FINAL

QEH Contingency Planning Team

Final Report to Monitor Board

Monitor
Making the health sector work for patients

March 2015

Contents

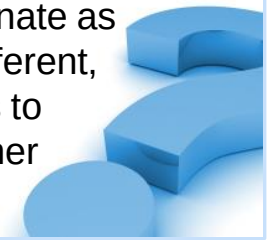
Monitor appointed the CPT to gather evidence about current picture of health and healthcare ….

Current picture of health and healthcare in West Norfolk

What are the questions we will answer?	Why do we need to answer these questions?
▪ How is QEH performing on quality of care, finance and access to care?	▪ Creating a clear and shared narrative about what needs to change and why is key for success, at service level
▪ What are drivers of sub-optimal performance, which are operational, and which are structural in nature?	▪ We need to understand any drivers of such issues so solutions can be designed accordingly. For example, some services may be sub scale, in which case operational improvement may address some financial sustainability issues, but probably only to an extent beyond which transformation or other solutions may be required
▪ How is performance of other provider organisations impacting QEH (GPs, community care and others)?	▪ Sub-optimal performance in other providers or lack of capacity may increase pressures on QEH both at front and back door, thus exacerbating operational issues such as non-elective flow

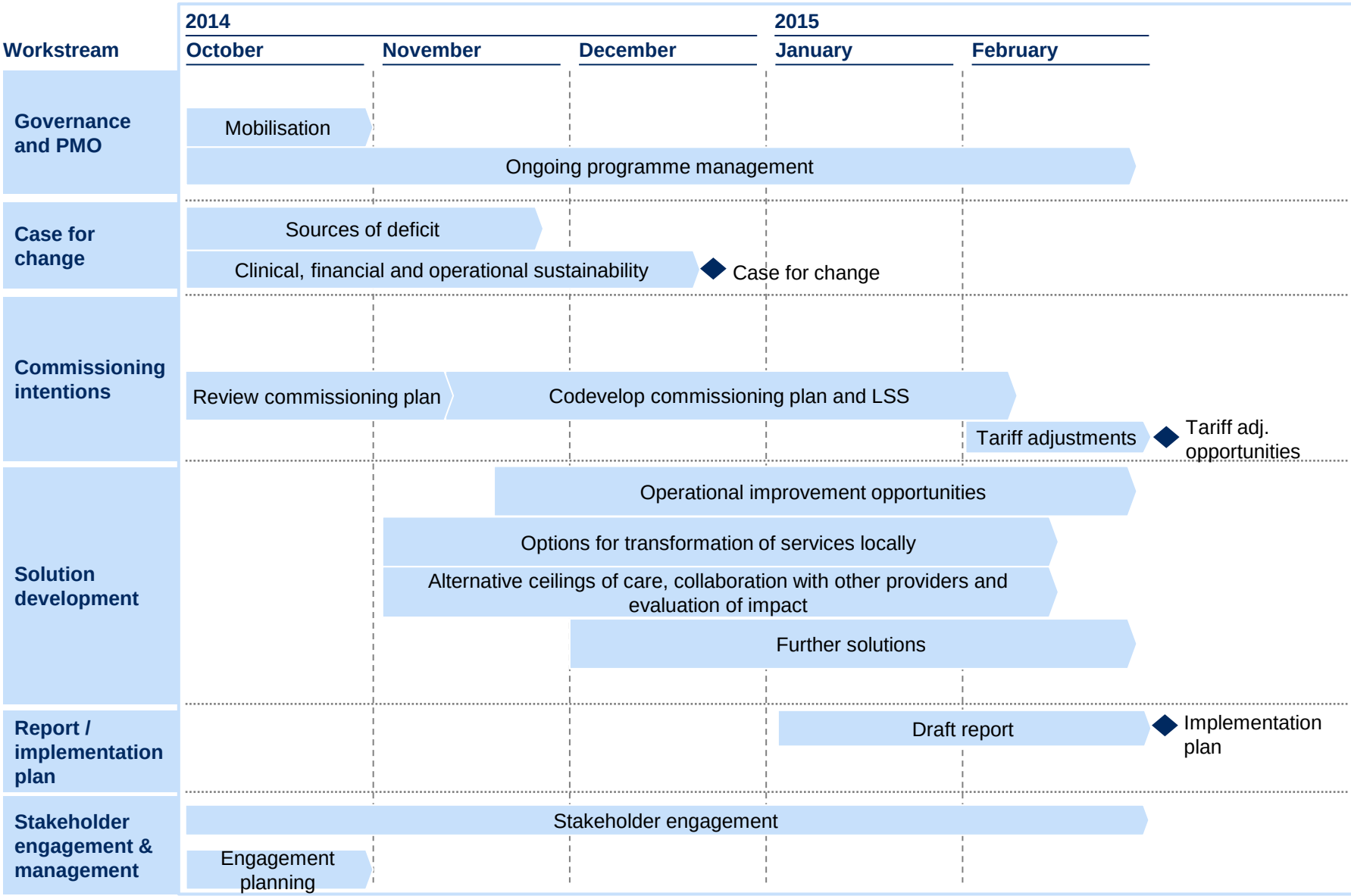
… and develop potential solutions for the local health economy

	What are the questions we will answer?	Why do we need to answer these questions?
Commissioning plan	▪ What are commissioning plans, and how are these impacting QEH?	▪ WNCCG needs to optimise health gains for the local population within a fixed budget, and may consider shifting care away from QEH and closer to home. This may have a negative impact on QEH in creating stranded costs, for example in acute specialties which need to maintain medical rotas and nursing workforce, or in subscale elective services
Service options	▪ What improvements can QEH make through operations?	▪ QEH, as all NHS Trusts, is expected to make operational improvements. We need to understand what improvements are possible and to what extent these address the financial sustainability issues at QEH
	▪ How can services be transformed beyond operational improvement?	▪ Some services may be provided in a different way that is equally effective clinically but within a reduced financial envelope
	▪ What are alternative ceilings of care?	▪ Depending on what commissioners designate as CRS, the ceiling of care locally can be different, which will have an impact on local access to care, finances at QEH and finances at other providers

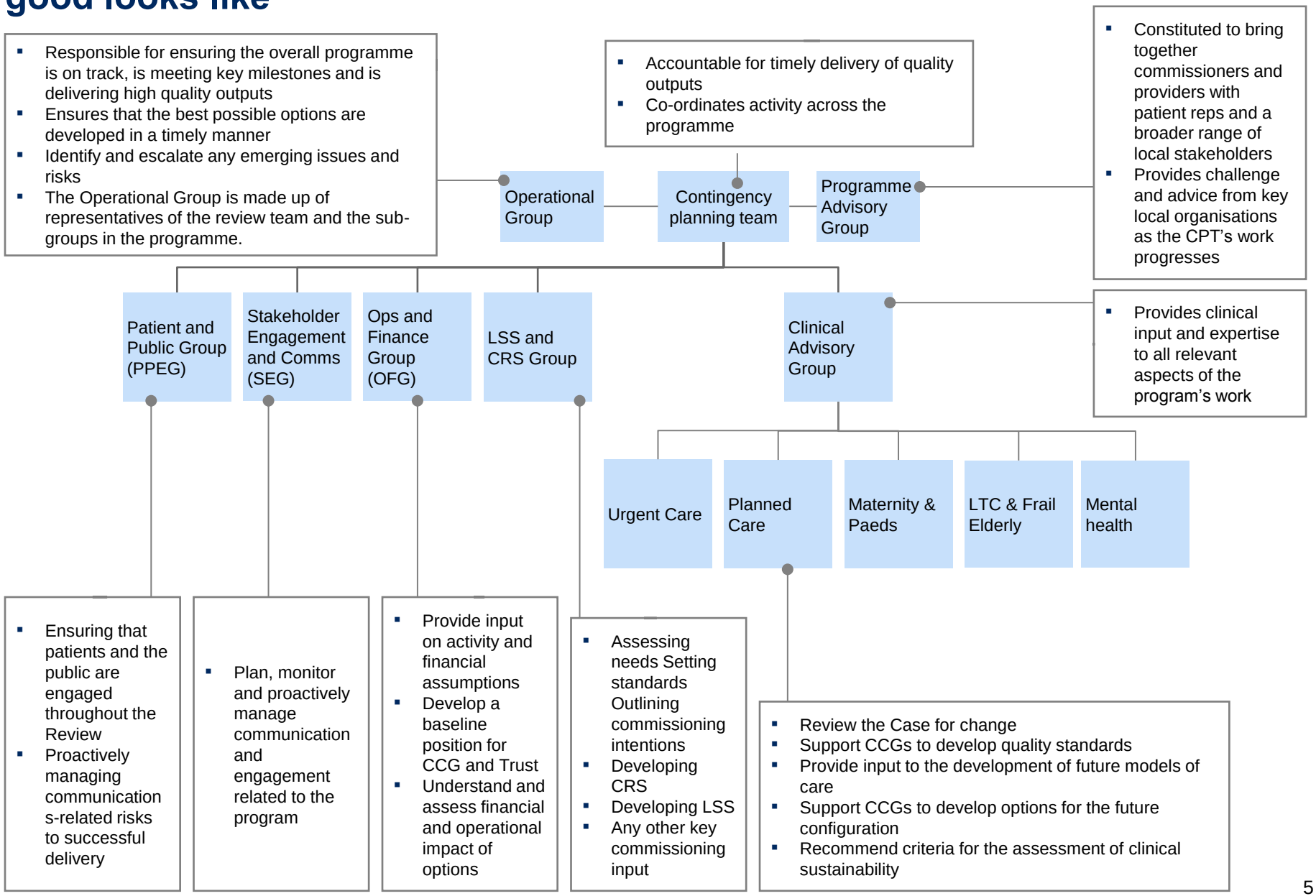


Note: the work of the CPT build on work already carried out to date by the West Norfolk Alliance

The CPT had several workstreams to help deliver in five months



The CPT developed a clinically led programme in order to describe ‘what good looks like’



However, the CPT work is a stage in a long term local programme of change

To date	Oct 2014 – Feb 2015	Feb onwards
Understanding the challenges, building the basis of change	**CPT process**	**Local Implementation**
	Potential solutions ▪ Performance improvement initiatives ▪ Reconfiguration of services ▪ Organizational change	**Implementation mechanisms** ▪ Commissioner and provider led change **OR** ▪ TSA

The preferred outcome is a locally led implementation programme

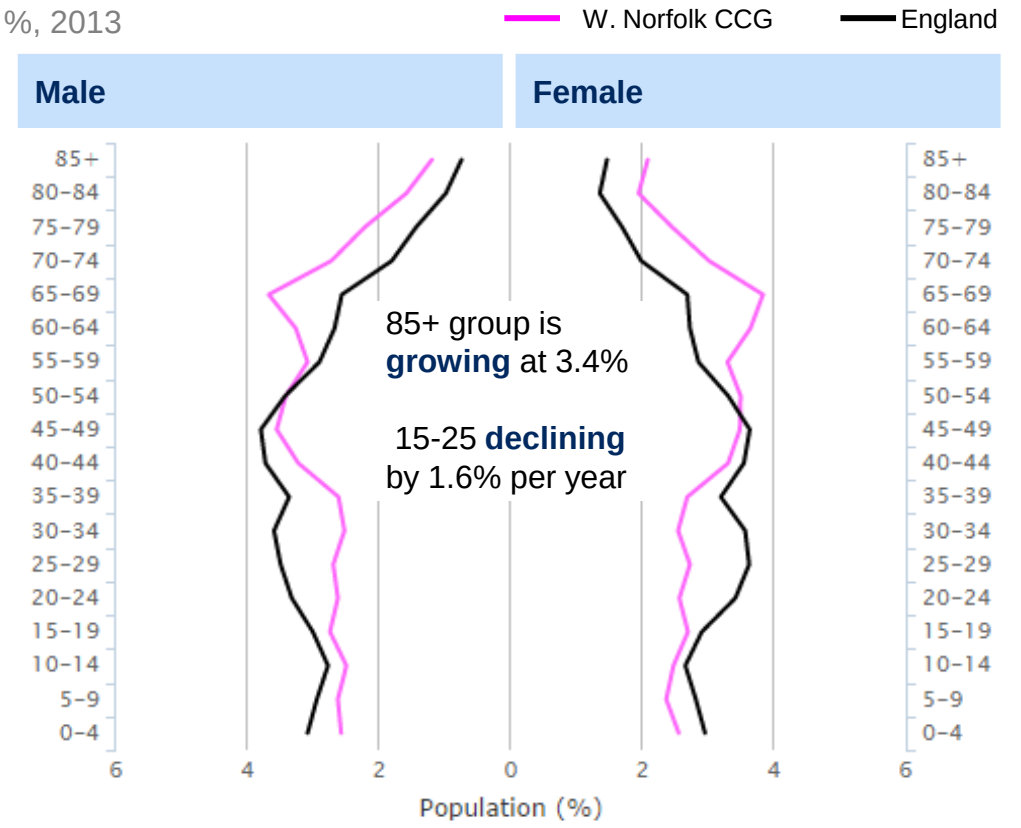
Contents

The Local Health Economy (LHE)

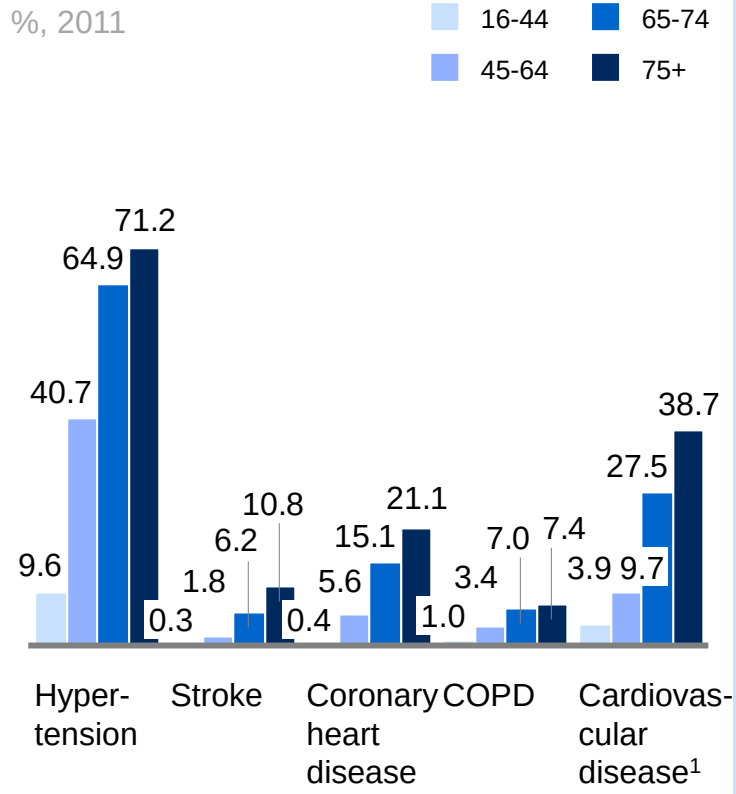
- The district of King's Lynn and West Norfolk comprises approximately 170,000 people, of whom 25% are over the age of 65 (compared to 17% over 65 years for England overall). The population is growing at around 0.6% a year overall, with the population aged 85 and over growing by 3.4%. In contrast 15-25 year olds are declining by 1.6% per annum. The locality of Wisbech, Cambridgeshire (whose population also use QEH) comprises approximately 31,000 people of whom around 6,500 (20%) are over 65 years.
- Overall mortality rates for the population of West Norfolk are in line with the England average and in some cases are better than average. However, the prevalence of various long term conditions such as asthma, chronic obstructive pulmonary disease (COPD), atrial fibrillation, coronary heart disease, hypertension, stroke, diabetes, heart failure, dementia and learning disability are higher in this area than for England overall. Prevalence rates for these conditions are expected to increase over the next 5–10 years as the population ages. Obesity in West Norfolk is 11% higher than the England average at 10.5%.
- The quality of primary care across the local health economy is variable. This can result in sub-optimal care for people with long term conditions and the frail elderly and in people with relatively minor conditions attending the A&E department at QEH. Although overall A&E attendances are lower than the England average (324 attendances per 1,000 patients, weighted for age/health status). There is variation of A&E attendances by GP practice – varying from 141 attendances per 1,000 patients (weighted for age and health status) per year to 313 per 1,000 (a variation of 122%). Non-elective ambulatory care sensitive admissions by GP practice are higher than the England average, with again high levels of variation between GP practices. Rates vary from 11 admissions per 1,000 weighted patients per year to 27 (a variation of 150%), while the England average is 18.1 per 1,000 weighted registered patients.
- While the current age profile of local GPs is in line with England averages, a relatively small number of GP registrars indicates a potential for future GP shortages across King's Lynn and West Norfolk.
- The district of King's Lynn and West Norfolk ranks 300th out of 326 for population density (104 people per km2), making it one of the most sparsely populated districts in England. Although there are local community, social and mental health providers, the closest alternative acute hospitals are over 38 miles away from King's Lynn with mostly single carriage road access

25% of West Norfolk CCG's population is over 65, with 85+ being the fastest growing group at 3.4% per year

Age distribution of population



Prevalence of LTC in W Norfolk by age[1]



Long term conditions prevelance is significantly higher in the higher age groups, e.g. 71% hylertension prevelance in over 75 and 10% in under 44

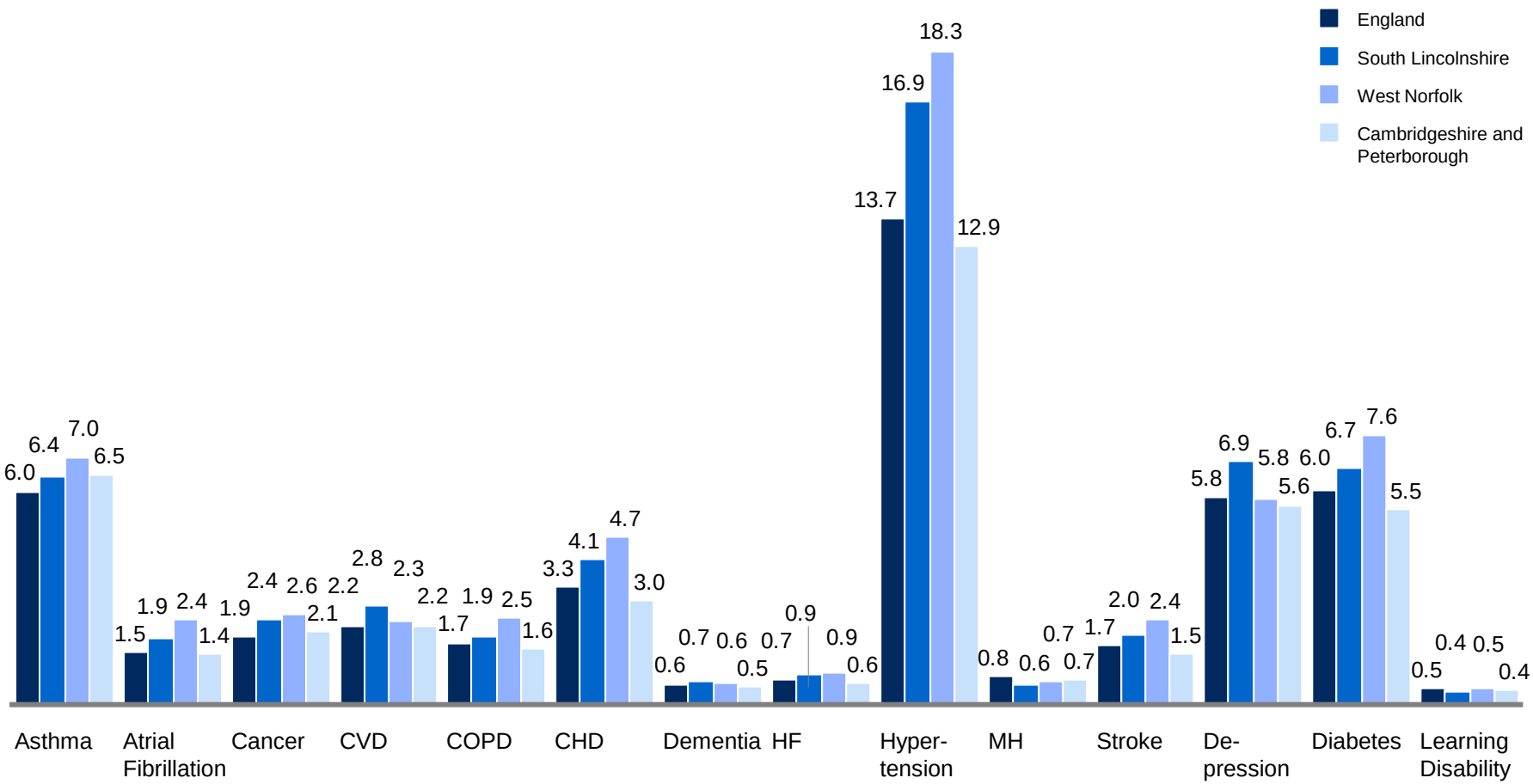
1 Modelled CCG prevalence created by calculating a weighted average of the unitary authorities

SOURCE: Network of Public Health Observatories 2011, 2013; ONS 2010-based Subnational Population projections

Older population translates into a higher prevalence of Long Term Conditions

% of population[1], 2012/13

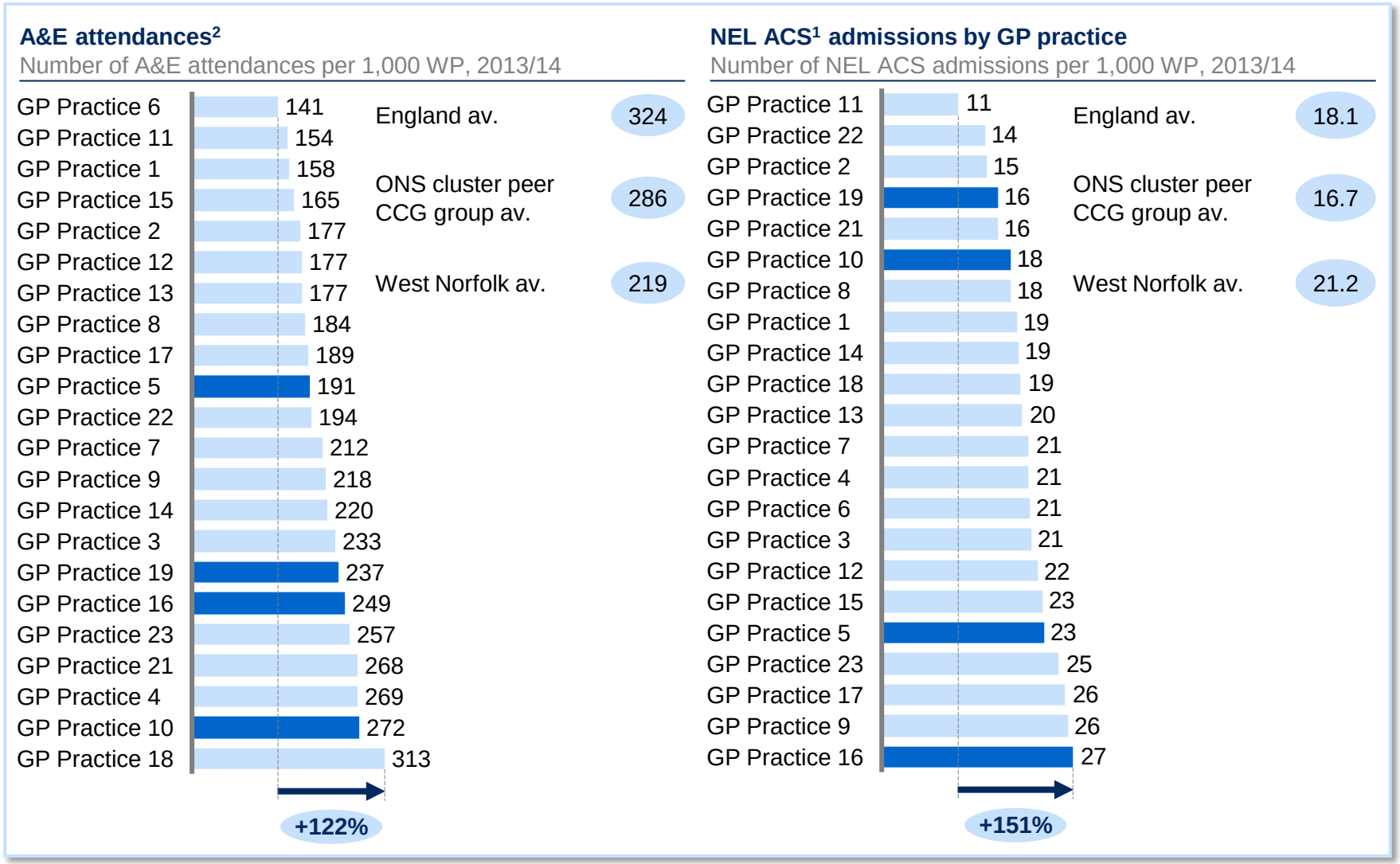
Prevalence of diseases



1 % of age specific group for Diabetes (ages 17+), Depression (18+), Learning Disabilities (ages 18+)

SOURCE: QOF 2012/13

A&E attendances vary by 122% and ambulatory care sensitive admissions by 150% across GP practices

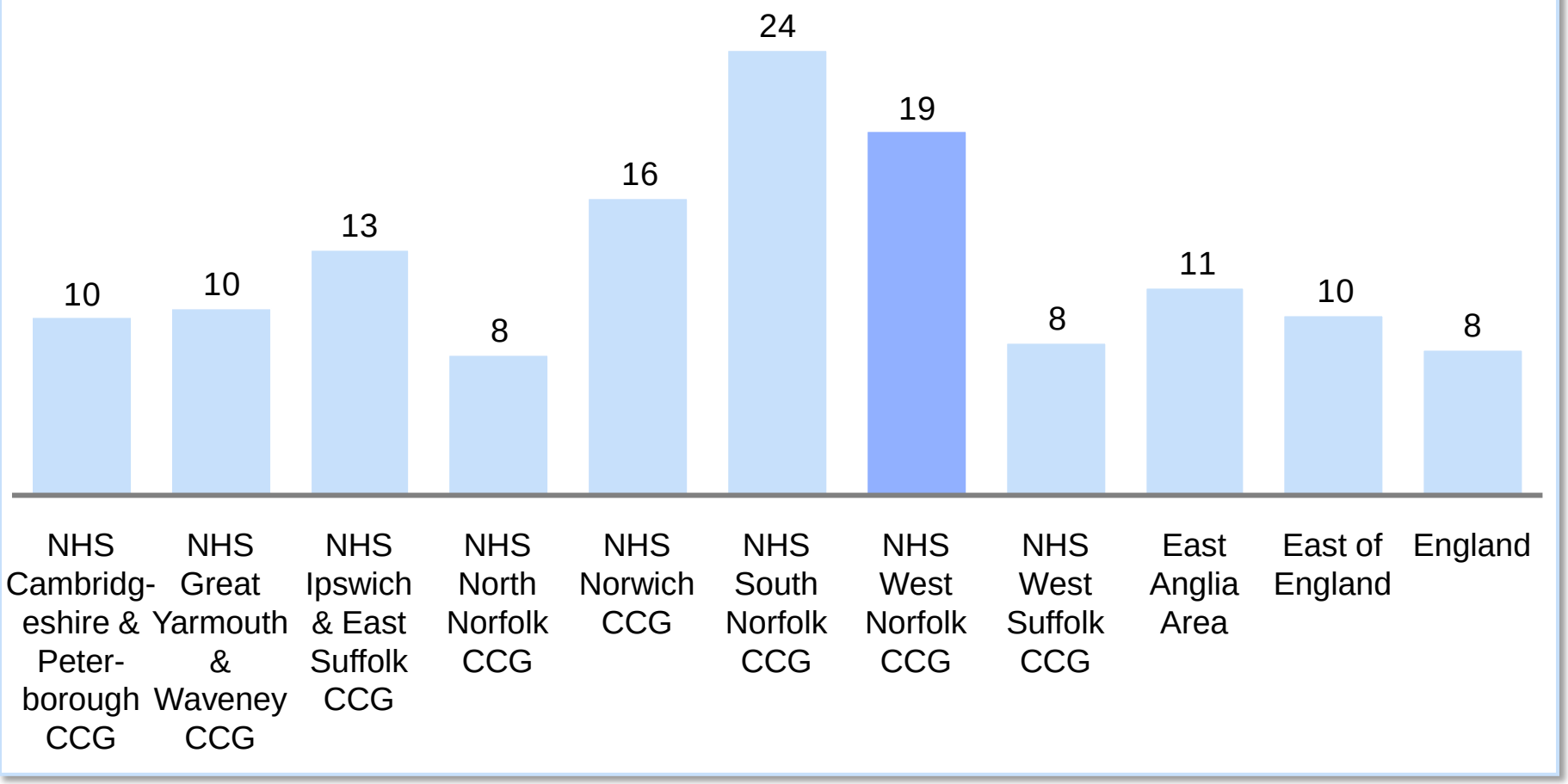


1 Based on 19 Ambulatory Care Sensitive Conditions
2 One GP practice has not been included as data for this GP practice may be partial for A&E attendances in 2012/13

SOURCE: HES 2013/14

In West Norfolk there is one GP registrar for every 19 GPs while many other areas have one GP registrar for every 10-15 GPs

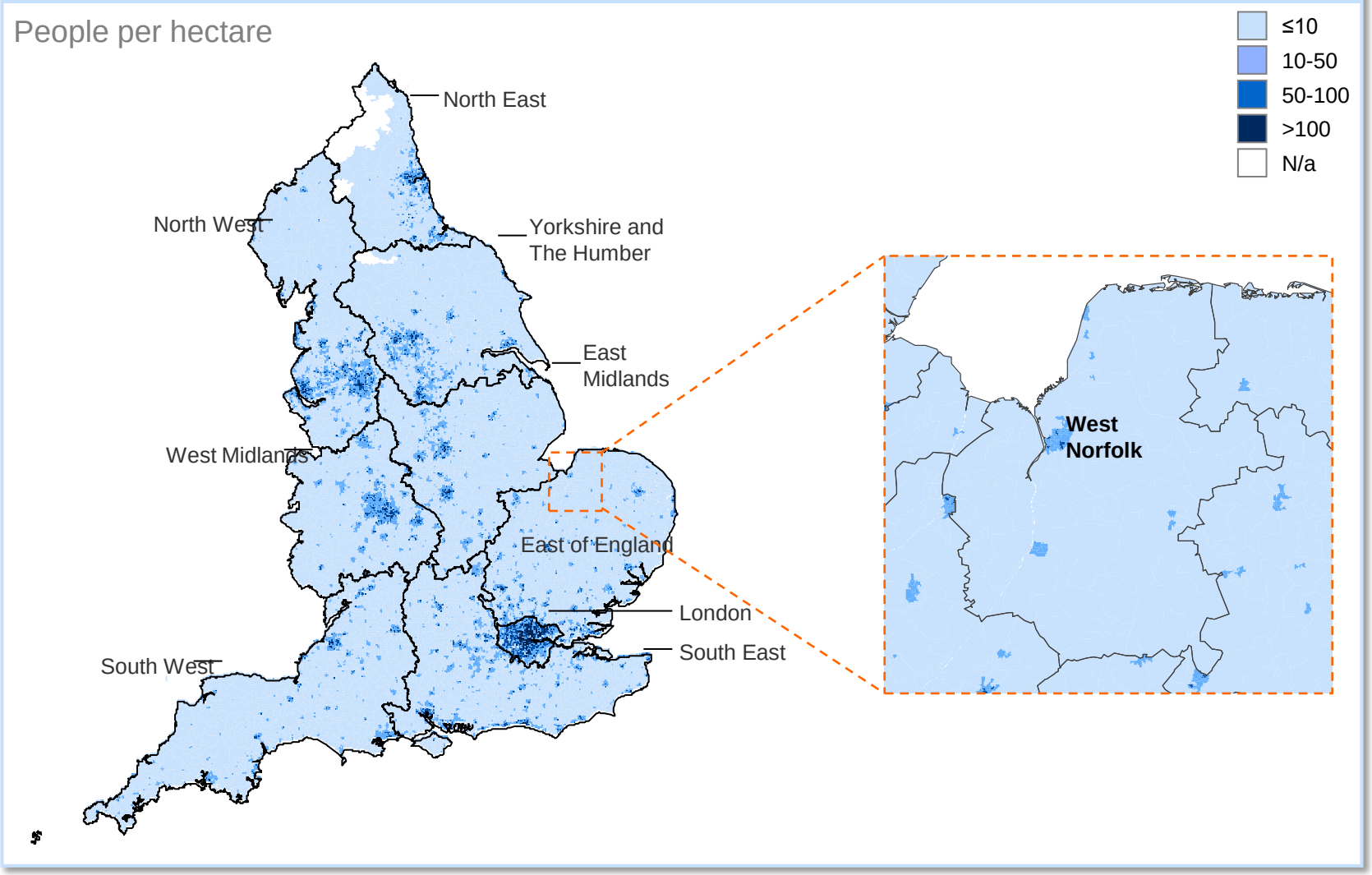
Ratio of GP to GP registrars, 2013/14



SOURCE: West Norfolk Alliance primary care workforce report - General Practice Workforce Census 2013

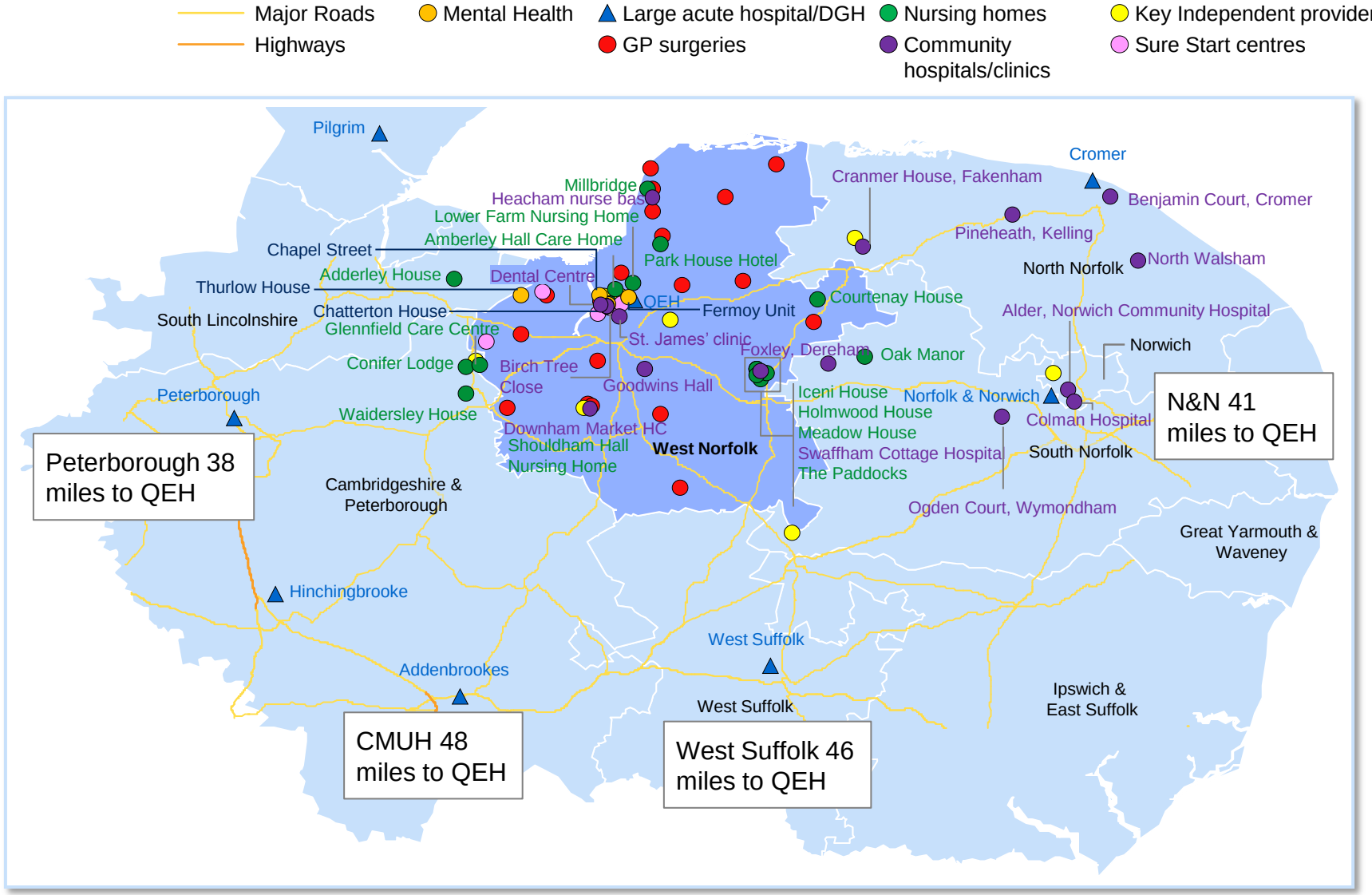
King Lynn and West Norfolk ranks 300th out of 326 for population density, making it one of the most sparsely populated districts in England

Population density for England and West Norfolk



SOURCE: Mid-year population estimates, ONS, 2011

The closest alternative acute hospitals are over 38 miles away from QEH with mostly local road access



1 BMI Hospital Sandringham, Anglia Community Eye Care (ACES), North Cambridgeshire Hospital, Thetford Community Healthy Living Centre, Norfolk Surgical and Diagnostic Centre, West Norfolk Health, Universal Pharmacy

SOURCE: WNCCG list of key health services providers in West Norfolk and the surrounding areas

Contents

Queen Elizabeth Hospital, King's Lynn (QEH)

- QEH is a small local district general hospital with an income of £165m and c.430 beds, of which c.280 beds are acute medical beds.
- QEH has been in breach of Monitor's license conditions since January 2012 and was placed in 'special measures' by the Care Quality Commission in October 2013. Overall quality of care has improved and recent Dr Foster reports indicate QEH has a lower than expected Standardised Mortality Ratio, average lengths of stay and is in line with expected readmission rates. However, the CQC continues to identify six areas as needing improvement.
- In response to this, the clinicians and management at QEH have taken considerable steps to drive improvements. The Trust has increased the presence of senior clinical staff, through recruiting more senior nurses and increasing the level of consultant-delivered care. However, due to historic recruitment difficulties some clinical posts have had to rely on expensive bank, locum and agency staff to fulfil the requirements
- Our analysis indicates that the 2014/15 financial deficit of £14.9 million at Queen Elizabeth Hospital is largely operational. Comparing Queen Elizabeth Hospital to similar trusts (e.g. James Paget, Isle of Wight, Dartford and Gravesham) analysis suggests the current gap can be closed through operational improvements:
  - Reducing medical pay costs: £1.5m of which is driven by higher pay per clinician and £7.9m by higher numbers of clinicians
  - Reducing average length of stay : £2m (mostly impacting nursing pay)
  - Improving procurement of drugs, consumables, services: £1.3m
  - Reducing non-clinical staff pay: £2m

1 Partially due to higher locum and agency spending levels than other trusts – agency pay costs have increased from £2m p.a. to £10m p.a. in the last year

The trust has made progress against recommendations by the CQC, although in July 2014, six service areas for quality improvement remain

	Safe	Effective	Caring	Responsive	Well-led	Overall
Accident and emergency	Requires improvement	Not rated	Good	Requires improvement	Requires improvement	1 Requires improvement
Medical care	Inadequate	Requires improvement	Good	Requires improvement	Requires improvement	2 Requires improvement
Surgery	Good	Good	Good	Inadequate	Requires improvement	3 Requires improvement
Critical care	Good	Good	Good	Good	Good	Good
Maternity and family planning	Good	Good	Good	Requires improvement	Requires improvement	4 Requires improvement
Services for children and young people	Requires improvement	Good	Good	Good	Good	Good
End of life care	Good	Good	Good	Requires improvement	Requires improvement	5 Requires improvement
Outpatients	Requires improvement	Not rated	Good	Requires improvement	Good	6 Requires improvement
Overall	Requires improvement	Good	Good	Requires improvement	Requires improvement	Requires improvement

SOURCE: CQC QEH Quality report (inspection July 2014)

Dr Foster reports indicate QEH has lower than expected Standardised Mortality Ratio, average length of stay and is in line with expected readmission rate

	QEH performance		
	Expected	Observed	Relative risk[1]
Mortality (HSMR[2])	1,040	942	90.6
Length of stay[3]	8,083	6,719	83.1
Readmission rate[4]	4,134	4,144	100.2

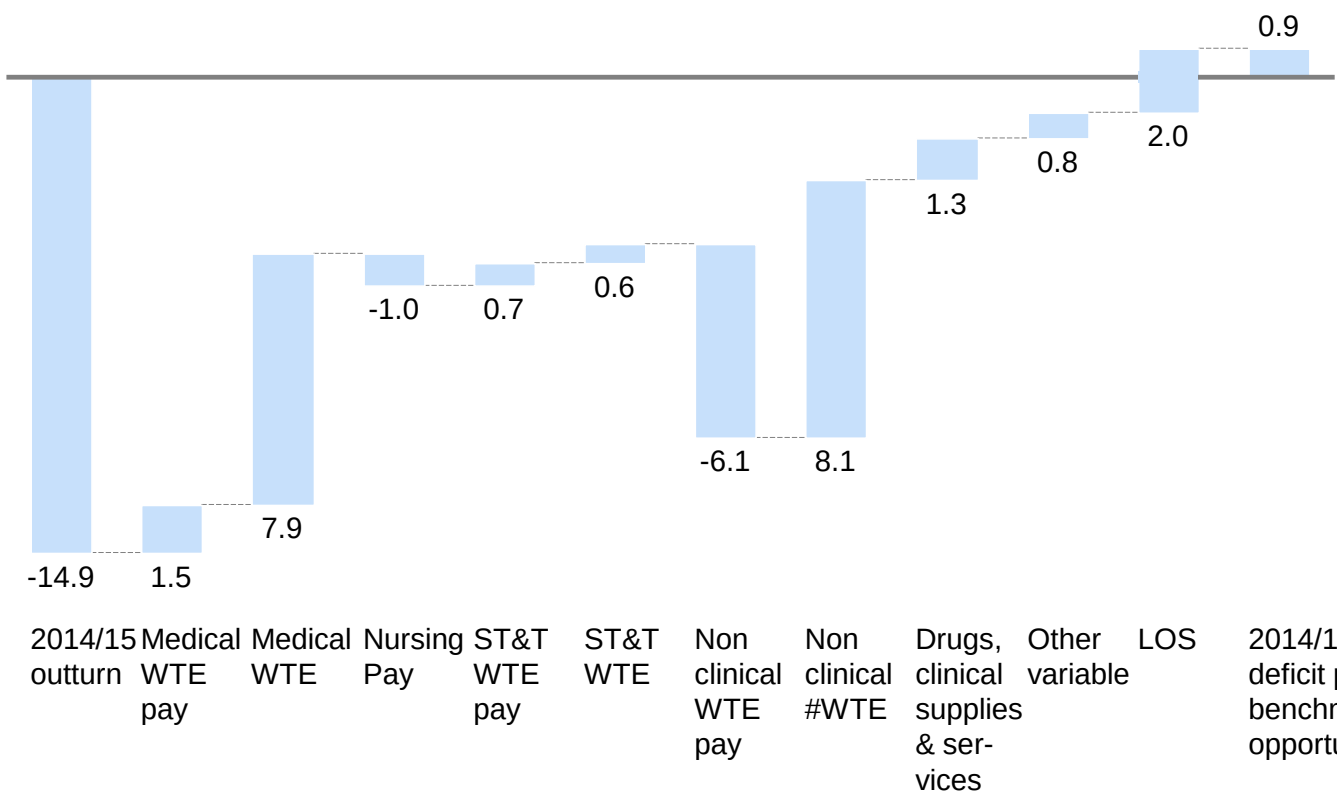
1 National relative risk = 100
2 HSMR (hospital standardised mortality ratio) is based on a subset of diagnoses which give rise to around 80% of in-hospital deaths. HSMRs are based on the routinely collected administrative data often known as Hospital Episode Statistics (HES), Secondary Uses Service Data (SUS) or Commissioning Datasets (CDS).
3 Long LOS diagnosis is defined as falling within the upper quartile of the national data
4 Readmission is defined as an emergency admission within 28 days of discharge

SOURCE: Dr Foster report September 2014: Quality Outcomes Fact Pack QEH; Data from January 2013 – August 2014

Benchmarking indicates QEH could potentially close the current £14.9m deficit through operational improvements, mostly in medical workforce

QEH benchmarked operational improvement opportunities

£m, From 2014/15 position using 2013/2014 benchmarking



Our analysis indicates that the 2014/15 financial deficit of £14.9 million at QEH is largely operational. Comparing QEH to similar trusts (e.g. James Paget, Isle of Wight, Dartford and Gravesham) the current gap can be closed through :

- Reducing medical pay costs: £1.5m of which is driven by higher pay per clinician and £7.9m by higher numbers of clinicians
- Reducing average length of stay : £2m (mostly impacting nursing pay)
- Improving procurement of drugs, consumables, services: £1.3m
- Reducing non-clinical staff pay: £2m

NOTE: Any benchmarking analysis like this one, is directional pointing to where operational improvement opportunities might lie. Moreover, some of the medical opportunities may be structural in nature due to 1) Minimal staffing levels to maintain rotas (paediatrics, maternity, surgery, A&E, acute medicine, stroke and others). 2) Difficulties to recruit/retain staff

SOURCE: QEH baseline financial analysis 2014/15, MHI benchmarking diagnosis

Details of the opportunities highlighted by benchmarking analysis

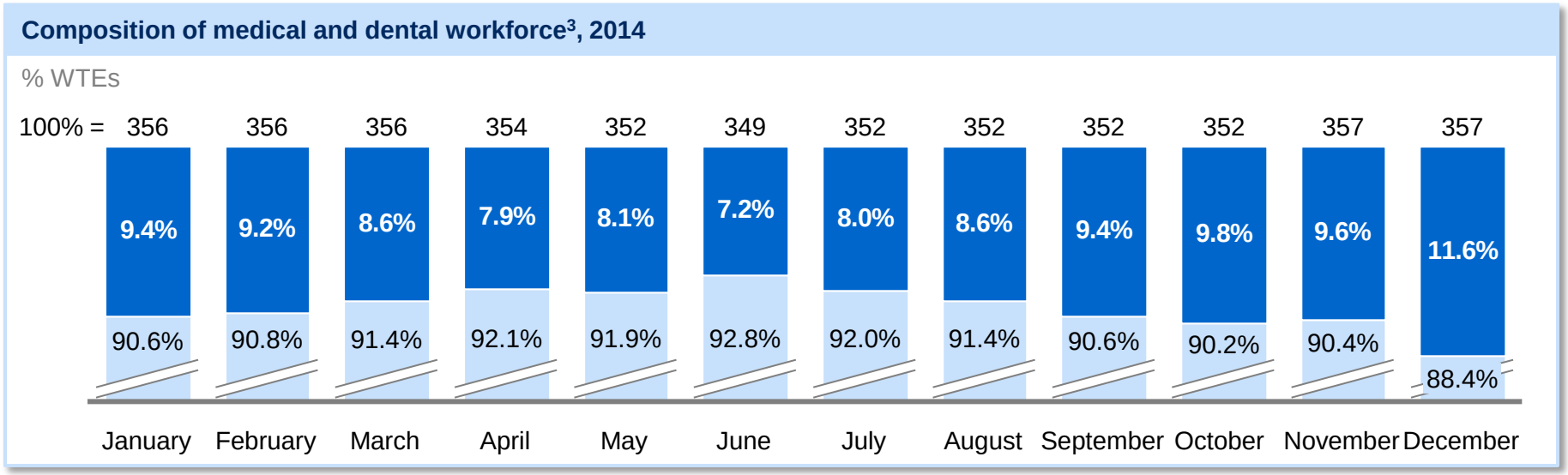
Units: £m, %, 2013/14

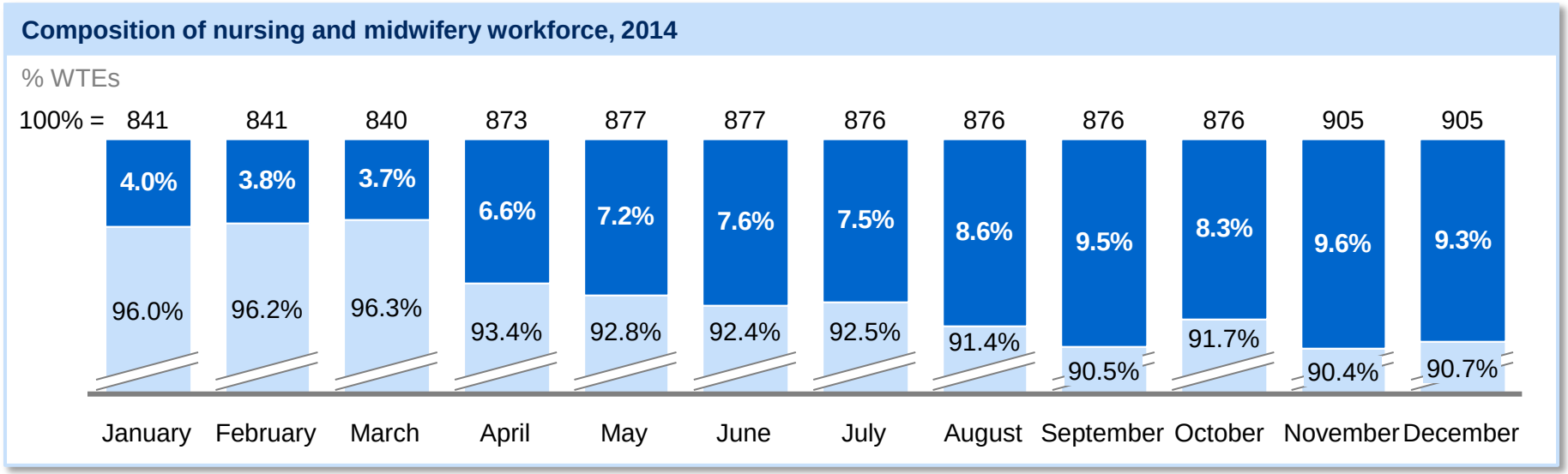
Category	Current operating cost 13/14	Cost reduction opportunity		
		Matching peer at top quartile threshold[5]	Matching average of top 3 peers[6]	Top quartile on each metric
ALoS[1]		-6	-2	-4
Medical pay	38	-1 (-2%)	-9.4 (-25%)	-9 (-22%)
Qualified nurses pay[2]	34	0 (1%)	1 (4%)	-5 (-14%)
ST&T pay	14	0 (1%)	-1 (-9%)	-3 (-22%)
Non-clinical pay	24	-3 (-17%)	-2 (-10%)	-4 (-23%)
Drugs & clinical supplies and services	27	-4 (-16%)	-1.3 (-5%)	-4 (-15%)
Other variable costs[3]	4	0 (0%)	-1 (-19%)	-1 (-17%)
Cost categories not benchmarked[4]	21	n/a	n/a	n/a
Total	164	-14	-15.7	-30
Savings (% of total costs)		-9%	-9%	-18%

1 Length of stay opportunity estimated at £150/day;2 Nursing WTE level not capped at minimum of 8 nurse hours per occupied bed day
3 Other variable costs include catering, cleaning and laundry;4 Cost categories not benchmarked include: other clinical pay (due to inconsistency in reporting), premises, establishment cost and non-operating costs (PDC, interest, depreciation, etc.)
5 Homerton University Hospital NHS Foundation Trust; 6 Dartford and Gravesham NHS Trust, Isle of Wight NHS Trust, James Paget University Hospitals NHS Foundation Trust

SOURCE: FIMS, Annual Reports, HES, ERIC

The proportion of temporary medical and nursing posts has increased in the last year





1 Agency and bank 2 Includes overtime by permanent staff members 3 Consultants and junior doctors

SOURCE: QEH vacancy analysis April 13 to Dec

Contents

A number of services at QEH are not clinically sustainable in their current form (1/2)

Several factors impact the future clinical sustainability of services at QEH

- Increasing **sub-specialisation**, for example surgeons now specialise in one clinical area – urologists, vascular surgeons, breast surgeons, and GI surgeons now treat patients who may previously have been treated by general surgeons. This means that all of these specialties now need to be available to patients – either in a local hospital or at another hospital, provided through a networked arrangement
- Necessary **clinical scale** - specialist staff need to be seeing enough patients in their own specialist area to maintain their skills and expertise. Some specialties in Queen Elizabeth Hospital experience relatively low volumes of patients compared to England averages and recommended levels of activity. These specialties are most notably maternity, in patient paediatrics, A&E, emergency surgery and more complex elective (planned) surgical procedures (e.g., procedures related to cancer)
- There is a national drive to have senior **staff available on a 24x7** basis to meet nationally recognised quality standards. This typically applies to maternity care, inpatient paediatric care, critical care, A&E and in emergency admissions, particularly for people admitted for emergency surgery. In smaller hospitals, such as Queen Elizabeth Hospital, this is hard to achieve – partly because there is not enough work to maintain the skills and expertise of the 8-10 whole time equivalent (WTE) consultants necessary to staff a 24X7 rota which makes the jobs less attractive and results in de-skilling of the staff – and partly because the income associated with the activity is not sufficient to cover the costs of this number of staff
- Combined, this results in unsustainable services **if they continue to be provided in the current way**.

