on their current e-Hospital project: again, the timing and phasing of any such commitment will need to be made in the context of the timing of the relocation to the new hospital in Cambridge and achievement of the Trust's Long Term Financial Model.

The latest financial model has been updated to include recent estimates of additional cost pressures facing NHS organisations. The most significant is the expected increased costs associated with pension changes in 2015/16 and 2016/17; this alone introduces an additional £2m of inflationary pressure compared with previous versions.

The Trust operates comprehensive organisational governance systems that enable it to monitor, review and respond quickly to any issues, current or anticipated.

The strategic plan provides the opportunity to present both the expected financial model (known as the base case) and a downside scenario. The costs/risks included within the downside scenarios are:

- revenue costs associated with the e-hospital solution (after the implementation period which is being financed by a capital grant from safer wards – safer hospitals funding)
- anticipation of underachievement of SIP, particularly in the year of move

Use of the scenario modelling has enabled the Trust to present its view of the downside case as discussed with Monitor during the most recent review of the New Papworth project.

## Challenge 4: Meeting the financial challenges

### The NHS financial challenge

There is significant pressure on overall NHS finances: despite the relative protection given to the NHS in the current Government Spending Review ('flat cash'), growing demands due to an ageing population and the complexities of long term conditions are set to put further pressure on already stretched budgets. NHS England [NHS (E)] analysis shows that with the current model of care and expected funding levels there could be a funding gap of £30bn between 2013/14 and 2020/21, on top of the £20bn of efficiency savings already being targeted through the Quality, Innovation, Productivity and Prevention (QIPP) initiative.

The majority of funding for Papworth's services comes from NHS England (specialised) and CCGs (non-specialised): however, Papworth accounts for a relatively small share of these commissioning budgets

Commissioner:	NHS (E) Highly specialised services	NHS (E) Specialised services	CCGs – C&P	CCGs - other	Private Patients	Other	Total
Papworth income (£m)	18.7	69.2	12.4	20.1	6.8	2.4	129.6
% Papworth total	14.4%	53.4%	9.6%	15.5%	5.2%	1.9%	100%
% commissioner income		* 0.74%	1.9%				

\* indicates Papworth spend as a share of the national specialised commissioning budget

### Local Health Economy

The Cambridgeshire and Peterborough Health Economy is 'challenged' with a major gap in resources identified if a 'do nothing' approach is taken. PWC have been commissioned by Monitor to review the options for strategic change. Care Design Groups have been established to consider radical options.

### Specialised commissioning

Specialised commissioning budgets are under pressure, with the 5% overspend in 13/14 forecast to continue. The size of the future gap is unknown as NHS England considers future commissioning options.

Consolidation of the number of specialist centres has been proposed as one solution to this, which could present opportunities for highly specialised trusts such as Papworth.

			2014/15	2015/16	2016/17	2017/18	2018/19
Affordability gap	<i>national</i>	%	3.1	6.6	5.5	4.7	4.6
Tariff efficiency factor	<i>national</i>	%	4.0	4.0	4.0	4.0	4.0
NHS Cambridgeshire & Peterborough funding gap (do nothing)	<i>local</i>	£m	114	136	201	232	302
NHS England Specialist commissioning gap	<i>national</i>	£m	>600		<i>not yet known</i>		

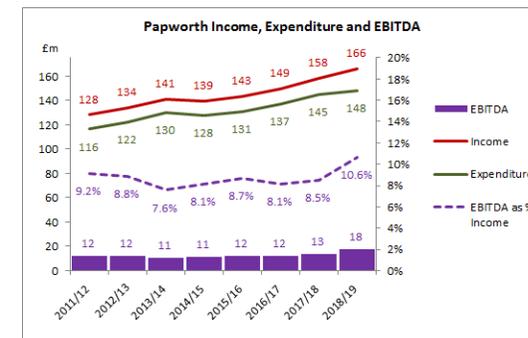
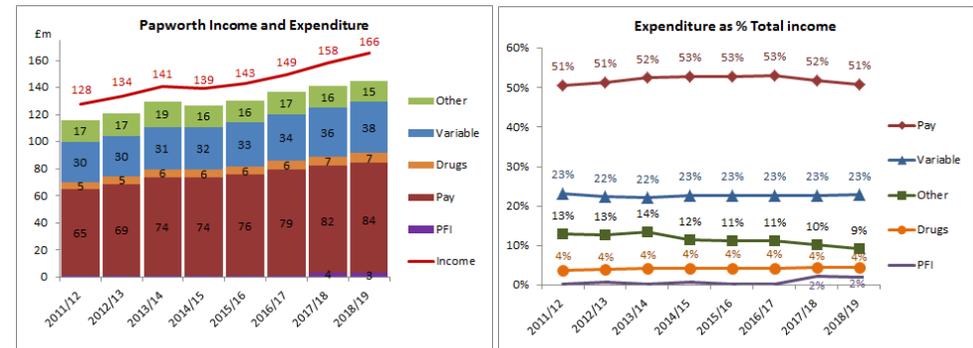
### Papworth's Financial Strategy