A number of services at QEH present a specific clinical sustainability challenge in their current form (2/2)

- **Stroke services**: QEH has around 530 stroke admissions per year while the England average for an acute hospital service is 560 and the national recommendation for minimum volumes is 600 per year. Clinical quality is lower/worse than the England average in 4 out of 6 domains (SSNAP 2014) [1]
- **Planned care**: QEH is a relatively small unit for cancer surgery, knee replacements, spinal surgery and interventional radiology. There are 261 knee replacements compared to an England average of 432; 421 spinal surgeries vs. an England average of 572. The trust has had difficulties in meeting 'referral to treatment' waiting time targets
- **Maternity care**: QEH is one of the smaller obstetric units in the country delivering c.2,300 births per year - an average of 6 births per day with 40 hours of consultant resident cover per week, meaning not all women get the same level of obstetric care during all hours of the week. Given the unpredictability of birth, this low number makes it difficult to staff to demand. The Deanery announced removal of two registrar posts in 2015, thus making rotas less sustainable and more expensive to maintain. The national drive towards a consultant delivered service provides further challenge. Quality of care is not as good as it could be with a lack of a midwife led facility and a relatively high proportion of postpartum haemorrhage and 3rd / 4th degree tears. At the same time there is an increase in complex pregnancies in the West Norfolk area
- **Paediatrics**: 61% of paediatric attendances to A&E are discharged with no follow up or follow up by a GP suggesting availability of out of hospital care needs to be improved. Current 111 and primary care staff lack specialist paediatric training. There are relatively few paediatric admissions to QEH, with 11 admissions per 1,000 children vs. an England average of 14. There are six paediatricians who support inpatient beds, a neonatal intensive care unit, a paediatric assessment unit (only open 5 days a week), A&E, outpatient clinics and neonatal care; one of these paediatricians is expected to retire in summer 2015.

1 QEH performing below national average on SSNAP 2014 on: scan within 1 hour, formal swallow assessment within 72 hours, joint health and social care plan on discharge, discharge with stroke specialist early support discharge team

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

Future clinical sustainability is affected by a number of factors

Increasing sub-specialisation

- As healthcare becomes more complex, able to treat more and more people in better and better ways, staff are becoming more specialised
- This results in a need for more sub-specialist staff to enable best outcomes resulting in separate rotas for different sub-specialities e.g. in surgery
- Smaller hospitals cannot provide enough work for each sub-specialist to build and maintain skills and capabilities
- This renders posts less attractive to staff

Need for scale to ensure quality

- As data about outcomes becomes more transparent, there is recognition that staff treating larger number of patients can achieve better outcomes
- This is possibly partly around availability of teams 24x7 – and partly around building experience/skills

Consultant led care

- National push for more consultant led and consultant delivered care on a 24x7 basis in order to improve quality of care (and productivity
- This results in need for at least 8-10 WTE consultants to cover a 24x7 service
- This is particularly the case for any service which needs to be available 24x7 i.e. emergency services
- This creates challenges for smaller hospitals which struggle to recruit staff and, more importantly, to have enough work to maintain skills and capabilities
- A further challenge lies in difficulties to recruit and national shortages particularly in A&E

A&E, Acute Surgery, Maternity, Paediatrics, Acute Medicine and Stroke services all experience recruitment and/or activity level challenges

	Are there reported difficulties in recruiting?	Are activity levels relatively low?	Other clinical sustainability metrics
A&E	Y	Y	▪ Performance on 4-hour targets
Acute surgery		Y	▪ Did not meet all requirements for emergency surgery audit (NELA 2014)
Maternity	Y	Y	▪ Relatively high proportion of tears, PPH ▪ Deanery to remove two registrar posts ▪ Providing 40-hours of consultant cover
Paediatrics		Y	▪ Not all GPs trained in paediatrics ▪ QEH not able to maintain access to consultant within 12 hours of admission
Acute medicine	Y		▪ Significant difficulties in recruitment and retention of medical and nursing staff, especially in care of elderly
Stroke	Y		▪ Forecast difficulties in recruitment of medical staff, activity levels are lower than England averages

SOURCE: Case for change January 2015

Additional challenges were identified by the clinical working groups (1/3)

Pathway	Challenges
Urgent care	▪ A WNCCG audit in 2014 found that of 42 inappropriate A&E attendances 26% of people stated that they went to A&E as they couldn't get a GP appointment ▪ There is a high proportion of temporary staff in A&E, with 23% of medical pay on temporary staff and 41% of nursing pay on additional hours and temporary staff ▪ Several points of access to urgent care (GP same day appointments, GP out of hours, 111, minor injuries) create duplication ▪ Ambulance response times are above the mandated 8 minutes ▪ A&E 4 hour performance at QEH A&E is below the mandated 95%, and has recently dropped due to winter pressures ▪ A&E at QEH has low activity volumes relative to England averages, with 55,000 attendances per year ▪ Oak Group report, and an independent QEH audit found a large number of medical outliers in acute medical beds. QEH audit suggests 9 beds at any one time are occupied by such patients
Care for the frail elderly and people with long term conditions	▪ Models of care are not aligned with patient needs, with a lack of "joined up" working between health and social care services ▪ The rate of non-elective admissions for ambulatory care-sensitive conditions is higher than the England average: 21.2 per 1000 weighted population vs. 18.1 England average ▪ According to a 2012 Oak Group report,14% of admission bed days and 58% of continued stay days may benefit from a lower level of care

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

Additional challenges were identified by the clinical working groups (2/3)

Pathway	Challenges
Stroke care	▪ QEH has around 530 stroke admissions per year while the England average is 560 and the Royal College recommendation is 600 per year ▪ Up to 34% spend on additional hours and temporary staff in acute medical and stroke workforce ▪ The National Stroke Audit in 2014 showed clinical quality to be lower/worse than England average in 4 out of 6 domains[1]; a more recent organisational audit showed the Trust performs well in the organisation of stroke care[2]
Planned care	▪ QEH is a relatively small unit for cancer surgery, knee replacements, spinal surgery and interventional radiology: 261 knee replacements vs. England average of 432; 421 spinal surgeries vs. England average of 572 ▪ Moreover, the Trust has been reporting difficulties in meeting RTT targets especially during winter pressures
Maternity	▪ QEH is one of the smaller obstetric units in the country delivering c2,300 births per year which translates to an average of 6 births per day, but with significant variations making it difficult to staff to demand. The deanery announced removal of two registrar posts in 2015, thus making rotas less sustainable and more expensive to maintain ▪ The need for greater consultant presence 7 days/week provides further challenge ▪ However, the distance from QEH to the nearest alternatives is over 40 miles, making it undesirable for the local population to travel to neighbouring hospitals for deliveries ▪ No home births service since September 2013, and no MLBU ▪ Relatively high proportion of PPH (postpartum haemorrhage) and 3rd/4th degree tears ▪ GPs involved in pre/post natal care only on ad hoc basis ▪ Increase in complex pregnancies (obesity, over 35 and teen pregnancies)

1 QEH performing below national average on SSNAP 2014 on: scan within 1 hour, formal swallow assessment within 72 hours, joint health and social care plan on discharge, discharge with stroke specialist early support discharge team. 2. SSNAP Acute Organisational Audit Report 2014

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

Additional challenges were identified by the clinical working groups (3/3)

Pathway	Challenges
Paediatrics	▪ There are relatively few paediatric admissions to QEH, with 11 admissions per 1,000 population 0-19 years in the trust catchment area vs. an England average of 14 ▪ 61% of paediatric attendances to A&E are discharged with no follow up or follow up by a GP, suggesting availability to GPs and skills and capabilities in paediatric care needs to be improved ▪ Only 6 paediatricians who support inpatient (Rudham), NICU, PAU, A&E, outpatient clinics and neonates; one is expected to retire in summer 2015 ▪ Challenge to meet the standard of providing consultant input to children within 12 hours of admission (meeting this will require additional consultants to the current six) ▪ PAU offering a 5 day service (5 beds) and not a 7 day service ▪ Local clinicians believe there is an opportunity to improve primary and community care services resulting in fewer A&E attendances and admissions to hospital ▪ There are few applications per post, with1-2 applications for nursing posts bands 4-8b in 2014 ▪ Difficulties to recruit healthcare visitors to support GPs and families, and healthcare visitors are mostly adult trained ▪ GPs are challenged to offer swift appointments for children, and 40% of GPs receive little/no training in paediatrics; Practice nurses in primary care are mostly adult trained ▪ 111 and GP out of hours are often not paediatric trained, high rates of referral to A&E and PAU

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

Contents

Neither the LHE nor QEH are financial sustainable under the current models of care

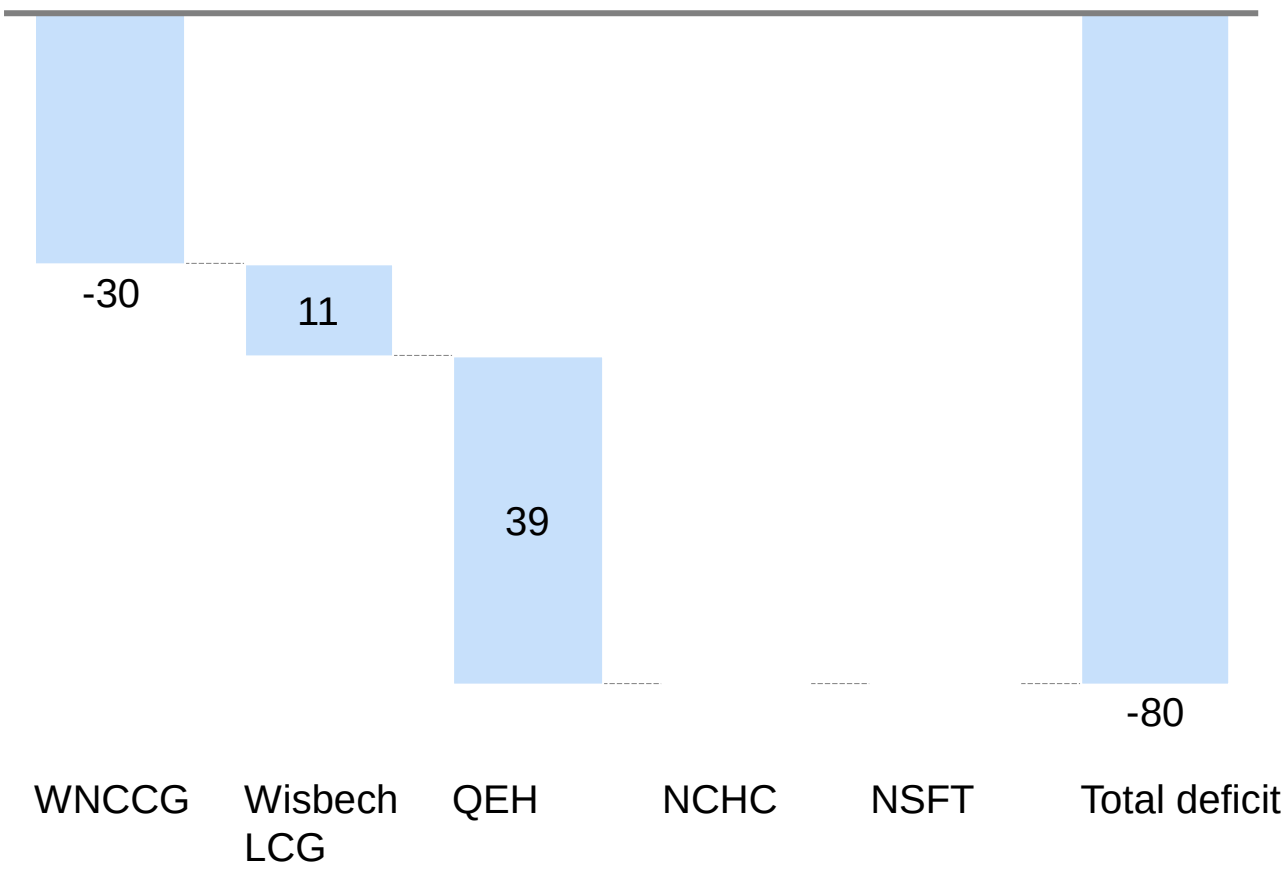
- The CPT estimates the financial challenge across the LHE and QEH to be £80m by 2018/19 in a do-nothing scenario, i.e. before implementation of commissioning intentions and cost reduction plans at QEH
- This challenge is made up of £30m for WNCCG, £11m for Wisbech LCG and £39m for Queen Elizabeth Hospital. It does not include forecasted deficits for NCHC, NSFT, primary care and the NHSE Local Area Team – all of which face financial challenges. We estimate the combined impact of these is to increase the forecast financial challenge of the LHE to c.£90-100m for 2018/19
- For QEH, the projected deficit after commissioner intentions are implemented is estimated to be £39m. Compared to the 2013/14 final position of £13.0m deficit (the 2014/15 forecast end year position is a £14.9m deficit):
  - Non recurrent pressures and full year effects of CIP under-delivery at £5.3m
  - Price changes of £10.7m (i.e. tariff deflator)
  - Cost inflation (pay and non-pay) of £15.5m
  - Additional local cost pressures of £4.8m
  - Increase in activity (demographic and non-demographic growth) for an additional income of £10.1m
- The forecast deficit at QEH is driven by emergency services where activity is relatively low in volume and but there are relatively high fixed and semi fixed costs to maintain staffing levels on a 24x7 basis [1]
  - Obstetrics is reporting a forecast deficit of £4.2m in 2018/19
  - A&E is reporting a forecast deficit of £6.4m in 2018/19
  - Acute medicine is reporting a forecast deficit of £6.6m in 2018/19
  - General surgery is reporting a forecast deficit of £3.6m in 2018/19
  - Critical care is reporting a forecast deficit of £4.5m in 2018/19
  - Paediatrics is reporting a forecast deficit of £2.9m in 2018/19

1 The total deficit by this service is £31.7m which is 80% out of a Pre-CIP deficit of £39.2m

The LHE is forecasting a financial challenge of £80m by 2018/19; this does not include Norfolk Community Health and Care NHS Trust and Norfolk and Suffolk Foundation Trust financial challenges

Forecasted financial position of the LHE

£m, 2018/19



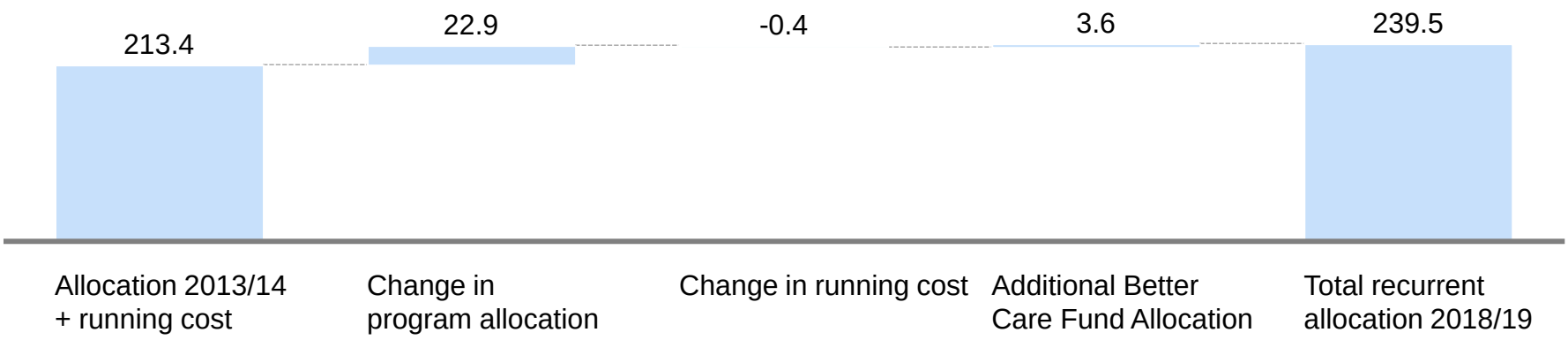
- QEH and WNCCG are in the process of updating their individual financial forecasts based on recent changes to national guidance on tariff and cost inflation
- NHSE LAT and other providers (such as primary care) need to be considered as well, and this will increase the financial gap to £90-100m

1 Not including NCH&C and NSFT

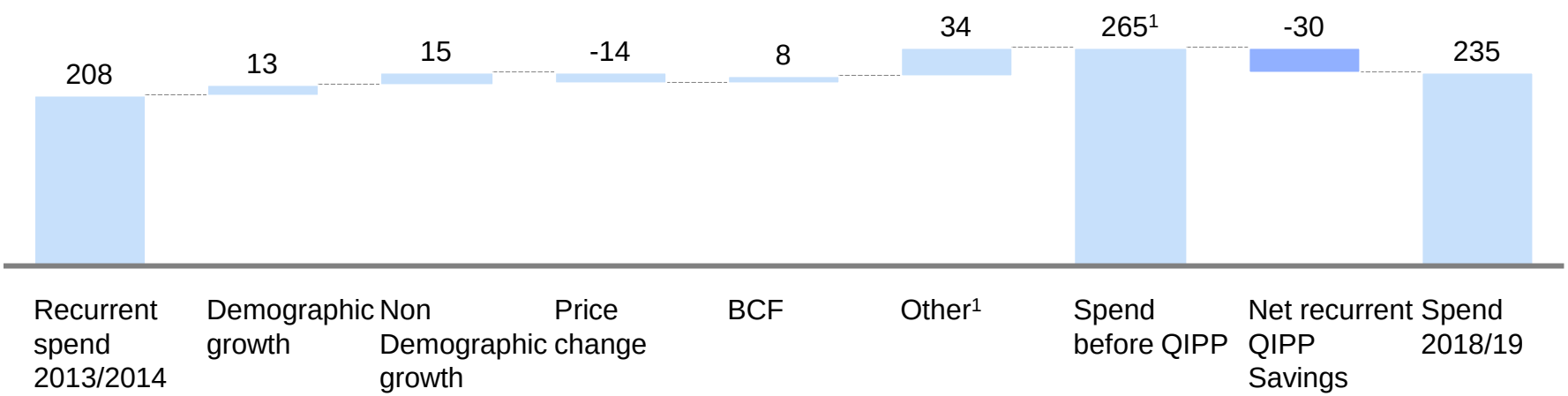
SOURCE: QEH finance, WNCCG finance, Wisbech LCG finance

West Norfolk CCG needs to deliver £30m of cost reduction by 2018/19

West Norfolk CCG recurrent income, £m



West Norfolk CCG recurrent spend, £m



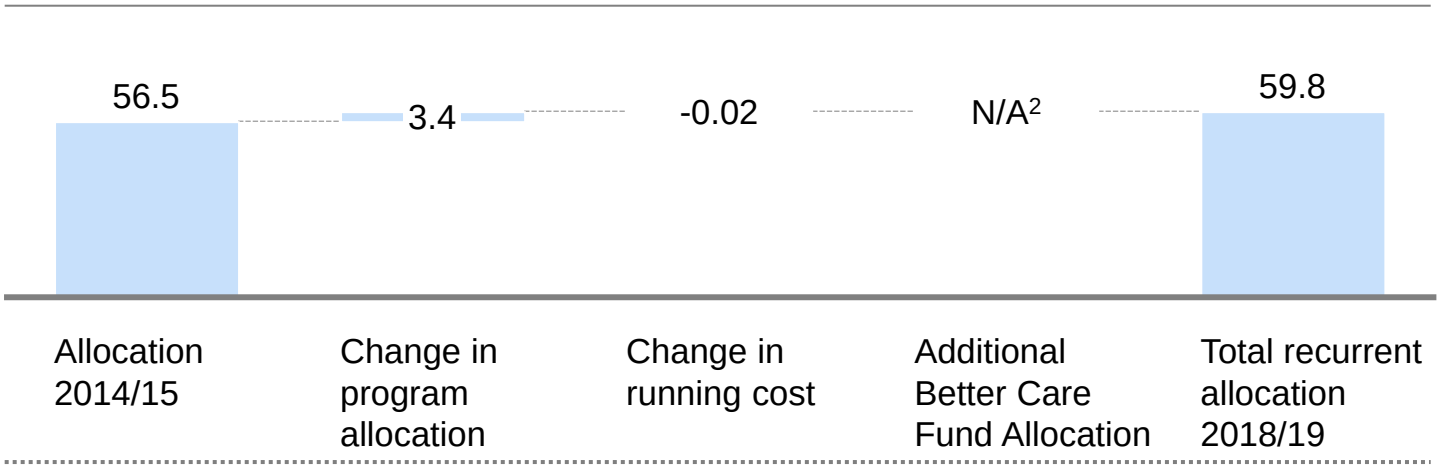
1 £3m non-demographic growth re Ambulance services/high cost drugs/Pathology; £3m contractual cost pressures in 2014/15; £3m additional in-year recurrent cost pressures in 2014/15; £2.8m anticipated contractual cost pressures in 15/16; £2.7m specific investments 14/15 & 15/16 (£5 per head schemes, Mental Health parity of esteem, operational resilience funding); £20m planning assumption re future cost pressures 2016/17 – 2018/19 pressures 2016/17 – 2018/19

SOURCE: CCG financial plan template

Wisbech LCG needs to deliver £11m of cost reduction by 2018/19

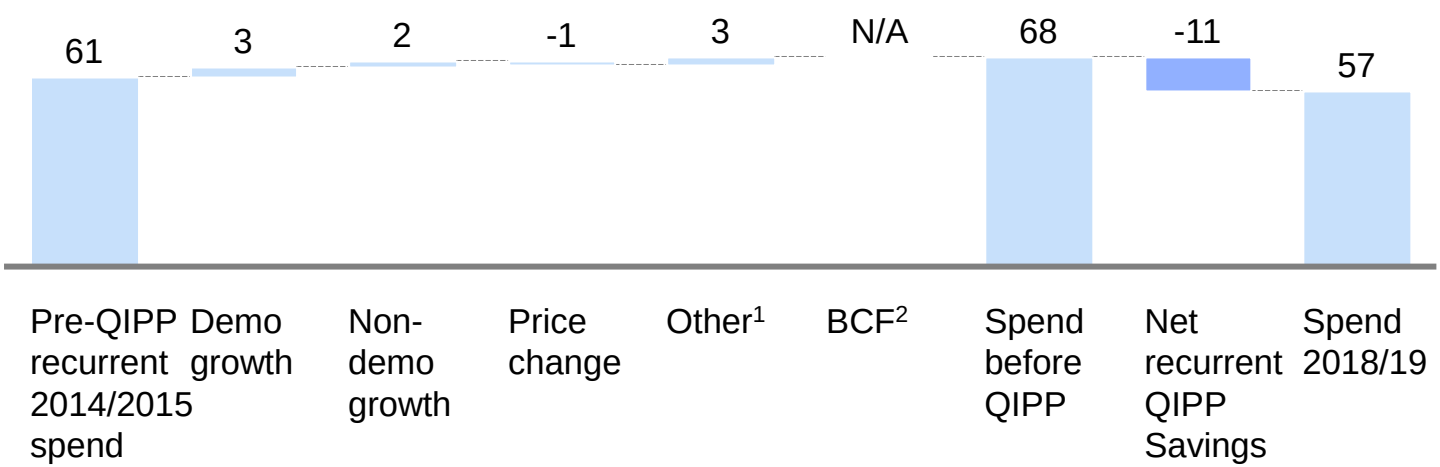
Wisbech LCG recurrent income

£m



Wisbech LCG recurrent spend

£m



- In April 2014/15 Wisbech LCG would be entering a £5m contract with UCP to supply acute and NEL services to population over 65
- Acute services are expected to continue being supplied by QEH
- Change in QIPP is dependent on QEH – UCP future contract and currently assumed to be same as original Wisbech LCG plans

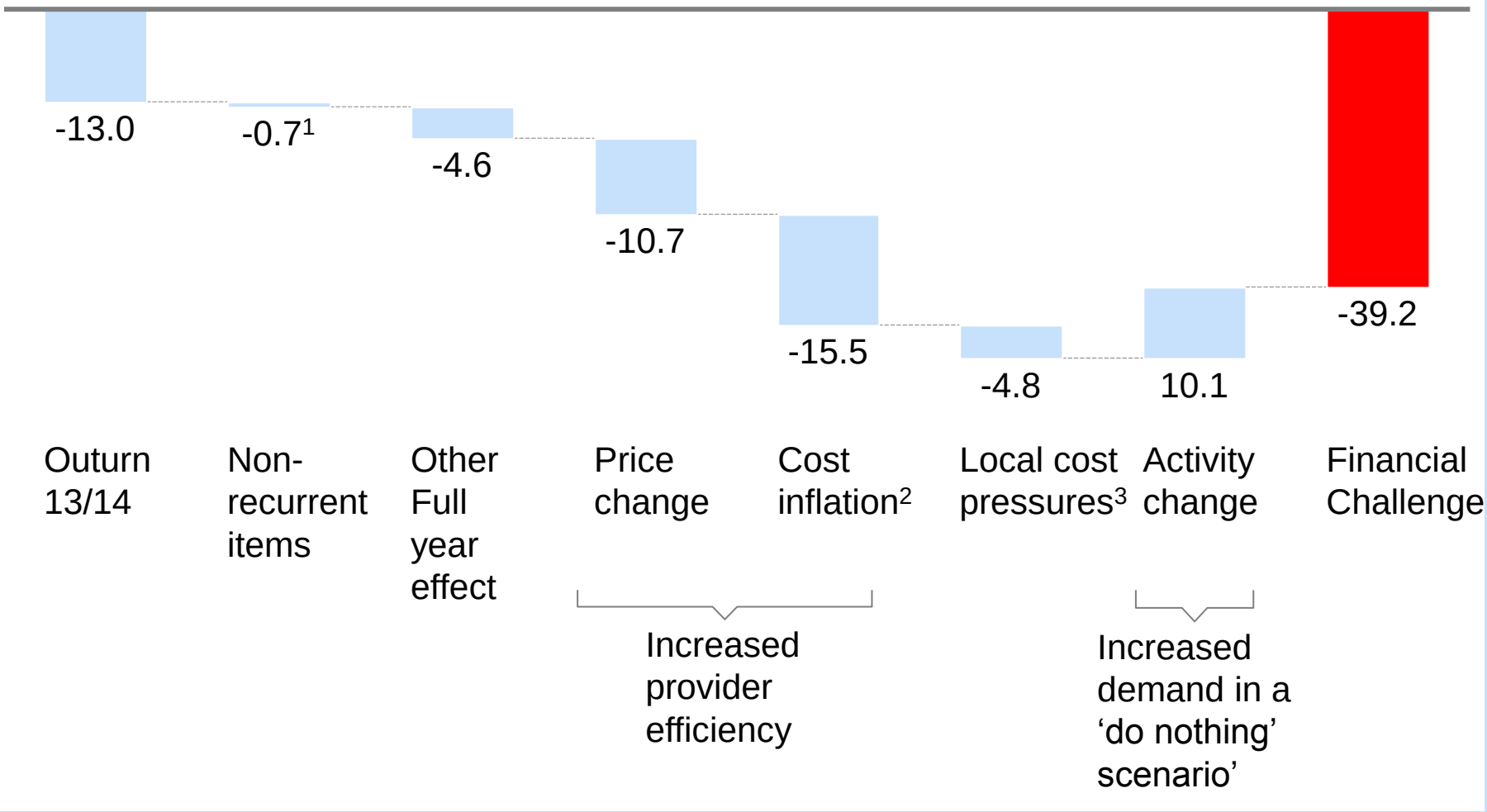
1 Reserves for lack of full achievement of QIPP

2 Calculated on a CCG level

SOURCE: Wisbech LCG finance

QEH 2018/19 projected 'do nothing' position is a £39.2m financial challenge

QEH baseline underlying position in a do nothing[4] scenario £m, 2013/14 - 2018/19

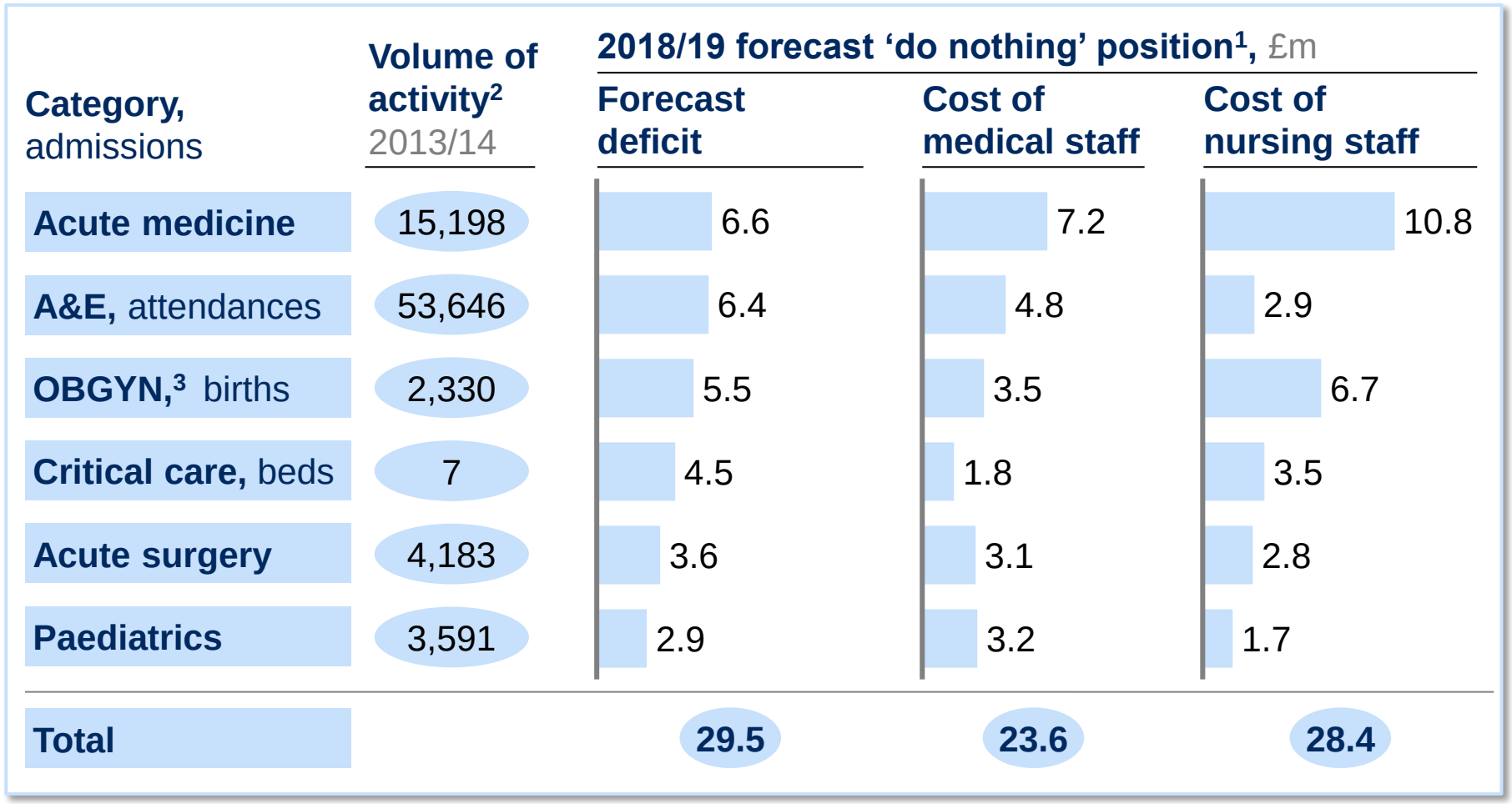


1 Net of restructuring costs and further ward skill mix review 2 Includes changes to CNST & emergency CAP 3 Local cost pressure includes medical staffing, midwifery 4 Before implementation of any commissioner plans or CIP by QEH

SOURCE: QEH baseline forecast working sheet

Six acute service lines make up £29.5m of forecast deficit for 2018/19, which is 76% of the total forecast deficit for QEH

£m

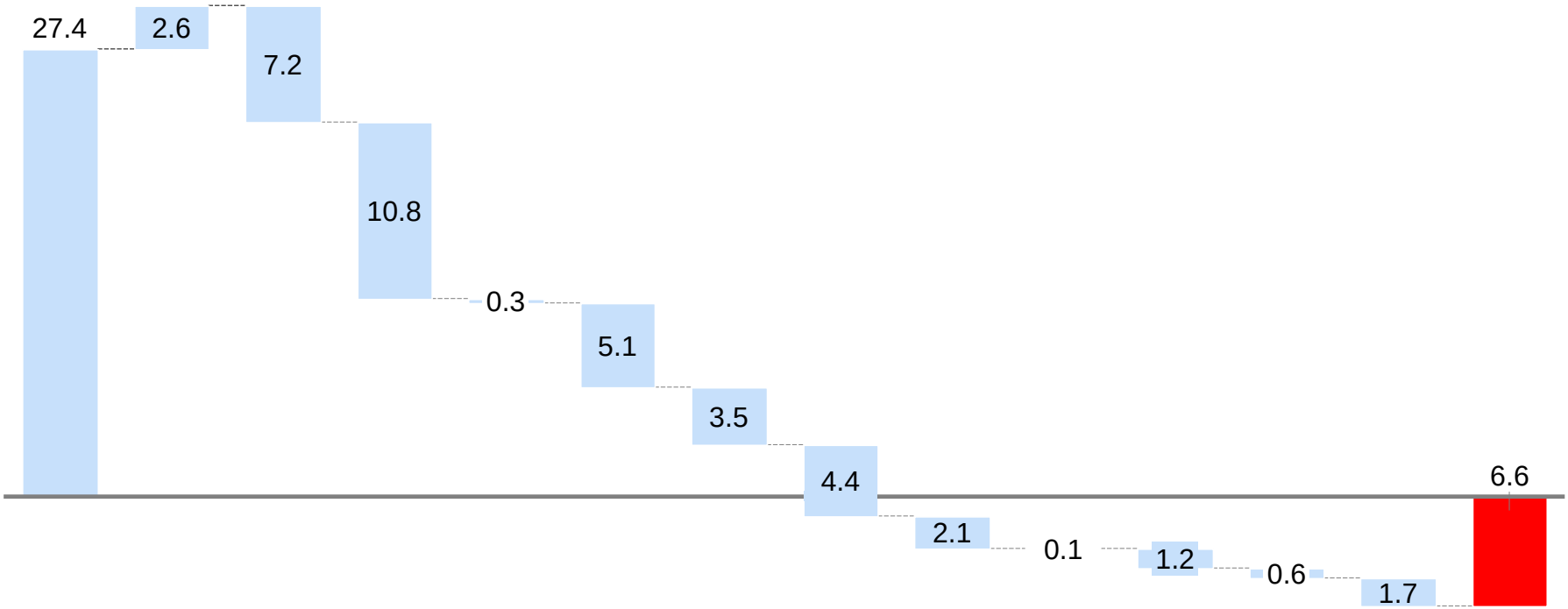


1 Before CIP or any other initiative
2 Attendances for A&E, inpatient admissions for acute medicine, acute surgery and paediatrics, beds for critical care, births for obstetrics
3 Forecast deficit for obstetrics only is £4.2m

SOURCE: QEH SLR 2013/14

The current model of care for Acute Medicine is not financially sustainable

Projected I&E of Acute Medicine service, £m, 2018/19[1]

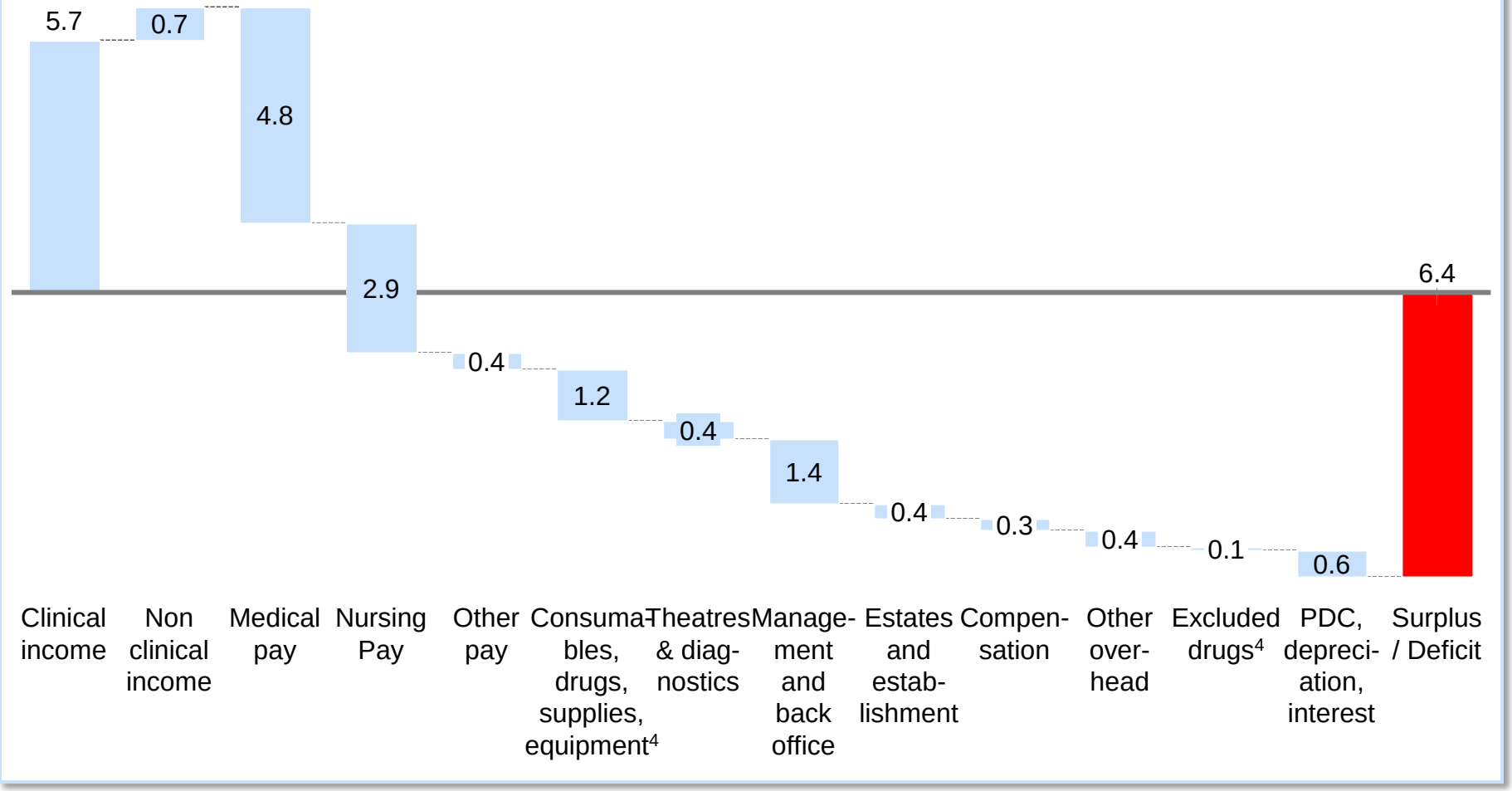


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

The current model of care for A&E is not financially sustainable

Projected I&E of A&E service, £m, 2018/19[1]

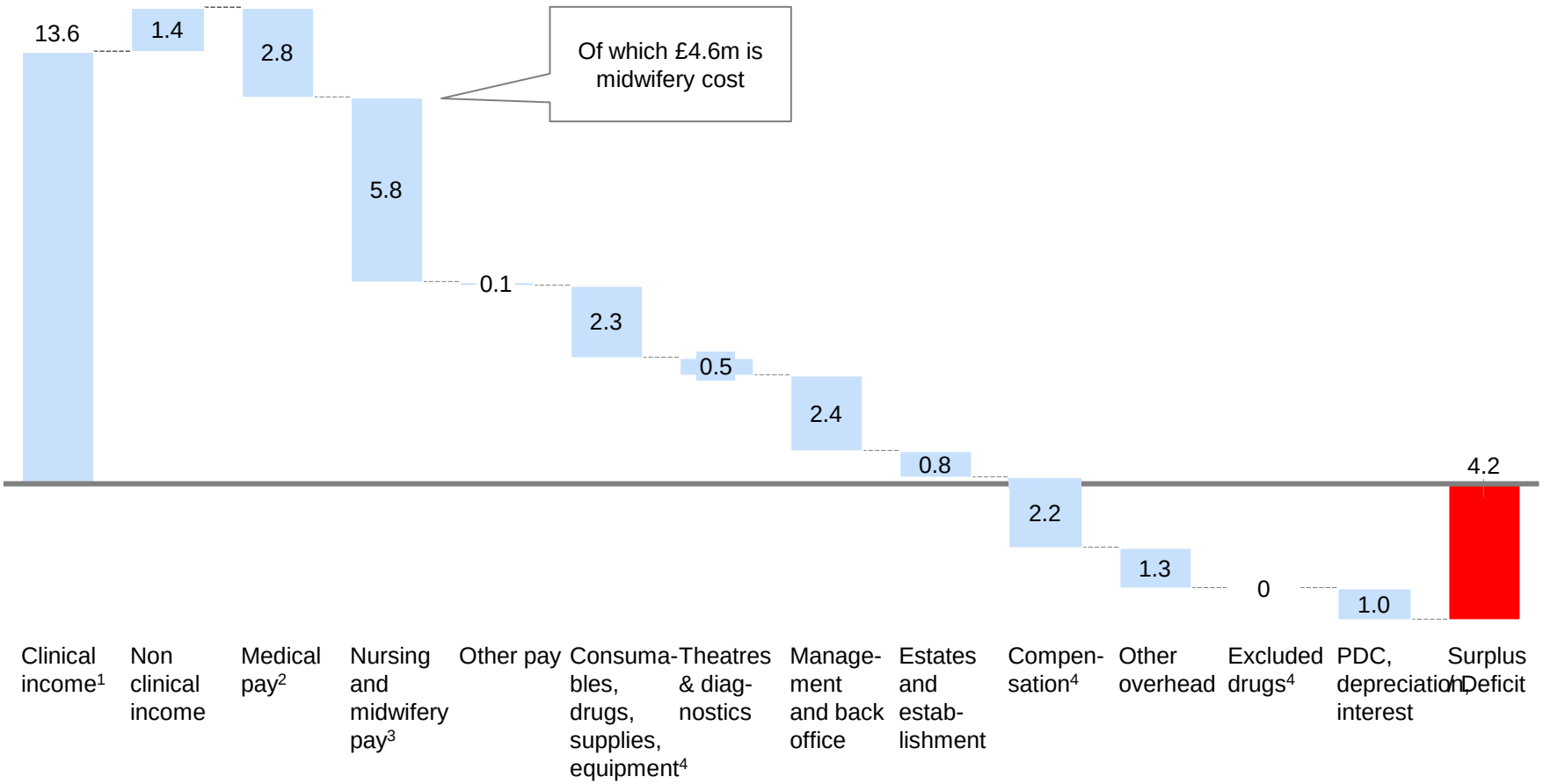


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

The current model of care for Obstetrics is not financially sustainable

Projected I&E of Obstetrics service, £m, 2018/19

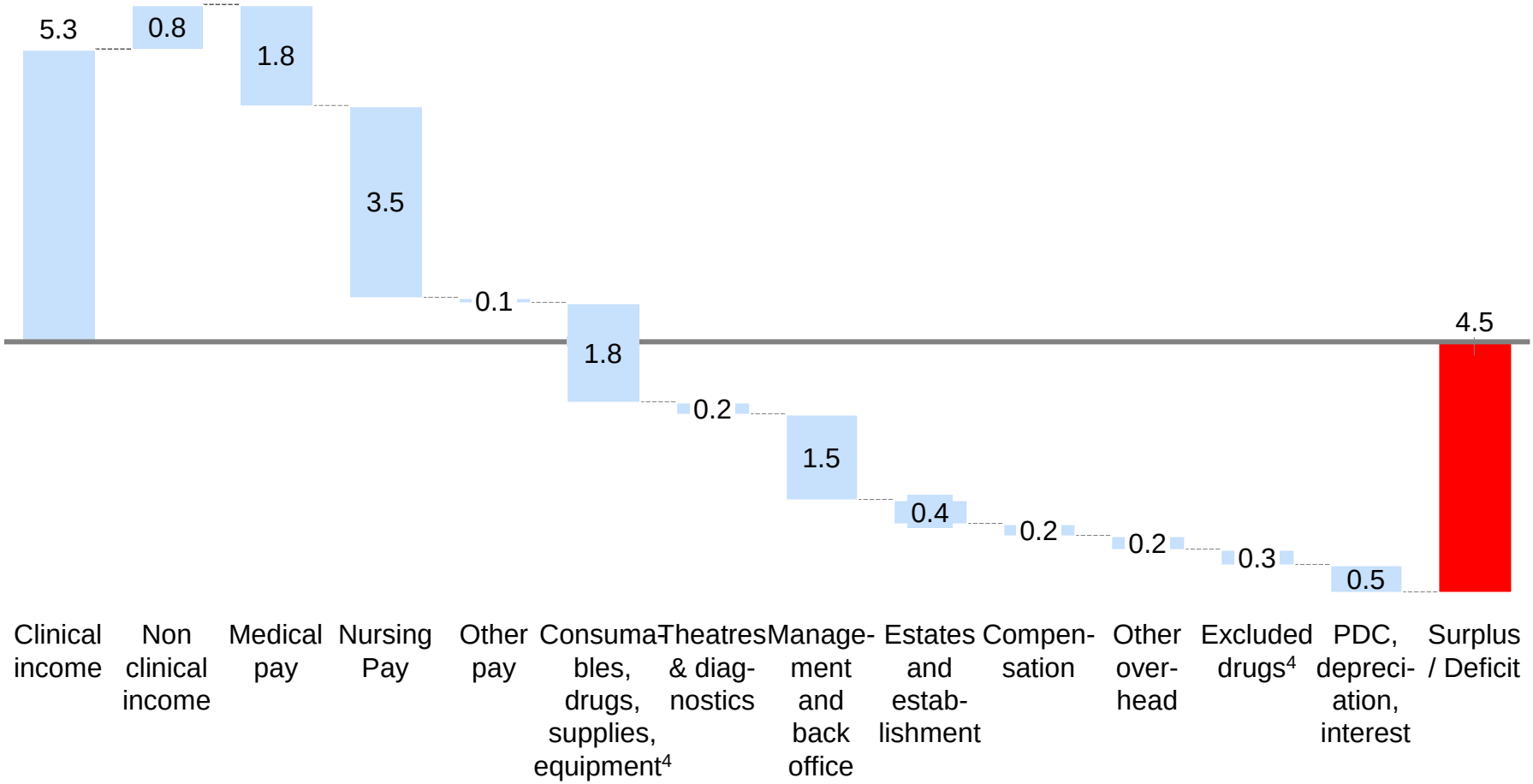


1 All clinical income forecasted based on agreed assumptions (demographic growth -0.35% for women of child-bearing age, tariff deflator -3.7%)
2 Medical staff cost reflects loss of two trainees in August 2015, and is forecasted based on agreed assumptions Agency and non-pay spend based on SLR data is included
3 Direct O&G midwifery staff costs reflects actual cost of establishment as of 15 January 2015, and is forecasted based on agreed assumptions
4 All other costs are based on reconfiguration modelling and associated assumptions before CIP

SOURCE: QEH Outturn data for 2013/14, QEH SLR report M9 YTD 2014 for O&G and Midwife episodes; discussions with trust colleagues incl. OFG

The current model of care for Critical care is not financially sustainable

Projected I&E of Critical care service, £m, 2018/19[1]

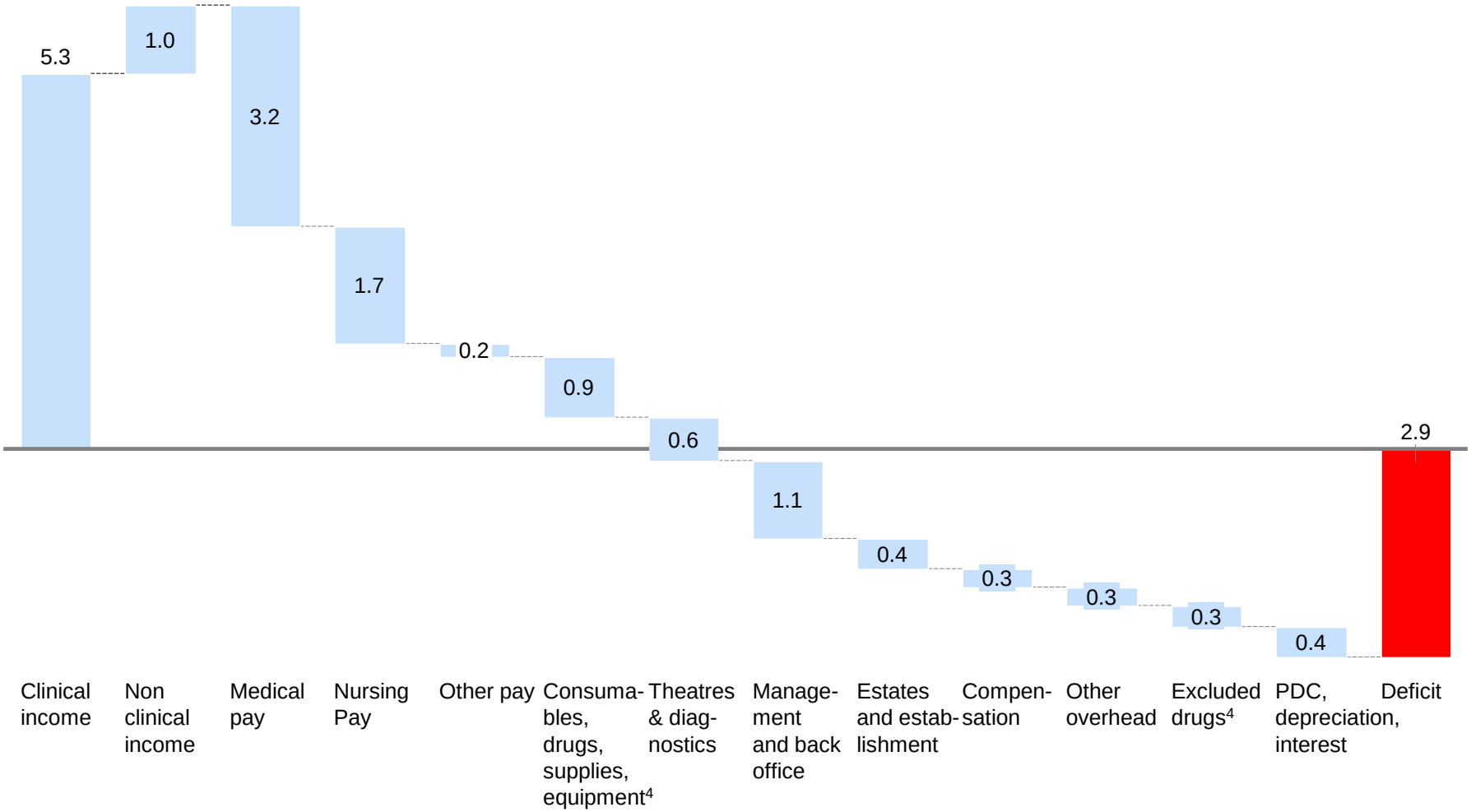


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

The current model of care for Paediatrics is not financially sustainable

Projected I&E of Paediatrics service, £m, 2018/19[1]



1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

Contents

The CPT, working with local clinicians and managers, has identified 14 areas where the LHE and QEH should improve quality of care and financial performance

Commissioners should

1. Increase preventative measures to improve health of the local population[1]
2. Decommission procedures of limited clinical effectiveness
3. Commission services from highest value/lowest cost providers
4. Improve model of care for people with long term conditions
5. Improve model of care for the frail elderly population
6. Reduce spend on prescribing
7. Reduce commissioning spend through contractual/transactional levers
8. Reduce the unit cost of community care

NHS England should

9. Reduce the unit cost of primary care

QEH, with support from commissioners, should:

10. Reduce the unit cost of hospital care through operational improvement
11. Reduce the unit cost of hospital care through transformation of services

QEH and commissioners combined should:

12. Reconfigure services to put in place alternative ceilings of care
13. Reduce fixed costs across the whole health economy
14. Reduce unit costs through organisational changes

Commissioning plans (1-8 on the left) cumulatively result in over £41 million commissioner saving that creates additional £21 million pressure for QEH. Part of this pressure QEH can address through cost reductions (£15 million). In addition, QEH is developing plans (10) to deliver further £27 million in **cost improvements programmes (CIP)**. Further £4-5 million can be delivered through more **transformative changes** (11) and further £1 million through **reconfiguration** of service (alternative ceilings of care and collaboration with other providers – 12). Although the full potential of alternative ceilings of care is up to £12-13 million, local clinicians do not believe it is achievable and desirable given the remoteness of the area. **Organisational changes** (e.g. through merger synergies) can release further £2 million (14). And optimisation of estates across the LHE could deliver additional £1-2 million.

Both QEH and WNCCG have already began working on the 2015-16 plans and some of them are well under way, however longer term changes will require significant further work

1 Primary prevention is not expected to impact the clinical and financial sustainability within the time frame relevant to the CPT's work (next five years)

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population[1]	Commissioners
2	Decommission procedures of limited clinical effectiveness (prior approvals)	
3	Commission services from highest value/lowest cost providers	
4	Improve model of care for people with long term conditions	
5	Improve model of care for the frail elderly population	
6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	

1 Primary prevention is not considered in this report since time span to impact is longer than 5 years

The CCG has identified eight areas to improve the health status of the population and enable financial sustainability (1/3)

WNCCG needs to reduce spend by £30m by 2018/19 in order to remain financially sustainable, and Wisbech LCG needs to reduce spend by £11m. While further work is required to quantify the precise opportunity and some of the numbers below are indicative, WNCCG plans to:

- Ensure sufficient focus on prevention – in particular continuing to support the local population to reduce smoking rates and tackle obesity. The CPT recognises the importance of this area but does not believe it will deliver financial benefits in the next five years.
- Reduce spend on procedures which have been identified to be of limited clinical effectiveness through the use of prior approvals. Benchmarking data suggests the CCG currently spends £7.2m - 60% more than other CCGs in England (on a weighted per capita basis). This is largely spent on minor dermatology procedures and hip replacements/arthroplasties. Reducing this activity to the level of other England CCGs will reduce spend by up to £2.5m resulting in reduced activity at QEH by approximately 4,000 procedures per year which equates to around 5 less theatre sessions per day[1] (depending on the mix of procedures), or 2 theatres out of the current 11 theatres) operating at QEH (7 main theatres and 4 day case theatres).
- Reduce spend on acute medical admissions by up to £3.4m - equivalent to 4,750 fewer admissions, which, combined with reduced length of stay, results in a need for 119 fewer inpatient beds out of the current medical bed base of 280 (total bed base of c. 450). Gross savings for WNCCG would be £9.5m - we have deducted from this changes to the non elective payment system equivalent to £2.3m and £3.8m for investments in new services to facilitate this initiative. Note this is based on expanding from the current plans for a single hub in Kings Lynn to three hubs across the CCG.
- Reduce prescribing spend and address contractual arrangements are expected to contribute £5-6m in 2015/16, and more in the future

1 Based on average number of 3 day cases per day-case list at QEH in 2013/14 (using QEH actual theatre data)
2 Based on the share of spend with QEH relative to total WNCCG spend. We assume QEH will have 40% stranded costs as a result, i.e. £4.3m

The CCG has identified eight areas to improve the health status of the population and enable financial sustainability (2/3)

All of the above proposals will need further exploration and discussion by the CCG with local clinicians

Detailed plans and financial assessment for additional initiatives, such as commissioning activity from other more cost effective providers, have not yet been completed by WNCCG. They will need, along with any other initiatives, to contribute up to £18m of financial savings by 2018/19 in order for the CCG to be financially sustainable. We have estimated that these initiatives will impact QEH's income by £10.5m by 2018/19 [1]

In summary, the full impact of commissioner plans on QEH by 2018/19 is forecast to be as follows

- £20.5m less clinical income (£7.2m from changes to the model of care for frail elderly and people with long term conditions[8], £2.5m from reduction in elective procedures of limited clinical effectiveness and £10.8m from other initiatives which are yet undefined)
- From reduction in procedures of limited clinical effectiveness - 4,000 less elective procedures, which equate to up to two theatres of the current eleven theatres at QEH
- From changes to model of care for frail elderly and people with long term conditions - 4,750 less non-elective admissions, which each have an average length of stay of 7.7 days and hence equate to 119 acute medical beds (e.g. 3-4 medical wards at QEH)

Other initiatives by commissioners may also have impact on activity at QEH, but as these are not yet detailed we cannot estimate the precise impact on activity at this stage

1 Based on the share of spend with QEH relative to total WNCCG spend. We assume QEH will have 40% stranded costs as a result, i.e. £4.3m

The CCG has identified eight areas to improve the health status of the population and enable financial sustainability (3/3)

QEH can respond to these changes and ameliorate the negative financial impact by addressing some of the costs. We believe QEH can take out £15.2m of costs associated with the £20.5m of lost income, hence leaving stranded costs of £5.3m. This will move the QEH from a 'do-nothing' forecast deficit of £39.2m for 2018/19 to a forecast deficit of £44.5m.

- Changes to the model of care for frail elderly and people with long term conditions will reduce income at QEH by £7.2m and reduce the bed base by up to 119 medical beds. A bottom up analysis indicates QEH will be able to take out up to £7.2m of costs
  - Staff associated with this activity - 12 consultant WTE, 13 junior doctor WTE and 111 nurse WTE (mix of registered and non-registered nurses). The impact of this on sustainability of medical rotas will need to be evaluated carefully
  - Non-pay costs associated with this activity, namely drugs and supplies.
- Reduction in number of elective procedures of limited clinical effectiveness (prior approvals) will reduce the need for two theatres out of the eleven theatres at QEH today and £2.5m of clinical income. QEH believes it can take out up to £1.5m of costs associated with this activity, through a combination of reduction in theatre staffing, medical capacity and non-pay costs.

As other initiatives by WNCCG for a total of £10.8m more loss of income are not detailed yet, we assume QEH can take out 60% of associated costs, or £6.5m. As these initiatives are developed, the exact impact on activity and staffing at QEH will need to be evaluated

1 Based on the share of spend with QEH relative to total WNCCG spend. We assume QEH will have 40% stranded costs as a result, i.e. £4.3m

2-7 WNCCG is planning to reduce spend by £30m by 2018/19 through six core initiatives* with prescribing and contractual changes plans for 2015/16

	Description
Decommission PoLCE [1]	▪ Benchmarking analysis indicates WNCCG spends more on these procedures than other CCGs, especially on hip replacements and minor skin procedures
Commission OP from alternative providers	▪ WNCCG believes there is scope to commission OP services (and potentially DC and IP elective) from alternative providers in ENT, pain management, Ophthalmology, Dermatology and Urology; preliminary discussions suggest price could be lower by up to 20-30%
Changing model of care for people with LTCs	▪ In the future, WNCCG would like to see consultants providing input as part of an integrated care team in the community rather than in hospital only; this will contribute to better access to specialist input, better care and outcomes
Frail elderly pathway	▪ WNCCG is planning on transforming the frail elderly pathway through three community hubs, enabled by risk segmentation and transformation in primary, community and acute care
Prescribing	▪ WNCCG has identified a number of areas where prescribing costs can be reduced further in 2015/16
Contractual changes	▪ WNCCG has identified a number of areas where costs can be reduced in 2015/16 through contractual and transactional levers, which will not impact activity levels at QEH

*Note these are the main initiatives which tackle affordability across the LHE and have the greatest impact

1 Procedures of Limited Clinical Effectiveness

2 Procedures of Limited Clinical Effectiveness (PoLCE) - summary

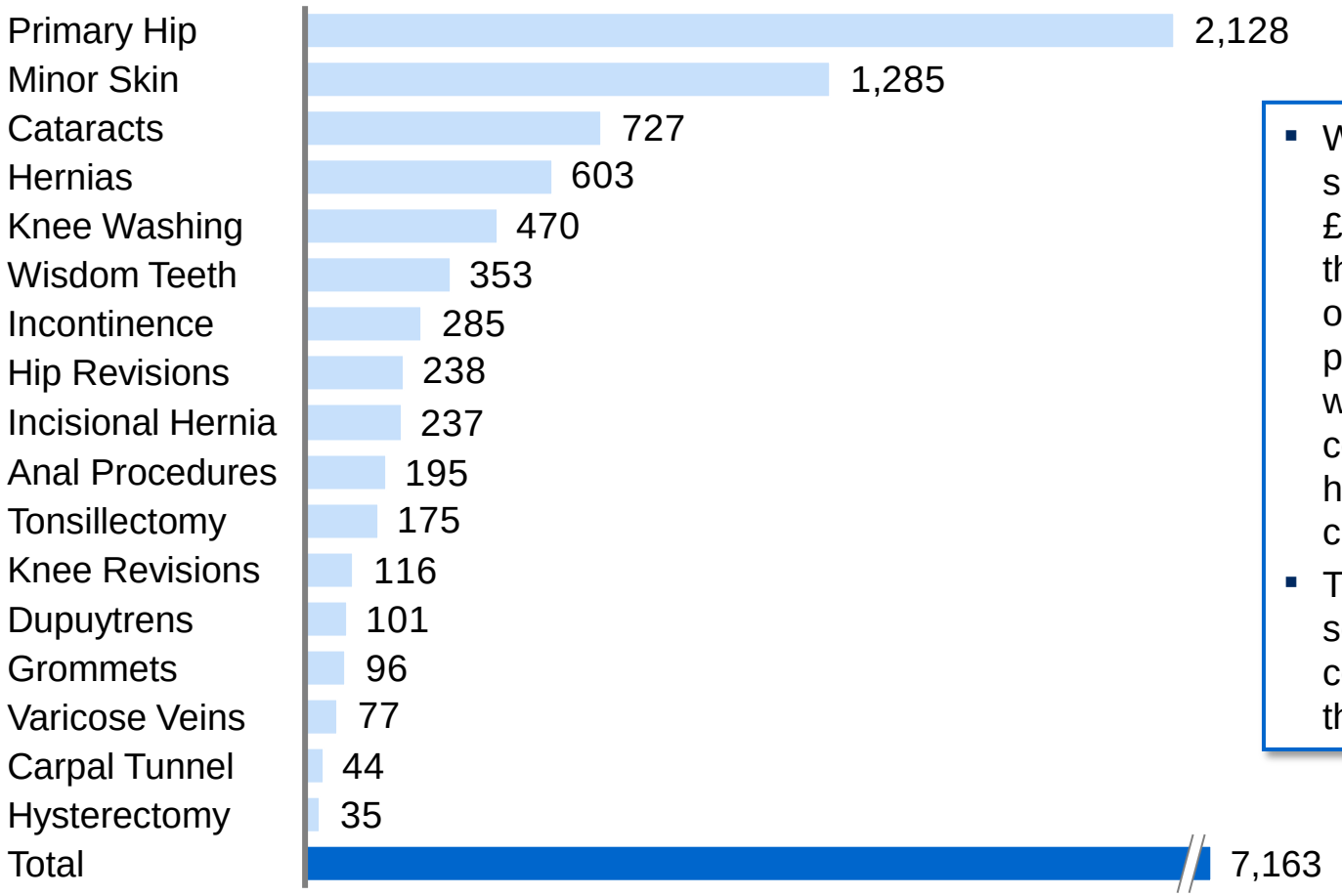
- Public Health bodies in the UK have identified a set of elective procedures which in some instances can be regarded as having limited clinical effectiveness
- The CPT ran a benchmarking analysis of WNCCG's spend against these subsets of HRGs compared to all other CCGs in England
- This analysis indicates WNCCG spends £7.2m on these procedures, which is more than 60% of other CCGs (on weighted capita basis), and specifically on minor dermatology procedures and hip replacements
- Moving to the England top decile through decommissioning of some of the procedures will reduce spend by up to £2.5m
- This in turn will reduce activity at QEH by approximately 4,000 procedures per year [1]
- WNCCG will audit these procedures in order to review spend and determine the optimal balance for the local population

1 Assuming an average £600 tariff per spell (as per QEH data for these HRGs)

2 WNCCG spent £7.2m on elective procedures, some of which may have limited clinical value

WNCCG spent £7.2m on procedures which may be considered as having limited clinical effectiveness

WNCCG spend on procedures of limited clinical effectiveness[1], 13/14, £'000s



- WNCCG have been spending £7-8m per year for the last three years on elective procedures, some of which may be considered as having limited clinical effectiveness
- There is potentially scope to de-commission some of this activity

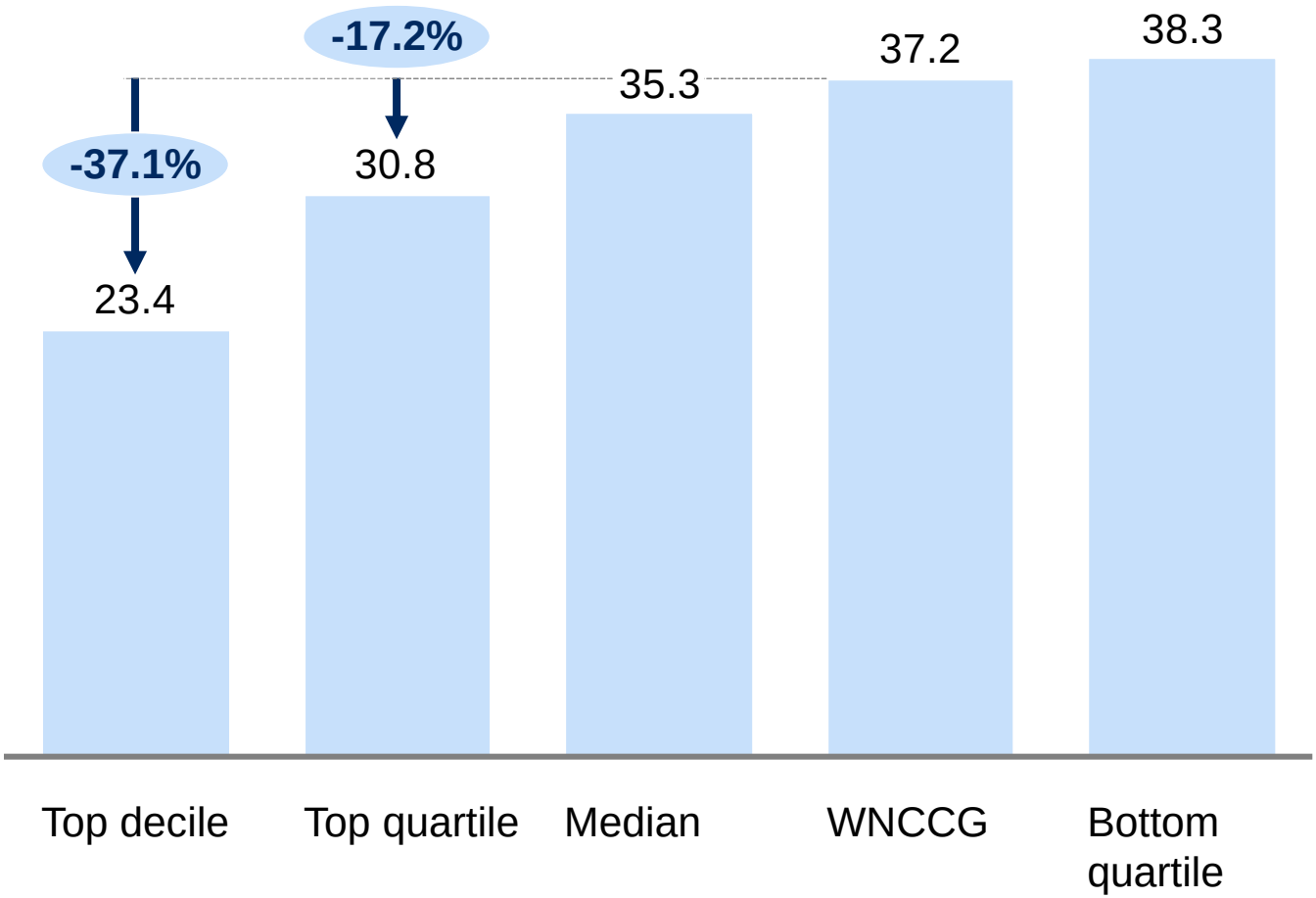
Note: Spend on these procedures was £8m in 2011/12, £6.9m in 2012/13

SOURCE: HES 2011/12-13/14; Procedures of limited clinical effectiveness Phase 1, London Health observatory team 2010

2 WNCCG could potentially reduce spend on PoLCE by up to 37% or more, which equates to £2.5m less spend

WNCCG spends £37.2/capita on PoLCE, whilst 60% of CCGs spend less

Spend on PoLCE[1] by weighted population, by CCG, 13/14, £



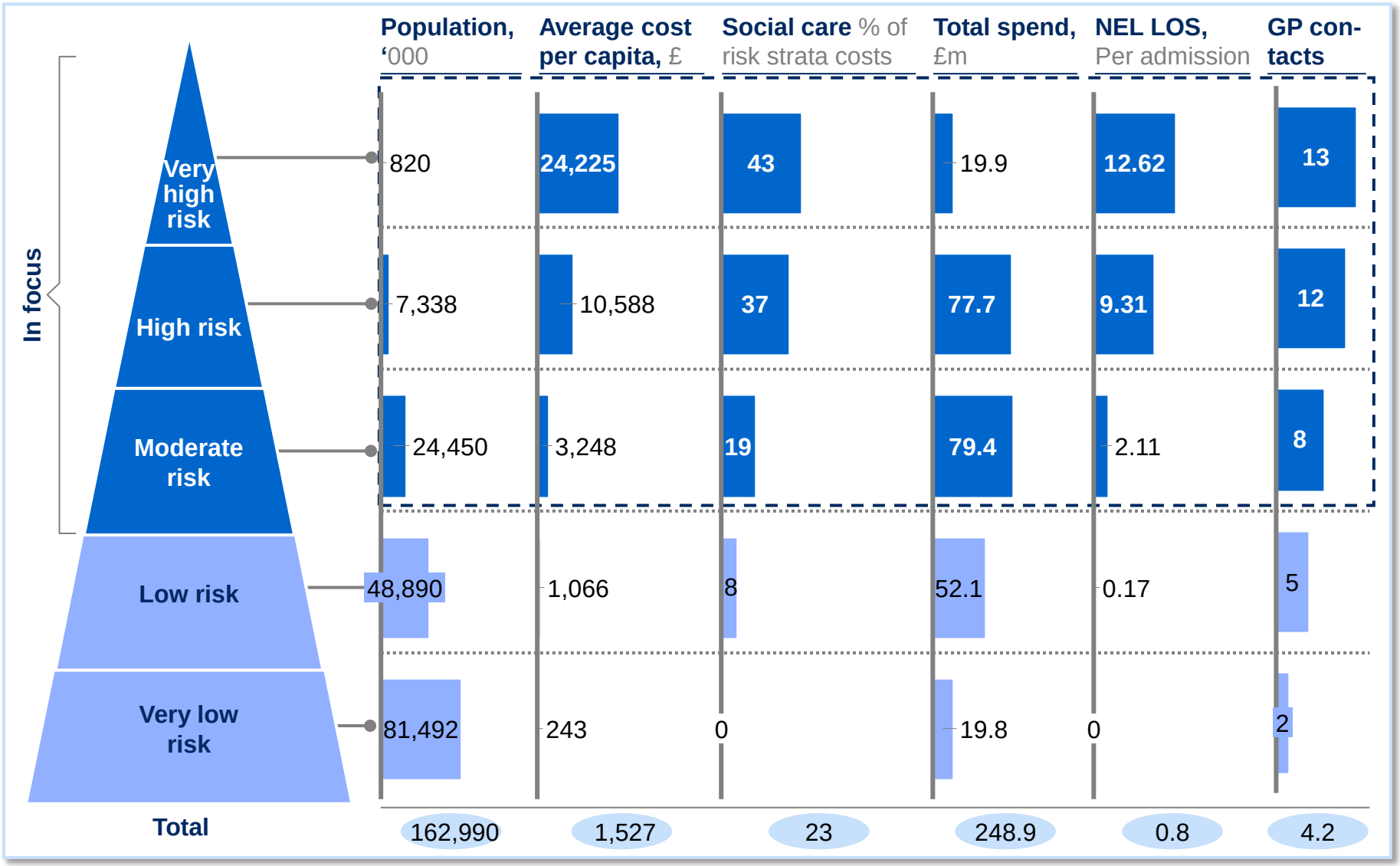
- More than 60% of CCGs spend less than WNCCG (on a per weighted capita basis) on PoLCE
- Top decile performance is 37% lower than WNCCG
- Reduction of 37% of this activity will reduce spend by £2.5m p.a.; some CCGs use deci-sion making tools for this

1 Procedures of limited clinical effectiveness

SOURCE: HES 2013/14; Procedures of limited clinical effectiveness Phase 1, London Health observatory team 2010

4,5 20% of the WNCCG population are in the top 3 risk strata; these consume 71% of health and social care spend

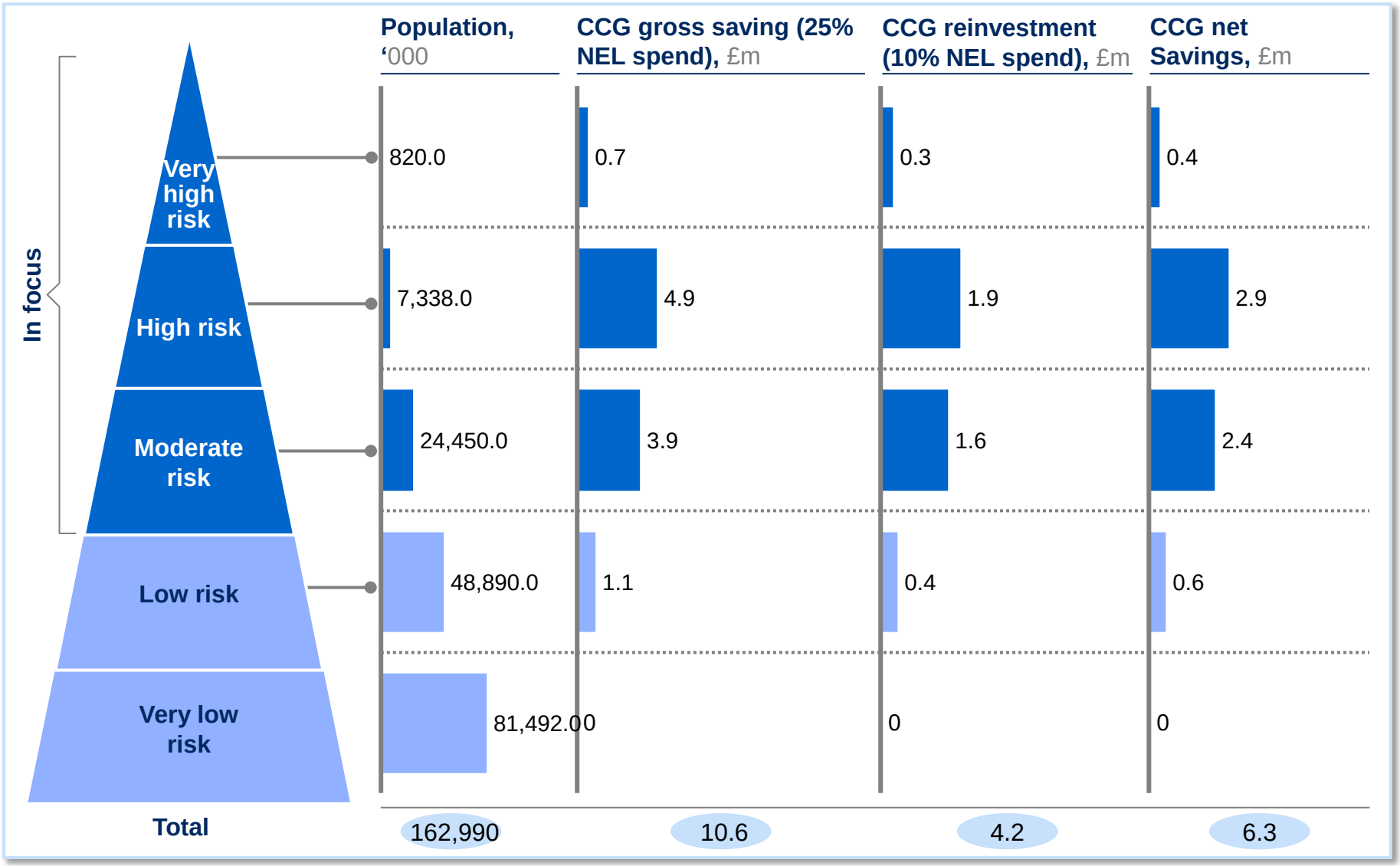
2011/12



SOURCE: HES 2011/12, FIMS, Q research/NHS Information centre, PSSEX; NHS Reference Costs

4,5 Reducing unwarranted activity and bed days for high risk population, with focus on frailty, will deliver net savings of up to £6m

2011/12



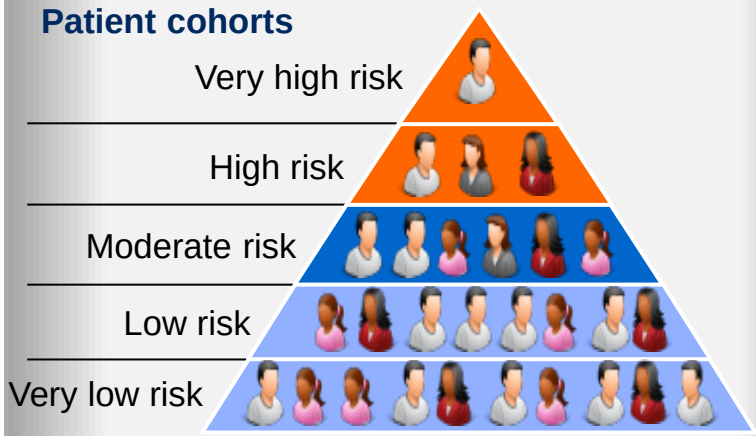
SOURCE: HES 2011/12, FIMS, Q research/NHS Information centre, PSSEX; NHS Reference Costs

4,5 There are core building blocks to integrating care and focusing on populations at higher risk

Success in integrated care

Address specific patient needs in a pathway …

Patient cohorts



… by working in a multi-disciplinary system …

1. Clinical protocols & care packages
2. Care coordination and planning
3. Case conference
4. Performance review

… supported by key enablers

Aligned incentives and reimbursement models

Accountability and joint decision-making

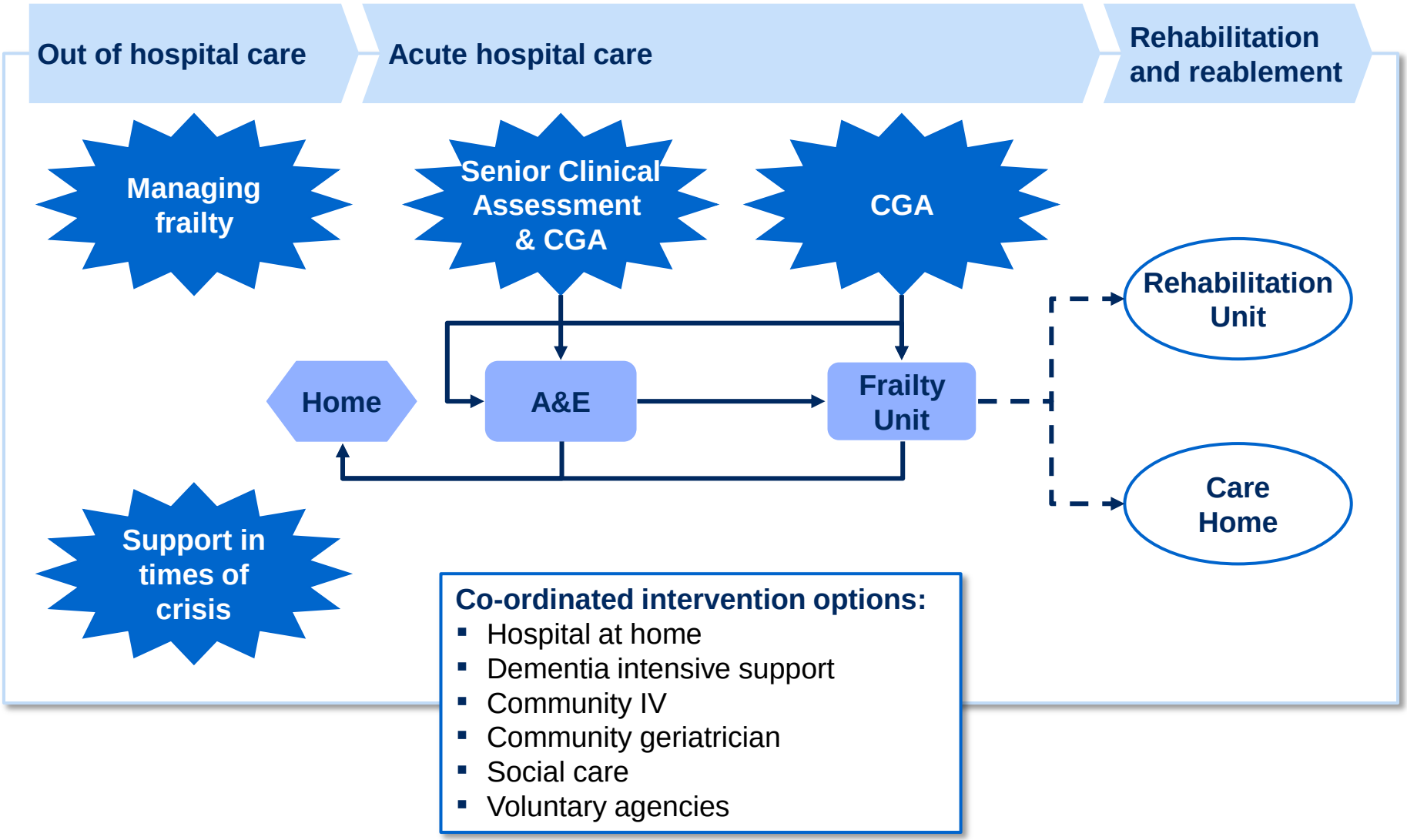
Information transparency and decision support

Clinical leadership and team working

Patient engagement

4,5 The Frail Elderly clinical working group (CWG), building on prior work of the West Norfolk Alliance, has proposed a new pathway across the LHE

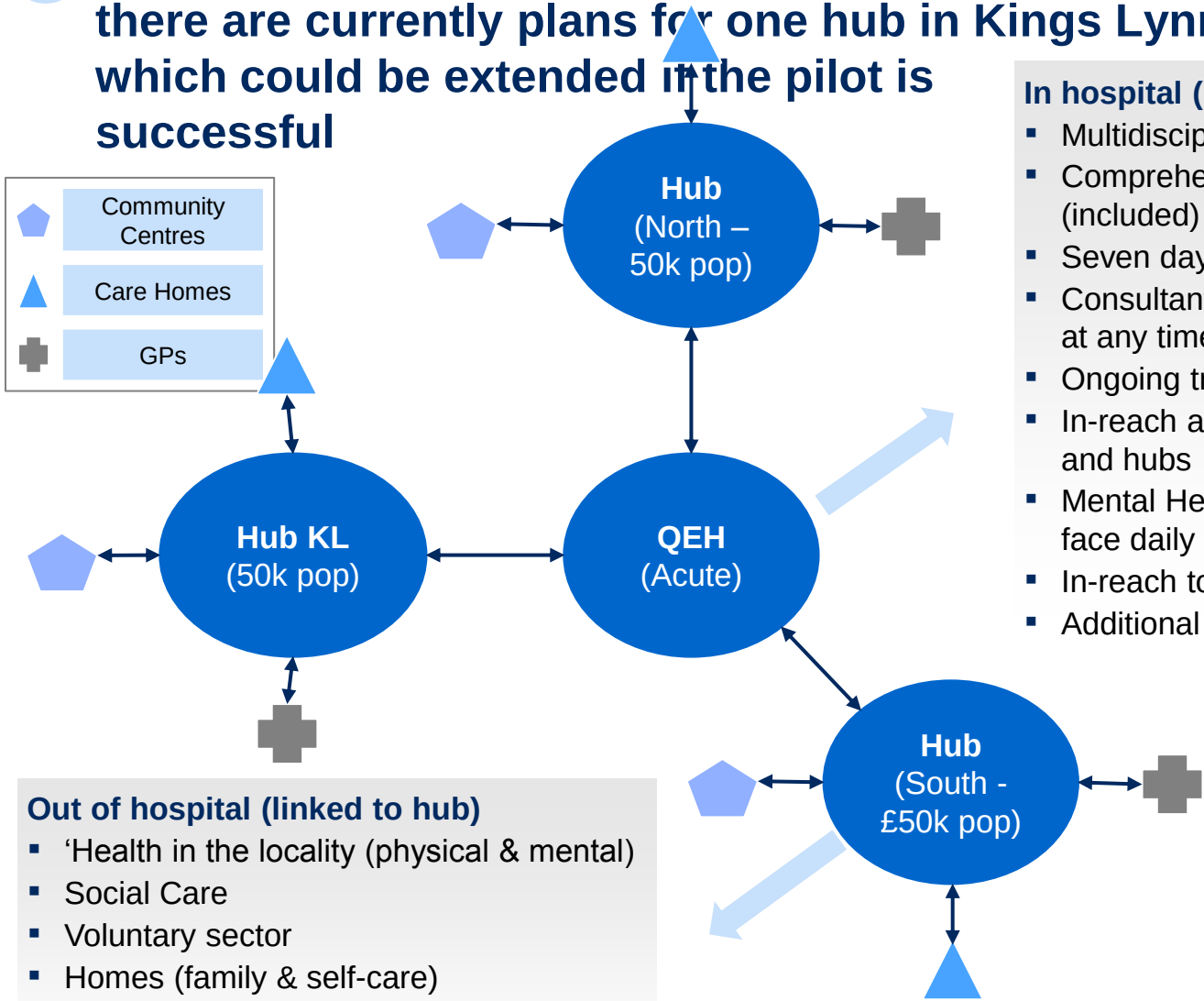
NHS West Norfolk Clinical Commissioning Group



SOURCE: WNCCG Frailty presentation – Dr Ian Mack

4,5 WNCCG is developing a hub model for frailty care – there are currently plans for one hub in Kings Lynn which could be extended if the pilot is successful

NHS West Norfolk Clinical Commissioning Group



In hospital (Frailty Unit)

- Multidisciplinary team (in pilot & evolving)
- Comprehensive Geriatric Assessment (included)
- Seven day working
- Consultant, staff nurse & therapist (2 of 3 at any time assessing patients)
- Ongoing training
- In-reach and out-reach across hospital and hubs
- Mental Health & virtual ward teams inter-face daily
- In-reach to A&E
- Additional to stroke

Out of hospital (linked to hub)

- 'Health in the locality (physical & mental)
- Social Care
- Voluntary sector
- Homes (family & self-care)
- Pharmacies
- Care & nursing homes
- Rehab & re-ablement

Hub (Scale)

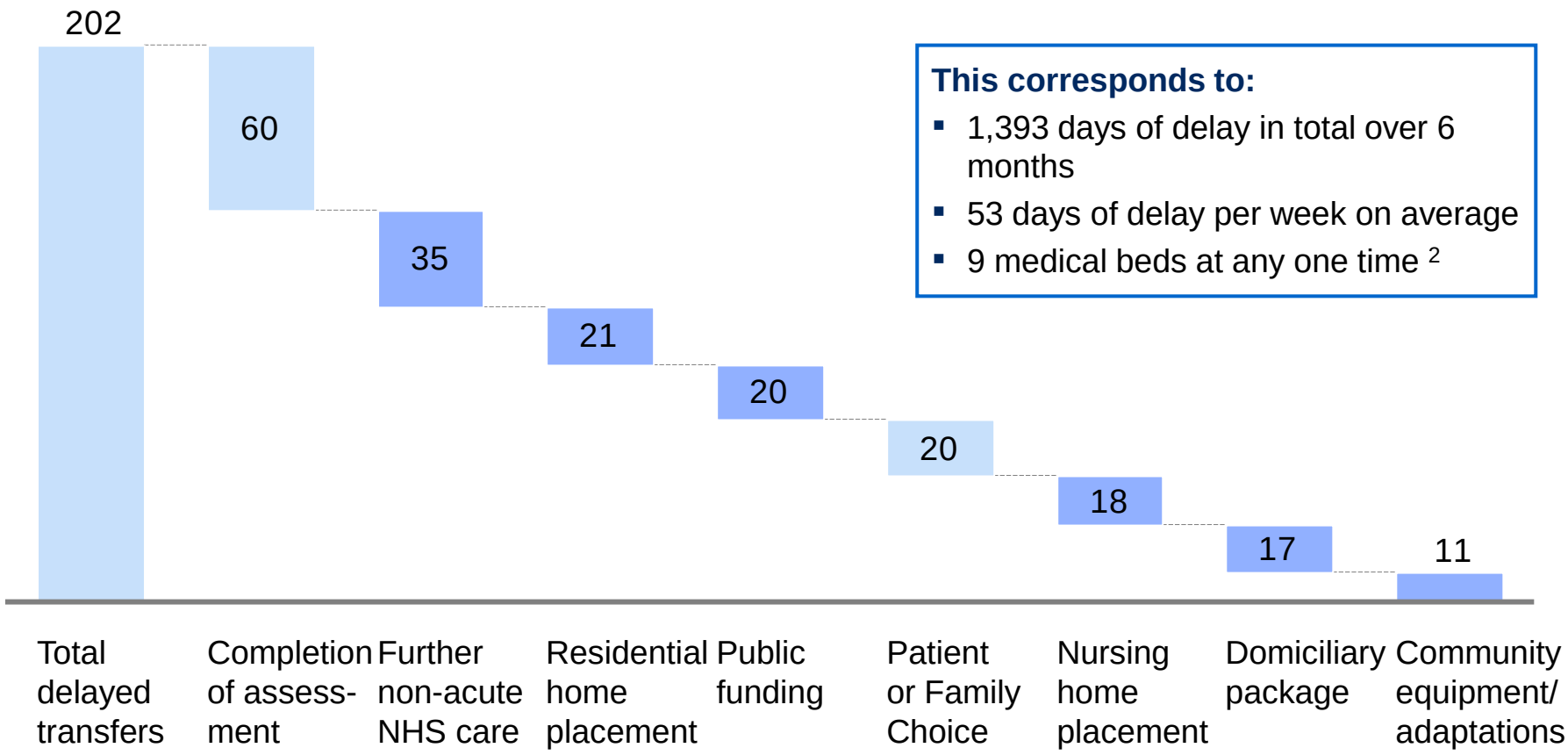
- 'Step down' & prevent admissions
- Equivalent of 30 / 34 beds (min) each hub (2/3rds Home Treatment Teams & 1/3rd Beds)

SOURCE: CWG meeting February 11th 2015

4,5 Community hubs will be pivotal for emergency flow at QEH, where 9 beds/day on average are blocked by delayed discharges

Trust related Out of hospital related

Delayed discharges for all core service at QEH for 6 months ending 4 May 2014[1]



This corresponds to:

- 1,393 days of delay in total over 6 months
- 53 days of delay per week on average
- 9 medical beds at any one time [2]

1 November 2013 - May 2014
2 with utilisation levels of 85%

SOURCE: QEH audit November 2014

4,5 £3.8m would need to be re-invested, mostly in frailty pathway and integrated care teams

	Key investments	Description
Recurrent	▪ Program management office	▪ Dedicated staff for the management of integrated care (e.g., director of IC, PMO, data managers, work-stream leads etc.)
	▪ Network support	▪ Dedicated staff for the management of the shared network, mostly in primary, community, social care and multi-disciplinary teams
	▪ Information infrastructure	▪ Software license, maintenance and regular upgrade of shared database
Non-recurrent	▪ Information infrastructure	▪ Development and implementation of shared common patient registry and virtual network across all teams
	▪ Organisation development	▪ Establishment of governance, processes, incentives and development of capabilities

- 30-40% of the gross saving will need to be re-invested
- There are also one-off transitional costs TBD
- Support to the program can be delivered by QEH staff (elderly care physicians…) and/or on QEH site
- WNCCG will need to confirm sources for this investment as plans are developed

SOURCE: Integrated care studies

4,5 Suggested models are in line with Five Year Forward View for NHS

	Description as per Five Year Forward View
Multi-speciality community providers (MCPs)	▪ Extended group practices – either as federations, networks or single organisations – employing senior nurses, consultant physicians, geriatricians, paediatricians and psychiatrists alongside community nurses, therapists, pharmacists, psychologists, social workers, and other staff. ▪ Would shift the majority of outpatient consultations and ambulatory care out of hospital settings. ▪ Could take over the running of local community hospitals ▪ Could have GPs and specialists credentialed to directly admit patients into acute hospitals, with out-of-hours inpatient care supervised by “hospitalists”
Primary and acute care systems (PACS)	▪ Single organisation to provide NHS list-based GP and hospital services, together with mental health and community care services.
Urgent and Emergency Care Networks	▪ Single organisation/network providing emergency care covering primary care, community mental health teams, ambulance services and community pharmacies, as well urgent care centres throughout the country. ▪ Linked hospitals to ensure patients get access to specialist emergency centres ▪ Seven day a week services in hospitals
Smaller hospitals	▪ Should not be providing complex acute services where there is evidence that high volumes are associated with higher quality ▪ Consideration to be given by local commissioners to tariff changes ▪ New models of medical staffing ▪ New organisational models to build scale
Specialised care	▪ Capture benefits of increased volumes/scale by creation of specialist centres ▪ Examples given for Stroke, Cancer (bowel, prostate) and specialised surgery ▪ Networked based approach across hospitals/sites
Maternity care	▪ Develop a range of maternity units ▪ Explore changes to tariff ▪ Support midwives to set up their own groups/services
Enhanced health in care homes	▪ Work in partnership with local authority social services departments, NHS locally and the care home sector, using the Better Care Fund, to develop shared models of in-reach support, including medical reviews, medication reviews, and rehab services.