- To meet the growing demand for services on the existing Papworth Everard site, and by improving productivity create financial headroom to pay for the development and on-going costs of the New Papworth Hospital.
- Assumption – New Papworth opens in October 2017 (Q3 17/18). All costs associated with building and operating New Papworth are embedded in the LTFM (recently reviewed by Monitor (Q1, 2014)).
- The financial projections in this strategy have been updated for changes in timetable and increased capital costs anticipated as a result of the on-going delays. This is mitigated by the positive cash impact of the additional year's surplus arising from that delay.

### Papworth Income & Expenditure

The graphs below show the build-up of the financial plan over the next 5 years, with the PFI commencing in Q3 2017/18

Following the move, pay expenditure (as a proportion of income) drops as a range of staff transfer to PFI Co. (e.g. estates). This effect is seen from 2017/18 which has a part year effect and moving forwards. The annual unitary charge becomes payable on the move, with a part year included in 2017/18. In accounting terms, this is made up of a capital repayment, a service charge and an interest payment.



## Challenge 4: Meeting the financial challenges

### Capital programme

The main features of the capital programme for the period of the strategic plan involve payments associated with New Papworth

Expenditure type (£k)	2014/15	2015/16	2016/17	2017/18	2018/19
New Papworth enabling works	16560	0	3000	0	0
12 bedded ward development	1347	0	0	0	0
Maintenance	1289	500	500	265	0
Equipment	1742	1000	1000	0	0
New Papworth equipment	0	0	0	22037	1690
Information Technology	2862	1447	1455	539	0
Other	0	0	0	0	0
<b>TOTAL</b>	<b>23800</b>	<b>2947</b>	<b>5955</b>	<b>22841</b>	<b>1690</b>

This includes

- Final payment for the land on the Cambridge Biomedical Campus (2014/15)
- Construction of the link corridor (16/17)
- Equipment purchase (17/18)

Capital development on the existing Papworth Everard site is minimised in the run up to the move.

### Financing

The move to New Papworth requires significant financing both to cover the capital programme set out above, and also to enable the Trust to make a significant financial contribution to the financing costs of the PFI deal. In 2014/15, the Trust anticipates drawing down £20m of PDC to finance New Papworth enabling works. In addition, £2m has been granted from the Safer Wards, Safer Hospitals fund to enable the Trust to work through the implementation phases of eHospital with Cambridge University Hospitals. Both of these elements of Public Dividend Capital [PDC] will be spent on the capital programme. In 2015/16 the Trust begins to make contributions towards the financing of the PFI deal. In order to do this, a bridging loan which relates to the sale of the Papworth Everard site of £15m is drawn down from the Independent Trust Financing Facility (ITFF) along with a further £23m of PDC relating to New Papworth.

Cash balances over the period therefore fluctuate in a non-uniform pattern anticipating the timings of the various draw-downs and major expenditure items.

### New hospital financial benefits

The new hospital has been designed to provide additional capacity to assist with meeting the growing demand for our services and those which are due to transfer from Cambridge University Hospitals.

Co-location with Addenbrooke's Hospital, in addition to improving access for patients from both

hospitals to all clinical specialties, will provide opportunities for greater efficiency through collaboration in the provision of support services including “back office functions” and information technology. Annual savings of up to £2.5m are expected through such efficiencies. A work programme between the two organisations is taking shape to ensure that this is planned and delivered.