6,7 Reducing spend on prescribing and contractual/transactional levers

Cost driver	WNCCG plans, February 2015	Saving £000's 14/15	15/16	16/17	17/18	18/19
Acute services						
▪ Acute general	▪ Practice level reviews of unwarranted variations	-825				
	▪ Reduction in emergency admissions re Better Care Fund	-228				
	▪ Pathway review system sustainability review	-550				
	▪ Impact of System Sustainability work		-2190			
	▪ Unidentified			-1840		
▪ Acute contracts -NHS (includes Ambulance services)	▪ Under 0.5m	-150	0	0		0
	▪ Under 0.5 transactional	-1736	-769	-769	-769	-769
Sub-total Acute services		**-3489**	**-2959**	**-2609**	**-769**	**-769**
Community Health Services						
▪ CH Contracts - Other providers (non-nhs, incl. VS)	▪ Continuing Healthcare packages: new framework for providers + enhanced reviews	-953	-597	-677	-741	-799
Sub-total Community services		**-953**	**-597**	**-677**	**-741**	**-799**
Primary Care services						
▪ Prescribing	▪ Prescribing schemes	-1253	-1253	-1315	-1381	-1451
Sub-total Primary Care services		**-1253**	**-1253**	**-1315**	**-1381**	**-1451**
▪ Other Programme services	▪ Under 0.5m	-250				
▪ Running Costs	▪ Under 0.5m			-100	-100	-100
▪ CSU Re-charge	▪ Running costs reduction (10% target)		-510			
Subtotal other services		**-250**	**-510**	**-100**	**-100**	**-100**
Total		**-5945**	**-5318**	**-4701**	**-2991**	**-3118**

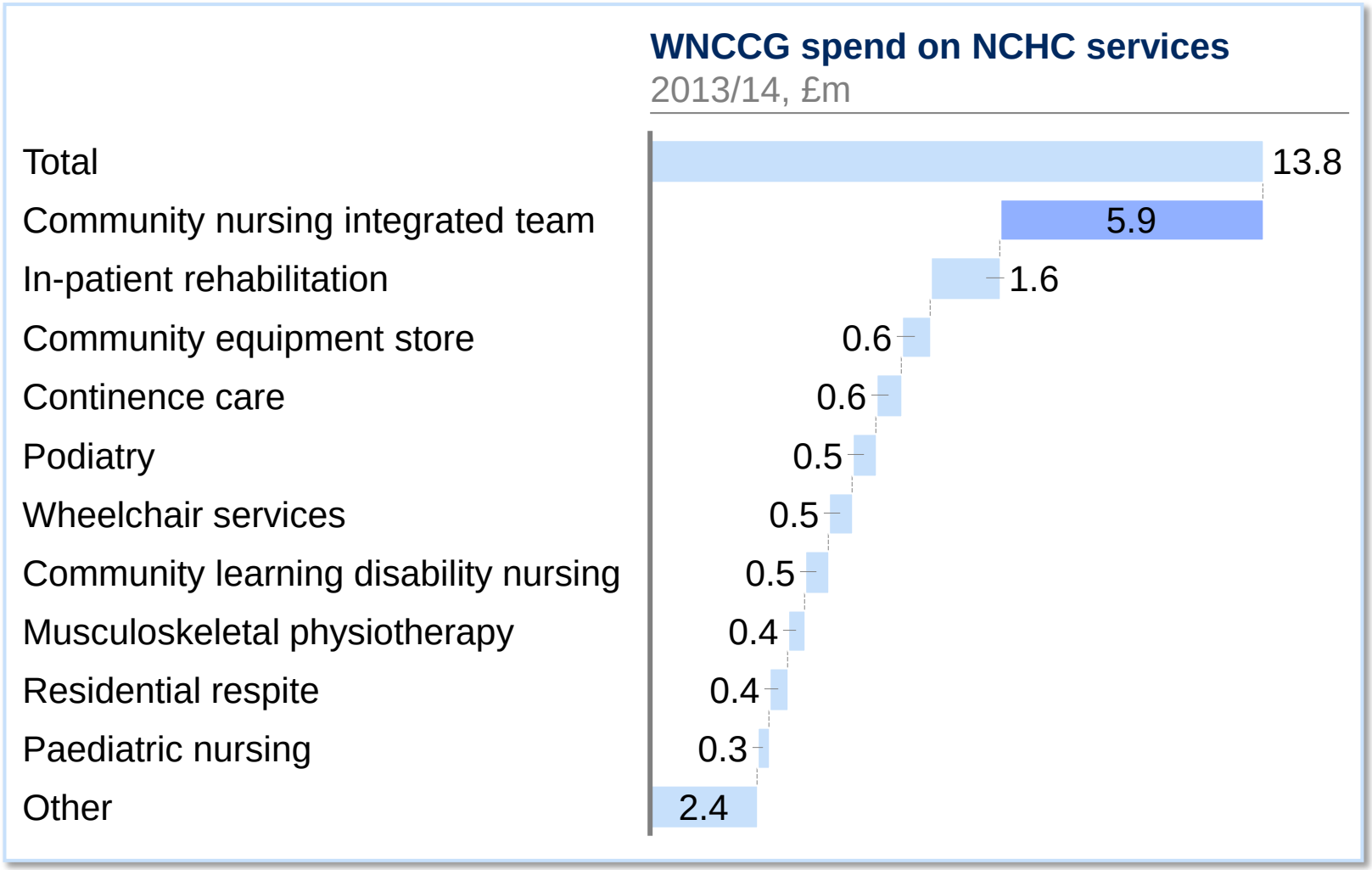
Note: Savings are gross, non-recurrent investment could come from non-recurrent surplus, additional recurrent investment would need to be netted off against these figures

SOURCE: WNCCG finance

8 Reducing unit cost of community care

- The future model of care out of hospital will require all providers, including primary, community, social and acute, to work in an integrated fashion that is centred around the patient needs
- This will provide a better experience for patients and for staff, better outcomes and will also reduce waste, duplication and inefficiencies
- WNCCG currently spends £13.8m on community care, of which £6m is with community nursing teams
- Our experience elsewhere in the UK suggests that moving to a different way of working in community teams, supported by IT and integration, can deliver significant productivity improvements
- We have not quantified resulting savings, and assume they will form part of WNCCG's commissioning plan in the future, as part of a wider portfolio of initiatives to support the changes to out of hospital care as well as the planned reduction in spend of £30m by 2018/19

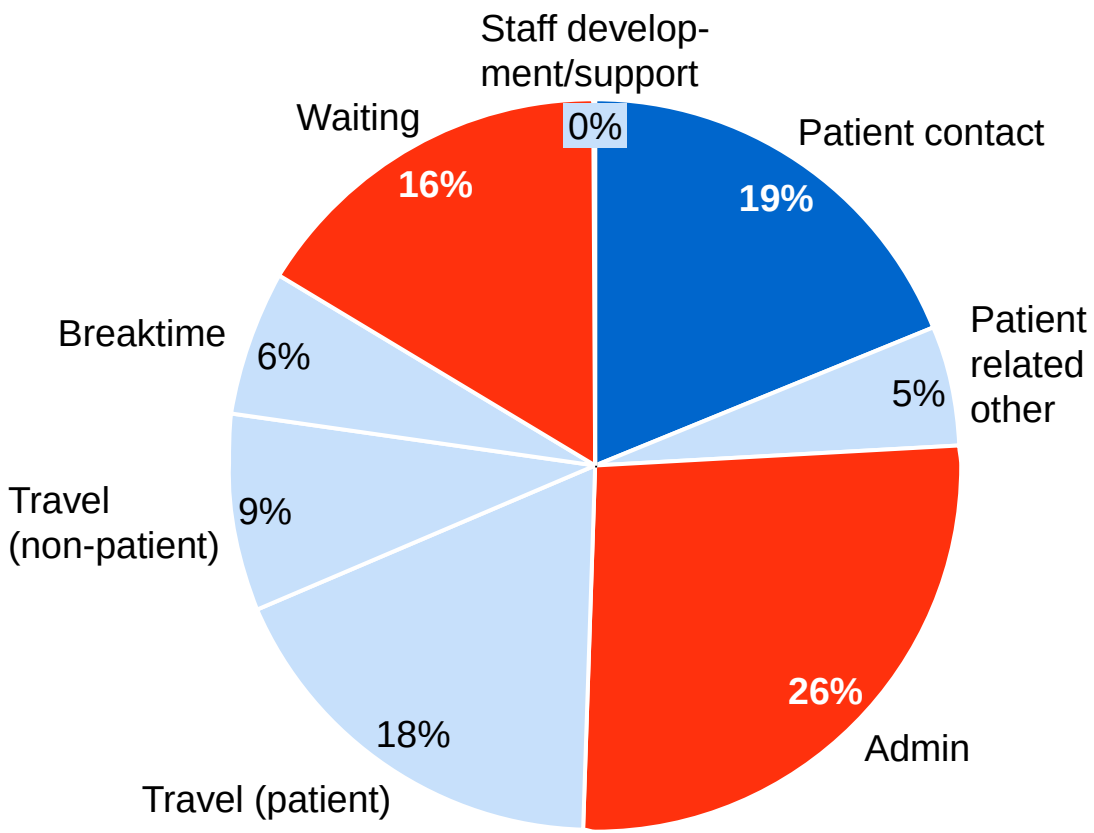
8 WNCCG spends £13.8m on community services, of which £5.9m are with community nursing teams



SOURCE: WNCCG Finance

8 Where we looked at community teams elsewhere in The UK observations indicated a significant opportunity to increase patient facing time

% of observed clinician/nurse time at a northern UK community service, 2014



- **Potential to reduce wait times by 50%:**
  - Centralising capacity management across teams
  - Allocating tasks to standard times
  - Following up on progress during the day to reassign tasks dynamically
- **Potential to reduce time spent on admin work by 50% by:**
  - Performing data entry during “dead time” (e.g., laptop data entry while in parked car waiting for next task)
  - Training and practicing with new software (LiquidLogic)
  - Better planning

SOURCE: 7.5hours of observations of nurse and PT, 25 March 2014

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population	Commissioners
2	Decommission procedures of limited clinical effectiveness	
3	Commission services from highest value/lowest cost providers	
4	Improve model of care for people with long term conditions	
5	Improve model of care for the frail elderly population	
6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	

9 Reducing unit cost of primary care

- The RCGP envisages a future of federated, integrated community-based primary care services where many patient interactions are remote. This will help facilitate initiatives as having a named GP for each patient aged over 75, integrated care and others
- WNCCG currently has 23 GP surgeries. There is potential to bring together some GP surgeries in order to support the envisioned changes to primary care, and also to reduce the unit cost of primary care
- Total spend on primary care today is £29m, most of which is with the NHSE LAT. Of this, ~ £1m is with the GP out of hours contract, and the rest is spent on premises (£2m), GP pay (we estimate £12-15m), other (nurses, receptionists, healthcare visitors pay, office supplies, insurance and expenses - £11-14m)
- To date, our window into primary care finances has been very limited and hence our capability to assess the financial impact of integrating GP practices is limited
- As with community care, we assume any changes will form part of commissioning plans in the future, as part of a wider portfolio of initiatives to support the changes to out of hospital care as well as the planned reduction in spend of £30m by 2018/19

9 The RCGP envisages a future of federated, integrated community-based primary care where many patient interactions are remote

Main findings

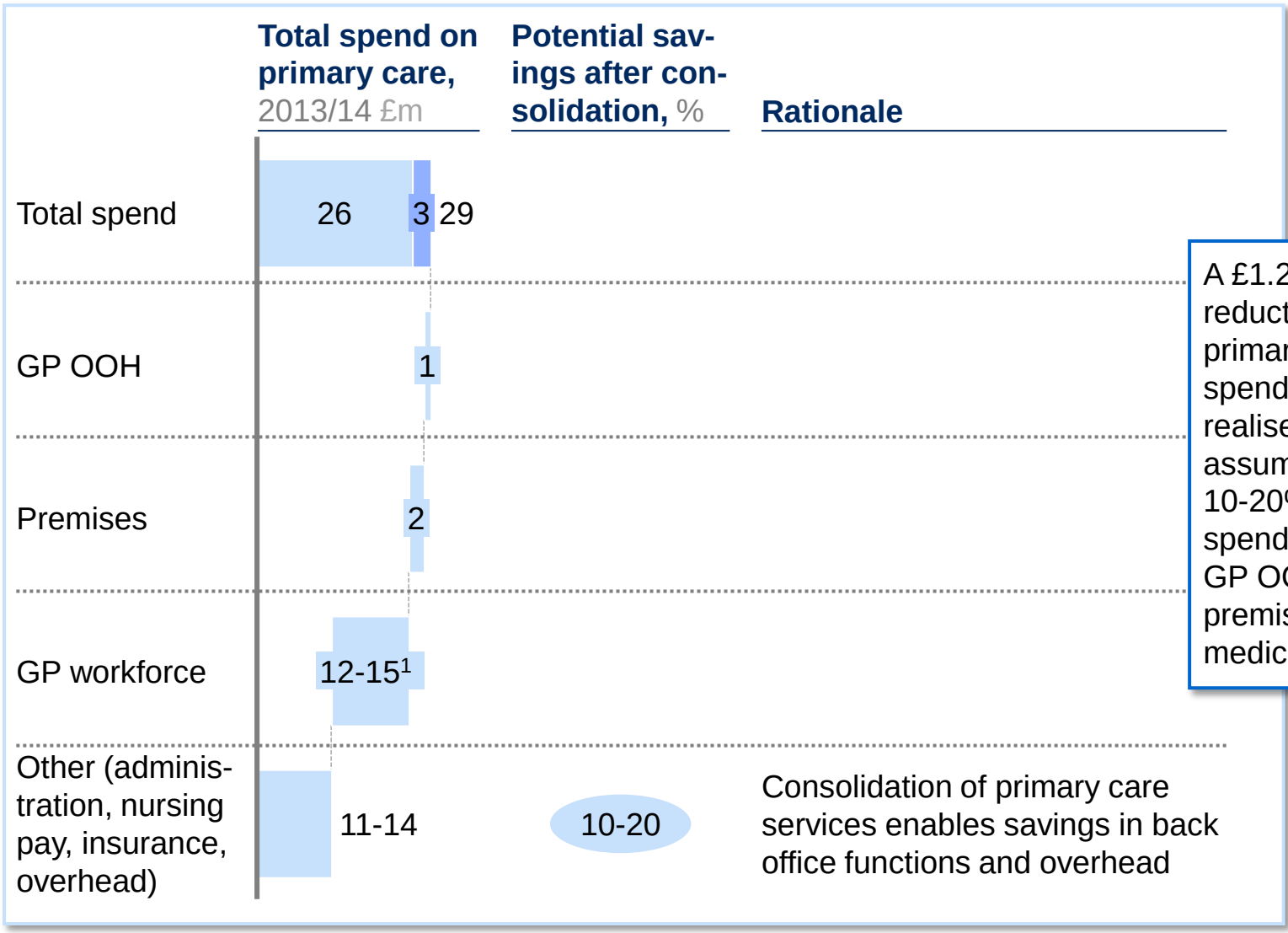
- Role of the General Practitioner:
  - **Expert generalist** responsible for first contact care, continuous care, complex care, whole-person care and systems of care
  - **Coordinating complex care**
  - Leading service planning and quality improvement
  - **Extended roles** in clinical care, population health, or education and training
- Role of the General Practice team:
  - **Multi-disciplinary teams**
  - Greater **integration** of generalist and specialist care
  - **Federated or networked** organisational models offering an extended range of community-based services
- Workforce issues:
  - Enhanced and extended training for GPs
  - New **training** programmes for Practice Nurses, Physician Assistants and others
  - **Shift in the clinical workforce** towards General Practice with some specialists re-training in General Practice
- Approach to care:
  - More **flexible** consultations and an end to the 10 min appointment
  - More **remote** consultations including phone, email and online forums and a virtual relationship between patient and practice
  - Better **out-of-hours** care
  - Greater collection and use of **information** including more academic and quality improvement activity

Action plan

- Promote a greater understanding of generalist care and demonstrate its value to the health service
- Develop new generalist-led integrated services to deliver personalised, cost-effective care
- Expand the capacity of the general practice workforce to meet population and service needs
- Enhance the skills and flexibility of the general practice workforce to provide complex care
- Support the organisational development of community-based practices, teams and networks
- Increase community-based academic activity to improve effectiveness, research and quality

SOURCE: Royal College of General Practitioners, The 2022 GP: A vision for General Practice of the Future, 2013

9 Consolidation and changes to primary care services could reduce spend by up to £1.2-2.5m; this will need to be further validated



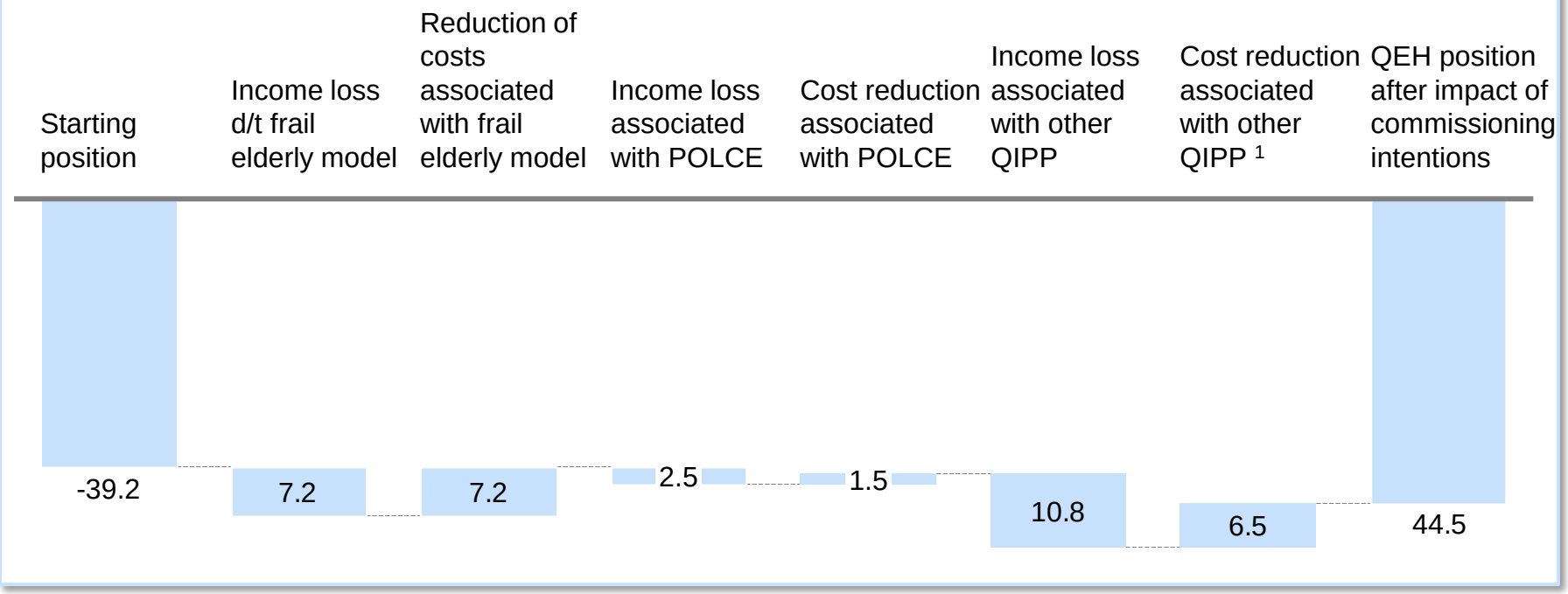
1 Based on assumption that 129 GPs (partners, salaried GPs, Registrars) each incur spend of £100K p.a.

SOURCE: WNCCG Finance, East Anglia LAT Finance

The impact of commissioners' plans on QEH will move it from a forecast deficit of £39.2m to a forecast deficit of £44.5m

QEH forecasted financial position after impact of commissioners' plans

£m, 2018/19



1 Assuming stranded cost of 40%

SOURCE: OFG discussions

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population	Commissioners
2	Decommission procedures of limited clinical effectiveness	
3	Commission services from highest value/lowest cost providers	
4	Improve model of care for people with long term conditions	
5	Improve model of care for the frail elderly population	
6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	

Operational improvements (1/2)

Our work to date on operational improvement indicates an opportunity to reduce costs by up to £7.1m by 2015/16, which will bring QEH to between the median and the top quartile within its peer group. Although some of the numbers below require further work and are indicative, QEH believes there is an opportunity to reduce costs by £15m between 2016/17 and 2018/19, which will then keep QEH in line with the peer group. From these our work has also identified £2.6m of opportunities for cost reduction in 2016/17 and £4.4m of income repatriation opportunities. Combined with £4.8m of savings already made in 2014/15, this will bring the total operational improvement opportunity for QEH for 2014/15-2018/19 to £26.9m. The details of operational improvement opportunities are

1. £3.0m in medical productivity

- Reducing WLI payments by £1.2m through improved efficiency in outpatients, theatres and day surgery
- Reducing pay spend in A&E by £1.2m through changes to the workforce model.
- £0.6m net savings on medical agency spend by implementation of CMRS medical bank (Central Medical Resourcing Service)

2. £0.8m net savings on nursing agency spend by

- Increasing the enrolment of registered nurses in the nurse bank from 67% (545 of 817 registered nurse WTEs) to 90% (excludes occupational health and other non-comparable nurses), and increasing the average shifts covered per month per registered bank nurse from 1.1 shifts to 1.3 shifts. This would provide enough cover to entirely meet the current agency demand of 456 shifts per month, for a net saving of £0.8m (assumes an average agency rate of £40 per hour and bank rate of £20 per hour)

3. £0.6-1.1m by reducing sickness/absence rates

- Working with the aid of an external sickness management provider reduce sickness/absence levels across all staff groups from 4.9% to 3% (40% reduction), in line with National Institute Health guidance. FirstCare, a sickness management company, have been commissioned to manage sickness/absence at a cost of £93k per year. Full implementation is expected by 6th April 2015, with monthly impact from June 2015. There may be further opportunity in the future to reduce rates down to national best practice of 3%

Operational improvements (2/2)

4. **£1.2m from existing divisional plans to reduce spend**

5. **Up to £1m from reduction in drug spend by reducing spend on high cost drugs and improving medicine management.** We recognise that costs of specialist drugs may be managed on a pass through basis, therefore some of the savings may accrue to the broader system rather than to the QEH per se

6. **Against a target of £15m for 2016/17-2018/19, further savings of £2.6m have been identified for realisation in 2016/17 as well as an income repatriation opportunity of up to £4.4m**

- £1.7m in medical productivity, through a combination of
  - Reducing spend on sPAs by £1m, through a reduction of in variation in sPA allocation and aligning sPA allocation to 1.5 per consultant, saving £1m, in line with emerging national guidance on consultant contract.
  - Reducing allocation on clinical excellence awards (CEAs) by £0.3m from current 54% of consultant body to recommended 35%.
  - Further reduction in pay spend in A&E by £0.4m through continued rollout of changes to the workforce model
- £0.9m net savings on nursing bank spend (on a base of £3.3m bank spend in 2014/15) through recruitment

In addition, £4.4m could be achieved through repatriation of NHS activity now being commissioned by WNCCG from private providers, enabled by improved productivity in theatres and outpatients and reduced waiting times. Initial discussions between QEH and WNCCG indicate QEH will need to improve levels of service and waiting times to make this a tangible opportunity. This would also be dependent on patient choice and GP referral patterns.

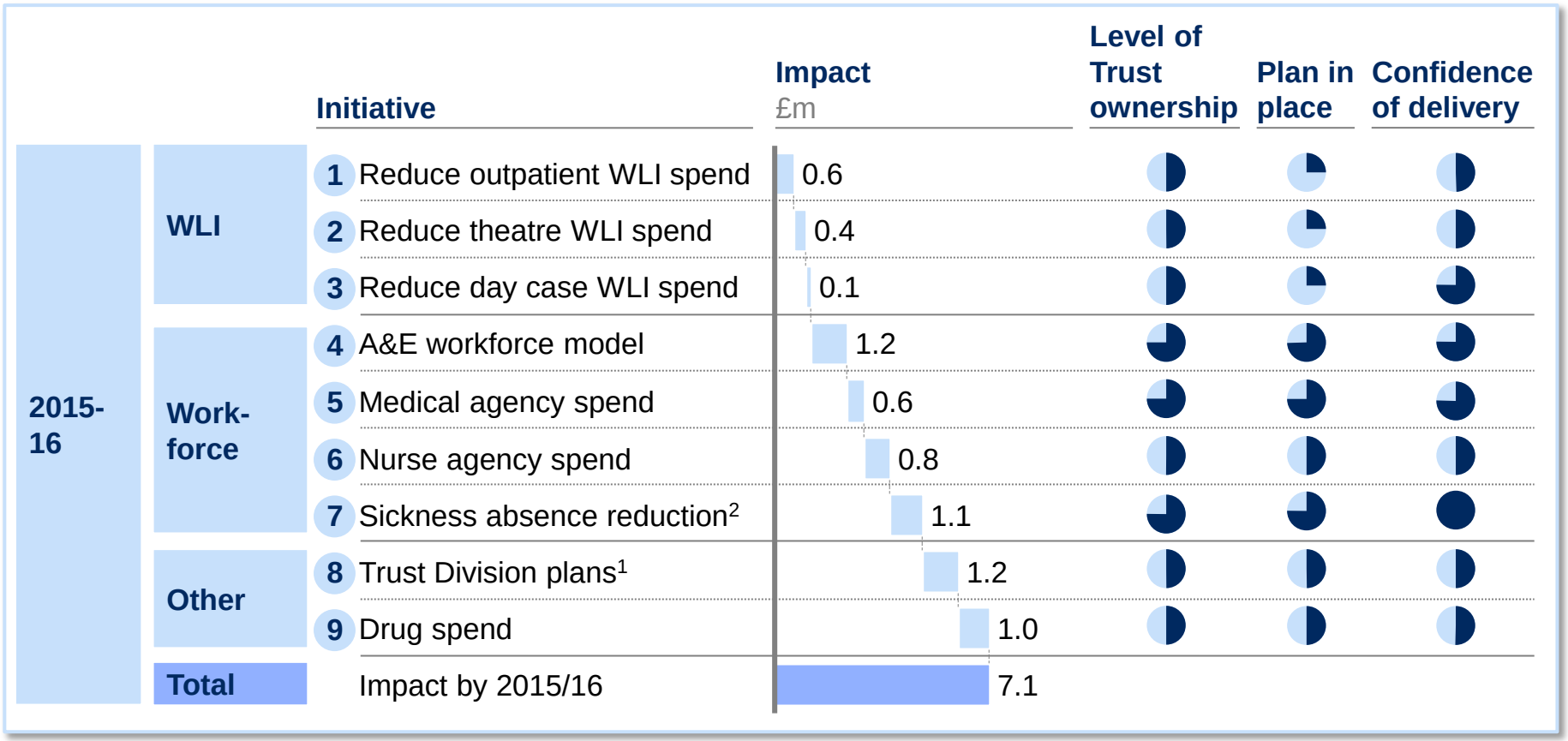
The CPT prioritised several areas of opportunity, namely medical productivity and non-pay, as these were highlighted early by a top down diagnostic effort. There are a number of areas where the CPT did not look in detail, such as corporate, procurement of general supplies and clinical supplies beyond drugs, capital optimisation, ST&T workforce, non-ward based nursing workforce – all of which should be the focus of further efforts to reduce costs

10 Operational improvement at QEH is expected to deliver up to £26.9m of cost reduction

	QEH existing CIP plans March 2015	Status as of February 2015	
		Level of maturity	Rationale
CIP delivered in 2014/15	4.8	L5	▪ CIPs already delivered in 2014/15 (annualised)
2015/16 plans	7.1	L2-3	▪ Detailed in following pages
Future CIP - identified	7.0	L1-2	▪ Detailed in following pages - £2.6m of L2 plans for cost reduction, and £4.4m of income repatriation opportunity
Future CIP - unidentified	8.0	n/a	▪ No plans developed yet for 2016/17-2018/19
Total by 2018/19	26.9		

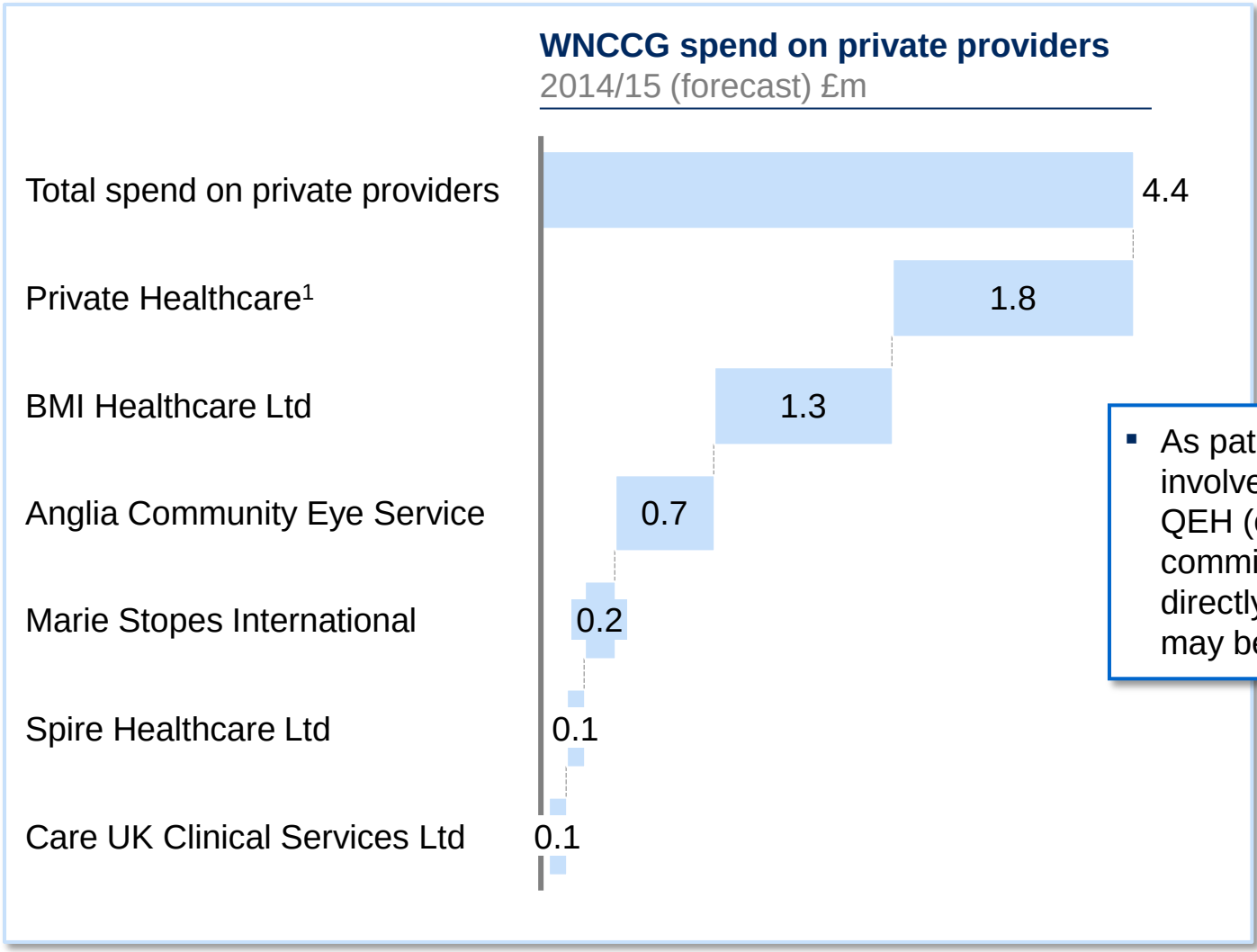
SOURCE: QEH finance; CPT analysis; monitor guidance on CIP development

10 Operational improvements at QEH are estimated at £7.1m for 2015/16



1 £1.2m of £2m target identified
2 £0.6m by 20% sickness absence rate reduction across the Trust, with a further £0.5m if nurse and midwife sickness rates reduced to 3.0%

10 There is an opportunity to repatriate up to £4.4m of WNCCG's forecast spend on private providers



- As patient choice is involved, the ability of QEH (or commissioners) to directly influence this may be limited

1 Includes Norfolk Surgical and Diagnostic Centre (NSDC)
2 Assumption on contribution: 30%

SOURCE: 2014/15 Month 08 November 2014, Acute Commissioning Analysis by Provider, WNCCG

Note: more detail on operational improvements has been provided to the Trust

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population	Commissioners
2	Decommission procedures of limited clinical effectiveness	
3	Commission services from highest value/lowest cost providers	
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6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE LAT
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	

11 Transformation of services

- **A&E and Urgent care**
- Maternity
- Paediatrics
- Planned care

On top of "traditional" operational improvements, QEH will need to more radically transform services to ensure clinical and financial sustainability – Urgent care

Given the small volumes of activity at QEH, services will need to be delivered in fundamentally different ways to ensure clinical and financial sustainability into the future.

In **urgent care**, the trust (with local health economy support) can improve financial performance **by £1.4m** through:

- Aligning staffing levels to those in similar sized A&E departments in other parts of the country (£0.8m on top of cost improvement initiatives accounted for in the previous section of this report on operational improvement)
- Combining the GP out of hours service with the A&E to build scale (£0.6m of additional income with no additional cost)
- Developing a new "front door" of the hospital to bring together major A&E care with the medical assessment unit, surgical assessment unit, paediatric assessment unit and frail elderly assessment unit to enable combined staffing and more efficient working (though please note the impact is not included here to avoid double counting with QEH cost reduction following the impact of changes to the model of care for the frail elderly)

These changes will leave the service (A&E and acute medicine) with an **£8.5m deficit** by 2018/19 unless further changes are made

11 To provide context, there are currently 135,000[5] urgent care contacts managed by providers across the Local Health Economy

Patient activity across LHE, 2014

Primary care	Community care	Acute care	
		A&E	NEL IP
▪ Primary care out of hours appoint-ments **7,400[2]**	▪ Minor injuries unit **6,000**	▪ Majors[1] **33,000**	▪ **42,000**
▪ On the day appoint-ments **67,000[4]**		▪ Minors[3] **22,000**	

1 Majors equates to HRG activity labelled Category 1 investigation with category 3-4 treatment, Category 2 investigation with category 2, 3 or 4 treatment, Category 3 investigation with category 1,2,3 or 4 treatment 2 Based on CCG data

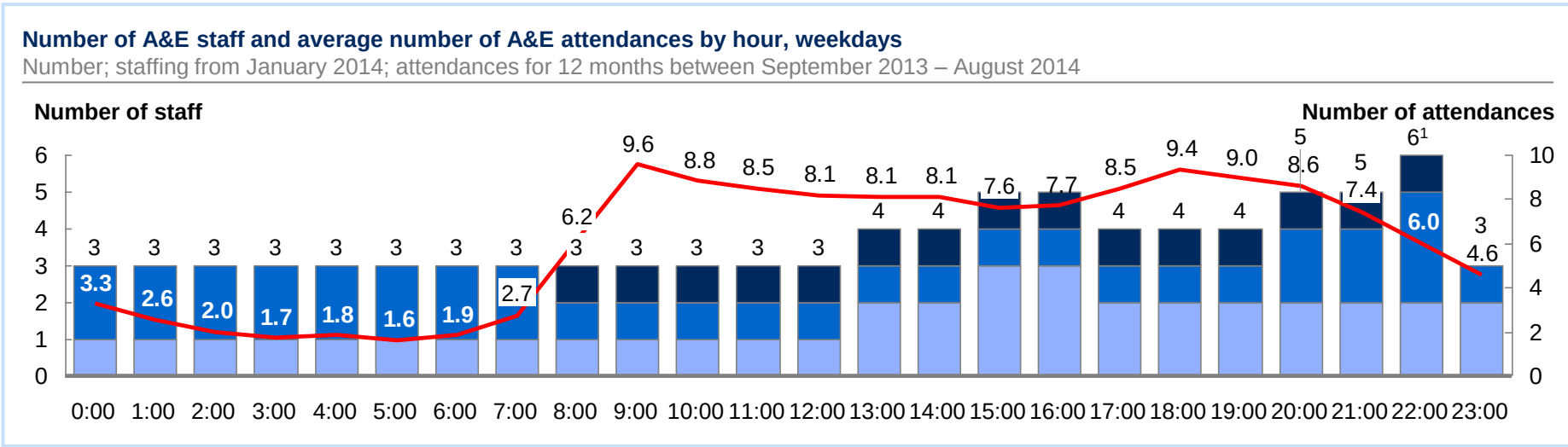
3 Minors activity equates to HRG activity labelled No investigation with no significant treatment, Category 1 investigation with category 1-2 treatment, Category 2 investigation with category 1 treatment

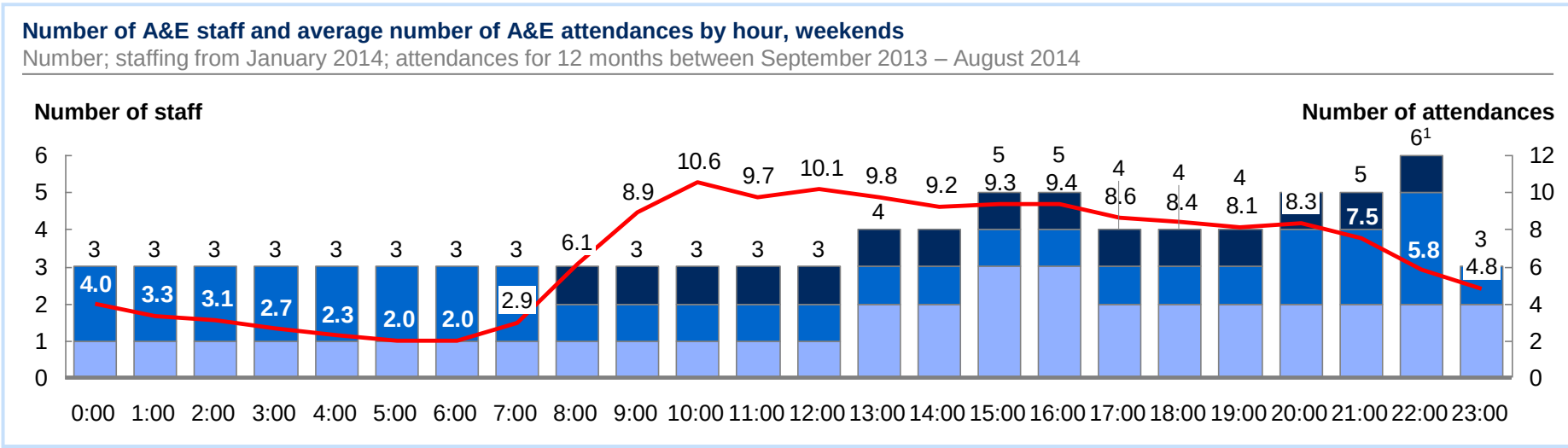
4 Total Primary Care list size multiplied by % same day appointments held on average by Primary Care practices in West Norfolk

5 Excluding non-elective inpatient admissions

SOURCE: Healthwatch, QEH Outturn data 2013/14

11 Activity at QEH A&E today is low and drops significantly after midnight



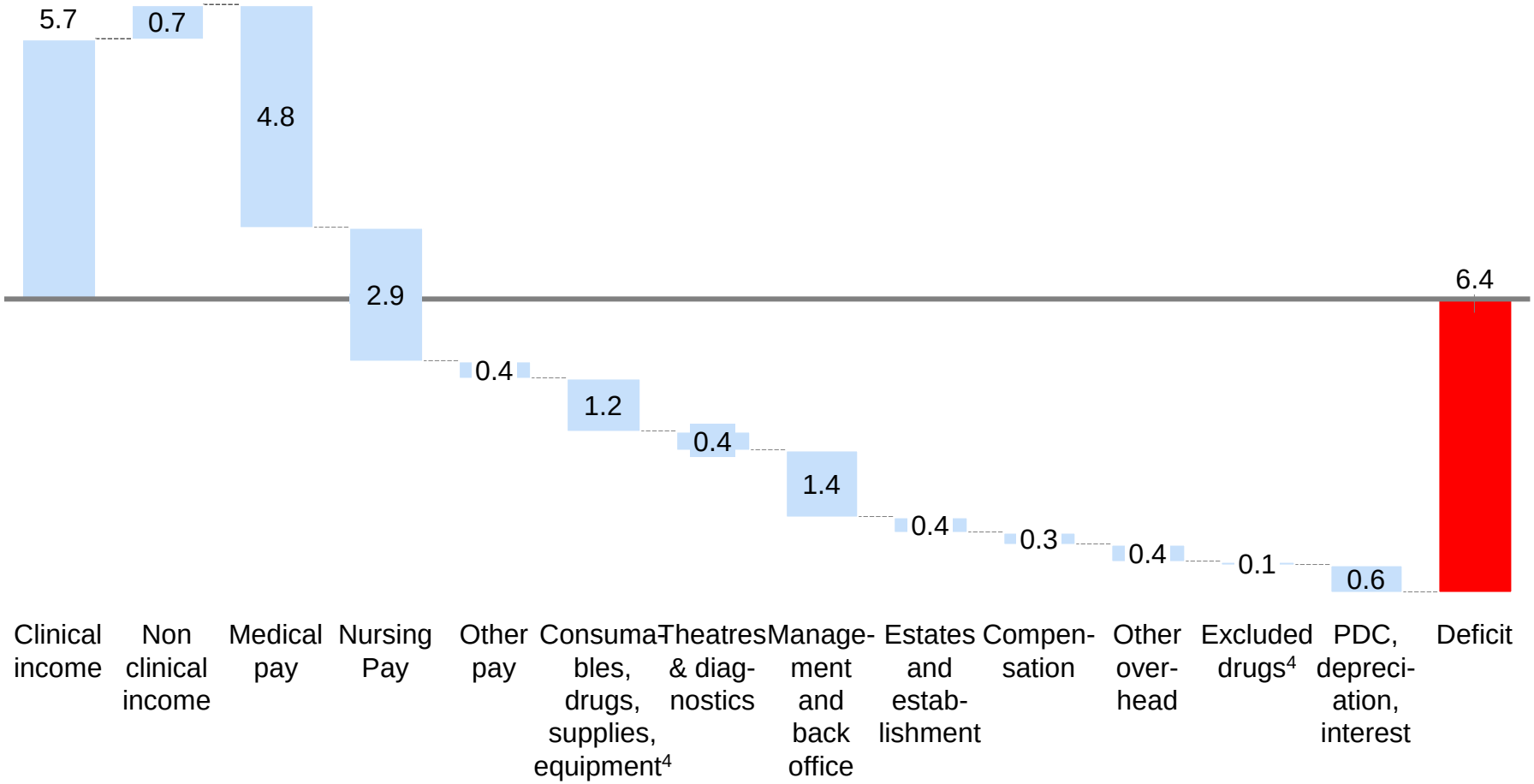


1 Data verified with QEH PMO

SOURCE: QEH NHS Foundation Trust Program Management Office

11 The current model of care for A&E is not financially sustainable

Projected I&E of A&E service, £m, 2018/19[1]

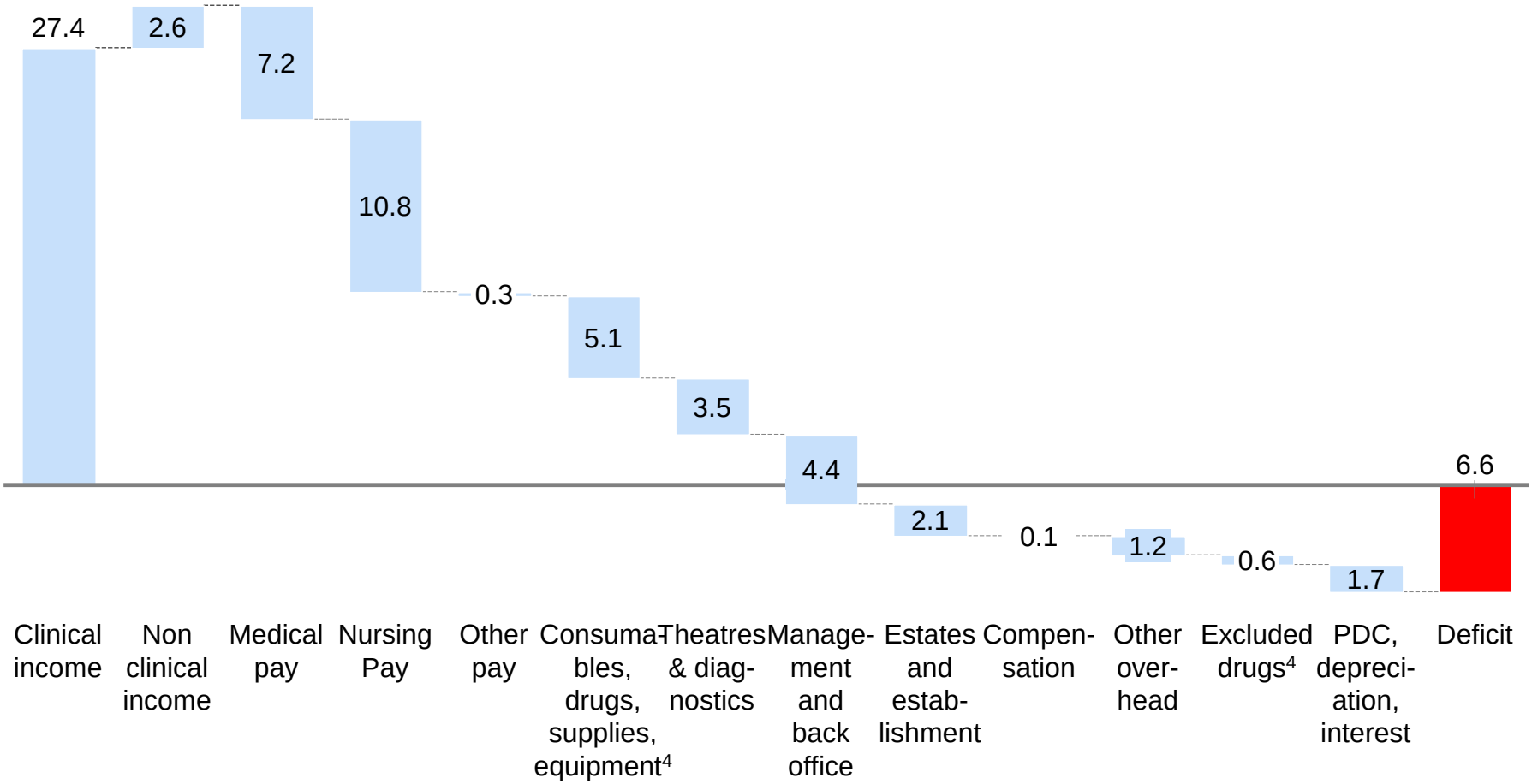


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 The current model of care for Acute Medicine is not financially sustainable

Projected I&E of Acute Medicine service, £m, 2018/19[1]



1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 WNCCG plans to change model of care for people with LTC and frail elderly; these changes may reduce bed base at QEH by 119 beds