	Existing Hospital	New Hospital
Inpatient beds	223	240
Day Case beds	33	24
Critical Care and recovery beds	37	46
<b>Total Beds</b>	<b>293</b>	<b>310</b>
Theatre	5	5
Catheter Laboratories	5	5
Hybrid Theatre/ Catheter Labs	-	2

### Risks and opportunities

The key areas of financial risk are: [income](#), [cost pressures](#) and [SIPs](#). The following page describes the SIP programme in detail, including the actions underway to ensure delivery.

The risks to income revolve mainly around the commissioning landscape as set out on the previous page. These include, but are not limited to

- Local Health Economy challenges. Radical thinking by the clinical groups could prove to make some fundamental changes to services. The Trust perceives this to be both a threat and an opportunity, as Papworth is well placed to manage the overall cardiothoracic pathway and can identify areas where costs can be taken out of the overall patient pathway through faster access to specialist services.
- Specialised services review. This provides opportunities and risks for Papworth as the number of centres providing specialist services is likely to reduce, potentially concentrating activity amongst a smaller number of providers
- There are potential increases in the number of players in the cardiothoracic field, particularly in the high barrier entry services such as cardiac surgery and PEA.

The Trust attempts to manage and control these risks by

- playing an active part in local health economy and specialised services discussions.
- maintaining strong relationships with commissioners
- re-profiling annually the activity model with any significant changes being taken into account in the forecasts of activity and finance.
- continuing to develop services in line with commissioner requirements and at the forefront of cardiothoracic care

## Challenge 4: Meeting the financial challenges: SIP

The **Service Improvement Programme** [SIP] is a major Trust-wide strategic initiative that will enable Papworth to achieve its financial plan: it will deliver improved operational efficiencies and productivity, cost savings, and release effective capacity to enable the projected growth in patient activity to be accommodated.

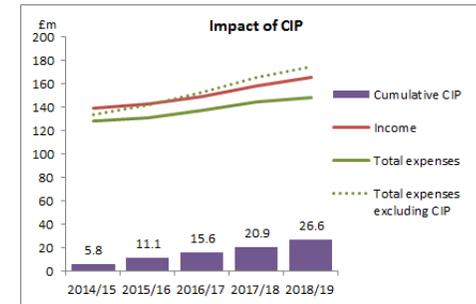
The Service Improvement Programme is delivered by front-line operational staff and focusses on maintaining high quality services for patients, improving the patient experience, increasing efficiency and reducing costs. Releasing capacity to treat more patients and improving staff retention and recruitment are also both key to delivering and sustaining high quality services both now and in the future and a significant theme in current and pipeline projects. Examples of SIP projects include:

Service Improvement	Current projects	Future pipeline
Capacity releasing initiatives enabling us to treat more patients	<ul style="list-style-type: none"> <li>Reducing length of stay [LOS] including:</li> <li>Elective cardiac pathway                             <ul style="list-style-type: none"> <li>Enhanced recovery cardiac and thoracic</li> <li>In house urgents</li> <li>Same day admissions</li> </ul> </li> <li>Reduce delays for transfers to and from DGHs</li> <li>Increase ward rounds to enable timely decision-making and discharge</li> <li>Cath Lab Utilisation</li> <li>23 hour Cardiac Day Ward</li> </ul>	<ul style="list-style-type: none"> <li>Outpatients</li> <li>Theatre utilisation</li> <li>Improved patient pathways (LOS) including:                             <ul style="list-style-type: none"> <li>Emergency heart failure</li> <li>TAVI</li> <li>PEA</li> </ul> </li> <li>RSSC (CPAP) and Dom Care</li> </ul>
Workforce initiatives – recruitment, retention, skill mix, pay reform	<ul style="list-style-type: none"> <li>Critical Care</li> <li>More efficient workforce</li> <li>Pay reform</li> <li>Recruitment efficiencies</li> </ul>	<ul style="list-style-type: none"> <li>Staff engagement</li> </ul>
Working more efficiently - reducing waste and increasing value-added	<ul style="list-style-type: none"> <li>Smart pharmacy procurement</li> <li>Radiology efficiencies</li> <li>Pathology contract management</li> <li>Reduction in blood and blood product usage</li> <li>SIP Technology projects</li> </ul>	<ul style="list-style-type: none"> <li>Primary Discharge Drugs (TTOs)</li> </ul>
Managing budgets effectively through cost improvements	<ul style="list-style-type: none"> <li>Effective SLAs and cost recovery</li> <li>Procurement</li> <li>Cost and budget improvements</li> </ul>	<ul style="list-style-type: none"> <li>Donor transplant tender</li> <li>Additional procurement opportunities</li> <li>Further cost and budget improvements</li> </ul>