CCG plans for changes to model of care for frail elderly and people with LTC…

- As described, WNCCG has plans to change model of care for people with long term conditions and frail elderly
- The proposed model of care will both prevent unwarranted acute care from taking place, and shift acute care closer to home to less acute settings
- Analysis indicates this, if implemented for the 20% of local population who are at highest risk of being admitted to hospital, will reduce up to 4,750 non-elective medical admissions in 2018/19

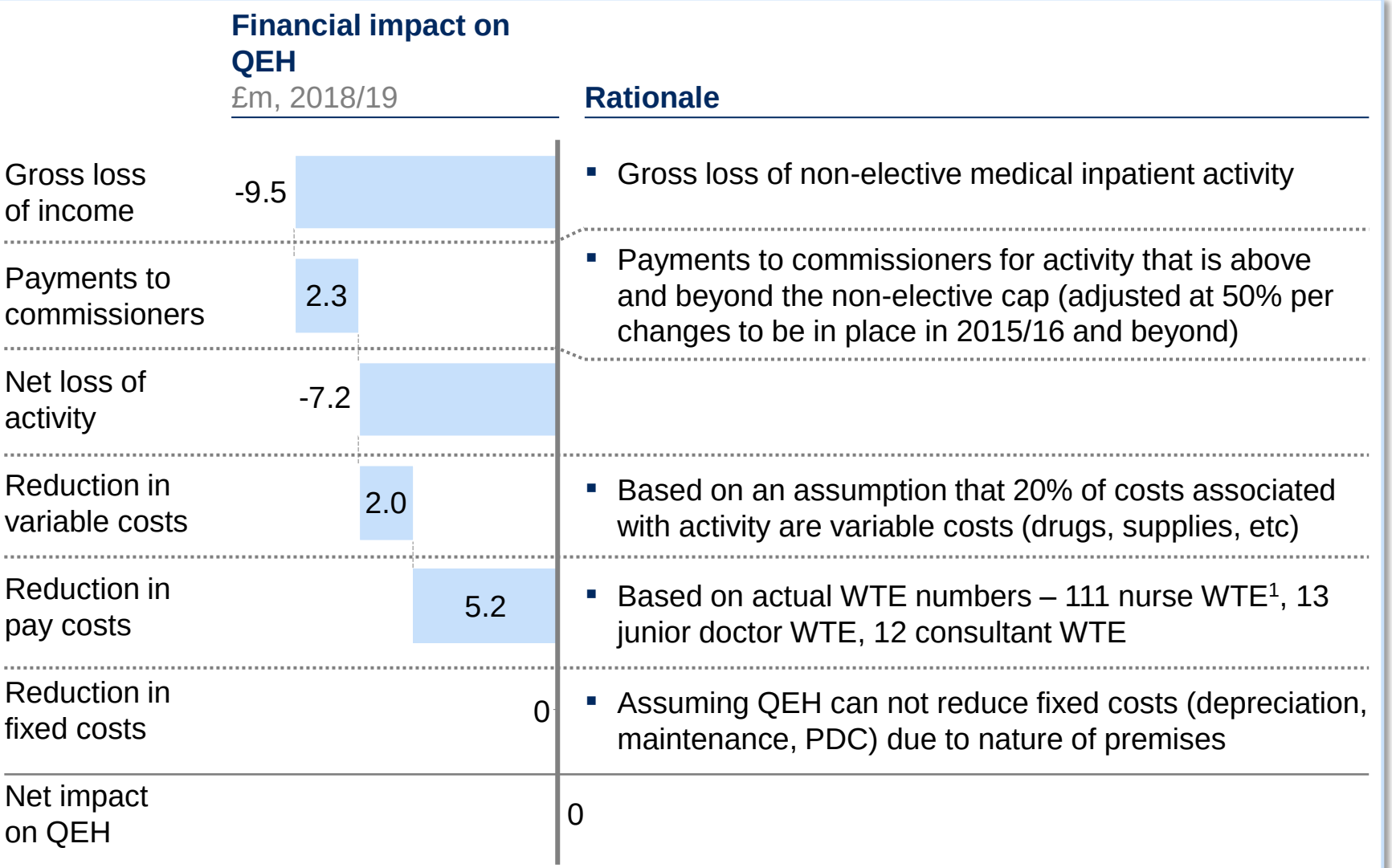
…proposed changes, if implemented at scale, will reduce QEH bed base by up to 118 inpatient beds

Number of non-elective medical admissions	×	4,750
Average length of stay[1]	=	7.7
Total bed days	÷	36,575
Occupancy rate[2]	÷	85%
Days in year	=	365
Acute medical beds impacted		119

1 Based on QEH data
2 Assuming occupancy rate of 85% (QEH occupany rate at 2013/14 was 89%)

SOURCE: QEH finance; CPT

11 Financially, the impact on QEH is at best cost neutral; the impact on sustainability of medical rotas will need to be reviewed



1 Mix of RN and HCA

SOURCE: QEH finance; CPT analysis

11 We evaluated the impact of several actions QEH could take to address sustainability of urgent care

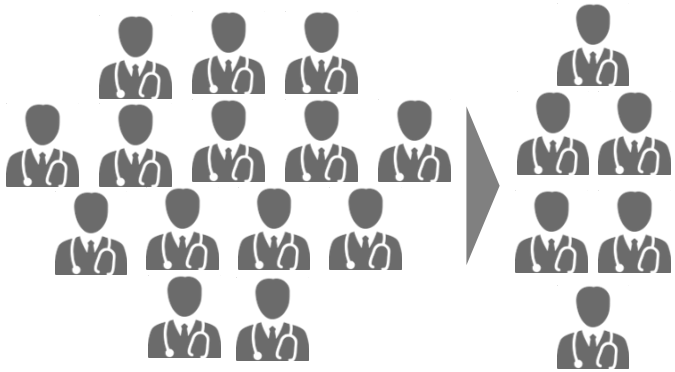
£m

	Description	Impact on beds	Impact on cost	Impact on income	Net financial impact
a Bring A&E staffing levels to England averages	Improve ways of working in A&E (RATing, substantive recruiting) to reduce staffing levels	n/a	▪ £1.8m, of which £1m are already in QEH CIP plans	n/a	£1.8m benefit
b Shift minors activity closer to home	Shift some of the 22,000 minors activity to urgent care centres in community	n/a	▪ £0.6m from reducing nurse WTEs in minors	-£2.4m	-£1.8m (loss)
c Consolidating assessment units (MAU, PAU, SAU)	Bring together all assessment units (requires capital investment of £15-20m per QEH business case assessment)	15-20 reduction in beds	▪ £0.6m from sharing staff across assessment units ▪ Up to £1m from reduction in beds	n/a	£1.6m benefit
		Consolidating assessment units will improve flow and reduce number of acute medical beds; however, since we are considering a future in which changes to model of care for frail people and people with LTC have been implemented and bed number reduced by 118, we did not include this impact in our assessment to avoid double counting			
d Shifting GP out of hours activity	Shift GP out of hours activity, 7,400 contacts per year, to QEH front door	n/a	None as activity can be absorbed by sub-scale front door	£0.6m	£0.6m benefit
e Colocating a GP practice on site	Colocate a GP practice on site – physical space has been made available as 4-5 wards (118 beds) are no longer required	n/a	n/a	£0.2m from rent payments	£0.2m

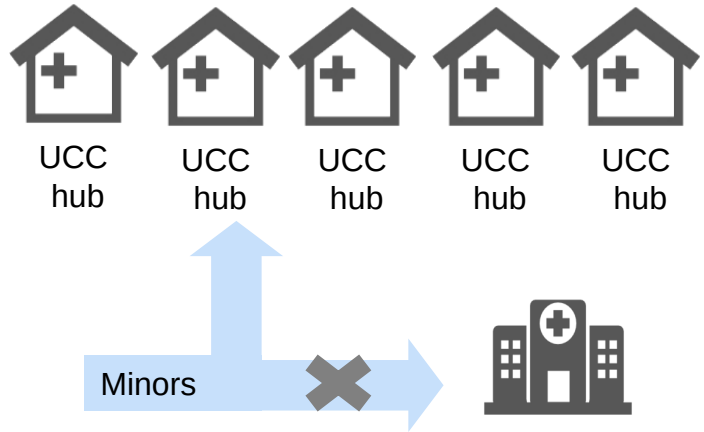
SOURCE: CPT

11 The urgent care CWG has put forward four potential models of care for urgent care in the LHE

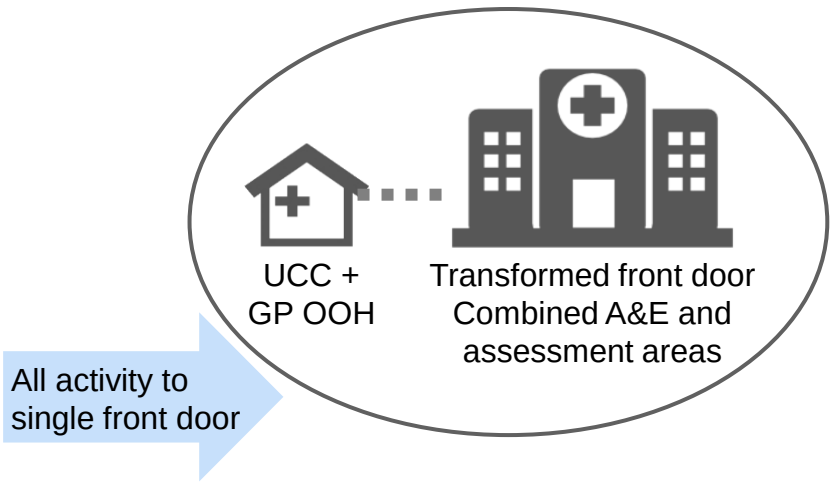
Scenario 1: Staff to A&E to England average for level of attendances



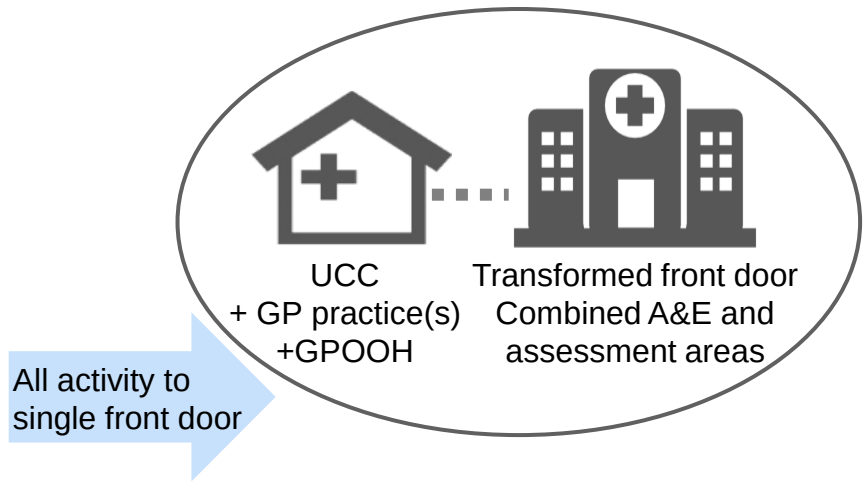
Scenario 2: Create multiple urgent care hubs in the community to reduce demand on QEH



Scenario 3: Transform the front of the hospital, create a UCC on site and include GP OOH



Scenario 4: As Scenario 3 and include a GP practice on QEH site



11 Each of the four scenarios put forward includes some of the specific changes evaluated at QEH

£m

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
a Bring A&E staffing levels to England averages	✓	✓	✓	✓
b Shift minors activity closer to home		✓		
c Consolidating assessment units (MAU, PAU, SAU)			✓	✓
d Shifting GP out of hours activity			✓	✓
e Colocating a GP practice on site				✓

SOURCE: CPT

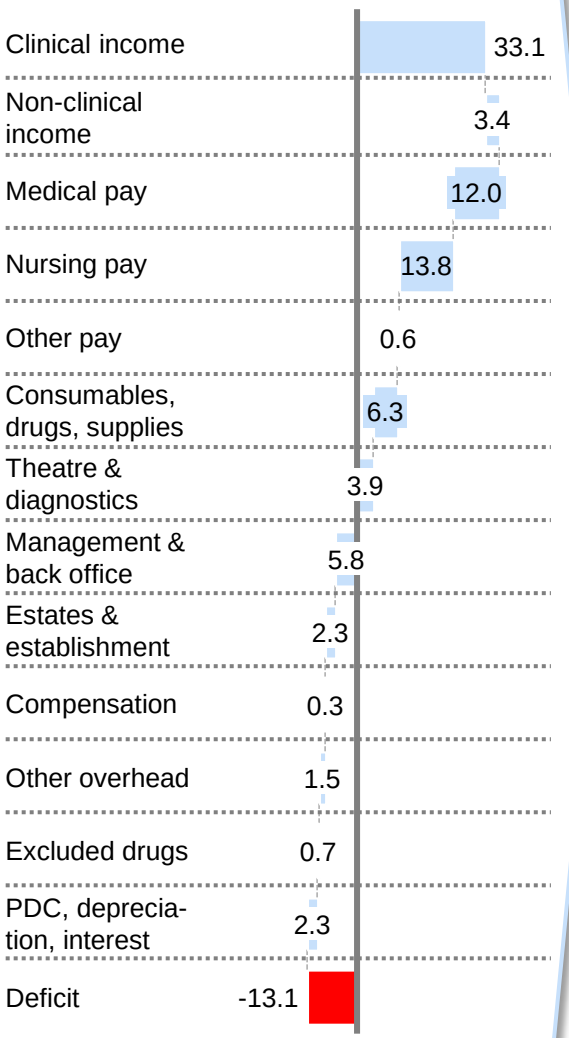
11 Scenario 3 is the preferred scenario by the urgent care CWG

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
What is the model of care?	▪ Staffing to England average staffing levels for emergency departments with attendances of 50k-80k per annum (this is lower than QEH staffing levels today)	▪ As scenario one ▪ Plus create urgent care hubs across West Norfolk to manage demand for urgent care services in non-acute setting	▪ As scenario one ▪ Plus create UCC combining minors and GP out of hours services ▪ Transform the front of the hospital to create consolidated MAU, PAU, SAU	▪ As Scenario 3 ▪ Plus co-locate GP practices on QEH site ▪ Offers potential for rent – could also combine GP same day appointment with the UCC
Which patients are seen at QEH?	▪ All patients currently seen at QEH	▪ Decrease in minors activity dealt with by A&E staff at QEH	▪ All patients currently seen at QEH, and in addition GP out of hours	▪ All patients currently seen at QEH, and in addition GP out of hours ▪ Primary care patients for GP surgery/surgeries
Which are not seen?	▪ n/a	▪ n/a	▪ n/a	▪ n/a
Interdepen-dencies	▪ Pathology ▪ Radiology ▪ Access to acute specialist input	▪ Pathology ▪ Radiology ▪ Access to acute specialist input	▪ Pathology ▪ Radiology ▪ Access to acute specialist input	▪ Pathology ▪ Radiology ▪ Access to acute specialist input

SOURCE: Interviews with clinicians, discussions with clinicians and management at meetings of clinical working groups

11 All scenarios except scenario 2 improve financial sustainability

Projected I&E of A&E and Acute medicine combined, 2018/19, £m



	Impact of Scenario 1 2018/19, £m	Impact of Scenario 2 2018/19, £m	Impact of Scenario 3 2018/19, £m	Impact of Scenario 4 2018/19, £m
Income changes (+positive, -negative)	-	-2.4	0.6	0.8
Cost changes (+positive, -negative)	1.8	2.4	1.8	1.8
Cost changes already captured in CIP plans (+positive, -negative)	1.0	1.0	1.0	1.0
Net cost changes (+positive, -negative)	0.8	1.4	0.8	0.8
Net impact of scenario, exclusive of existing CIPs (+positive, -negative)	0.8	-1.0	1.4	1.6

- This does not include annual cost of capital required for consolidation of assessment units

SOURCE: QEH finance and HR data 2013/14, "The drive for quality – How to achieve safe, sustainable care in our Emergency Departments?", The College of Emergency Medicine, May 2013 (data from The Quality in Emergency care Dashboard survey of 131 UK EDs in FY 11/12)

11 How do alternative clinical models address sustainability

	What sustainability challenges does this address
Model 1	▪ Reduction in number of staff means less need for temporary staff and agency spend ▪ Changes to operational protocols mean better performance on 4-hour ▪ Improved financial sustainability
Model 2	▪ As model 1 (but no improved financial sustainability), and ▪ Better access to urgent care out of hospital (possibly exacerbating duplication of capacity)
Model 3	▪ As model 1, and ▪ Reduction in duplication of capacity and access points out of hospital ▪ Better access to GP out of hours ▪ Colocation of assessment units improves senior input at front door
Model 4	▪ As model 3, and ▪ Colocation of primary care on site reduces fixed costs across LHE and improves integration of care (possibly running a risk of more use of diagnostics and imaging by GPs on site)

11 What is different about scenario 1 relative to today

	Rationale
Operational protocols at front door	▪ RATing - senior input brought forward to front door to reduce waiting times for patients (current waiting times for consultant input are between 45-60m)
Operational protocols at back door	▪ Will have been addressed by changes made by WNCCG to model of care for frail elderly and people with long term conditions
Staffing levels at A&E	▪ Due to combination of operational changes, improved flow and substantive staffing of locum posts, staffing levels will move towards England averages

11 Scenario 1: reducing A&E staffing levels to England averages will reduce costs by £1.8m, of which £1m is accounted for in 15/16 CIPs

A&E WTE and costs, 2013/14

WTE, £

A&E role	WTE	Cost, £
Consultants	7.25	1,111,790
Locum Consult	0.59	91,012
Associate Spec	1.00	129,387
Spec Registrar	2.77	184,820
S Reg Loc ADHs	0.08	5,018
S.H.O.s	6.75	358,985
SHO Locum ADHs	0.32	16,769
Staff Grd Prac	5.17	451,760
Stf Grd Pr Loc	0.44	38,154
S.G.P.Loc ADH	0.34	29,295
Agency medical	6.81	1,555,248
Subtotal Medical Staff Direct Costs	**31.52**	**3,972,237**
Band 8	0.50	35,586
Band 7	7.14	381,769
Band 7-Bank	0.20	10,809
Band 6	8.50	352,632
Band 6-Bank	0.61	25,193
Band 5	23.30	773,935
Band 5-Bank	5.57	184,928
Band 3	5.06	126,864
Band 3-Bank	0.12	3,095
Band 2	4.54	112,618
Band 2-Bank	3.00	74,482
Ancillary 2	3.83	91,239
Ancillary 2 Bank	0.04	1,042
Other agency nursing	4.33	398,210
Subtotal A& nursing costs	**66.74**	**2,572,402**
Total	**98.26**	**6,544,639**

A&E WTE and costs using England averages, 2018/19

WTE, £

Staff grade	WTE[2]	Total cost[3]
Consultants	6.5	£1,082,500
Staff grades / Specialty doctors	3.4	£322,646
Clinical fellow/Trust grade (registrar equivalent)	1.5	£108,690
Clinical fellow/trust grade (Junior grade equivalent)	0.7	£40,430
ST4-ST6	3.0	£217,380
CT1-CT3	2.1	£152,166
GPVTS	3.2	£184,821
F2	3.9	£225,251
Total	**24.9**	**£2,349,284**
Band 8	0.8	£61,835
Band 7	4.6	£267,110
Band 6	10.3	£464,055
Band 5	27.8	£1,002,821
Other bands	0.0	£-
HCA/CWS	7.3	£188,858
ENPs (minors)	4.9	£284,530
ANP (majors)	0.2	£15,459
Nurse consultants	2.9	£130,656
Total	**58.9**	**£2,423,053**
	83.8	**£4,772,337**

SOURCE: QEH finance and HR data 2013/14

11 What is different about scenario 2 relative to today

	Rationale
Operational protocols at front door	▪ RATing - senior input brought forward to front door to reduce waiting times for patients (current waiting times for consultant input are between 45-60m)
Operational protocols at back door	▪ Will have been addressed by changes made by WNCCG to model of care for frail elderly and people with long term conditions
Staffing levels at A&E	▪ Due to combination of operational changes, improved flow and substantive staffing of locum posts staffing levels will move towards England averages
Minors activity shifts to community	▪ Minors activity (c.22,000 per year) no longer shows at QEH but rather at urgent care centres closer to home. This in turn reduces nursing staffing levels at Queen Elizabeth Hospital minors area, but also reduces income for Queen Elizabeth Hospital

11 Scenario 2: shifting minors activity closer to home results in a negative financial impact of £1.0m

	Staff grade	WTE[2]	Total cost[3]
Medical	▪ Consultants	5.0	£832,692
	▪ Staff grades / Specialty doctors	2.9	£275,198
	▪ Clinical fellow/Trust grade (registrar equivalent)	2.0	£144,920
	▪ Clinical fellow/trust grade (Junior grade equivalent)	0.8	£46,205
	▪ ST4-ST6	2.0	£144,920
	▪ CT1-CT3	2.9	£210,134
	▪ GPVTS	2.6	£150,167
	▪ F2	4.2	£242,578
Nursing	▪ Band 8	0.4	£2,055,615
	▪ Band 7	-	£38,647
	▪ Band 6	0.5	£214,849
	▪ Band 5	3.7	£400,980
	▪ Other bands	8.9	£854,923
	▪ HCA/CWS	23.7	£19,060
	▪ ENPs (minors)	0.7	£227,664
	▪ ANP (majors)	8.8	£249,690
	▪ Nurse consultants	4.3	£30,917
Grand total			**£4,280,290**

- Activity reduces from 55k to 33k per year
- Income is reduced by £2.4m
- Costs are reduced by £2.4m, of which £1.0m are captured in 2015/16 CIPs
- Net impact is £1.0m negative for QEH

1 Minors activity equates to HRG activity labelled No investigation with no significant treatment, Category 1 investigation with category 1-2 treatment, Category 2 investigation with category 1 treatment 2 Staffed to the England average for an A&E of between 50k-80k attendances per year, "The drive for quality – How to achieve safe, sustainable care in our Emergency Departments?", The College of Emergency Medicine, May 2013 (data from The Quality in Emergency care Dashboard survey of 131 UK EDs in FY 11/12)

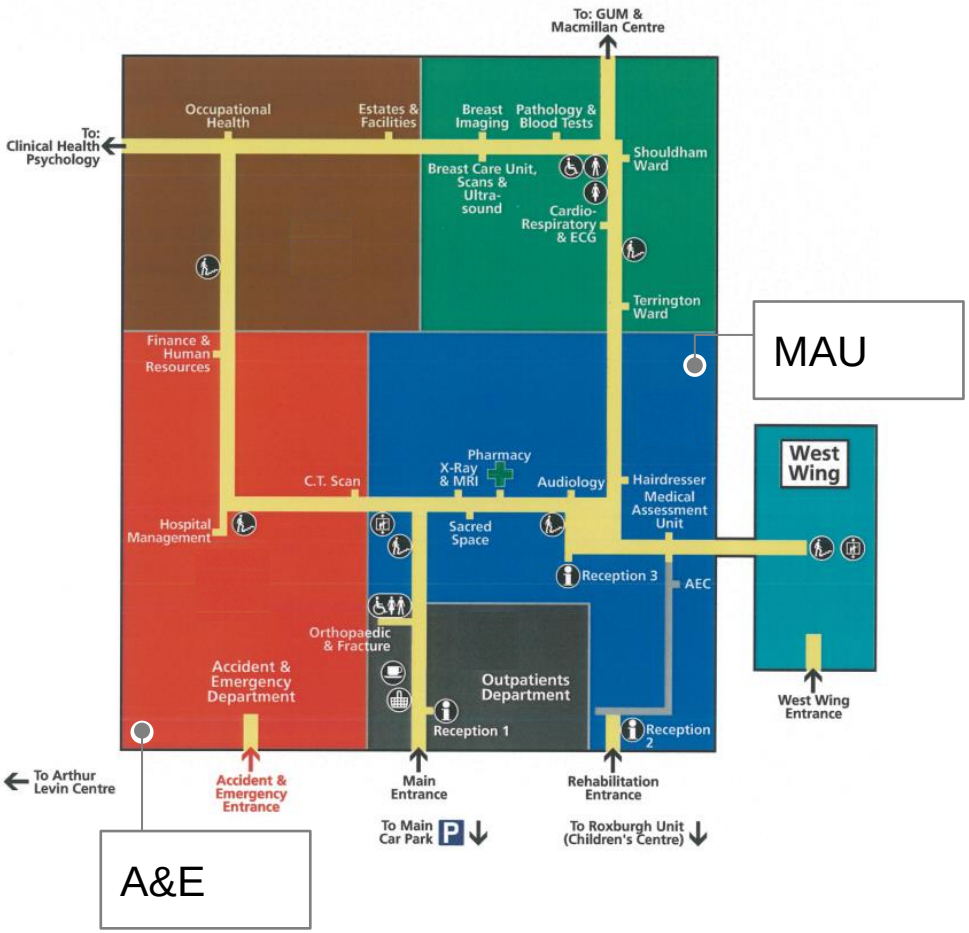
3 Based on average WTE cost for equivalent staff grade at QEH projected to 18/19 assuming 8.9% compound growth, and assuming no agency cost

11 What is different about scenario 3 relative to today

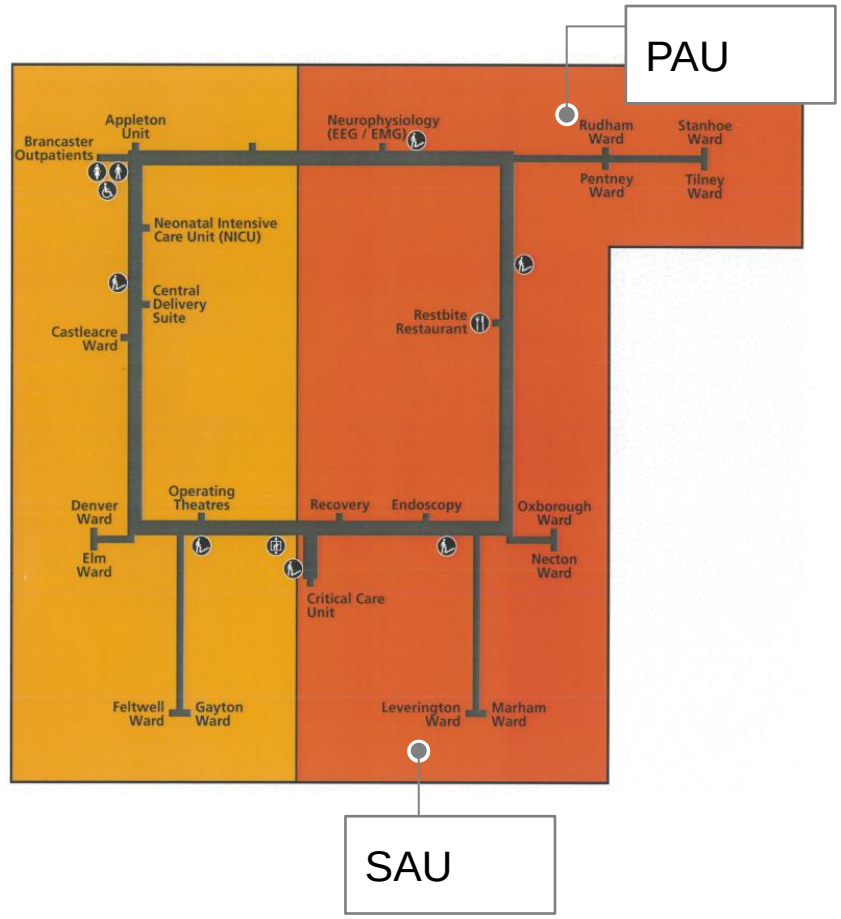
	Rationale
Operational protocols at front door	▪ RATing - senior input brought forward to front door to reduce waiting times for patients (current waiting times for consultant input are between 45-60m)
Operational protocols at back door	▪ Will have been addressed by changes made by WNCCG to model of care for frail elderly and people with long term conditions; the consolidation of assessment areas addresses this as well but we did not want to double count benefits
Staffing levels at A&E	▪ Due to combination of operational changes, improved flow, staffing levels will move towards England averages and possibly beyond
Consolidated assessment areas	▪ All assessment areas (MAU, PAU, SAU) are consolidated at front of house, enabling sharing of nursing and medical staff and better fit of capacity to demand; this enables overall reduction of posts as previously all assessment units had to be staffed separately
Colocated UCC and GP out of hours	▪ UCC opened in front door to accommodate GP out of hours

11 Today, the medical, surgical and paediatric assessment units are scattered across the hospital site and away from the A&E

QEH Ground floor plan

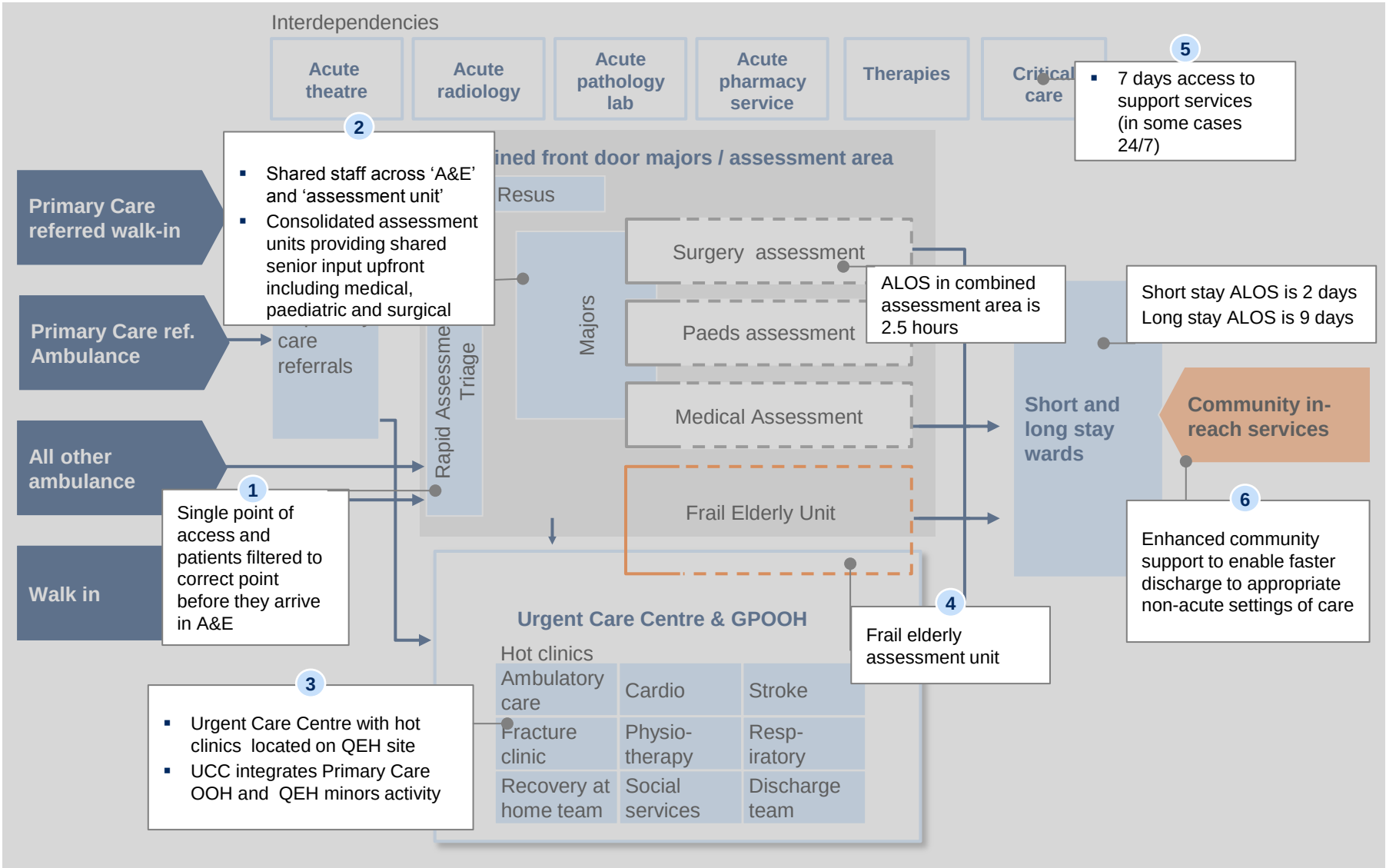


QEH First floor plan



SOURCE: www.QEH.nhs.uk/documents/maps

11 Scenario 3 transforms the front door to collocate A&E with a single assessment unit plus a UCC to treat urgent/minor, and GP out of hours care



SOURCE: Interviews with clinicians, discussions with clinicians and management at meetings of clinical working groups

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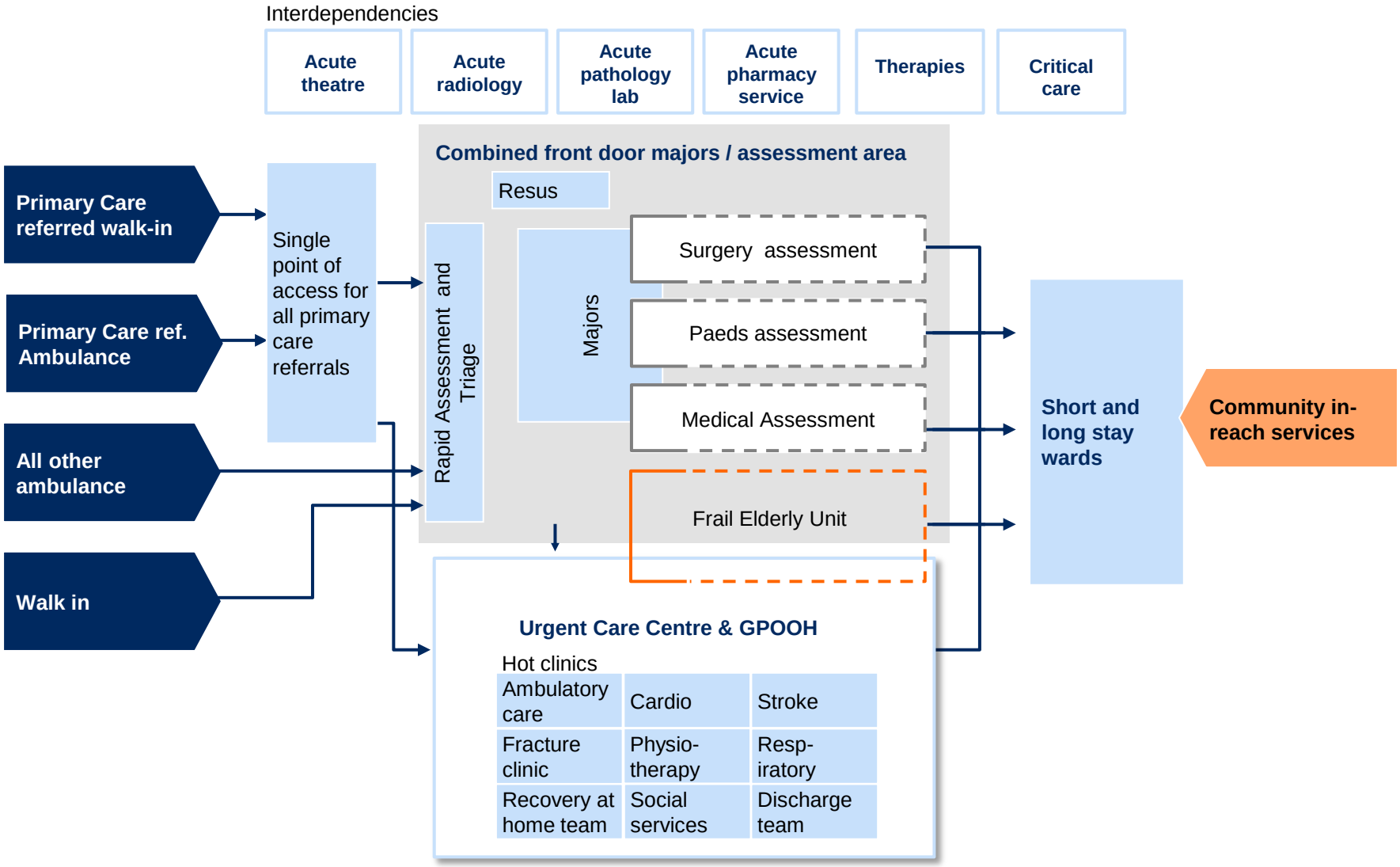


SOURCE: Interviews with clinicians, discussions with clinicians and management at meetings of clinical working groups

11 What is different about scenario 4 relative to today

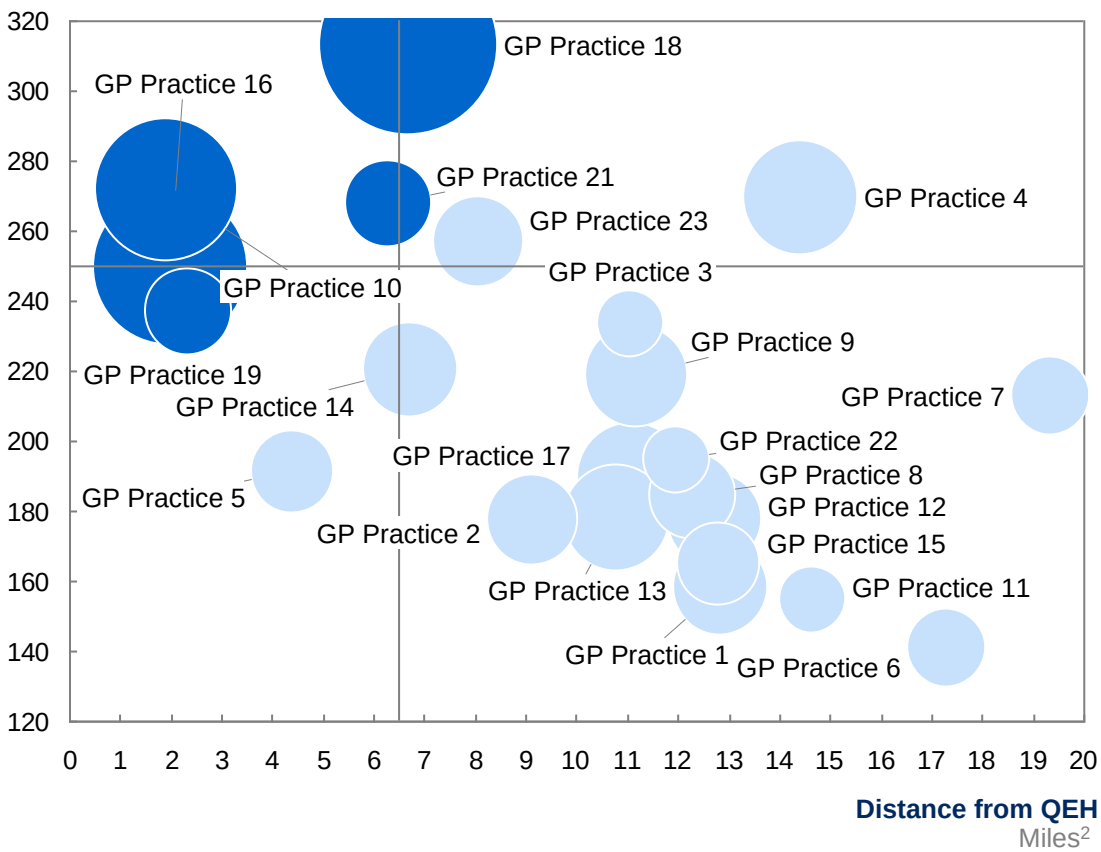
	Rationale
Operational protocols at front door	▪ RATing - senior input brought forward to front door to reduce waiting times for patients (current waiting times for consultant input are between 45-60m)
Operational protocols at back door	▪ Will have been addressed by changes made by WNCCG to model of care for frail elderly and people with long term conditions; the consolidation of assessment areas addresses this as well but we did not want to double count benefits
Staffing levels at A&E	▪ Due to combination of operational changes, improved flow, consolidated assessment areas enabling sharing of staff and substantive staffing of locum posts staffing levels will move towards England averages and possibly beyond
Consolidated assessment areas	▪ All assessment areas (MAU, PAU, SAU) are consolidated at front of house, enabling sharing of nursing and medical staff and better fit of capacity to demand; this enables overall reduction of posts as previously all assessment units had to be staffed separately
Colocated UCC, GP out of hours and GP surgery	▪ UCC opened in front door to accommodate minors, GP out of hours and all same-day GP appointments from GP surgeries within 2 mile radius of QEH ▪ Co-located GP surgery/surgeries (1-3) on site, similarly to model James Paget hospital is putting in place now

11 A cluster of GP practices in close proximity to Queen Elizabeth Hospital generate a high rate of A&E attendances

Practices within 5 miles of QEH

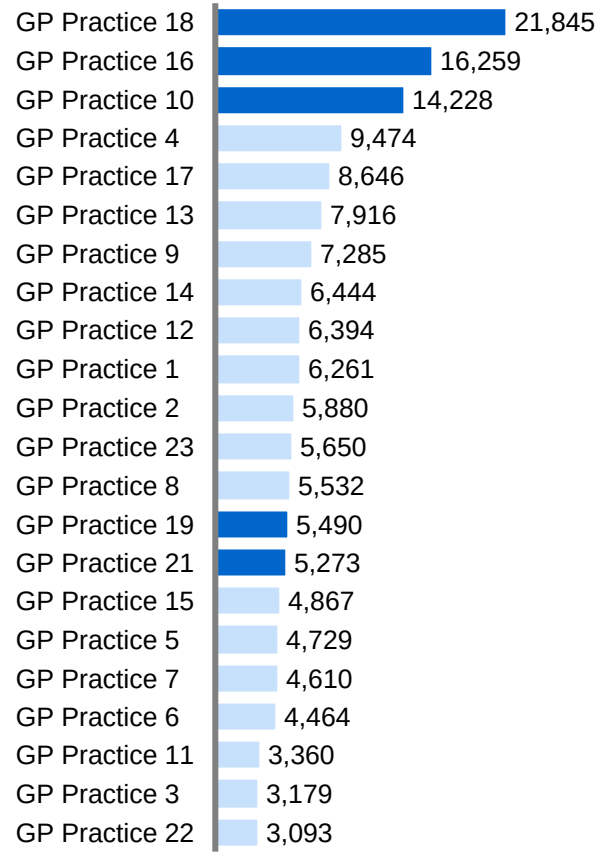
Size of bubble equals list size

A&E attendances by GP practice against distance from QEH[3]



GP practices by list size

2013/14



1. Average A&E attendance and practice distance for W. Norfolk CCG was 203.2 per 1000wp and 9.3 miles respectively
2. Distance, in miles, as the crow flies
3. One GP practice was omitted due to incomplete data

SOURCE: HES 2013/14, NHS England 2013/14, GP practice registrations October 2013

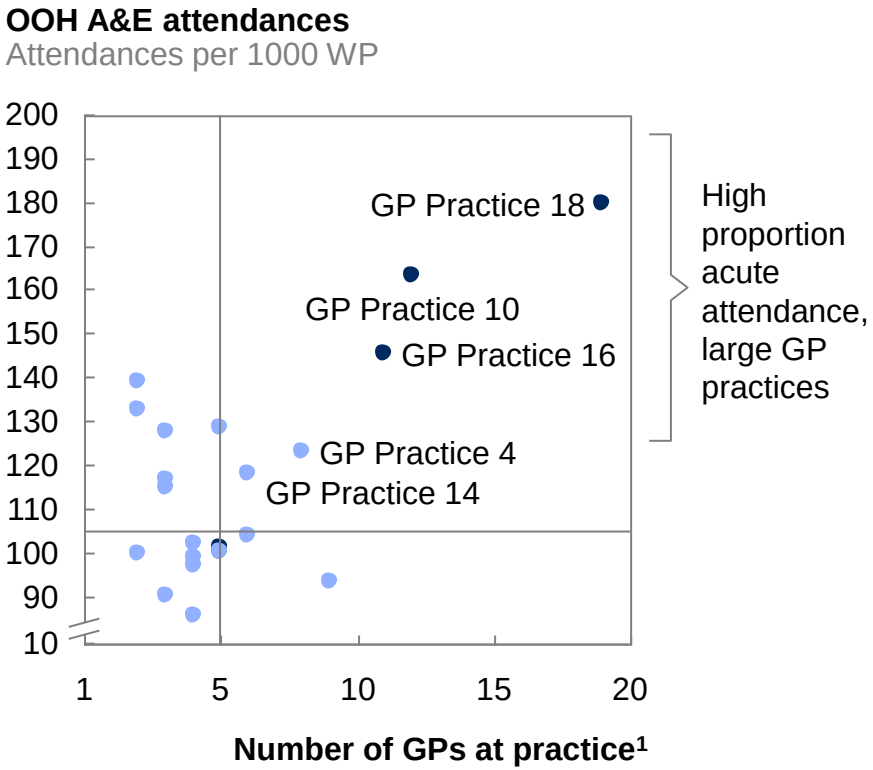
11 The same three largest GP practices also have high attendance rates at A&E out of hours

Practices within 5 miles of QEH

Top 3 practices by number of GPs and OOH A&E attendances per 1,000 WP

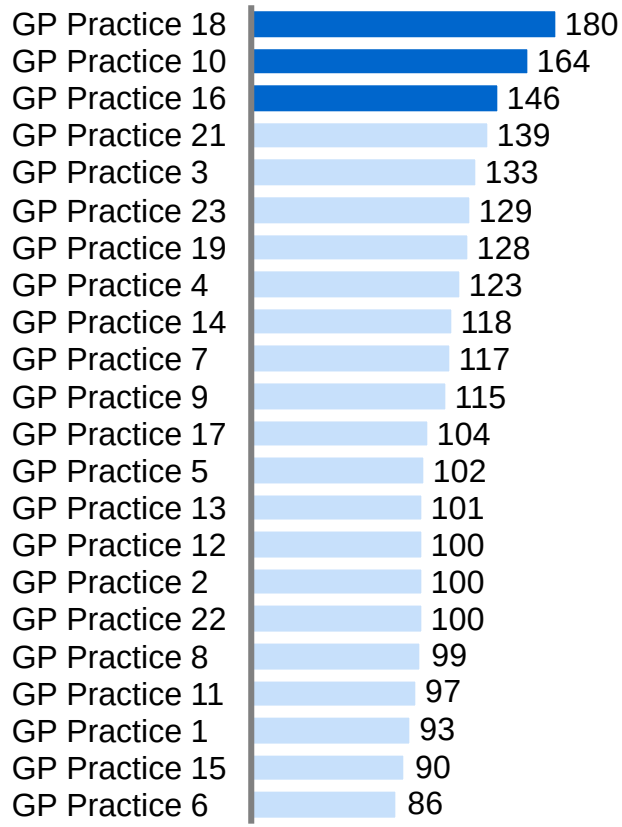
Out of hours A&E attendances by GP practice vs number of GPs

Attendances per 1,000 WP



Out of hours A&E attendances by GP practice

Attendances per 1,000 WP



1. Average OOH A&E attendance and practice distance for W. Norfolk CCG was 104.2 per 1000wp and 5.5 miles respectively
2. Partner, salaried and trainee GPs, excludes locum GPs

SOURCE: HES 2013/14, NHS England 2013/14

11 Transformation of services

- Urgent care , A&E and acute medicine
- **Maternity**
- Paediatrics
- Planned care

On top of "traditional" operational improvements, QEH will need to more radically transform services to ensure clinical and financial sustainability – maternity services

In **maternity care**, the trust can improve financial performance by **£1.3m** through:

- Improving midwife productivity through improved ways of working (reducing administrative burden and travel times, using IT, moving towards group consultations, supporting women to play a greater role in their care) would result into savings of **£800-900k** per annum. Although to capture the savings will require to move from the current 29 births per midwife per year to 35 which challenges national staffing guidelines, we believe it can be achieved while increasing patient facing time. This will require endorsement from NHS England and may have implications for CNST premiums. Our opinion is that evidence elsewhere internationally shows this increase in births per midwife does not compromise safety standards as professional skill and midwife capacity is redeployed through the freeing up of midwife time from administrative tasks, unproductive time and travel times.
- Moving towards an "on call" model of midwifery rather than the current "rostered service" – this would enable a home birth service to be provided without additional investment and would also enable further efficiency gains.
- Improving consultant productivity by introducing a more flexible rota (e.g. ability to flex into the delivery suite from SPA and outpatient activities, running pre/post natal clinics 6-7 days per week). This would result in savings of **£200-400k per annum** but would require QEH to successfully re-negotiate medical (consultant and junior medical staff) rotas to accommodate greater flexibility.