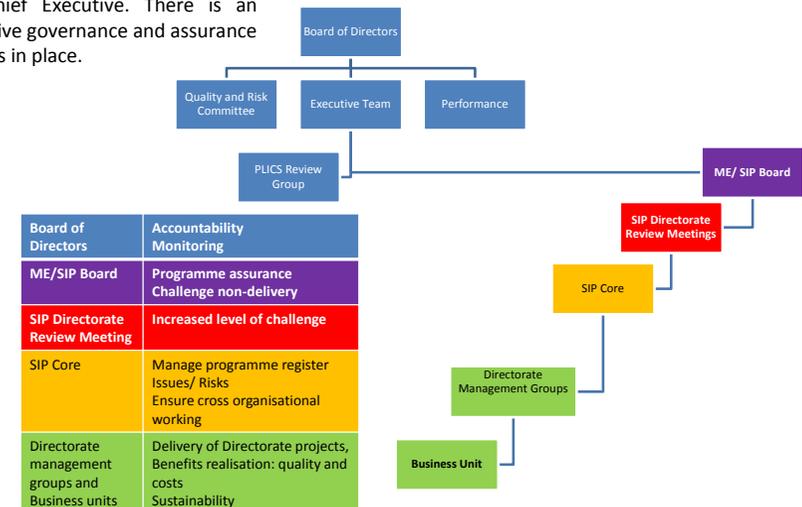
The financial benefits of SIP are an integral part of the Trust’s LTFM, combining detailed projections for current projects, estimates for those projects in the pipeline, and targets to be met by future projects as the programme is refreshed during the period of this strategic plan. The total benefits are projected by category as follows:

CIP Analysis (£m)	2014/15	2015/16	2016/17	2017/18	2018/19
Employee Benefit Expenses	3.2	3.2	2.8	3.4	3.6
Drug expenses	0.3	0.3	0.2	0.3	0.3
Clinical supplies and services expenses	1.8	1.2	1.1	1.3	1.4
Other expenses	0.6	0.6	0.3	0.4	0.4
<b>In-year total real CIP</b>	<b>5.8</b>	<b>5.3</b>	<b>4.5</b>	<b>5.3</b>	<b>5.7</b>
<b>In-year real CIP % of Operating Expenses</b>	<b>4.3%</b>	<b>4.0%</b>	<b>3.4%</b>	<b>3.9%</b>	<b>4.1%</b>

This chart illustrates the importance of SIP in achieving the LTFM:



The SIP initiative is managed across the organisation through a SIP Board, with a dedicated full-time SIP Programme Director reporting to the Chief Executive. There is an extensive governance and assurance process in place.



# The new hospital - realising the opportunities

The New Papworth Hospital on the Cambridge Biomedical Campus will deliver major benefits and opportunities:



## What the new hospital means for patients

Patients at the New Papworth Hospital will find a purpose built building with carefully considered clinical adjacencies which mean that their travel distances in the building are minimised. This will be particularly of benefit for those attending outpatient and diagnostic appointments.

Inpatients will have their own bedroom with en-suite facilities, this will improve privacy and dignity, reduce cross infection, facilitate sleep, rest and recuperation. There will be state of the art Theatres, Catheter Labs, and intensive care facilities.

Being next to Cambridge University Hospitals will give faster access to specialties other than Cardiothoracic. Currently Inpatients have to travel to CUH or the CUH consultants have to travel to Papworth to see Inpatients if required. CUH patients will also have immediate access to the specialists at Papworth Hospital.

The siting of New Papworth Hospital on the Cambridge Biomedical Campus will mean that patients can access the hospital via public transport.

## What the new hospital means for staff

The new hospital will provide a purpose built, state of the art cardiothoracic facility. Staff will have improved working conditions with all departments under one roof. All areas have been designed with productive principles in mind to minimise travel distances and standardise placement of key rooms and equipment in wards and departments. This will improve productivity and safety especially if staff move between areas.