These changes will leave the service with a **£3m** deficit by 2018/19 unless further changes are made

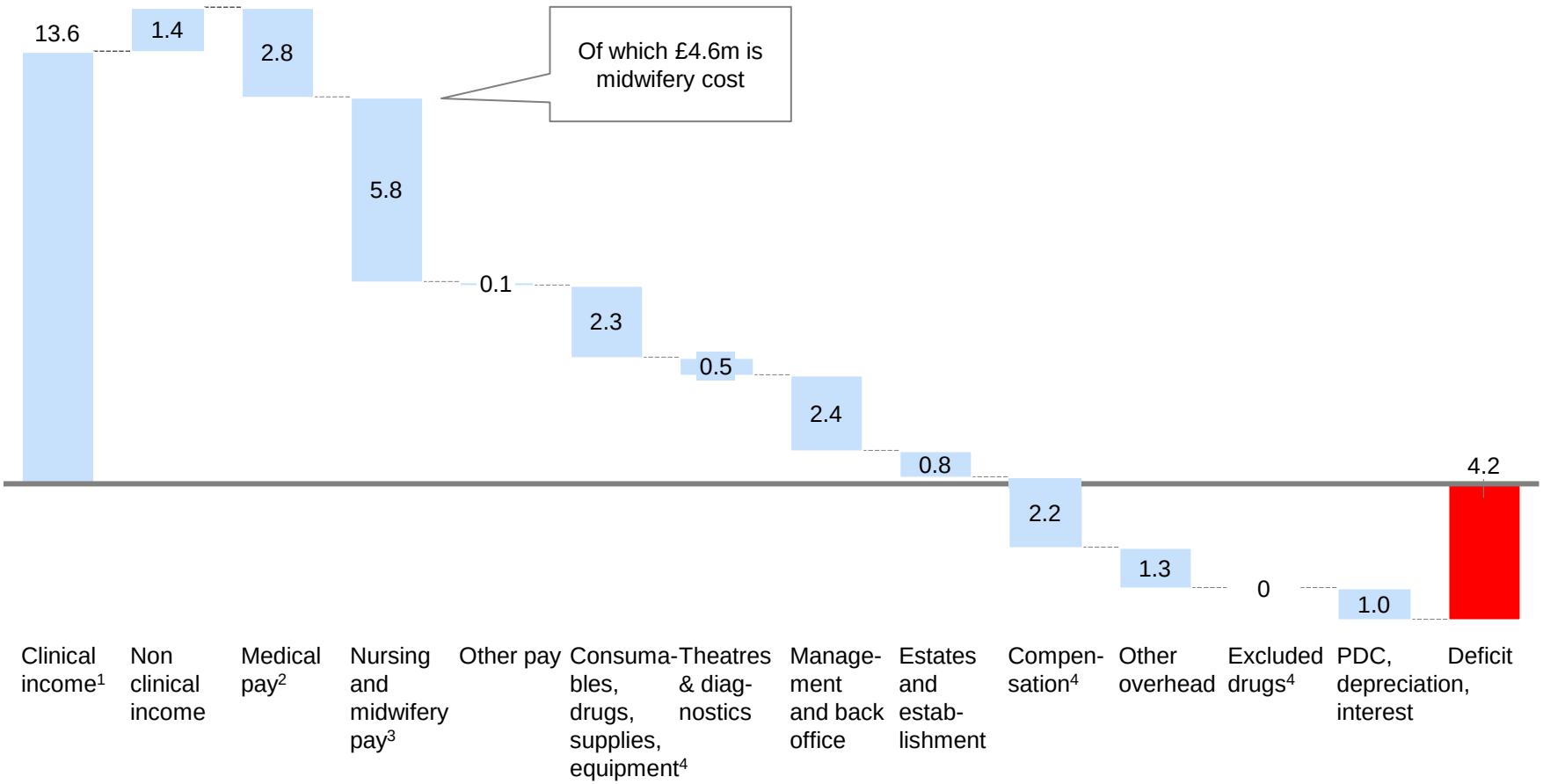
11 Main sustainability challenges identified with maternity

Pathway	Challenges
Maternity	▪ QEH is one of the smaller obstetric units in the country delivering c2,200 births per year which translates to an average of 6 births per day, but with significant variations making it difficult to staff to demand . The deanery announced removal of two registrar posts in 2015, thus making rotas less sustainable and more expensive to maintain ▪ The need for greater consultant presence 7 days/week provides further challenge ▪ However, the distance from QEH to the nearest alternatives is over 40 miles, making it undesirable for the local population to travel to neighbouring hospitals for deliveries ▪ No home births service since September 2013, and no MLBU ▪ Relatively high proportion of PPH and tears ▪ GPs involved in pre/post natal care only on ad hoc basis ▪ Increase in complex pregnancies (obesity, over 35 and teen pregnancies)

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

11 The current model of care for Obstetrics is not financially sustainable

Projected I&E of Obstetrics service, £m, 2018/19



1 All clinical income forecasted based on agreed assumptions (demographic growth -0.35% for women of child-bearing age, tariff deflator -3.7%)
2 Medical staff cost reflects loss of two trainees in August 2015, and is forecasted based on agreed assumptions Agency and non-pay spend based on SLR data is included
3 Direct O&G midwifery staff costs reflects actual cost of establishment as of 15 January 2015, and is forecasted based on agreed assumptions
4 All other costs are based on reconfiguration modelling and associated assumptions before CIP

SOURCE: QEH Outturn data for 2013/14, QEH SLR report M9 YTD 2014 for O&G and Midwife episodes; discussions with trust colleagues incl. OFG

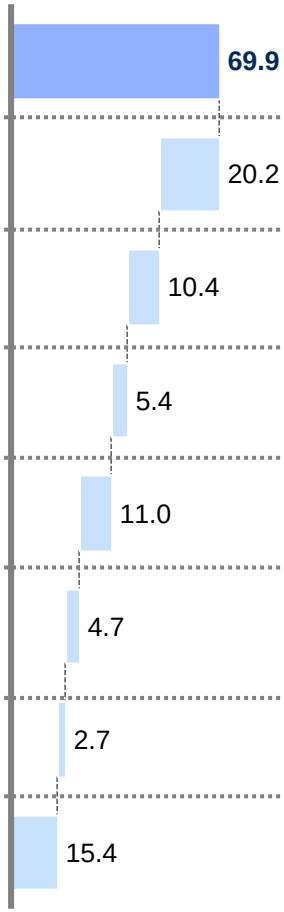
11 Transformation could deliver significant cost savings in maternity services

Options	Description/clinical impact	Financial impact	Quality impact
Increase midwife productivity	▪ Improve midwife productivity by **23-28%** – While maintaining clinical quality – Would result in a ratio of *35-37 births/midwife* – Would require investment in IT infrastructure to help increase efficiency	▪ **£800-900k p.a.** in midwifery cost savings	▪ Increase patient facing time and preserve 1:1 cover in labour ▪ Improve consistency and information through IT ▪ Greater continuity of care due to reductions in temporary staff
Increase medical productivity	▪ Improve medical productivity – Decrease number of staff grade posts – Maintain O&G training posts – Implement changes to medical rotas to enable reduction in staff grade workforce	▪ **£200-400k p.a.** in staff grade post savings ▪ £200-350k p.a. in temporary staff spend	▪ Greater on-site presence (including 7 day) ▪ Extended pre/post natal appointments times
Change NICU level	▪ Change NICU from level 2 to level 1 – Risks decreasing desirability of training posts ▪ Patients requiring NICU level 2 to be transferred to alternative provider – Risks decreasing patient satisfaction	▪ Overall impact: TBC – Decrease in income: TBC – Decrease in staff costs: ▫ **£300k p.a.**	

SOURCE: CWG

11 There are opportunities to improve how midwifes spend their time (i.e. reducing activities that do not impact patient care)

Current average midwife time and activities per birth delivery
Hours



Time element	Current average time per birth, Hours	Comments	Improvement potential[1]
Total hours	69.9		
Central delivery suite	20.2	▪ Avg. length of labour is ~10h for England	▪ Decrease non patient-facing time by ~90%, e.g., by reducing admin, time looking for notes, optimising rotas → aim for 11h MW time per birth
Ward (AN, PN, induction, transitional care patients)	10.4	▪ ~2 days per postnatal stay ▪ ~20% births are induced ▪ ~42h on ward per induction	▪ Reduce LOS by 30% via improving discharge ▪ Decrease non patient-facing time by 50%, e.g., by reducing admin
Consultant clinic, DAU, antenatal screening clinic, foetal medicine	5.4	▪ ~1 appt. per birth ▪ 20 minutes – 8 hours per appt. in DAU	▪ Decrease non patient-facing time by 50% ▪ Reduce demand (e.g., decrease f/u consultant clinic appts. By 30%)
Community (routine AN appts)	11.0	▪ ~9.5 AN appts. per low risk pregnancy; 1h for booking, 2-3x 30min appts., other appts. 15 min	▪ Decrease non patient-facing time by 70%; e.g., reduce admin time via improved IT ▪ Shared medical appts.
Community (routine PN appts)	4.7	▪ 3 PN appts. per low risk pregnancy ▪ 30-45 minutes per appt. ▪ First appt. at home, others in PN clinic	▪ Decrease non patient-facing time by 50% by increasing PN clinic capacity ▪ Shared medical appts. ▪ Reduce number of appts. from 3 to 2 for low risk
Management	2.7	▪ 4.2 midwife WTE currently management	▪ N/A ▪ Maintain current assumption
Other (AL, SL, ML, sickness)	15.4	▪ Current workforce assumption is 22% on this time element, based on Hurst staffing model	▪ N/A ▪ Maintain current assumption

1 Not exhaustive

SOURCE: Central Delivery Suite data 2013/14, conversations with QEH trust colleagues, discussions at CWG meetings, delivery suite data from other trusts (representative of England average)

11 Two scenarios were considered: one conservative and another involving more radical transformation

Opportunity		Conservative scenario (year 2)	More radical transformation scenario[1] (year 4-5)
Midwife productivity	Central delivery suite	▪ Decrease non patient-facing time by ~90%, e.g., by reducing time spent on administrative tasks, reducing time looking for notes, optimising rotas – Target: 11 hours midwife time per birth	
	Ward (AN, PN, induction, TC)	▪ No reduction in midwife WTEs	▪ Reduce LOS by 30% via improving discharge process ▪ Decrease non patient-facing time by 50%, i.e., by reducing admin time via improved IT
	Consultant clinic, DAU, AN clinic, FM	▪ No reduction in midwife WTEs	▪ No reduction in midwife WTEs
	Community (routine AN appts)	▪ Decrease non patient-facing time by 70%; i.e., reduce admin time via improved IT	▪ Implement shared medical appointments for five 15 minute antenatal appointments
	Community (routine PN appts)	▪ Decrease non patient-facing time by 50% by increasing postnatal clinic effectiveness	▪ Implement shared medical appointments for one 15 minute postnatal appointment ▪ Reduce number of appointments from 3 to 2 for low risk patients, introduce HV at first postnatal visit
Medical productivity	Reduction in junior medical staff	▪ Decrease number of staff grade posts by 50% (2 WTE)	▪ Decrease number of staff grade posts by 100% (4 WTE)
	Reduction in spend on temporary staff	▪ Decrease spend on temporary staff by 50%	▪ Decrease spend on temporary staff by 90%
NICU	NICU level and FM	▪ NICU level 2 ▪ Maintain Foetal Medicine service? ▪ Maintain Subfertility service?	▪ NICU level 2 ▪ Remove Foetal Medicine service? ▪ Remove Subfertility service?

1 Additional to conservative scenario

SOURCE: Conversations with QEH colleagues, discussions at CWG

11 How do alternative clinical models address sustainability

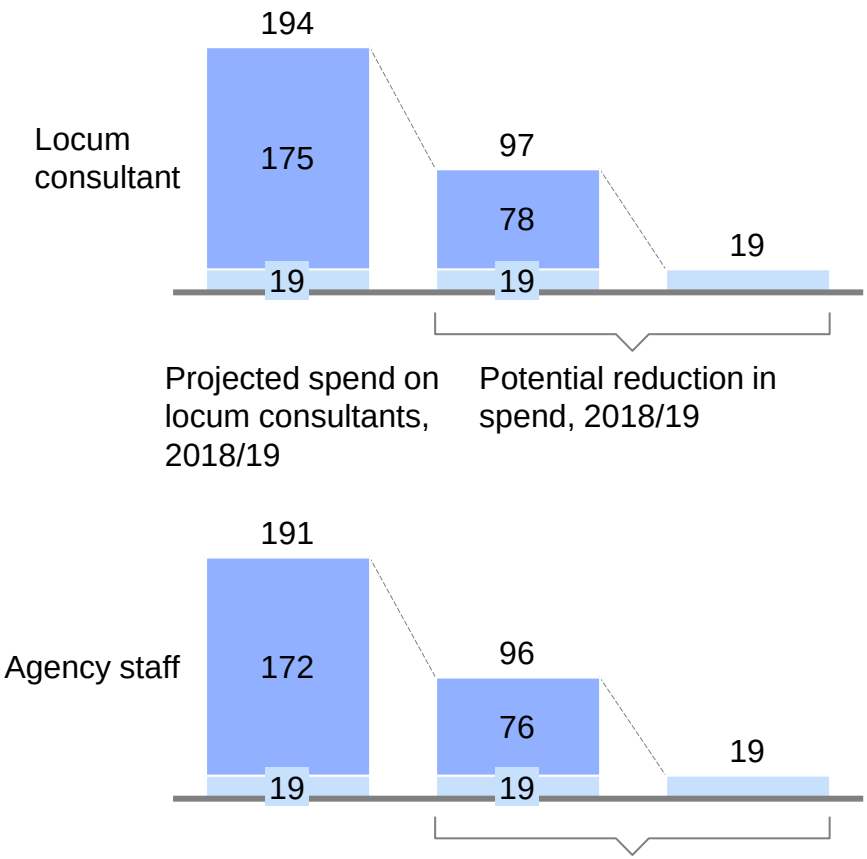
	What sustainability challenges does this address	
Scenario1	▪ Improvement in how midwives spend their time can support improvement in postpartum haemorrhage and tear occurrences ▪ Improved financial sustainability	▪ Moving to these ratios of midwives to births, whilst keeping with the recommended 1:1 ratio during childbirth, will in effect move QEH away from Birthrate Plus recommended 29:1 and may have implications for CNST premiums ▪ This will require working with commissioners and national bodies possibly to ensure clinical risk management protocols are in place as needed
Scenario 2	▪ As model 1, and ▪ Further improved financial sustainability ▪ Shared medical appointments improve patient experience and self care	

SOURCE: CWG

11 Improving medical productivity could also result in decreased spend on temporary staff of £200-350k p.a.

Improved productivity potential

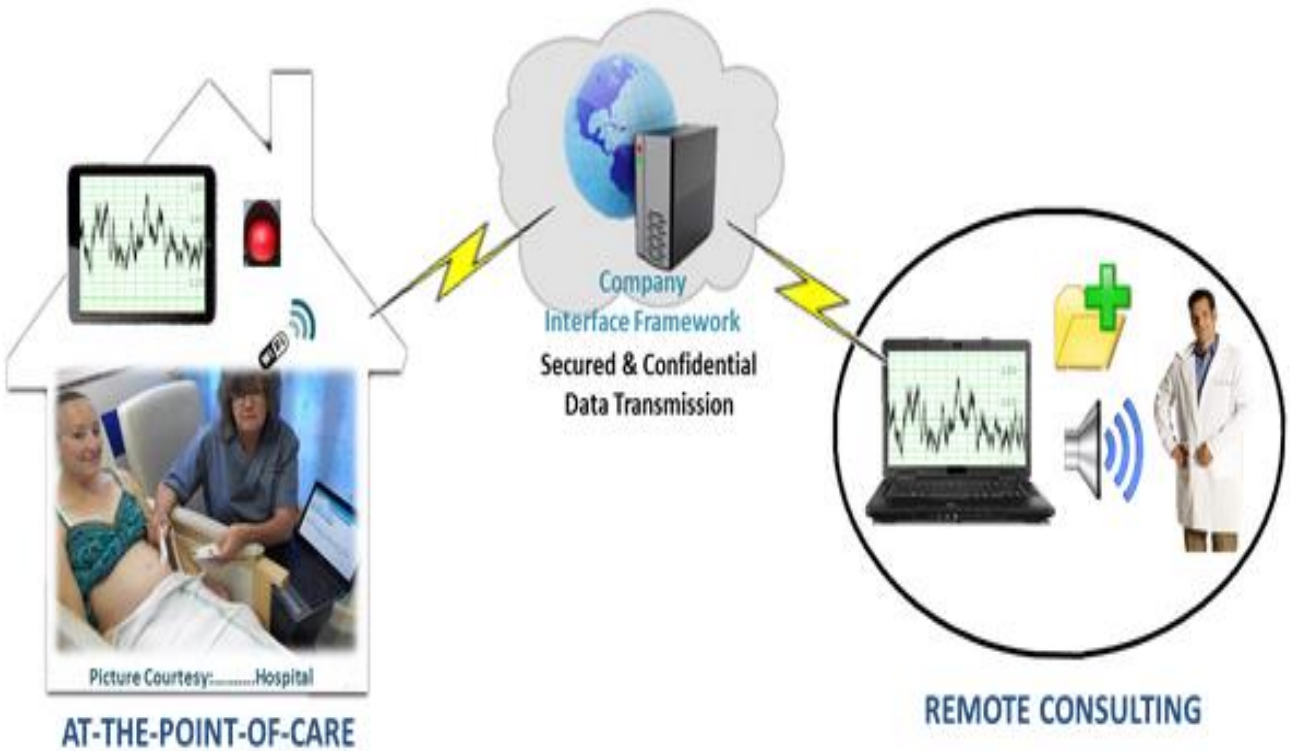
Projected spend on temporary staff and potential reduction in spend, £'000, 2018/19



- Improving medical productivity by reducing overall number of medical WTEs (reducing number of middle grades) will reduce required agency support
- Improving midwifery productivity will reduce demand for agency spend
- Financial impact is evaluated at £200-350k

SOURCE: Medical establishment for O&G, 15 January 2015; Outturn data for FY 2013/14

11 Example of further innovation possible: remote foetal monitoring (developed by Guy's and St Thomas')

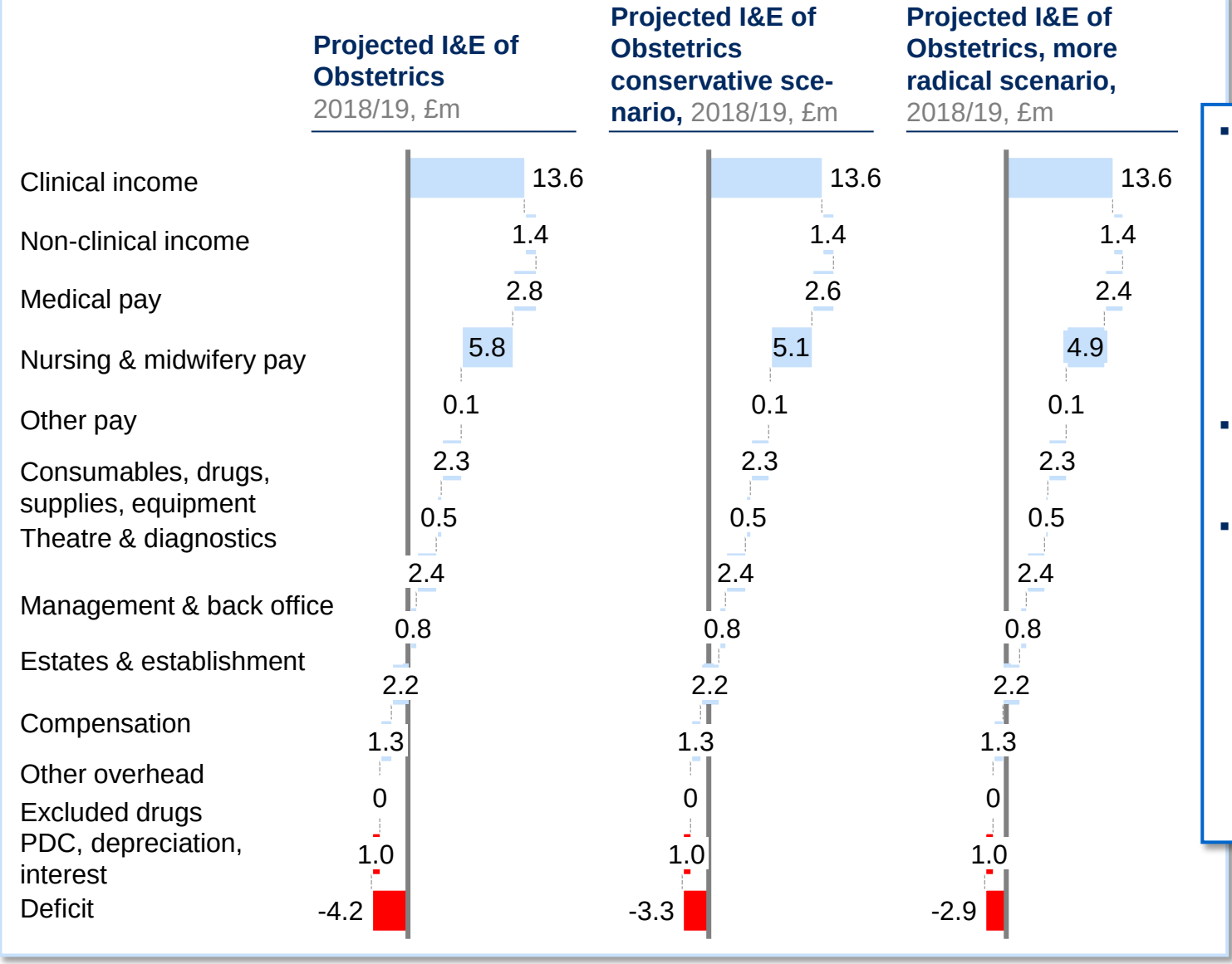


- Benefits include
  - Improved clinical time efficiency
  - Reduction in admissions
  - Improved preventative care
  - Better patient experience
  - Encourages home births
  - Cost savings (less midwifery and physician time required)

Guy's and St Thomas' NHS
NHS Foundation Trust

SOURCE: Guy's and St Thomas'

11 The impact of transformation of maternity services is £1.0-1.4m; this still leaves a projected deficit of £2.9m



- Impact of transformation on the service line is £1.0-1.4m in cost reduction, mostly through reducing medical staff and midwifery staff pay bill
- This still leaves a deficit of £2.9m for this service line
- Options to reduce this deficit further include more radical transformation plans, for example clinics via Skype, remote foetal monitoring, flexible staffing models to staff to demand

SOURCE: Conversations with QEH trust colleagues

11 Home birth models and economic implications

	What is it?	Likely implications for WNCCG and QEH	What you need to believe?
"Traditional" home birth service	▪ QEH will need to staff additional midwives to cover home birth – 2 WTE to cover 24/7 ▪ Difficult to flex midwifery between labour ward and home births	▪ Home birth rates 1-5% (average for the country 1.4%) ▪ Likely to have 100-150 home births per year ▪ Likely additional costs for the trust/CCG £550k[1]	▪ The local needs outweigh the costs involved ▪ Midwifery workforce is not prepared to work in a 24/7 on call pattern ▪ The volumes of home births are too low to attract alternative providers
"My midwife"/ own case load home birth model	▪ Midwives have own case load and are responsible for the entire pathway ▪ Midwives become micro commissioners for parts of the pathways (capitation payment per woman to manage whole care) ▪ Midwives are 24/7 on call and are not staffed on a rota ▪ Can be commissioned from independent midwifery team (e.g., one to one)	▪ 33% of births are predictable low risk and 5% transfer to obstetric care during delivery ▪ Likely to be cost neutral for the CCG ▪ Midwifery workforce at QEH will need to reduce to accommodate less births (or all midwives move to such a model) ▪ Possibly lower volumes of activity for consultants	▪ Either QEH are willing to develop the model, or ▪ Can commission from an independent group who will work effectively with QEH (e.g., effective SLA) ▪ Will not have significant de-stabilising effect on QEH as activity levels go down further for consultants

1 Based on costs of 11 WTEs required to staff 1 midwife 24/7 to be available to cover home births

11 EXAMPLE: NHS commissioned, privately-provided midwife-led maternity services at Liverpool

One to One

- Private midwifery services registered with CQC under 'Any Willing Provider' regulations
- Currently employs ~20 midwives
- Commissioned by NHS Wirral PCT in December 2011 to provide community maternity services, following a pilot scheme covering >150 deliveries
- It offers named-midwife ante-natal, delivery and post-natal care (for 6 wks >delivery) in primarily in community settings including women's homes and GP surgeries, and also at NHS hospital maternity units when appropriate
- Home birth rate of ~40%
- Local GP consortia, Wirral University Hospital Trust and *One to One* are signed up to develop joint working

SOURCE: One to One Website (http://www.onetoonemidwives.org/wirral-midwives-news/); HSJ

11 Transformation of services

- Urgent care , A&E and acute medicine
- Maternity
- **Paediatrics**
- Planned care

On top of “traditional” operational improvements, QEH will need to more radically transform services to ensure clinical and financial sustainability – Paediatric care

In **paediatric care**, two potential alternative models of care were evaluated:

- Model one: developing out of hospital care so that more children can be cared for outside of hospital – for example through community based hubs which bring together primary care services, community care services, community and acute paediatricians, social care and mental health services – with easier access through longer opening hours. One of these hubs could be located on the QEH site and incorporated into the QEH ‘front door’ (there is an interdependency with transformation in urgent care). This will reduce A&E attendances and inpatient admissions, but will have a **negative financial impact on QEH of £0.9m** due to stranded costs, as QEH will still need to staff consultants to maintain a level two neonatal intensive care unit (NICU) service.
- Model two: the same as above, but with a nurse led level one NICU locally, which will enable QEH to work in a different way with neighbouring providers and to network consultant led paediatric care. This will have a **positive financial impact of £1.1m** on QEH. This would enable inpatient services to be provided in conjunction with neighbouring providers, with a nurse led level 1 NICU locally. Currently, the clinical working groups, and specifically the chair, have advised that a level two NICU is required locally due to interdependencies with maternity services. However, in the last Strategic Oversight Group meeting this alternative model was proposed.

Assuming the local health economy chooses to stay with the current model of care, it will leave the service with a **£2.9m deficit** (£3.4m including NICU) by 2018/19 unless further changes are made. Moving to a model two as described above could improve the financial position to a forecast **£1.8m deficit** unless further changes are made.

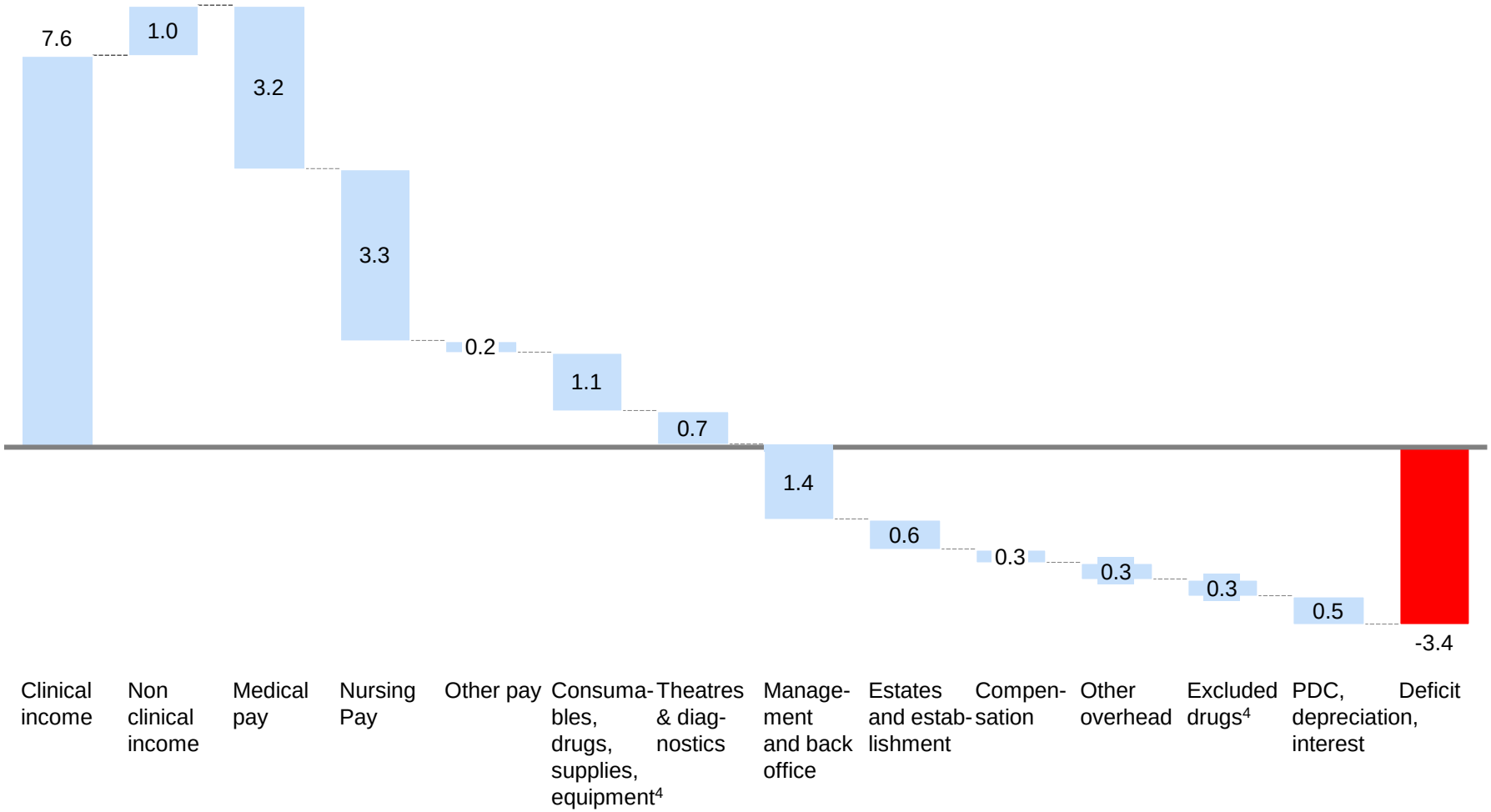
11 Challenges identified with paediatric care

Pathway	Challenges
Paediatrics	▪ There are relatively few paediatric admissions to QEH, with 11 admissions per 1,000 population 0-19 years in the trust catchment area vs. an England average of 14 ▪ 61% of paediatric attendances to A&E are discharged with no follow up or follow up by a GP, suggesting availability to GPs and skills and capabilities in paediatric care needs to be improved ▪ Only 6 paediatricians who support inpatient (Rudham), NICU, PAU, A&E, outpatient clinics and neonates; one is expected to retire in summer 2015 ▪ Challenge to meet the standard of providing consultant input to children within 12 hours of admission (meeting this will require additional consultants to the current six) ▪ PAU offering a 5 day service (5 beds) and not a 7 day service ▪ Local clinicians believe there is an opportunity to improve primary and community care services resulting in fewer A&E attendances and admissions to hospital ▪ There are few applications per post, with1-2 applications for nursing posts bands 4-8b in 2014 ▪ Difficulties to recruit healthcare visitors to support GPs and families, and healthcare visitors are mostly adult trained ▪ GPs are challenged to offer swift appointments for children, and 40% of GPs receive little/no training in paediatrics; Practice nurses in primary care are mostly adult trained ▪ 111 and GP out of hours are often not paediatrically trained, high rates of referral to A&E and PAU

SOURCE: Interviews with stakeholders, discussions at CWG on 19th November 2014, analysis of trust activity, workforce and finance data

11 The current model of care for Paediatrics is not financially sustainable

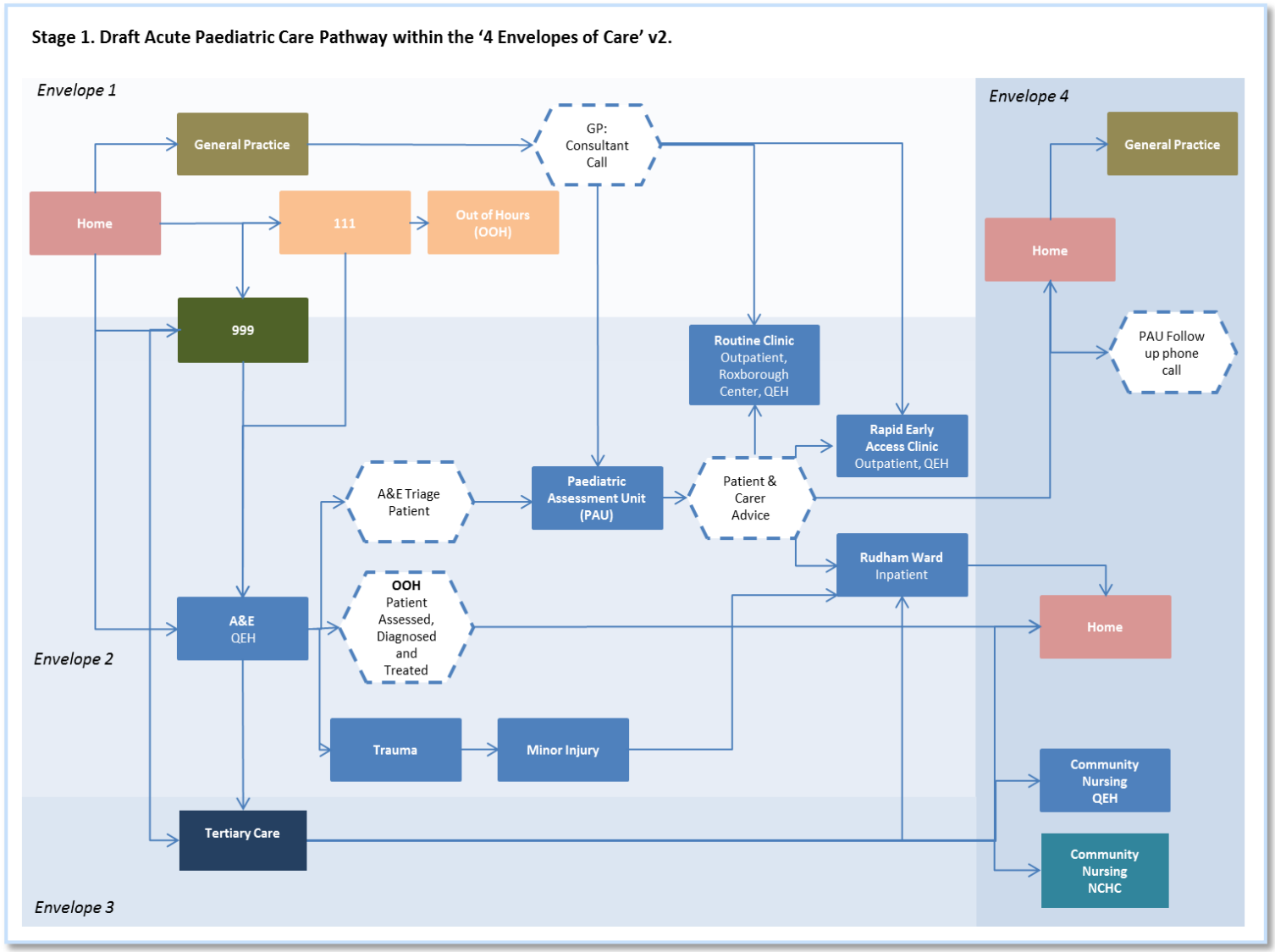
Projected I&E of Paediatrics service, NICU included, £m, 2018/19[1]



1 Projections are Pre-CIP and based on assumptions agreed at OFG
Note: Projected deficit excluding NICU is £2.9m

SOURCE: QEH SLR report 2013/2014

11 Pathway suggested by Paediatric CWG to address challenges



SOURCE: Paediatric CWG 2014-15

11 Two alternative models of care evaluated for Paediatrics

	Difference to today	What is the impact	What clinical challenges does this address
Model 1 – with NICU level 2	▪ More sick children seen by dedicated paediatric units out of hospital, colocated with community hubs, one of which is possible on the QEH site and incorporated into QEH front door (interdependency with transformation in urgent care) ▪ Reduced paediatric A&E attendances at QEH ▪ Reduced IP admissions at QEH, however NICU level 2 remains (was highlighted by CWG as necessary locally)	▪ 30-50% reduction in A&E attendance ▪ 30-50% reduction in IP beds	▪ Challenges in underdeveloped out of hospital care and unwarranted admissions to QEH ▪ Physical space at PAU ▪ Possibly better access to consultant led care
Model 1 – with nurse led NICU level 1	▪ As model 1, with – No inpatient paediatrics at QEH – NICU level 1, staffed with highly trained nurses (potential interdependency with maternity model of care_	▪ 30-50% reduction in A&E attendance ▪ 100% of IP activity shifts to community or alternative providers, with no IP beds locally ▪ NICU level 1 locally – same number of cots, nurse led	▪ Challenges in underdeveloped out of hospital care and unwarranted admissions to QEH ▪ Physical space at PAU ▪ Possibly better access to consultant led care

SOURCE: Paediatric CWG 2014-15

11 QEH's current consultant led model of care may be difficult to sustain should inpatient paediatric care move into the community

Current model of staffing for Paediatrics and NICU, WTE

Consultants	6.7
Associate specialists	1
SHO	7.8
Specialist registrar	4.2
Registered nurses	28.3
Un-registered nurses	6.4

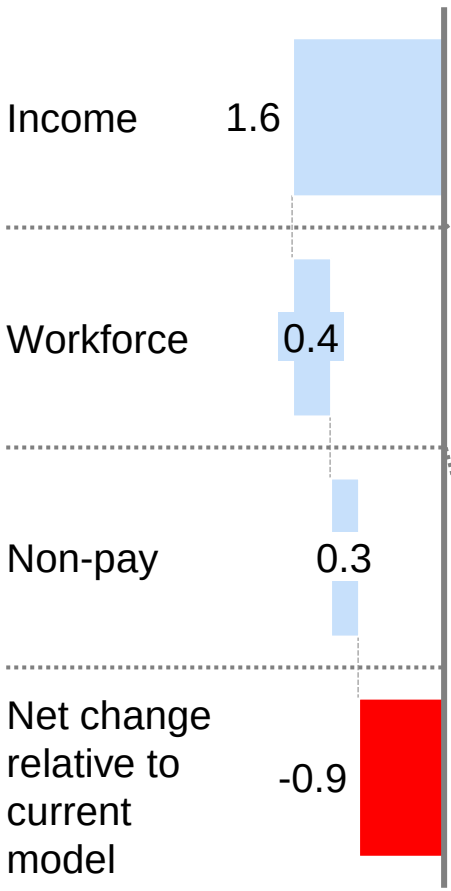
Challenges from moving activity to the community

- Currently QEH operates a Local Neonatal Unit (LNU, or NICU level 2)[1] which provides high dependency intensive care to newborns
- All paediatric medical and nursing staff work across the paeditric ward and LNU ward
- Moving in-patient paediatric care into the community would reduce the need for pediatric consultant and other medical staff
- The attractiveness of the post to potential staff would also reduce
- The combined effect would mean the provision of a consultant led LNU would no longer be possible

1 Definition of LNU from Royal College of Paediatrics and Child Health annual report 2012 defines three types of neonatal care units (i) Special Care Unit (SCU) (ii) Local Neonatal Unit (LNU) and (iii) Neonatal Intensive Care Unit (NICU).
LNUs provide neonatal care for their own catchment population, except for the sickest babies. They provide all categories of neonatal care, but they transfer babies who require complex or longer-term intensive care to a NICU, as they are not staffed to provide longer-term intensive care. The majority of babies over 27 weeks of gestation will usually receive their full care, including short periods of intensive care, within their LNU

SOURCE: QEH outturn data, 2013/14

11 Model 1 will reduce acute activity levels, but have negative £0.9m impact on QEH unless networking with other providers can help resolve some of the stranded costs



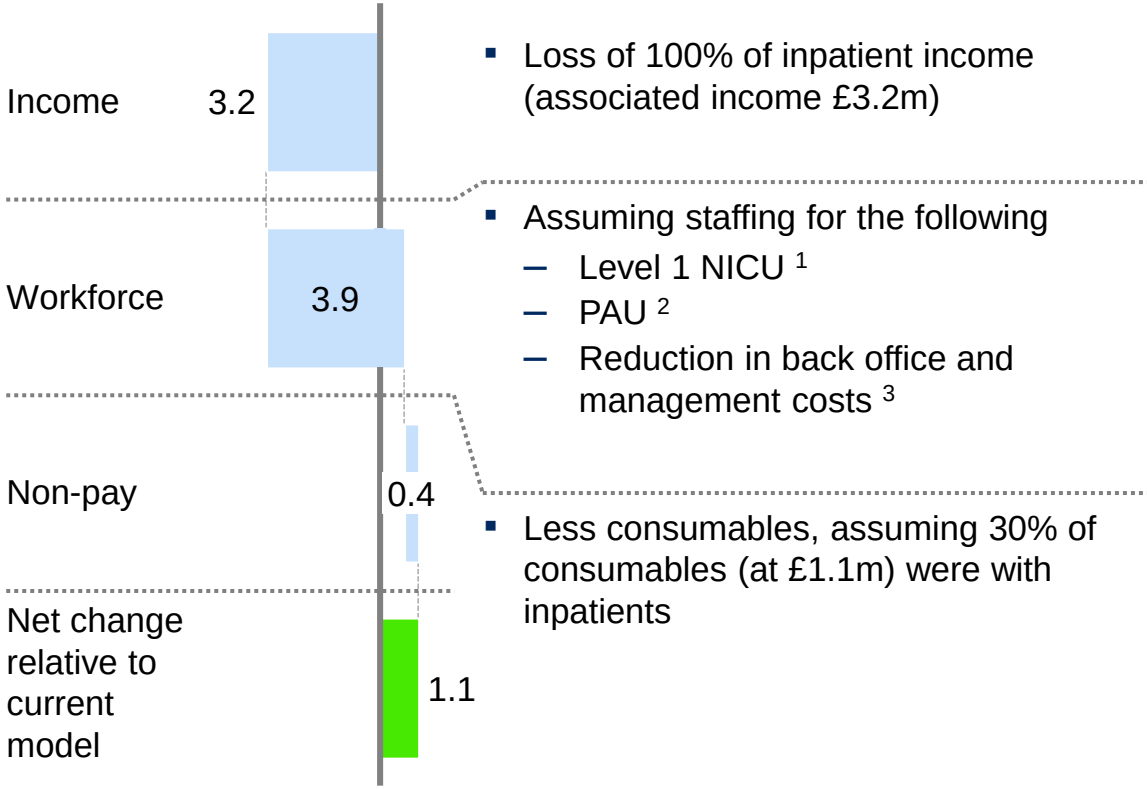
Rationale

- Loss of 30-50% in IP admissions to QEH (associated income is £3.2m)
- Need for less 6-7 beds in IP, 11 nurse WTEs
- Potentially could reduce number of consultants and physicians but staffing NICU does require maintaining a rota
- Less consumables at inpatient unit

- The model will reduce number of A&E attendances and IP admissions, all positive for commissioners
- However, it reduce activity levels at QEH and potentially confound the low activity levels existing already, making it more difficult to maintain staff capabilities
- Maintaining LNU does require staffing with consultants, but QEH could collaborate with neighbouring Trusts to resolve this through networking

SOURCE: Paediatric CWG 2014-15; QEH finance

11 Model 2 will have a £1.1m positive impact, but will entail NICU level 1 locally and will require networking arrangements for consultants to support PAU, community care and any other type of paediatric care



- The model will shift all inpatient activity to community or alternative providers;
- As inpatient care will no longer be offered locally, maintaining a consultant led NICU level 2 will be difficult
- Shifting to a model of care with nurse led level 1 NICU and networked consultants supporting PAU seven days a week has been raised as an option by SOG
- This will require significant changes to model of care and extensive collaboration with neighbouring providers; the financial impact has not been included in the final financial assessment as CWG position to date was that NICU level 2 is required locally

1 Same pay costs as today at £1.7m, excluding medical pay 2 Unit open from 8am to 10pm daily, requiring Three sessions per day, seven days per week for total PA requirement at 30 PAs per week, plus 4 staff grades at £100k each – total of £0.8m; in addition £0.8m of nursing costs (50% of associated nursing costs for PAU and IP combined today) 3 Assuming a change of this magnitude can reduce associated overheads of £1.6m by 50%

SOURCE: Paediatric CWG 2014-15; QEH finance; SOG 10 discussion Tuesday 24 February 2015

11 Other Local Neonatal Units in England operate with a nurse led model of care – Ashington is an example

Context

- Ashington is an industrial town in the North East of England with a population of 28,000
- The hospital serves most of the residents of the rural county of Northumberland and has an annual delivery rate of about 2,000
- Consultant cover was withdrawn in 1996 as the post became progressively less acceptable for training
- Closure of the obstetric and newborn service would have caused considerable local distress and anger, and reprovision elsewhere for an additional 2000 births would have been very difficult

Solution

- After extensive local and regional consultations a team of nurses was recruited from within the existing neonatal nursing workforce, to be trained as ANNPs in the School of Nursing at the University of Northumbria in Newcastle
- They then assumed responsibility for all the duties within the maternity unit involving diagnosis, treatment, admission, and discharge that are carried out by the SHOs and registrars in the 10 other level 2 units in the Northern region
- Staffing model:
  - 10.6 WTE ANP plus additional nursing staff in normal bed to nurse ratios (registered and unregistered but not specially trained ANNPs)

Impact

- A review of this model of care was undertaken and results published in the BMJ
- On six out of seven dimensions of quality, Ashington performed better than the average of the comparators and overall ranked second out of 10 hospitals included in the peer group
- Examples of quality outcomes include:
  - Quality of resuscitation at birth: independent case note review of 47 babies who took longer than 5 minutes to establish respiration. No evidence of substandard care
  - Neonatal encephalopathy rate 18/14634 (1.23/1,000): comparable to other recent studies (NB: neonatal encephalopathy rates reflect quality of obstetric care more than neonatal care)
  - Heart disease confirmed in 81/139 babies suspected of heart defect;. Performance as good as or better than comparator units

SOURCE: Ashington NICU unit

11 Transformation of services

- Urgent care , A&E and acute medicine
- Maternity
- Paediatrics
- **Planned care**

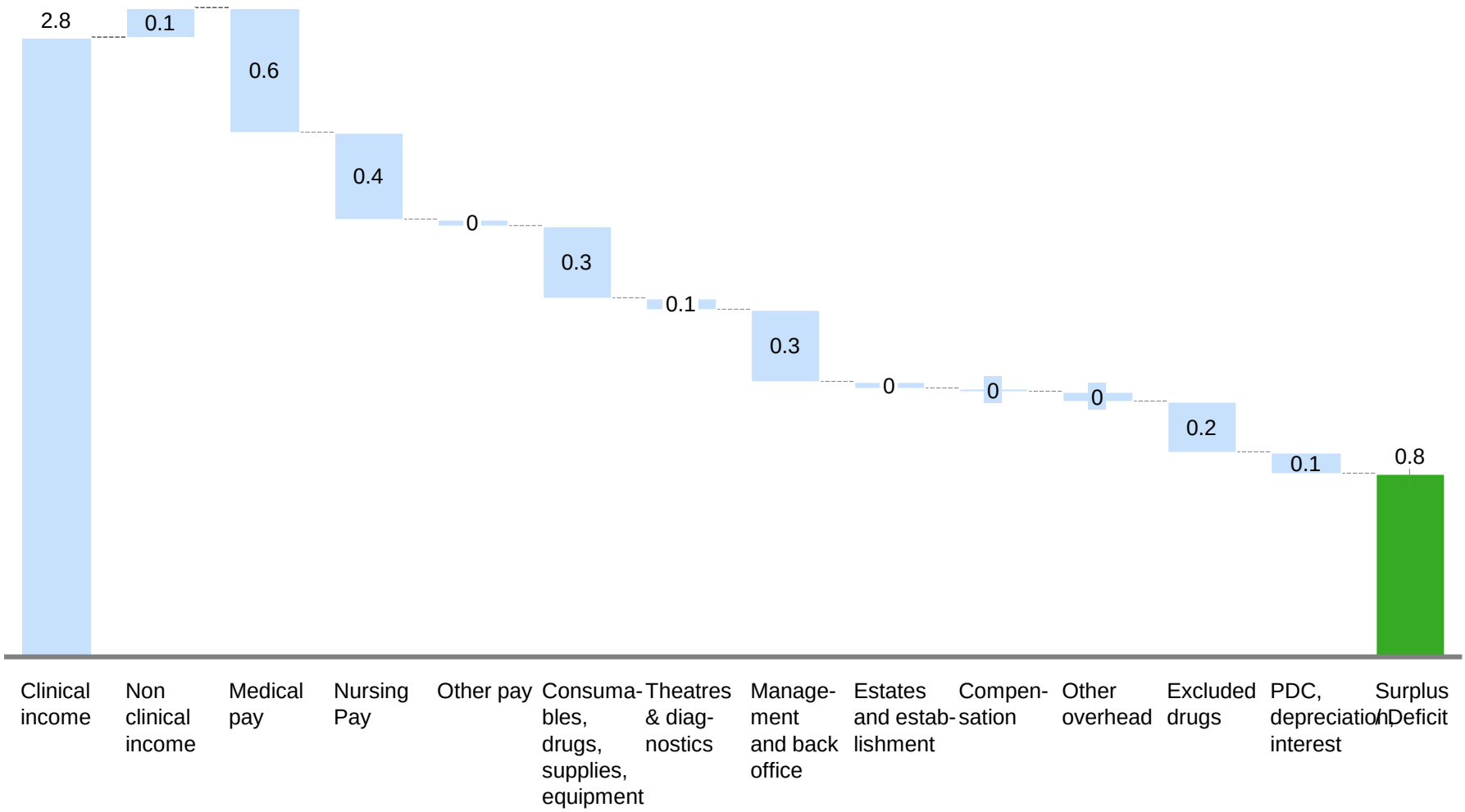
On top of “traditional” operational improvements, QEH will need to more radically transform services to ensure clinical and financial sustainability – Planned care