## Research collaboration / benefits

The New Papworth Hospital will be located on the Cambridge Biomedical Campus. A Heart and Lung Research and Education Institute is planned to be built on the New Papworth site adjacent to the Hospital. This is a collaboration between Papworth and Cambridge University.

It is proposed that the institute provides the full range of facilities for basic science and its translation into clinical practice. The Institute will combine the scientific expertise of the Divisions of Cardiovascular and Respiratory Medicine of Cambridge University and other academic Departments within the Clinical School, with the clinical research capability at New Papworth.

The close proximity of the Heart and Lung Research and Education Institute will ensure the rapid translation of research into clinical practice.

## Clinical education benefits

Improved career and training opportunities utilising facilities across the biomedical campus including access to the library, clinical school, clinical simulation lab and clinical skills lab. There will be opportunities for joint training and staff development with Papworth, Cambridge University and Cambridge University Hospitals.

## Organisational benefits

The New Papworth Hospital will be a single building on the Cambridge Biomedical Campus. The change from the present Papworth to the New will bring numerous benefits to patients and staff. These include:

- Centralised diagnostic and imaging services
- Centralised Ambulatory Care & Outpatient Services
- Inpatient Services in single rooms, with en suite facilities
- Combined Cardiac & Respiratory Day Case Service
- Combined Theatre and Interventional Services
- Critical Care Services providing flexible use of critical care beds maintaining elective throughput and access for acute admissions.

Having centralised services and all services in one building will improve the patients journey, minimise journey time between departments, and increase clinical functionality.

The new purpose built hospital will enhance the ability to retain and recruit key staff and enable a significant enhancement in research and development capacity and capability.

## Financial benefits

The new hospital will facilitate greater productivity. It will enable savings to be made as a result of the synergies with CUH. The modern design will significantly reduce energy consumption and the resulting costs compared with the ageing estate on the present Papworth Everard site. It will also avoid the increasing maintenance cost of the existing site.

The Trust will aim for optimum disposal of the Papworth Everard site to enhance the affordability of the new hospital.

## Challenge 5: planning and relocating to the new hospital

The outline timetable and key stages leading up to the relocation during 2017/18 are:

Stages	2014/15				2015/16				2016/17				2017/18			
	Q1	Q2	Q3	Q4												
Preferred bidder confirmed																
Funding competition																
Planning consent																
Detailed design completion																
Financial close																
Construction																
Organisation preparation																
Transition																
Relocation																

### Financial close and construction period

During the financial close and early construction phases work will be completed to finalise the design. There will be mock ups of key rooms in the mid construction phase which will need to be checked to ensure the correct placement of equipment. The Trust will need to arrange for the new pieces of major medical equipment to be installed during the latter part of the construction process. Throughout the construction process there will be a process of technical due diligence to ensure the building is constructed and works as planned.

### Organisation preparation

To ensure organisational preparedness there needs to be a high level of staff engagement to put new work practices in place and embed them before the move to the new premises, as far as the existing infrastructure will allow.

A key area of staff engagement will be with the staff who will be transferring to the employment of the Skanska Consortium. These will be Estates, cleaning, catering and portering staff and engagement will start following the confirmation of the preferred bidder and be maintained through to the relocation to New Papworth.

The Trust will need to choose the major medical and fixed medical equipment (such as pendants and theatre lights) for the new hospital before the transition stage.

### Transition

During the transition stage there will be orientation visits to the new hospital for staff and training in readiness for the move. Training will cover mandatory training such as fire and manual handling as well as training to use the new equipment and systems in the new hospital.

A detailed inventory of existing equipment and furniture will be undertaken and decisions made on what will be transferred and what is for disposal. During this period new furniture will be delivered to the new hospital, unpacked and positioned.

### Relocation

The relocation of the hospital is a major undertaking and will require extensive planning, building on the initial feasibility work which has been carried out so far. All wards and departments will be involved in developing the detailed plan in the transition period. It is anticipated that the physical move to the new hospital will be as short as possible to minimise double running and risks to patients.

There are important benefits to be realised from the co-location of Papworth Hospital with Cambridge University Hospitals NHS FT (CUH) particularly through access to a full range of specialties for patients of both Addenbrooke's and Papworth Hospitals. Research and Education will also be strengthened. The two Trusts will develop and implement a programme of work encompassing clinical and support services (some of which is already underway) which will result in improved services to patients and greater economy and efficiency:

### Clinical Services

Joint working groups have already been established between the two Trusts in respect of cardiology and respiratory services. Their remit is to determine how the services can be better integrated and to agree how patient pathways need to be changed to optimise clinical service. A similar working group will be established for transplant services.