In **elective care**, the trust could reduce costs by up to **£1.7m p.a.** by

- Delivering outpatient consultations more efficiently by deploying technology (e.g. Skype) and moving to new ways of working such as group appointments for those patients with long term conditions (for example those with asthma or diabetes) or routine follow ups. There is evidence of these innovations working well elsewhere and delivering significant efficiencies.
- Note – this benefit is assumed to accrue to the Trust – if the CCG moved to pay a different tariff for technology/remote consultations, the financial benefit would accrue to the CCG
- Further cost savings could be achieved by moving to new models of employment with consultants – this would likely be required should the CCG seek to de-commission some outpatient specialities

11 The current model of care for Dermatology is financially sustainable

Projected I&E of planned Dermatology service, £m, 2018/19[1]

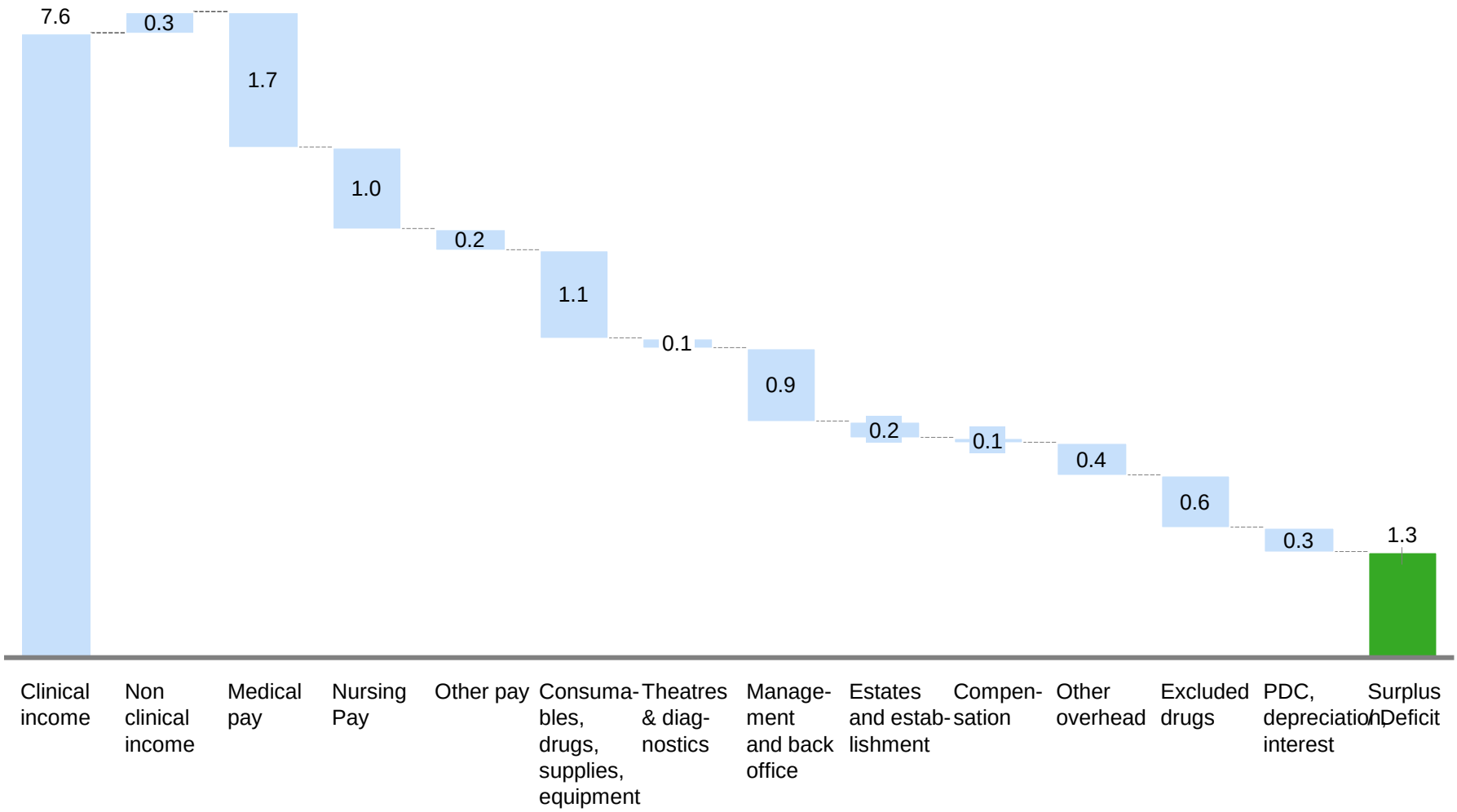


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 The current model of care for Ophthalmology is financially sustainable

Projected I&E of planned Ophthalmology service, £m, 2018/19[1]

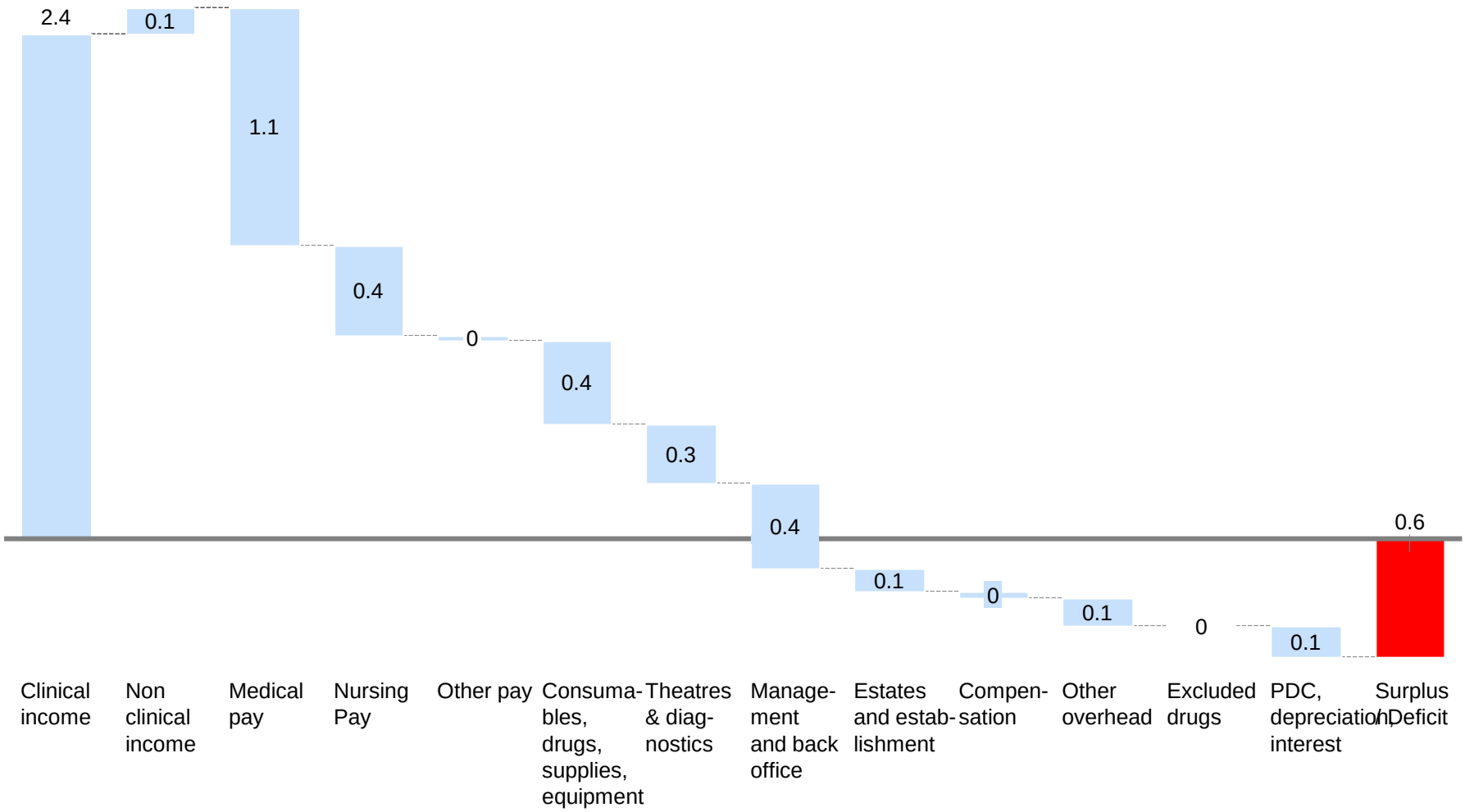


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 The current model of care for ENT is not financially sustainable

Projected I&E of planned E.N.T service, £m, 2018/19[1]

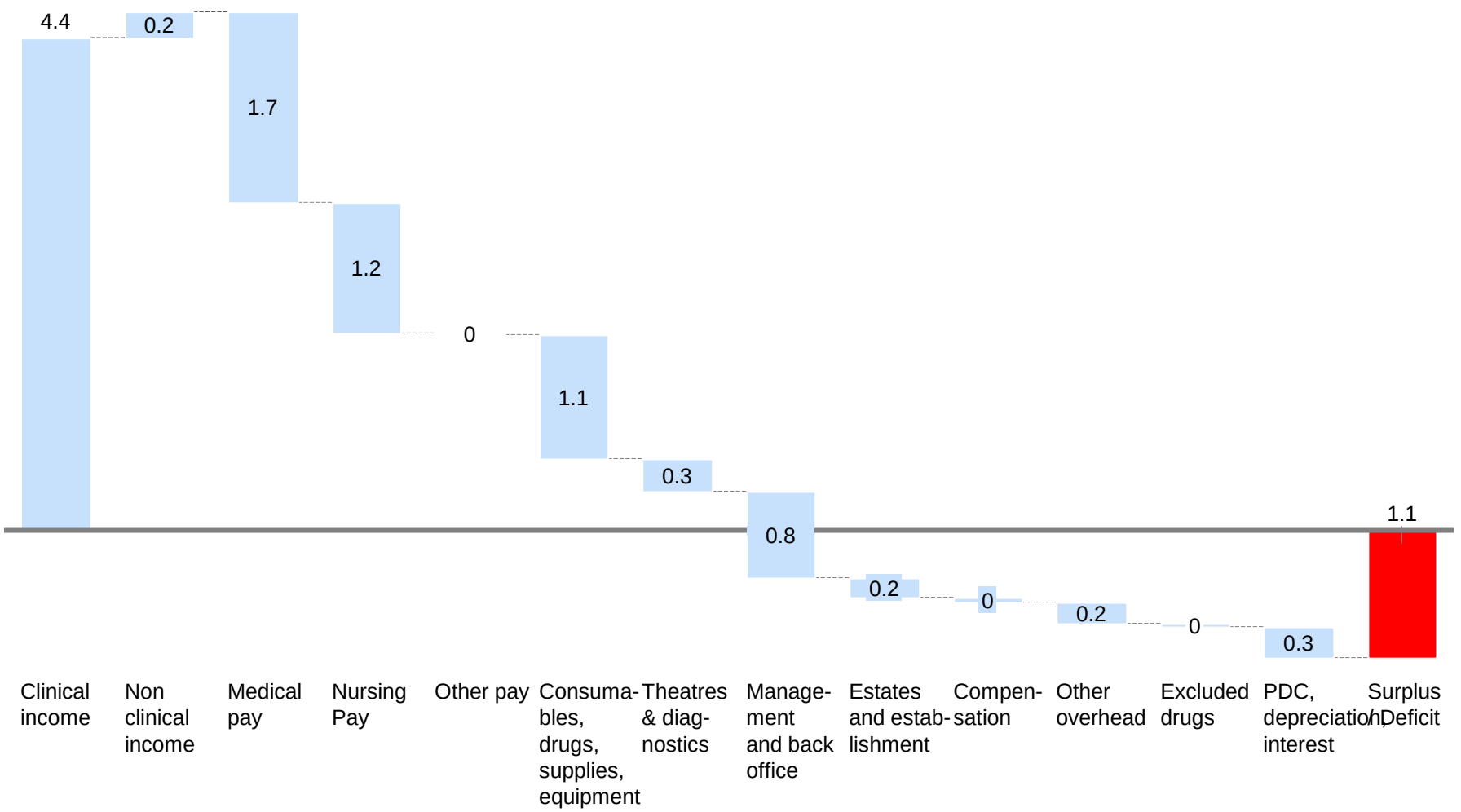


1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 The current model of care for Urology is not financially sustainable

Projected I&E of planned Urology service, £m, 2018/19[1]



1 Projections are Pre-CIP and based on assumptions agreed at OFG

SOURCE: QEH SLR report 2013/2014

11 UHNS is implementing Skype consultations for up to 35% of OP appointments

British hospital to become first in Europe to use Skype for consultations

A hospital in Staffordshire is set to become the first in Europe where doctors consult with their patients via Skype

0 1 0 0 1 Email

- University Hospital North Staffordshire is implementing a Skype outpatient service – estimates this will reduce OP appointments by 35% and also facilitate 'hot clinics' for GPs looking for specialist input rapidly
- Skype appointments will be for routine post op, review of scans and tests
- How could this be applied at West Norfolk?

11 Implementing Skype appointments at QEH could reduce nursing pay spend by £1.5m p.a.

Assumptions

Number of outpatient appointments in 2013/14	270,000
Percentage of appointments suitable for Skype	35%[1]
Average number of minutes per appointment	20
Hours per clinic	4
Nurses per clinic (assume band 5 on average)	2
Hours worked per week per nurse WTE	37.5
Weeks worked per year per nurse WTE	42

Potential impact

Appointments suitable for Skype per year	94,000
Reduction in required nursing WTE per year	41
Nursing pay costs saved per year	1.5m

1 Based on University Hospital North Staffordshire

SOURCE: QEH outturn data, 2013/14

11 Shared medical appointments have been running for >10 years in the U.S.

Context

- Improve access to and quality of care
- Improve patient engagement and satisfaction
- Reduce cost of service provision

The impact

- In the U.S., the percentage of practices offering SMAs increased from 6% in 2005 to13% 2010
- Health outcomes can be improved; e.g., a trial of 800 type II diabetic patients concluded that after 4 years, patients in group care had:
  - Lower A1C, total cholesterol, LDL cholesterol, triglycerides, BP, BMI, and serum creatinine ($P < 0.001$, for all) than control subjects receiving individual care
  - Health behaviors, quality of life and knowledge of diabetes had become better in group care patients than in control subjects ($P < 0.001$, for all)

How the solution works

- Shared medical appointments (SMAs) bring patients with common needs together with one or more health care providers (MDT members)
- Typically a SMA is 90 minutes long (vs. individual appointments of 10-15 minutes), allowing patients to spend more time with the healthcare team
- 10-15 patients are seen in a SMA, in an environment that encourages sharing questions, concerns and experiences
- During the SMA, patients are also seen in a private exam room for individualised care as appropriate
- SMAs are particularly well suited to patients with LTCs such as asthma, diabetes and hypertension

SOURCE: American Academy of Family Physicians, provider organisation website, heathland.time.com, Diabetes Care April 2010

11 Implementing shared medical appointments at QEH could reduce medical and nursing pay spend by at least £200k p.a. beyond Skype

Assumptions

Number of outpatient appointments in 2013/14	270,000
Percentage of appointments suitable for shared medical appointments (SMAs)	5%
Average number of minutes per individual appointment	20
Average number of minutes per SMA	90
Hours per clinic	4
Nurses per clinic (assume band 5 on average)	2
Hours worked per week per nurse WTE	37.5
Weeks worked per year per nurse WTE	42

Potential impact

Appointments suitable for SMAs per year	13,000
Reduction in required nursing WTE per year	3
Nursing pay costs saved per year	100k
Consultant PA s saved per year	12
Consultant PA costs saved per year	100k

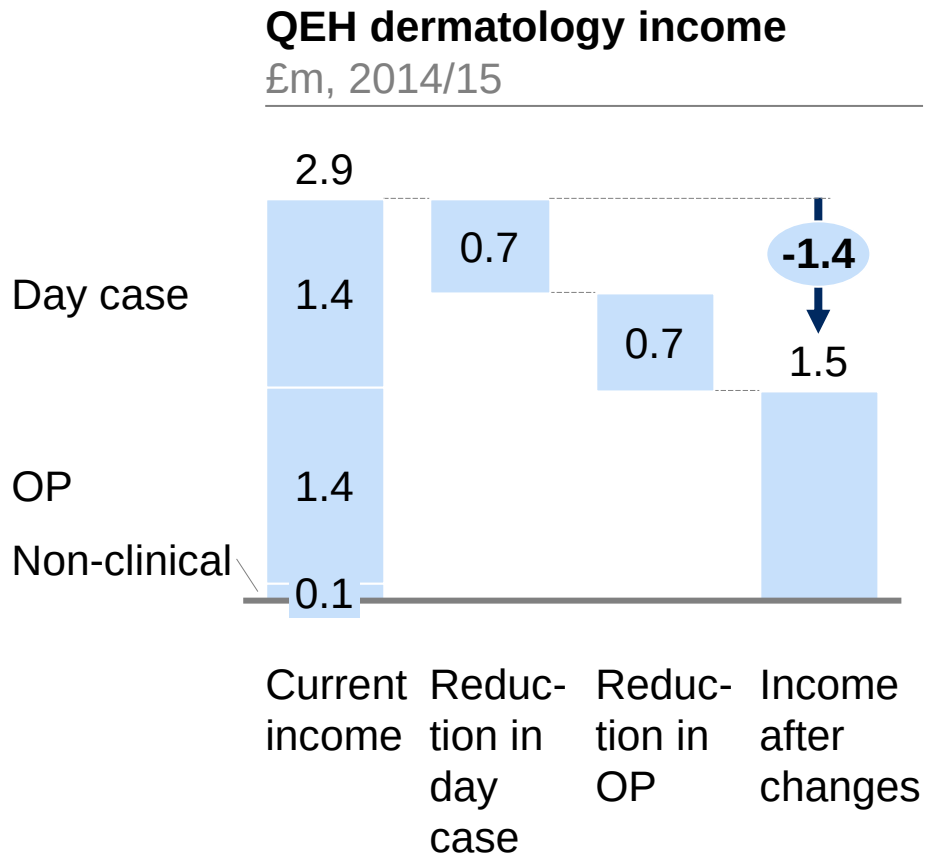
SOURCE: QEH outturn data, 2013/14

11 WNCCG is potentially considering shifting elective activity from QEH; one of the services we analysed as an example is Dermatology

CCG plans using dermatology as example

- WNCCG has indicated potential plans to shift elective activity (outpatients and daycases) from QEH to other more cost efficient providers
- Plans are not firmed up yet, and we set out to evaluate potential impact on QEH
- For analysis, we assumed reduction of 50% of outpatient and daycase activity, with 100% of inpatient activity staying local at QEH

Impact on QEH dermatology service – reduction of £1.4m of income out of total £2.9m



SOURCE: QEH finance; CPT

11 Within current model of employment, QEH can reduce costs by £0.5m for a net impact of -£1.0m; beyond that QEH can reduce costs only by new models of employment contracting with consultants

QEH has limited ability to recover costs in response to reduction in activity with current model of care – up to £0.5m in pay and variable costs

	Cost driver	Current spend £000s	Future spend £000s	Reduct-ion %	Rationale
Pay costs	Medical Pay	565	455	20	Assuming 20% reduction in DCC PAs – can not go further without networking and sharing posts
	Nursing	389	200	45	190k from reduction in nursing WTEs from DC and OP work
	Other Pay	26	13	50	Assuming can reduce in line with income
	Total pay costs	980	668	32	QEH can reduce pay costs by 32% in response to 40-50% reduction in income
Non-pay costs	Drugs & supplies	325	163	50	Commensurate reduction in supplies

- In response to reduction in clinical activity, QEH can reduce pay costs by 32% and variable costs by 50% - within the current clinical model of employing consultants at QEH
- Costs could potentially be reduced further, bit this will require potentially sharing posts with other providers (e..g contracting for DCC PAs as per activity)

SOURCE: QEH finance; CPT; CIG discussions

11 Example alternative models of employment for consultants

	Description	How does this mitigate impact of WNCCG shifting elective activity
Consultants employed directly by primary care	▪ GPs form expanded group practices employing consultants (or taking them as partners) ▪ Consultants provider services at practices and hospital, splitting their time	▪ QEH is able to contract for the time they need to provide elective services ▪ Consultants able to see patients out of hospital and provide continuity of care, and see higher volumes of activity across different providers
Consultants self employed and provide services to different Trusts	▪ Consultants group together to form practices which provide capacity and elective services to several hospitals per need	▪ QEH is able to contract for the time they need to provide elective services and reduce stranded costs ▪ *Consultants are able to see higher volumes of activity across different providers*

SOURCE: CPT

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population	Commissioners
2	Decommission procedures of limited clinical effectiveness	
3	Commission services from highest value/lowest cost providers	
4	Improve model of care for people with long term conditions	
5	Improve model of care for the frail elderly population	
6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE LAT
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	

QEH could reduce spend by £1.0m-£13.2m per annum by providing some services in combination with other providers (1/2)

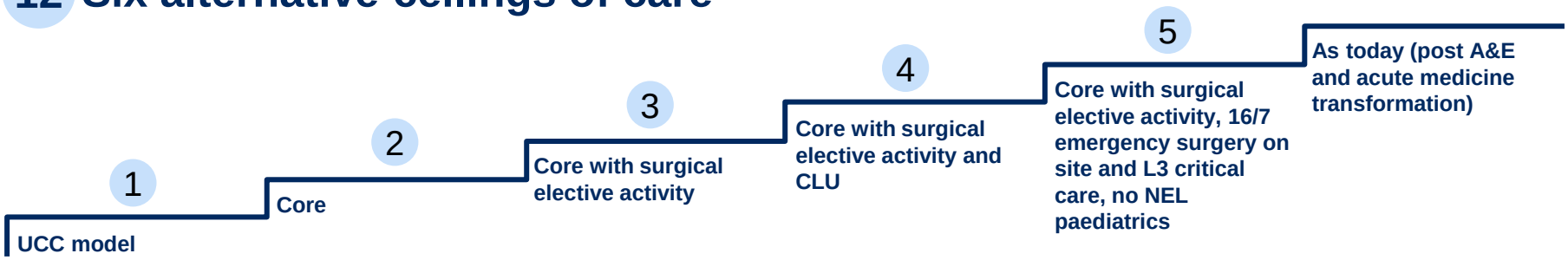
- A range of scenarios for the future clinical service configuration at QEH has been explored ranging from QEH focusing on urgent care, care of the frail elderly, midwife led births and outpatient/diagnostic services with more acute care provided by other hospitals through to the hospital continuing to provide the current range of services. These scenarios have been discussed at the clinical working groups and the recommendation of these groups, and the chair of the clinical working groups specifically, is that the full range of acute services as they are today is required locally
- We have evaluated the impact of these on finances at QEH and other providers and on patients' access to care. All models assume outpatient and diagnostic services remain locally delivered as they are today to maintain maximum access to care for patients locally
  - **Reducing out of hours surgery** can improve the financial deficit by £0.2m; 250 acute surgical cases operated on out of hours today will need to travel to other providers (assuming they all indeed need to be operated on out of hours)
  - Having **no acute surgery on site** (only stabilise and transfer along with elective surgical care), while maintaining other current services will improve the financial position by **£2.4m. Around 1%** of current patient contacts at QEH will need to travel to other providers
  - **No acute surgery and midwife led obstetrics** only will improve the financial position by **£4m. 3%** of current patient contacts at QEH will need to travel to alternative providers

QEH could reduce spend by £1.0m-£13.2m per annum by providing some services in combination with other providers (2/2)

- A **core model** of care with front of house urgent care/A&E, frail elderly unit and acute medicine, access to a surgical team to stabilise and transfer, level 2 high dependency unit, paediatric assessment unit and midwifery led unit – will improve the financial position by **£6.4m,** with **10%** of current patient contacts at QEH needing to travel to alternative providers
- An **urgent care centre model** with an urgent care centre, co-located primary care, stabilise and transfer for inpatient care, paediatric assessment unit and a midwife led unit will improve the financial position by **£12.4m, and 17%** of patient contacts will need to travel to alternative providers.

- Consideration needs to be given to the geography of West Norfolk – other acute hospitals are at least 38 miles away on largely single tracked roads – resulting in journey times of up to an hour
- In all these scenarios, the trust will need to provide more services in a **network with other local acute hospital trusts –** for example through joint contracts, joint protocols for care, joint ownership of quality and efficiency metrics. Other similar sized hospitals in the UK already work in this way and we believe this would offer advantages to the patients using QEH and the staff who work there. The financial benefit of this is estimated to be at least **£0.8m**. Such working arrangements will need to include sharing the costs of medical staffing, vacation and training, as well as possibly sharing some of the marginal contribution of activity performed by consultants at other providers

12 Six alternative ceilings of care



1 UCC model	2 Core	3 Core with surgical elective activity	4 Core with surgical elective activity and CLU	5 Core with surgical elective activity, 16/7 emergency surgery on site and L3 critical care, no NEL paediatrics	As today (post A&E and acute medicine transformation)
Front end triage	Front end triage	Front end triage	Front end triage	Front end triage	Front end triage
UCC[1],GPOOH[2]	UCC[1],GPOOH[2]	UCC[1],GPOOH[2]	UCC[1],GPOOH[2]	UCC[1],GPOOH[2]	UCC[1],GPOOH[2]
Colocated primary care	Colocated primary care	Colocated primary care	Colocated primary care	Colocated primary care	Colocated primary care
	Majors area	Majors area	Majors area	Majors area	Majors area
	Stroke (hyperacute tbd)	Stroke	Stroke	Stroke	Stroke
	Critical care L2[4]	Critical care L2[4]	Critical care L2[4]	Critical care L3	Critical care L3
MLU[5]	MLU[5]	MLU[5]	Consultant led obs[7]	Consultant led obs[7]	Consultant led obs[7]
PAU and SSU[6]	PAU and SSU[6]	PAU and SSU[6]	PAU and SSU, L2 NICU[6]	PAU, SSU[6] L2 NICU	Paeds ward, L2 NICU
		EL surgery IP and DC	EL surgery IP and DC	EL surgery IP and DC	EL surgery IP and DC
24/7 access to surgical opinion, stabilise and transfer [3]	24/7 access to surgical opinion, stabilise and transfer [3]	16/7 emergency surgery on site	24/7 emergency surgery on site	16/7 emergency surgery on site	24/7 emergency surgery on site
Outpatients and Dx	Outpatients and Dx	Outpatients and Dx	Outpatients and Dx	Outpatients and Dx	Outpatients and Dx

1 Minor injuries and illnesses 2 GP out of hours 3 Surgical consultant 24/7 on site to stabilise and transfer, but no acute surgical procedures on site
4 Level 2 critical care, staffed with nursing ratio of 1 nurse to 2 beds 5 Midwifery led unit
6 Paediatric assessment unit, short stay paediatric unit (12 beds) 7 consultant led obstetrics with colocated MLU

SOURCE: WNCCG discussions; CWG work to date

12 UCC model – what is it, and what support will we need?

How is this different to what we have today?	▪ Front of house is an urgent care centre with no 'A&E majors', colocated primary care and GP out of hours, frail elderly unit and colocated assessment areas ▪ No critical care, just stabilise and transfer model ▪ Midwifery led unit, no consultant led obstetrics ▪ Paediatrics are PAU and short stay unit; no NICU
Are national guidelines supporting this?	▪ In line with 5 year forward view and vision for NHS
What support will we need to make this happen?	▪ **Primary care** has to be involved and integrated, as are **community and social** care – especially in providing adequate capacity in community to enable flow ▪ **Networks with neighbouring providers** to support consultant rotas on – Remote surgical opinion – PAU and short stay paediatric unit – Stabilise and transfer service (anaesthetists) ▪ **Robust transfer protocols with ambulance trust** and other providers ('transfer patient is first class citizen')

SOURCE: CPT

12 Core model – what is it, and what support will we need?

How is this different to what we have today?	▪ Front of house is transformed to meet population needs and commissioning intentions, integrated primary care ▪ Surgery is 'stabilise and transfer' only ▪ Critical care is level 2, not level 3 ▪ Midwifery led unit, no consultant led obstetrics ▪ Paediatrics are PAU and short stay unit; no NICU
Are national guidelines supporting this?	▪ In line with 5 year forward view and vision for NHS
What support will we need to make this happen?	▪ **Primary care** has to be involved and integrated, as are **community and social** care – especially in providing adequate capacity in community to enable flow ▪ **Networks with neighbouring providers** to support consultant rotas on – 24/7 surgical team on site and HDU – PAU and short stay paediatric unit – Possibly stroke care through tele-medicine ▪ **Robust transfer protocols with ambulance trust** and other providers ('transfer patient is first class citizen')

SOURCE: CPT

12 Core and elective care – what is it, and what support will we need?

How is this different to what we have today?

- Front of house is transformed to meet population needs and commissioning intentions, integrated primary care
- Surgery is ‘stabilise and operate’ when there are elective lists, and ‘stabilise and transfer out of hours’; plus elective surgical activity
- Critical care is level 2, not level 3
- Midwifery led unit, no consultant led obstetrics
- Paediatrics are PAU and short stay unit; no NICU

Are national guidelines supporting this?

- In line with 5 year forward view and vision for NHS

What support will we need to make this happen?

- **Primary care** has to be involved and integrated, as are **community and social** care – especially in providing adequate capacity in community to enable flow
- **Networks with neighbouring providers** to support consultant rotas on
  - Elective surgery (consultants will need to share posts with QEH and other Trusts)
  - PAU and short stay paediatric unit
  - Possibly stroke care through tele-medicine
- **Robust transfer protocols with ambulance trust** and other providers (‘transfer patient is first class citizen’)

SOURCE: CPT

12 Core and elective care with consultant led obstetrics – what is it, and what support will we need?

How is this different to what we have today?

- Front of house is transformed to meet population needs and commissioning intentions, integrated primary care
- Surgery is 'stabilise and operate' when there are elective lists, and 'stabilise and transfer out of hours'; plus elective surgical activity
- Critical care is level 2, not level 3
- Paediatrics are PAU and short stay unit; no NICU

Are national guidelines supporting this?

- In line with 5 year forward view and vision for NHS Transformation in obstetrics means a shift from the 28:1 'birthrate plus' ratio

What support will we need to make this happen?

- **Primary care** has to be involved and integrated, as are **community and social** care – especially in providing adequate capacity in community to enable flow
- **Networks with neighbouring providers** to support consultant rotas on
  - Elective surgery (consultants will need to share posts with QEH and other Trusts)
  - PAU and short stay paediatric unit
  - Possibly stroke care through tele-medicine
- **Robust transfer protocols with ambulance trust** and other providers ('transfer patient is first class citizen')

SOURCE: CPT

12 Core model with elective care and limited access to emergency surgery

How is this different to what we have today?	▪ Front of house is transformed to meet population needs and commissioning intentions, integrated primary care ▪ 16/7 acute surgery on site, and transfer if emergency surgery is required overnight
Are national guidelines supporting this?	▪ In line with 5 year forward view and vision for NHS ▪ Transformation in obstetrics means a shift from the 28:1 ‘birthrate plus’ ratio
What support will we need to make this happen?	▪ **Primary care** has to be involved and integrated, as are **community and social** care – especially in providing adequate capacity in community to enable flow ▪ **Networks with neighbouring providers** to support consultant rotas on – Elective surgery (consultants will need to share posts with QEH and other Trusts) – Possibly stroke care through telemedicine – Obstetrics ▪ **Robust transfer protocols with ambulance trust** and other providers (‘transfer patient is first class citizen’), for those patients (200-300/year) who present out of hours

SOURCE: CPT

12 QEH I&E for different ceilings of care

£m, 2018/2019, inclusive of CIP

xx Change relative to as-is model

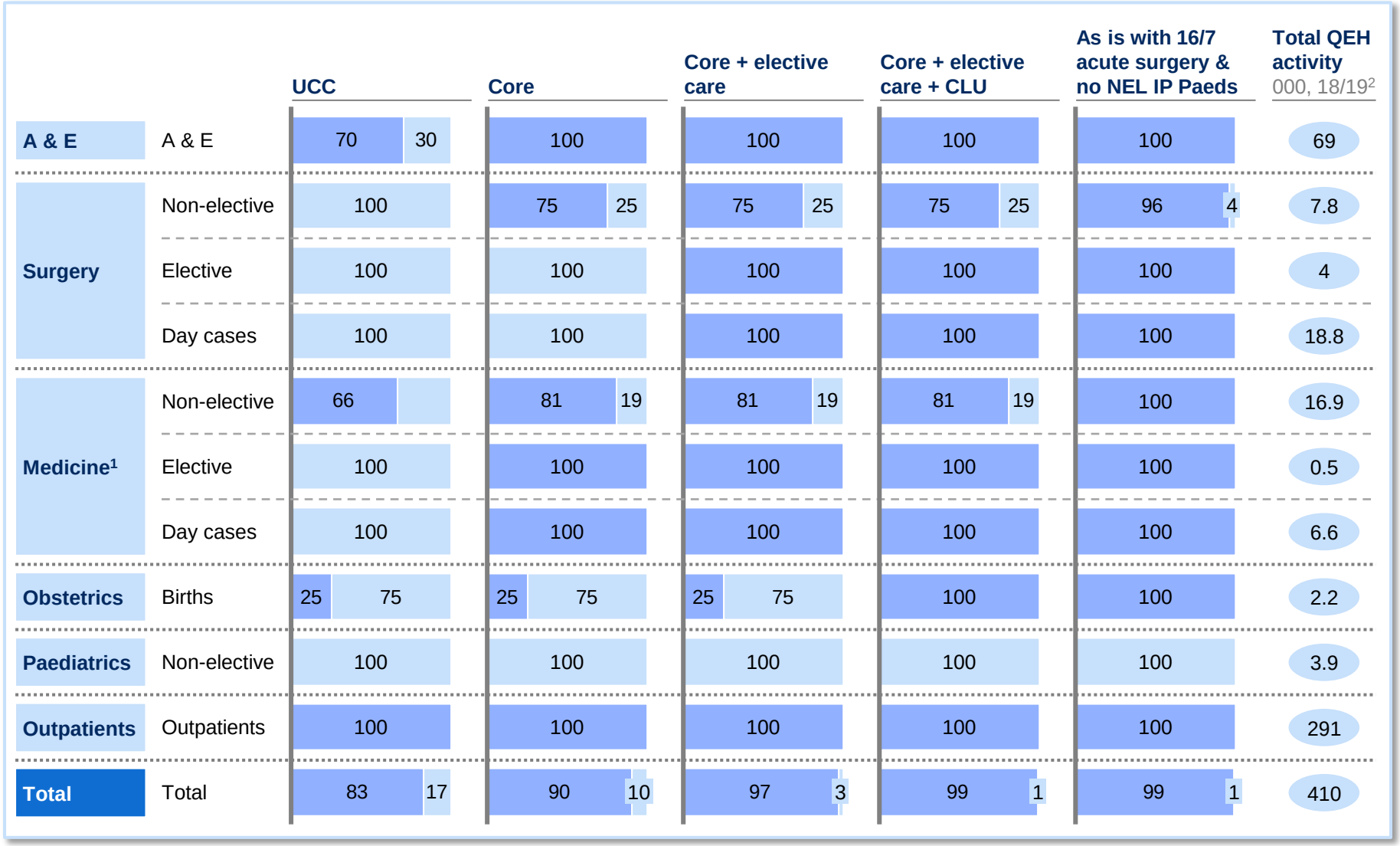
- The analysis is an illustrative top down analysis based on service line I&E[3]
- Further bottom up analysis would be needed if any of the options is to be pursued
- Analysis does not include effect on commis-sioners

1 Ancillary staff direcly allocated to specialties/wards;
2 Not including the 16/17-18/19 CIP, this reconsiliates to the trust 18/19 forecasted baseline of £27.3m deficit
3 Trust SLR does not contain cost allocation by POD. High level allocation method per POD was used
4 All capital costs are assumed to stay constant – this might change for more radical ceilings of care

SOURCE: QEH outturn 2013/2014, QEH ledger 2013/2014, QEH SLR

12 Proportion of patients treated at QEH under different ceilings of care

% Attendances/FCEs remaining at QEH after activity reduction



1 Excluding NE obstetrics and paediatrics 2 Assuming OFG agreed growth assumptions, includes MIU activity

SOURCE: QEH outturn 2013/2014

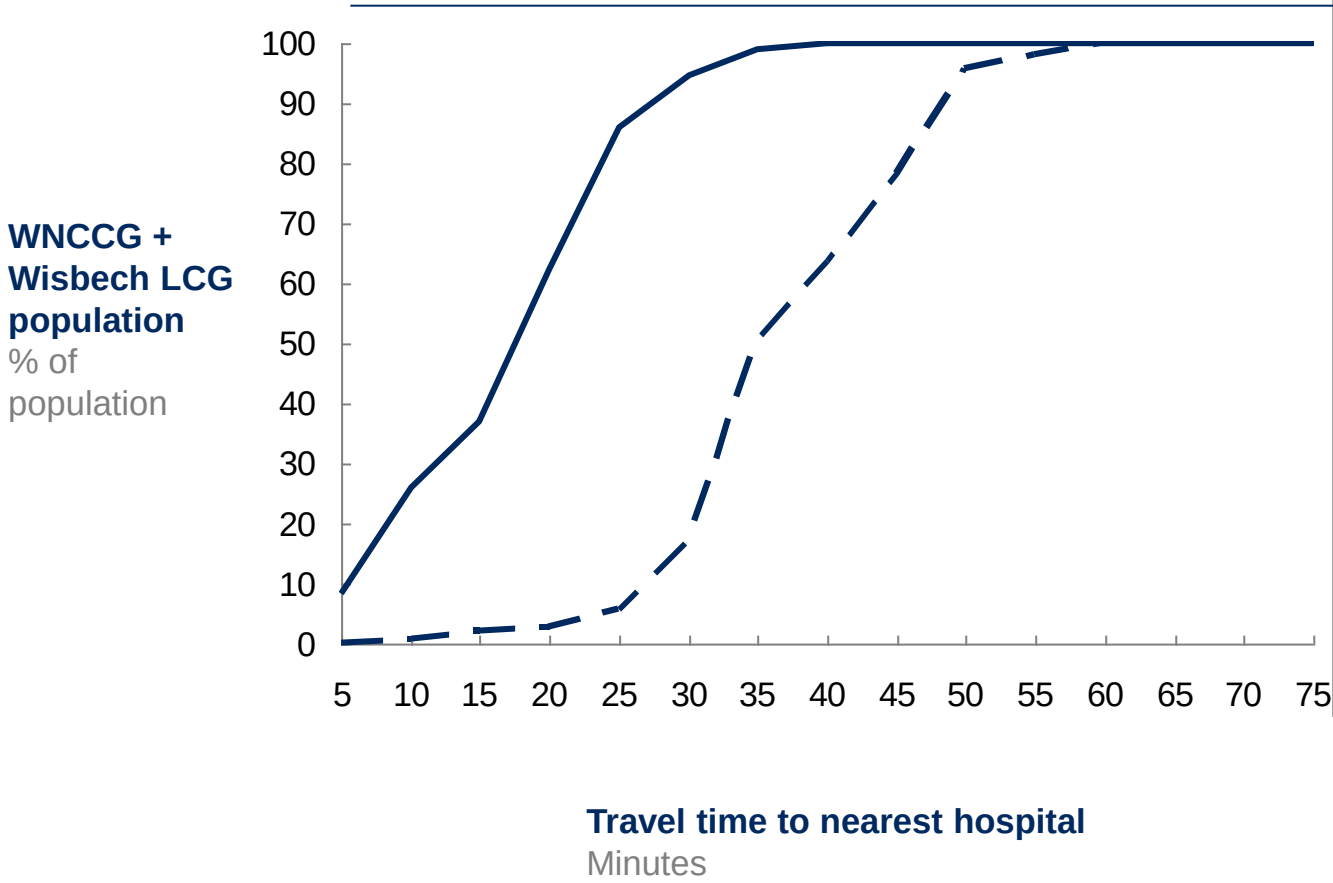
12 Travel time analysis – blue light ambulance

2013/14

With QEH

With QEH not providing an acute service

Share of population within travel time to nearest hospital – blue light traffic [1]



- With QEH as today 90% of population are 25 minutes away from the nearest hospital for a blue light travel
- With QEH not providing the service 90% of the population are 50 minutes away from the nearest hospital for a blue light travel – e.g. a difference of an additional 25 minutes of travel

1 Assuming blue light travel time in West Norfolk would be 80% of private car travel times in same traffic conditions

SOURCE: SDG, travel time analysis, ONS

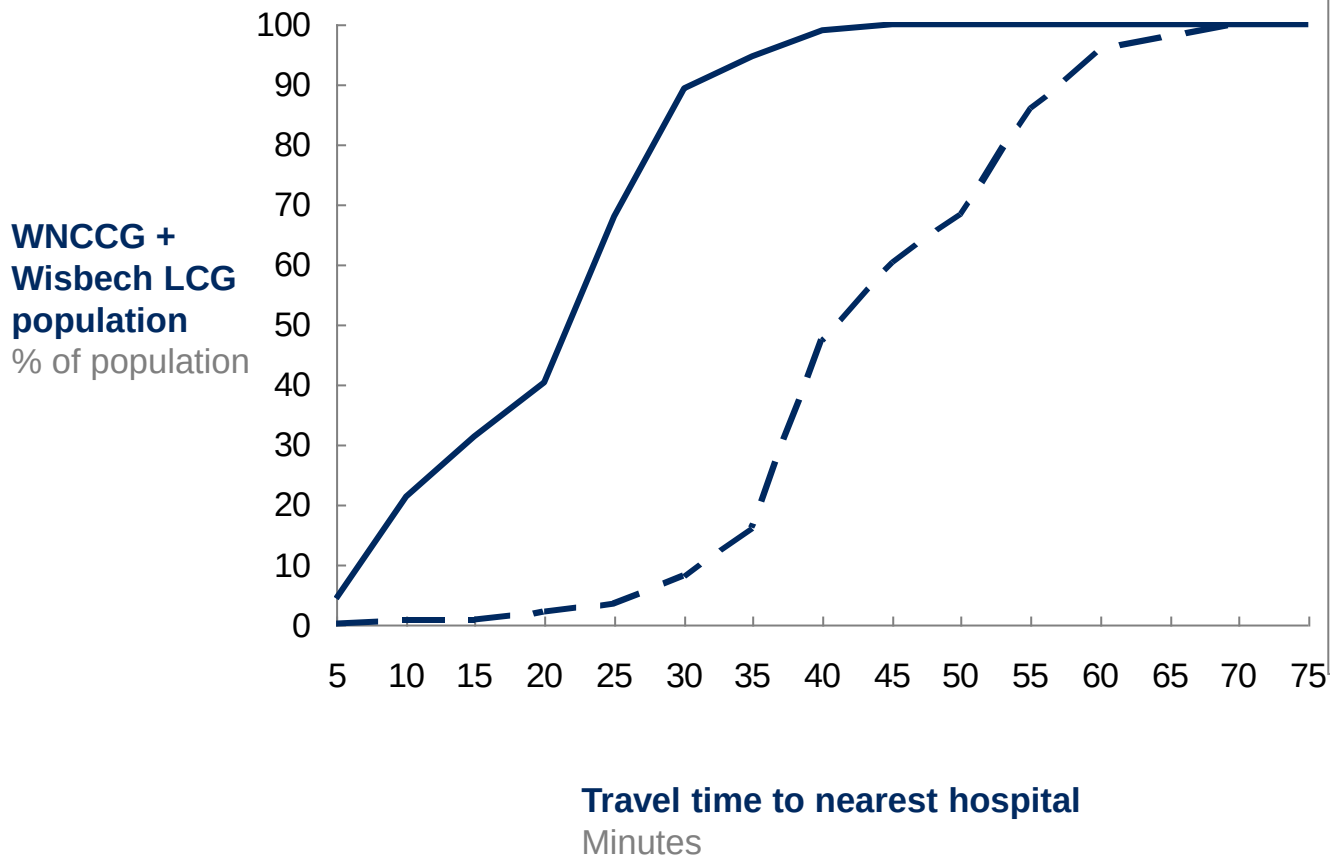
12 Travel time analysis – private car peak time

2013/14

With QEH

With QEH not providing an acute service

Share of population within travel time to nearest hospital for peak private care travel



- With QEH as today 90% of population are 30 minutes away from the nearest hospital for peak time private car travel
- With QEH not providing the service 90% of the population are 60 minutes away from the nearest hospital , e.g. an additional 30 minutes travel

SOURCE: SDG, travel time analysis, ONS

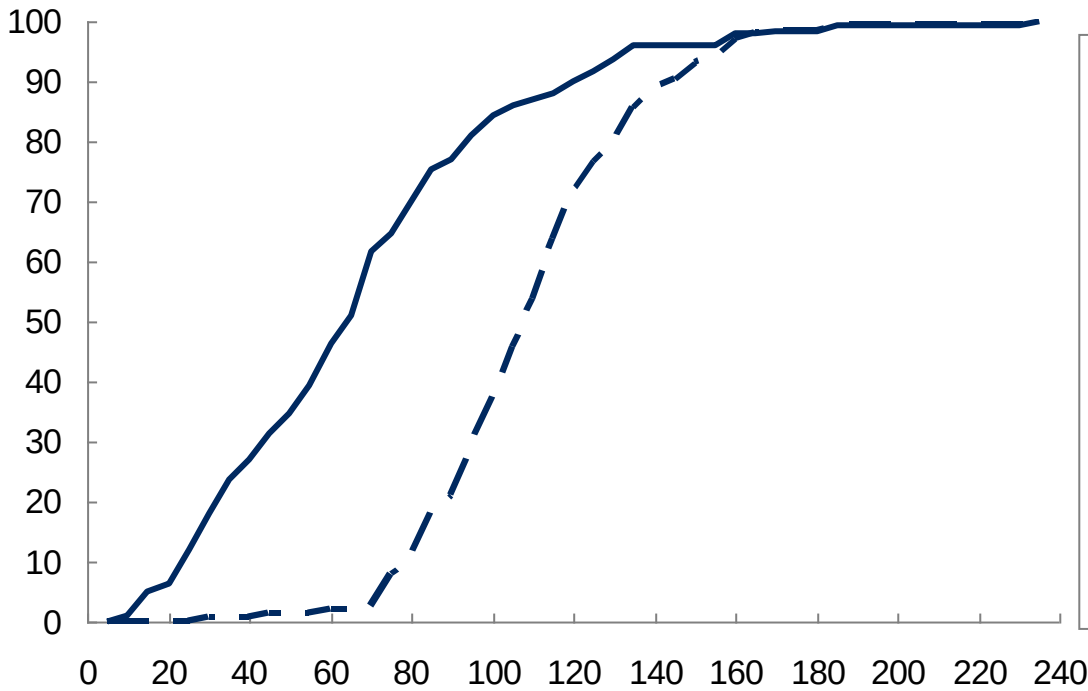
12 Travel time analysis – public transport

2013/14

With QEH

With QEH not providing an acute service

Share of population within travel time to nearest hospital for public transport travel



WNCCG + Wisbech LCG population
% of population

Travel time to nearest hospital
Minutes

- With QEH as today 90% of population are 120 minutes away from the nearest hospital for public transport travel
- With QEH not providing the service 90% of the population are 140 minutes away from the nearest hospital

SOURCE: SDG, travel time analysis, ONS

12 Impact on other acute providers – UCC model

2018/2019

	Income[1] £m	Contri-bution[2] £m	Beds	Births	A&E atten-dances	NEL spells	EL and DC spells
Peterborough City Hospital	37	7.3	86	923	10,448	11,014	20,050
Norfolk and Norwich Hospital	11	2.1	26	279	3,154	3,325	6,053
Adden-Brooke's Hospital	1	0.1	2	17	197	208	378
West Suffolk Hospital	20	4.1	48	522	5,914	6,234	11,349
Total	**68.5**	**13.7**	**161**	**1,742**	**19,713**	**20,781**	**37,830**