A further programme of work will be established to consider how diagnostic services and other clinical services such as radiography, physiotherapy, speech and language, dietetics and occupational therapy can be better integrated in areas such as management, learning and development and out of hours cover.

The new Papworth Hospital does not have pathology, sterile services or mortuary provision. These services will be provided by CUH. A range of pathology services have already transferred from Papworth Hospital to Addenbrooke's Hospital and the remainder will transfer on relocation. Technical support services will be integrated with the clinical physics service at Addenbrooke's Hospital. The detail of how the remaining pathology services, sterile services, mortuary services and technical support services will operate will be established during the construction phase of Papworth Hospital. All clinical services will be accommodated in the single New Papworth Hospital building. Some support services will be accommodated off site.

### Back Office Functions / Support Services

Papworth Hospital and CUH intend to share back office functions. Services include HR and recruitment, training and development, finance, procurement, ICT infrastructure, systems development and support and occupational health. The two Trusts are currently considering the best means to progress this in advance of the relocation of Papworth to Cambridge. Consideration will also be given to sharing services with other similar organisations as part of a Cambridge University Health Partners initiative.

There is agreement in principle between the two Trusts to have joint service provision for energy, laundry and linen, waste disposal, car parking and security. A new Multi Storey Car Park to serve both hospitals has already been built. Detailed arrangements for the provision of energy services will be confirmed during the final procurement stage of the new Papworth Hospital PFI contract. The operational arrangements for the other services will be established following Financial Close on the PFI contract.

# Ensuring success

This Strategic Plan identifies the major challenges that Papworth faces currently, and sets out how the Trust plans to address these.

These 15 Strategic Initiatives provide a focus for the organisation to prioritise its attention and energy in addition to delivering excellent patient care.

Implementation is a critical phase of effective strategic planning; monitoring, reviewing and refreshing these initiatives is an essential aspect of this.

The Executive Directors collectively have the operational responsibility for implementing this Strategic Plan on behalf of and supported by the Board of Directors; and progress will be reported and discussed regularly by the Board.

However, successful implementation requires the involvement and contribution of the whole organisation, and this Plan will be shared with colleagues across the organisation: it can act as a reference, a guide to prioritisation and a framework for progress and development.

Challenges	Strategic initiatives
Meeting increasing demand given current capacity constraints	increasing patient throughputs to increase effective capacity
	providing additional capacity (at Papworth or at other centres) as needed
	improving scheduling and operational management to optimise utilisation and patient flows
	extending operational hours to provide additional capacity and access
Continue to attract, develop and enable the best people to deliver excellent care	reviewing clinical staffing to ensure required numbers, roles and skill mix
	recruitment initiatives for identified 'hot spots' and to meet future requirements
	improving staff retention
	establish and reinforce desired values-based organisational culture
Increase the impact and influence of Papworth's clinical expertise to improve cardiothoracic care	influencing service change in the regional health economy
	working with NHS (England) on specialised commissioning developments
	increasing Papworth's research profile and impact
	strengthen Papworth's role as a clinical education provider
Meeting the financial challenges	achieve Long Term Financial Model income plan
	implement the Service Improvement Programme and realise the benefits
Planning and relocating to the new hospital	successfully relocate and realise the benefits of the new hospital at the Cambridge Biomedical Campus

To support implementation of this Strategic Plan a 'strategic scorecard' will be developed based on the critical measures reflecting progress on each of the major challenges, plus the fundamental requirement for excellent patient care.

This will provide a high level overview as a starting point for review and discussion, focusing in more detail on specific issues as required.

The scorecard and measures will be revised when appropriate over the period of this plan.



This Strategic Plan document provides a starting platform and a framework for the organisation to progress over the next 5 years: it should be viewed as a basis for action and for development, to be reviewed and refreshed when appropriate.

One of Papworth's strengths as an organisation has been its ability to adapt to changes and opportunities: the next five years will be a period of major challenges, significant change and exciting opportunities as Papworth prepares for, and relocates to, the new hospital; and this Strategic Plan will need to be revised during this period to reflect these developments.