MFF impact on commissioners: +£1.6m
Note: impact of additional ambulance times not added in

1 MFF adjusted, original spend in QEH £66.9m;
2 Assuming 20% margin for receiving hospital, not including capital costs/ i

SOURCE: QEH outturn data 2013/2014, CPT ceilings of care model

12 Impact on other acute providers – core model

2018/2019

	Income[1] £m	Contri-bution[2] £m	Beds	Births	A&E atten-dances	NEL spells	EL and DC spells
Peterborough City Hospital	24	4.7	49	923	0	5,905	11,532
Norfolk and Norwich Hospital	7	1.4	15	279	0	1,783	3,481
Adden-Brooke's Hospital	0	0.1	1	17	0	111	218
West Suffolk Hospital	13	2.6	28	522	0	3,342	6,528
Total	**44**	**8.8**	**93**	**1,742**	**0**	**11,141**	**21,759**

MFF impact on commissioners: +£1.0m

1 MFF adjusted, original spend in QEH £43m;
2 Assuming 20% margin for receiving hospital, not including capital costs/ investments

SOURCE: QEH outturn data 2013/2014, CPT ceilings of care model

12 Impact on other acute providers – core model + elective care

2018/2019

	Income[1] £m	Contri-bution[2] £m	Beds	Births	A&E atten-dances	NEL spells	EL and DC spells
Peterborough City Hospital	14	2.8	36	923	0	5,905	1,730
Norfolk and Norwich Hospital	4	0.8	11	279	0	1,783	522
Adden-Brooke's Hospital	0	0.1	1	17	0	111	33
West Suffolk Hospital	8	1.6	20	522	0	3,342	979
Total	**26**	**5.2**	**68**	**1,742**	**0**	**11,141**	**3,264**

MFF impact on commissioners: +£0.6m

1 MFF adjusted, original spend in QEH £25m;
2 Assuming 20% margin for receiving hospital, not including capital costs/ investments

SOURCE: QEH outturn data 2013/2014, CPT ceilings of care model

12 Impact on other acute providers – core model, elective care and CLU[3]

2018/2019

	Income[1] £m	Contri-bution[2] £m	Beds	Births	A&E atten-dances	NEL spells	EL and DC spells
Peterborough City Hospital	7	1.4	30	0	0	5,905	1,730
Norfolk and Norwich Hospital	2	0.4	9	0	0	1,783	522
Adden-Brooke's Hospital	0	0.0	1	0	0	111	33
West Suffolk Hospital	4	0.8	17	0	0	3,342	979
Total	**13.4**	**2.7**	**56**	**0**	**0**	**11,141**	**3,264**

MFF impact on commissioners: +£0.3m

1 MFF adjusted, original spend in QEH £13.1m;
2 Assuming 20% margin for receiving hospital, not including capital costs/ investments
3 Consultant led obstetrical unit

SOURCE: QEH outturn data 2013/2014, CPT ceilings of care model

12 Impact on other acute providers – 'As is' with limited access to non-elective surgery

2018/2019

	Income[1] £m	Beds	Births	A&E attendances	NEL spells	EL and DC spells
Peterborough City Hospital	2	10	0	0	2,223	0
Norfolk and Norwich Hospital	1	3	0	0	671	0
Adden-Brooke's Hospital	0	0	0	0	42	0
West Suffolk Hospital	1	5	0	0	1,258	0
Total	**4.3**	**18**	**0**	**0**	**4,194**	**0**

MFF impact on commissioners +£0.1m

1 MFF adjusted, original spend in QEH £4.2m

SOURCE: QEH outturn data 2013/2014, CPT ceilings of care model

12 QEH is already collaborating with other hospitals on several specialties, but there is possibly room to extend that further

	Description	
What does QEH have in place today with regards to clinical collaboration?	▪ Currently, QEH has c.20 consultants sharing their posts with other hospitals, namely the NNUH, Papworth and CMUH, for a total of 100 PAs per week spent in other providers in the following specialties[1] – ENT, plastic surgery – Neurology and stroke, nephrology – Vascular surgery, upper GI surgery – Microbiology – Urology (about to appoint shared post with NNUH), spinal surgery – Radiology (not shared rota per se, but an outsourcing of out of hours reporting)	▪ Assuming QEH can move to 40 shared posts, and each reducing the need for 2-4 PAs per consultant, financial impact would be £0.8m ▪ There will have to be protocols in place to share capacity, such as – Sharing of impact of vacation, training, sPA – Sharing of marginal contribution of activity
What are neighbouring hospitals doing?	▪ The James Paget and NNUH have between then – 30-40 joint appointments – Shared e-prescribing and pathology systems	

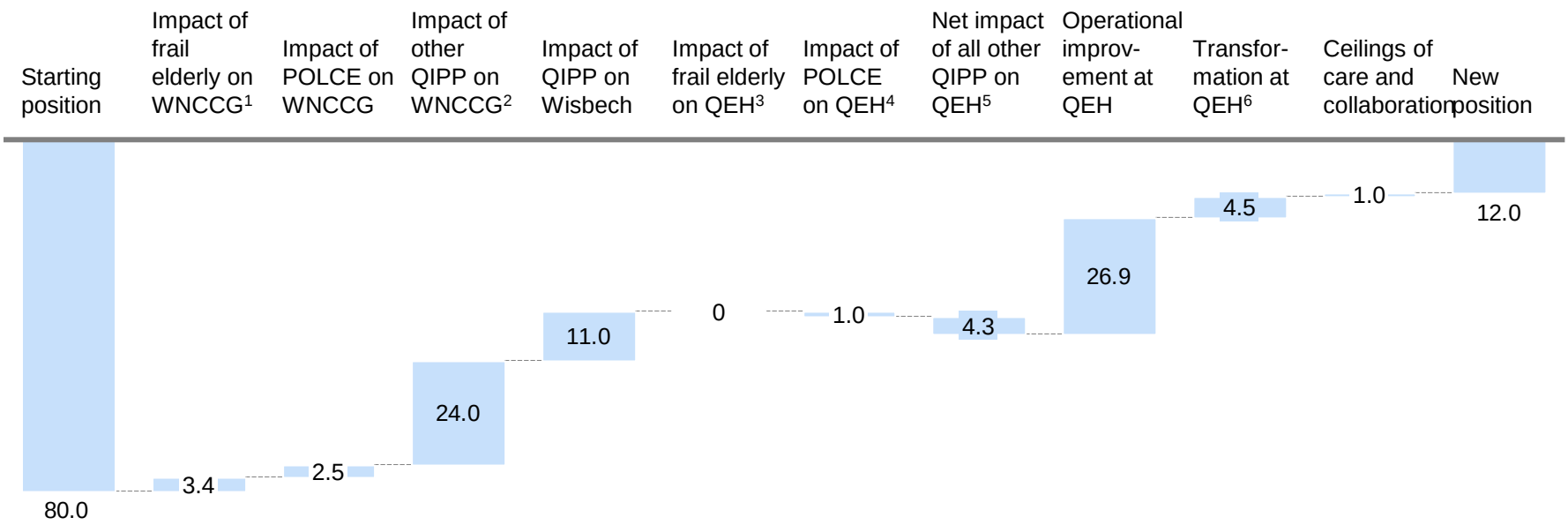
1 99 DCC PAs dedicated to clinical work at other providers, and in addition 16 PAs of travel time

12 Closer clinical collaboration has potential benefits for QEH

	Description	How could it be applicable at QEH
Improved clinical sustainability and quality	▪ Increased scale of activity and number of staff drive quality of care through volume and specialisation ▪ Resilience to retirement	▪ Specialties where volumes are relatively low – obstetrics, paediatrics, spine, stroke, elective care
Cost savings through shared rotas	▪ Services can share rotas across sites (where rotas are not required to be resident), and possibly avoid further investments to meet National guidelines	▪ Non-acute medical specialties and lab based disciplines
Better recruitment and retention of staff	▪ Association with other hospitals can make posts more attractive to staff and hence improve recruitment and retention	▪ A&E, acute medicine
Cost avoidance for investment in estates or equipment	▪ Required investments in costly equipment (such as theatres) are duplicated across providers and can be minimised	▪ tbc
Shared best practices	▪ Shared protocols across hospitals	▪ E-prescribing and formulary at QEH, medicine management

Together proposed solutions improve the LHE financial position in 2018/19 by £68m and leave a forecast deficit of £12m (1/2)

LHE forecasted financial position
£m, 2018/19



1 Net impact on WNCCG - gross savings of £9.5m, recurrent investment of £3.8m and loss of £2.3m recurrent payments from QEH for activity above cap
2 Total savings required for WNCCG are £30m
3 Net impact on QEH is loss of £7.2m of income (gross income loss is £9.5m but £2.3m are monies paid back to WNCCG for activity above non elective cap) and £7.2m cost reduction
4 Assuming 40% stranded costs
5 Assuming 40% stranded costs
6 Impact of transformation in front of house (£1.4m), maternity (£1.4m) and elective care (£1.7m)

SOURCE: CPT; OFG discussions

Together proposed solutions improve the LHE financial position in 2018/19 by £68m and leave a forecast deficit of £12m (2/2)

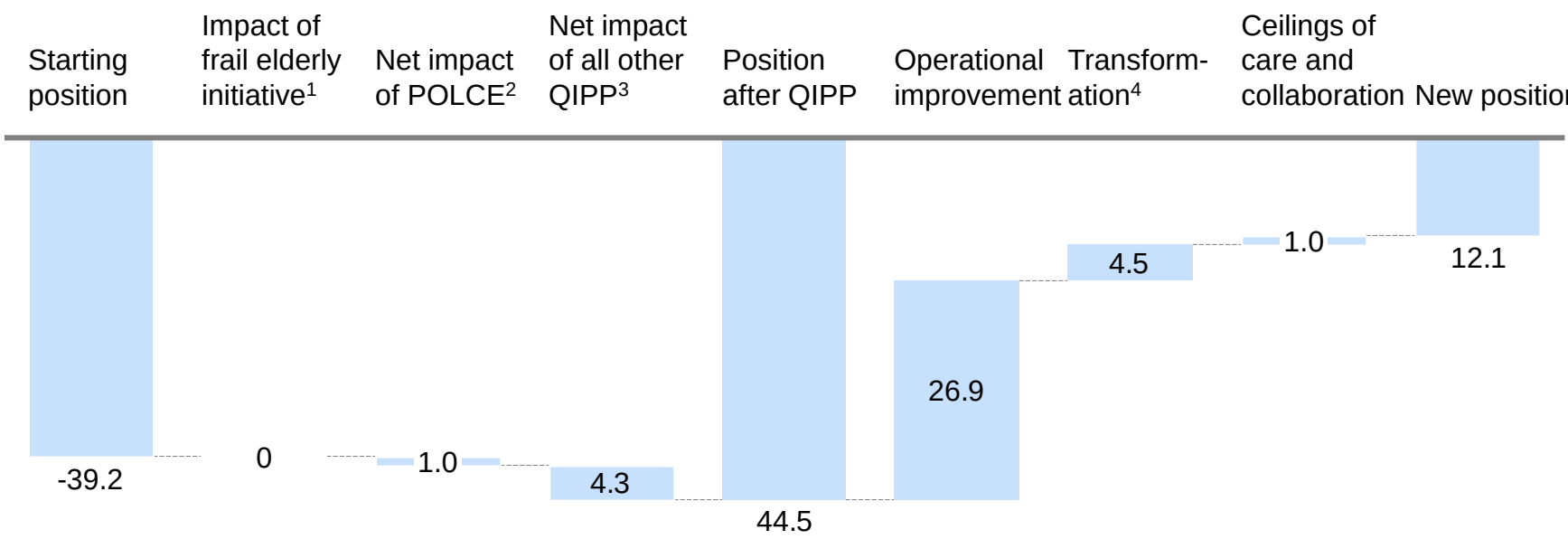
Solution levers	Commissioners cost, £m	QEH income, £m	QEH cost, £m
1 Increase preventative measures to improve health of the local population[1]	n/a	n/a	n/a
2 Decommission procedures of limited clinical effectiveness	-2.5	-2.5	-1.5
3 Commission services from highest value/lowest cost providers	TBD	TBD	TBD
4 Improve model of care for people with long term conditions 5 Improve model of care for the frail elderly population	-3.4	-7.2	-7.2
6 Reduce spend on prescribing, community care, other spend [2] 7 Reduce commissioning spend through contractual/transactional levers 8 Reduce the unit cost of community care	-35	-10.8	-6.5
9 Reduce the unit cost of primary care	TBD	TBD	TBD
10 Reduce the unit cost of hospital care through operational improvement	0	0	-27
11 Reduce the unit cost of hospital care through transformation of services (total)	0	0.6	-3.9
12 Lower ceiling of care and closer collaboration	0.1	-4.2	-5.2
Total	**-40.8**	**-24.1**	**-51.3**

1 Primary prevention is not expected to impact the clinical and financial sustainability within the time frame relevant to the CPT's work (next five years)
2 Inclusive of £11m QIPP target for Wisbech LCG

SOURCE: CPT; OFG discussions

From a QEH perspective, solutions improve the financial position to a forecast deficit of £12m versus the do nothing position of £39m deficit

QEH forecasted financial position
£m, 2018/19



1 Net impact of zero on QEH (income loss of £7.2m and cost reduction of £7.2m)
2 Income loss of £2.5m and cost reduction of £1.5m
3 Assuming stranded costs at 40%
4 Impact of transformation in front of house (£1.4m), maternity (£1.4m) and elective care (£1.7m)

SOURCE: CPT; OFG discussions

QEH financial forecast position by service after operational improvement, transformation and impact of QIPP

PRELIMINARY

£m, 2018/19

	Projected position – 'Do Nothing' 2018/19, £m	Projected position post operational improvement 2018/19, £m [1]	Projected impact of transformation 2018/19, £m	Projected impact of QIPP 2018/19, £m [2]	Projected impact of collaboration and org changes 2018/19, £m	Projected position – post operational improvement, transformation and QIPP 2018/19, £m
General Medicine	-7.8	-5.1	0.9	0	0.7	-3.6
General surgery	-6.9	-2.3	0	-0.7	0.3	-2.7
OBGYN	-5.7	-4.3	1.4	0	0.3	-2.6
Trauma & orthopaedics	-5.4	-1.6	0	-0.6	0.3	-2.1
Ophthalmology	1.4	2.5	0	-0.3	0.1	2.3
A&E	-6.6	-5.7	1.4	0	0.1	-4.2
Paediatrics	-3.0	-2.5	0	-0.3	0.1	-2.6
Clinical haematology	0.2	1.2	0.1	-0.2	0.1	1.2
Critical care Medicine	-4.7	-2.6	0	-0.2	0.1	-2.8
Radiology	4.2	4.4	0	-0.2	0.1	4.3
Cardiology	0.6	1.4	0.3	-0.2	0.1	1.6
Urology	-1.3	-0.1	0	-0.2	0.1	-0.3
Oncology	-0.9	0.1	0.1	-0.2	0.1	0.1
Pathology	-2.5	-1.2	0	-0.2	0.1	-1.3
Rheumatology	0.2	0.7	0.1	-0.1	0.1	0.7
Dermatology	0.9	1.3	0	-0.1	0.1	0.9
Ear, nose and throat (ENT)	-0.7	-0.1	0	-0.1	0	-0.4
Neonatology	-0.4	0.1	0	-0.1	0	0
Oral Surgery	-0.2	0.2	0	-0.1	0	0.1
Therapies	0.7	0.9	0	-0.1	0	0.8
Genito-urinaryMedicine	0.5	0.7	0	-0.1	0	0.7
PalliativeMedicine	-0.8	-0.3	0.1	-0.1	0	-0.3
Pain management		0.3	0	-0.1	0	0.2
Neurology	-1.4	-0.8	0.1	-0.1	0	-0.8
Audiology	0.1	0.3	0	0	0	0.3
Pharmacy	0.1	0.2	0	0	0	0.2
Plastic surgery			0	0	0	0
Nephrology	0.2	0.2	0	0	0	0.2

NOTE assuming current ceiling of care service lines based on costs

1 Including all operational improvement of c.£27m until 2018/19. As most plans are not L3 yet, cost improvement was prorated to

2 Impact of frail elderly is cost neutral for acute medicine. All other initiatives were pro-rated by income as commissioners don't have detailed plans yet

SOURCE: QEH SLR

Solutions for clinical and financial sustainability

	What is it?	Lead player
1	Increase preventative measures to improve health of the local population	Commissioners
2	Decommission procedures of limited clinical effectiveness	
3	Commission services from highest value/lowest cost providers	
4	Improve model of care for people with long term conditions	
5	Improve model of care for the frail elderly population	
6	Reduce spend on prescribing	
7	Reduce commissioning spend through contractual/transactional levers	
8	Reduce the unit cost of community care	
9	Reduce the unit cost of primary care	NHSE LAT
10	Reduce the unit cost of hospital care through operational improvement	QEH, with support from commissioners
11	Reduce the unit cost of hospital care through transformation of services	
12	Alternative ceilings of care	
13	Reduce fixed costs across the whole health economy	CCG/providers
14	Reduce unit costs through organisational changes	
	Further opportunities	

Combined the above initiatives result in an improved financial position for the LHE of £12m deficit. However, there are a number of further areas which could be considered for further improvement of up to £16.7m

Together proposed solutions improve the LHE financial position in 2018/19 by £68m, with a remaining £12 million gap:

- **Commissioning plans** cumulatively result in over **£41 million** commissioner saving that creates additional £21 million pressure for QEH. Part of this pressure QEH can address through cost reductions (£15 million).
- QEH is developing plans to deliver further **~£27 million** in **operational improvements programmes (CIP)**.
- Further **£4-5 million** can be delivered through more **transformative changes**
- **£1 million** through **reconfiguration** of service (alternative ceilings of care and collaboration with other providers).

Overall impact on QEH of these initiatives **is £32.5 million improvement from a starting position of £44.5m deficit, resulting in £12 million deficit**

In order **to fully close the gap**, other areas could be considered – specifically:

- Consolidating services and rationalising the **estate across** the whole health economy – specifically by co-locating all services for the population of Kings Lynn in the hospital and using the physical capacity vacated through improved throughput, de-commissioning of services and a move towards 7 day a week working. We estimate the impact of this at **£1-2m** based on a total estate costs across the LHE of at least £15m
- Developing new services on the QEH site – specifically nursing home beds and/or residential home beds
- Moving to a **lower ceiling of care** (**financial impact on QEH of UCC only model is £12.4m** relative to current model of care, and **net impact on LHE is £10.8m**)
- More radical service transformation, such as eICU. We estimate the impact of these at **£1.4m** for eICU
- Organisational changes (e.g. through merger synergies) can release further **£2 million**
- In addition, local tariff modifications will need to be considered for services where WNCCG has decided the current level of acuity is required locally and the service is not financially sustainable despite operational improvement and transformation. Analysis indicates A&E, acute medicine, acute surgery, critical care, obstetrics and paediatrics are all candidates for local tariff modifications

Together those create up to £18.3 million of additional opportunities (not accounting for local tariff modifications). However some of them, particularly lower ceilings of care, may not be acceptable to local stakeholders.

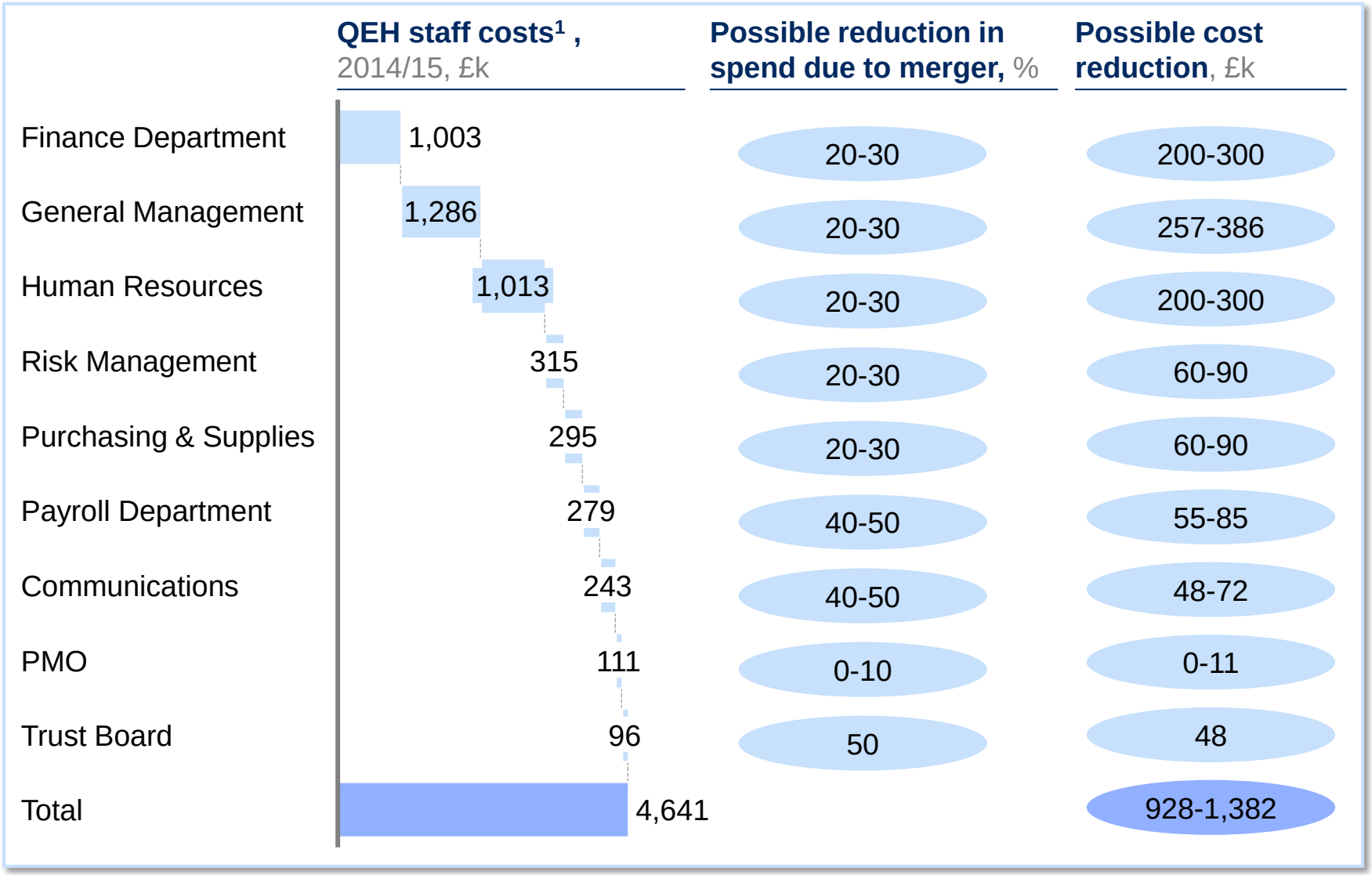
Additional solutions could address LHE financial sustainability further by £5.9-16.7m

	Description	Impact on LHE, £m
Organisational change	▪ Further collaboration and possibly merger can reduce back office and overhead costs by up to £1.4m ▪ Further collaboration and possibly merger can reduce clinical support costs by up to £1m	1.4 - 2.5
Reduce fixed costs across LHE	▪ Total costs associated with estates across LHE are at least £15m; plans to change to models of care in primary and community care, and for example co-locating community hubs onto QEH site	1.0-2.0[1]
Further innovation of models of care	▪ Implement more radical innovative models for eICU, shared EHR, paperless hospital	1.4
Reduce ceiling of care	▪ Move to lower ceilings of care such as UCC model	2.1-10.8[2]
Total		5.9-16.7

1 Assuming a 5-15% reduction in fixed costs across LHE over a spend of £15m; from colocation of primary care onto QEH, possibly colocation of a future hub onto QEH if four wards are closed

2 Net impact on LHE. Gross impact on QEH is £2.4-12.4m, but then reduced to £2.1-10.8m due to increased MFF impact on WNCCG

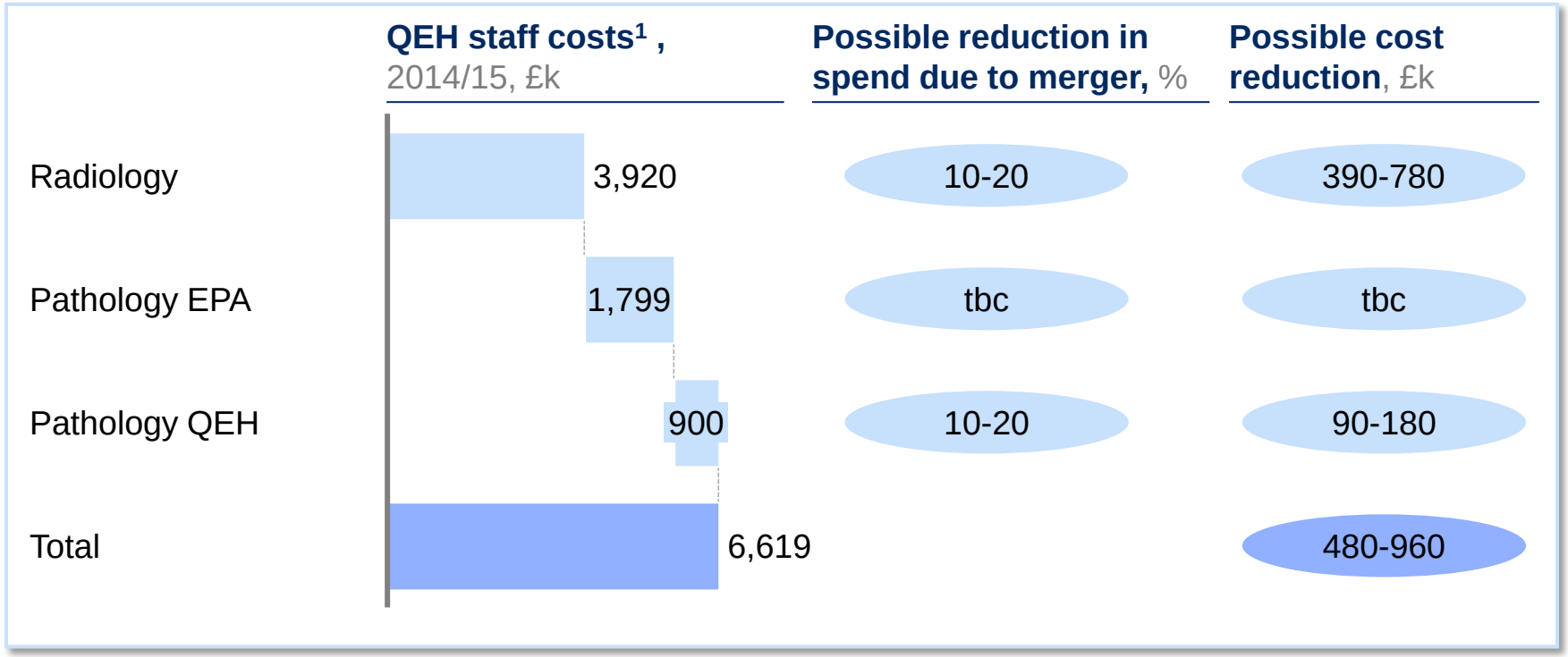
14 Further collaboration and possibly merger can reduce back office and overhead costs by up to £1.4m



1 Pay costs only, excluding non-pay and excluding agnecy spend

SOURCE: QEH finance February 2015; CPT experience in UK NHS mergers of hospitals

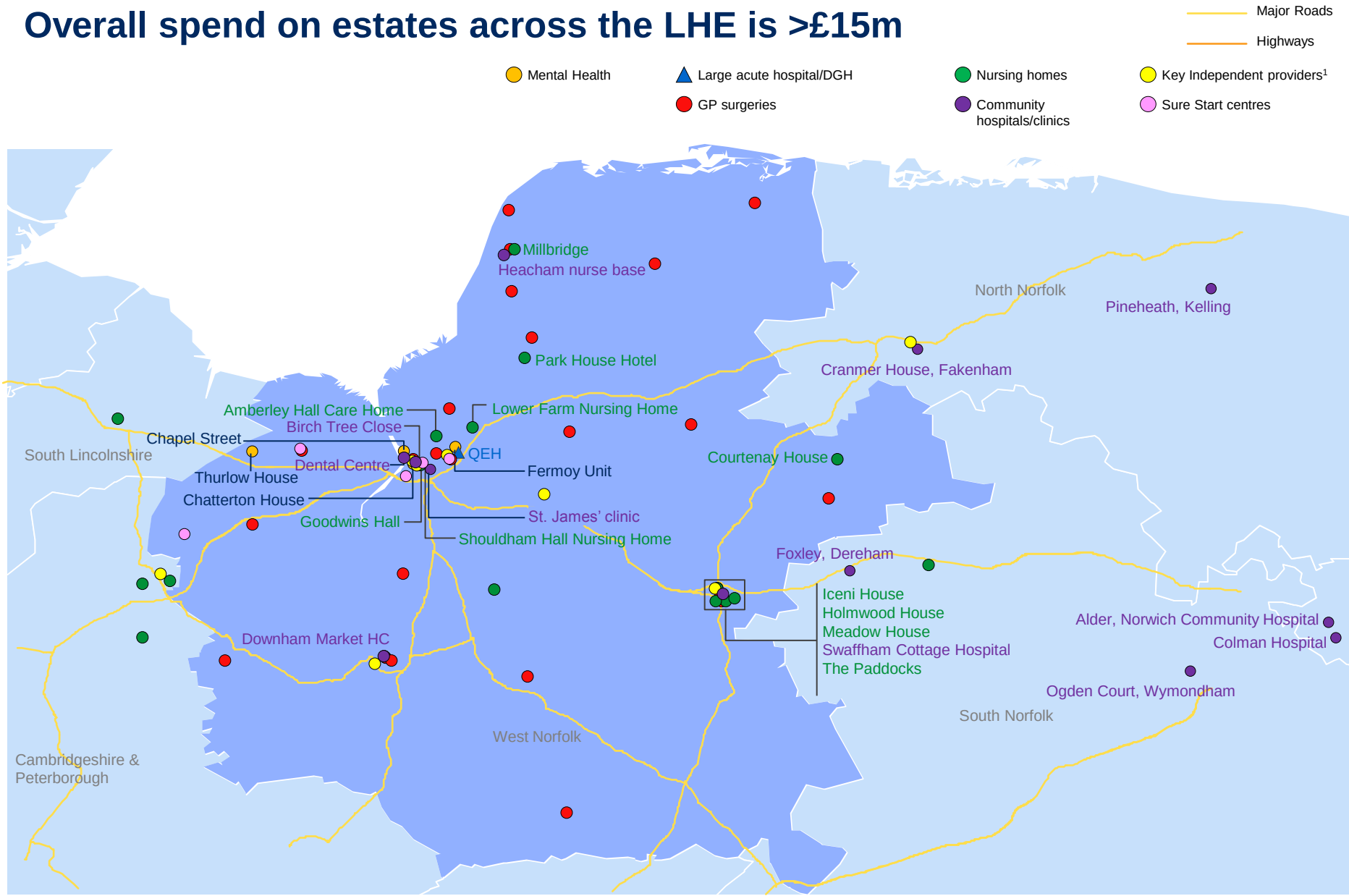
14 Further collaboration and possibly merger can reduce clinical support costs by up to £1m



1 Pay costs only, excluding non-pay and excluding agnecy spend

SOURCE: QEH finance February 2015; CPT experience in UK NHS mergers of hospitals

Overall spend on estates across the LHE is >£15m



1 BMI Hospital Sandringham, Anglia Community Eye Care (ACES), North Cambridgeshire Hospital, Thetford Community Healthy Living Centre, Norfolk Surgical and Diagnostic Centre, West Norfolk Health, Universal Pharmacy

SOURCE: WNCCG list of key health services providers in West Norfolk and the surrounding areas

‘eICU’ utilises technology to provide operational efficiency improvements, thus freeing up staff

Philips eICU Program

- The eICU program leverages technology to clinically transform the ICU, using a proactive care model that allows care providers to do more
- An eICU control center can provide care to patients in multiple hospitals using two-way cameras, video monitors, microphones, and smart alarms connected by high speed data lines
- Typically, the eICU control center will include one physician, one nurse, and one data clerk per 70 beds

27%	Improvement in the severity-adjusted hospital mortality rate at eICU Program sites when compared to the national average
22%	Severity-adjusted mortality rate reduction in the ICU with the eICU Program
23%	Severity-adjusted length-of-stay reduction in the ICU with the eICU Program
300+	Hospitals where an eICU Program is implemented
4000+	Miles separating one particular eICU Center from its closest monitored hospital
400,000	Patients receiving care through an eICU Program each year

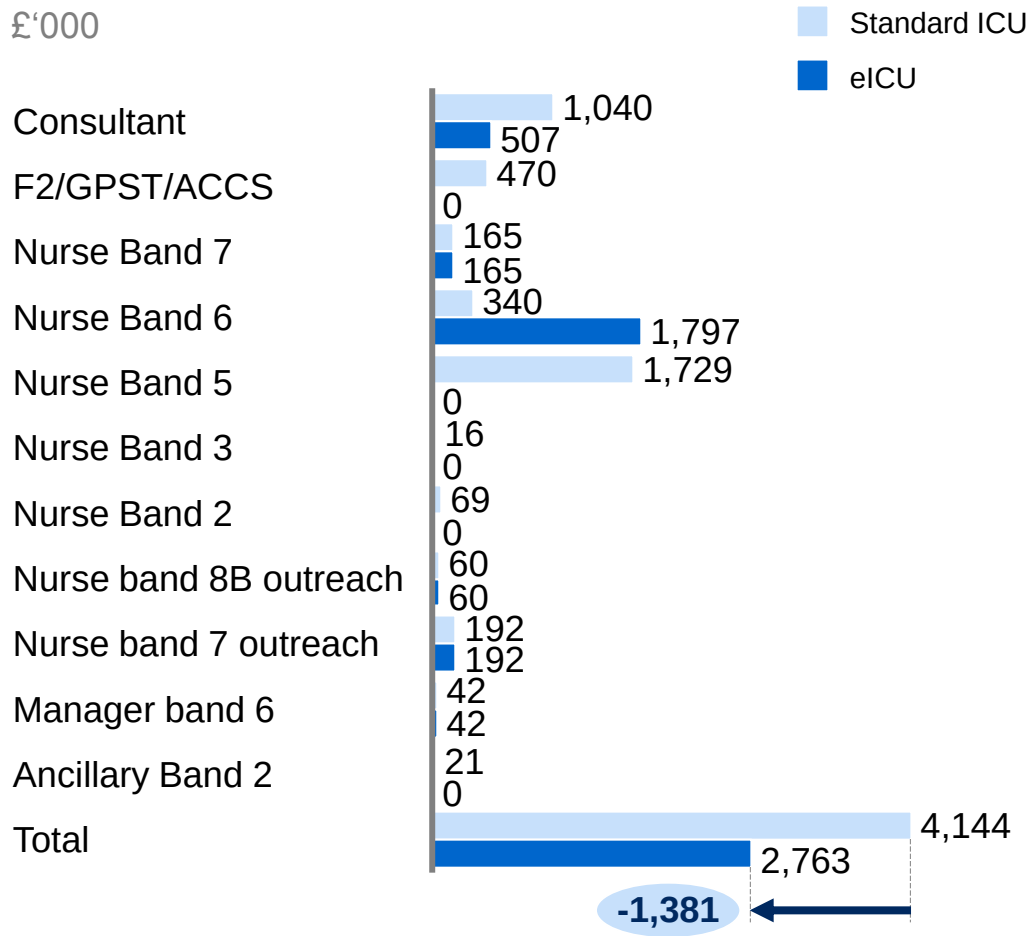
SOURCE: Philips; Search Health IT; Baptist; HealthHospital Mortabty; Length of stay and preventable complications among critically Ill patients before and after Tele-ICU Reengineering of Critical Care Processes; Lilly et al. JAM& 2011; 305(21):doic 10.1001/jama.2011.697; Impact of an Intensive Care Unit Telemedicine Program on a Rural Health Care System; Zawada. et al. Postgraduate Medicine, 2009; 121(3):160.170; Tele-ICU: Experience to date; Lilly et al. Journal of Intensive Care Medicine, September 13. 2009; 1-7; Effect of Telemedicine on Mortality and Length of Stay in a University ICU; Kohl et al. Crit Care Med. 2007;3S(12):A22; Improved Screening and Management of Severe Sepsis (SS): Combining an integrated multidisciplinary Team and Technology Jenkins et al. Crit Care Med. 2009 Vol. 37. No.12 (suppl):738: Remote CU Care Correlates with Reduced Health System Mortality and Length of Stay Outcomes; Howell et al. Chest. 2007;132(4): A43b.444b; Savings in RN Staffing Costs Pre and Post eICU Implementation. Goran et al. Data provided by MaineHealth, November 2008; Effect of a Telemedicine Facilitated Program on ICU Length of Stay (LOS) and Financial Performance; Norman et al. Crit Care Med. 2009, Vol. 37, No.12 (suppl): 32; Based on aggregated patient stay data from customer eICU Programs since when compared to the national average, http://www.philips.com/shared/assets/Downloadablefile/Investor/11_disanzo_070509.pdf

Implementing an eICU for QEH could reduce staffing costs by £1.4m

Assumptions

- With eICU:
  - Only nursing team would remain on-site in ICU
  - This nursing team would need to be at band 6 or above; there would be no nurses below this band
  - Consultants would provide remote eICU cover and would be paid on a PA basis
  - There would be no junior medical staff
  - Outreach nursing staff would remain as for the standard ICU
  - Management and nursing band 7 staff would remain as for the standard ICU

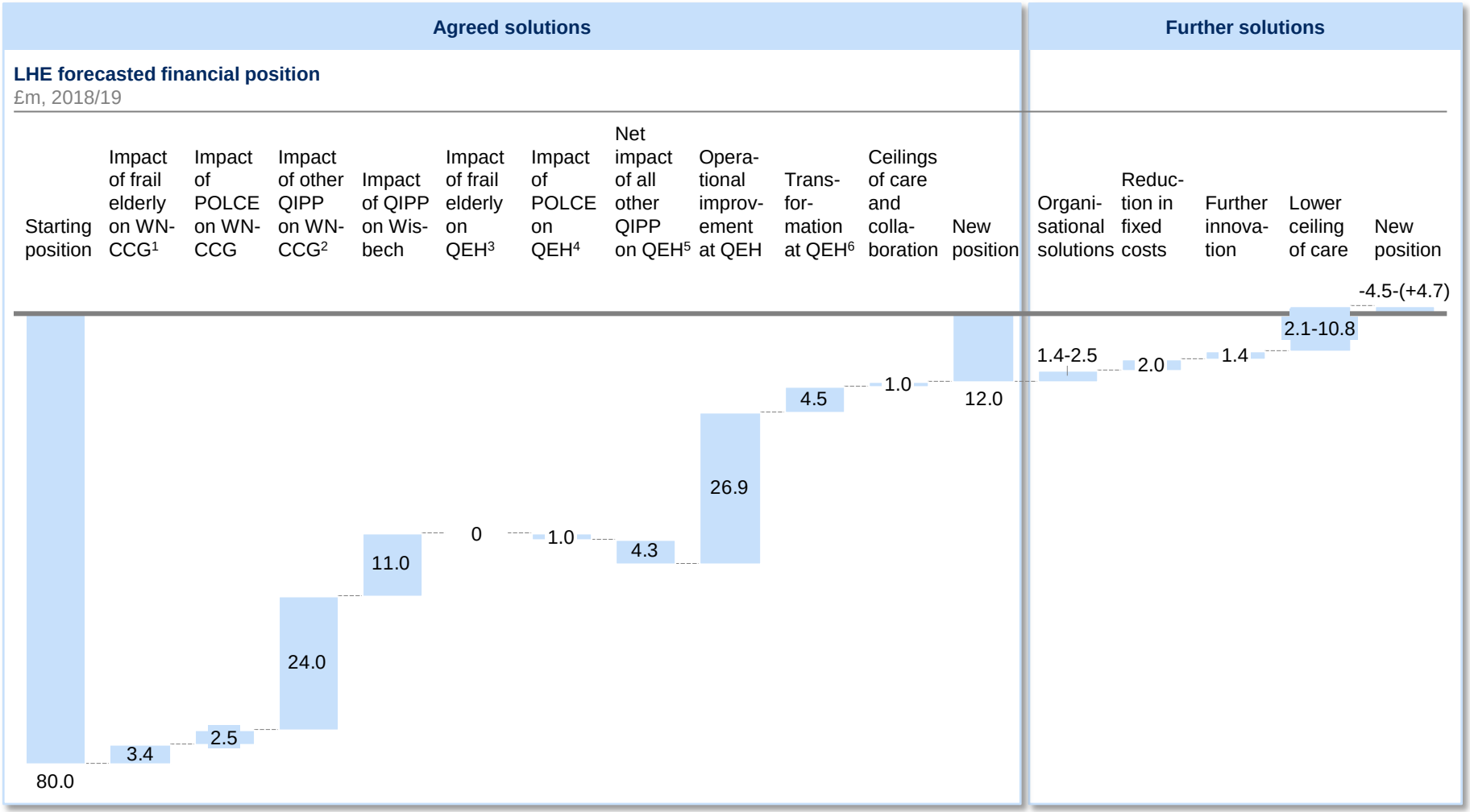
Potential QEH spend on critical care establishment with standard and eICU[1]



1 Based on medical, nursing and management establishment as of 3 February 2015, average pay costs for 2013/14
2 QEH spend is on a PA basis rather than WTE basis

SOURCE: QEH Critical care medical establishment 3 February 2015, Finance department; General ledger data 2013/14, Finance department

Further solutions can improve LHE financial sustainability by up to £16.7m



1 Net impact on WNCCG - gross savings of £9.5m, recurrent investment of £3.8m and loss of £2.3m recurrent payments from QEH for activity above cap
2 Total savings required for WNCCG are £30m
3 Net impact on QEH is loss of £7.2m of income (gross income loss is £9.5m but £2.3m are monies paid back to WNCCG for activity above non elective cap) and £7.2m cost reduction
4 Assuming 40% stranded costs
5 Assuming 40% stranded costs
6 Impact of transformation in front of house (£1.4m), maternity (£1.4m) and elective care (£1.7m)

SOURCE: CPT; OFG discussions

Contents

Growth and commissioning plans impact future activity at QEH

	2013/14	2018/19[1]	Rationale
A&E attendances	53,646	65,771	Increase in activity due to growth and consolidation of urgent care activity
Non elective inpatients	29,479	25,072	Reduction in medical inpatients due to impact of changes to frailty model of care
Elective inpatients	5,086	5,145	Demographic and non-demographic growth balanced by QIPP
Day-cases	29,686	25,865	Reduction due to impact of PoLCE decommissioning
Outpatients	267,372	270,485	Demographic and non-demographic growth balanced by QIPP
Births	2,330	2,322	Stable as per demographic data
Bed days	150,827	113,492	Reduction in bed-days due to impact of changes to frailty model of care
Beds	464	350	Reduction in beds due to impact of changes to frailty model of care

1 Inclusive of impact of all commissioning plans – PoLCE decommissioning, changes to model of care for frailty and people with LTC and reduction of £10.8m in clinical income distributed between service lines as there are no defined plans yet

SOURCE: CPT activity modelling

Changes in activity, and asset utilisation, impact footprint at QEH

	2013/14 Number	**2018/19,** after commissioner plans and assuming same working arrangements as today	**2018/19,** assuming better asset utilisation – 12 hour days in OP clinics and theatres, 6 days a week
 Beds	464	350	350
 Theatres	11 [1]	9	6
 Clinics	60 [2]	62	39

1 Seven main theatres and four day-case theatres
2 Assuming on average three outpatient appointments per hour, six working hours per day (e.g. two sessions and in each three clinic hours and one admin hour), 242 working days per year (e.g. 50 weeks, each five days, less 8 bank holidays)

SOURCE: CPT activity modelling

The local health economy and QEH can use vacated premises in a number of ways to improve financial sustainability

Changes in activity at QEH mean it needs less footprint …

- Changes in activity mean that QEH will need
  - 3-4 less medical wards
  - 2-5 less theatres (depending on asset utilisation levels)
  - Up to 21 less outpatient rooms

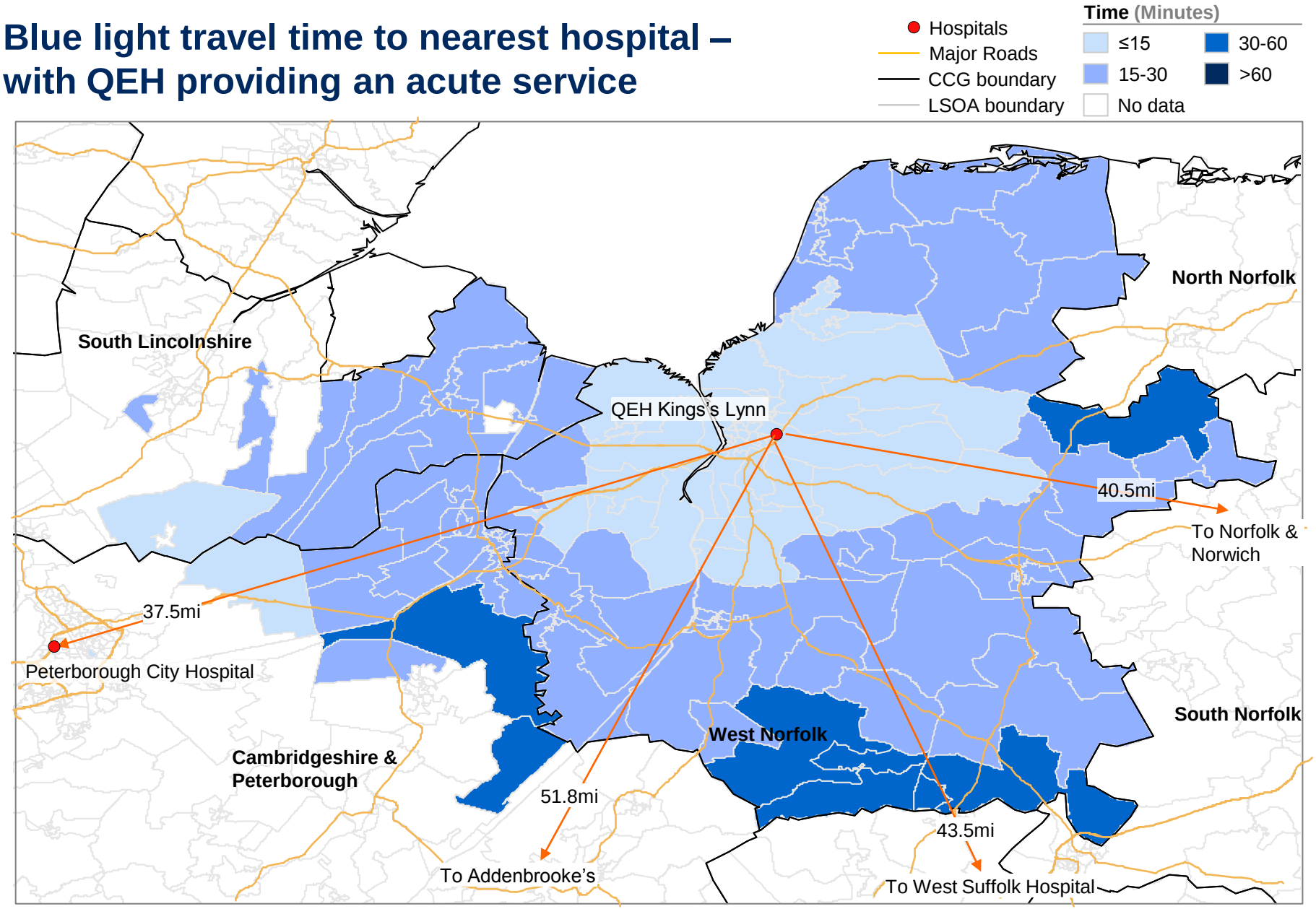
… which could be used in a number of ways to reduce overheads and fixed costs

- The vacated floor space could be used in a number of ways, specifically to support and facilitate any reduction in estate costs across the LHE, currently estimated at >£15m
- As QEH is a single block and vacated premises need to be used in a different way, stakeholders in the local health economy can use it for
  - Bringing in more activity and income, for example consolidation GP practices, activity from private sector, community and social care
  - Sublet premises, for example to care home beds, nursing homes

SOURCE: CPT

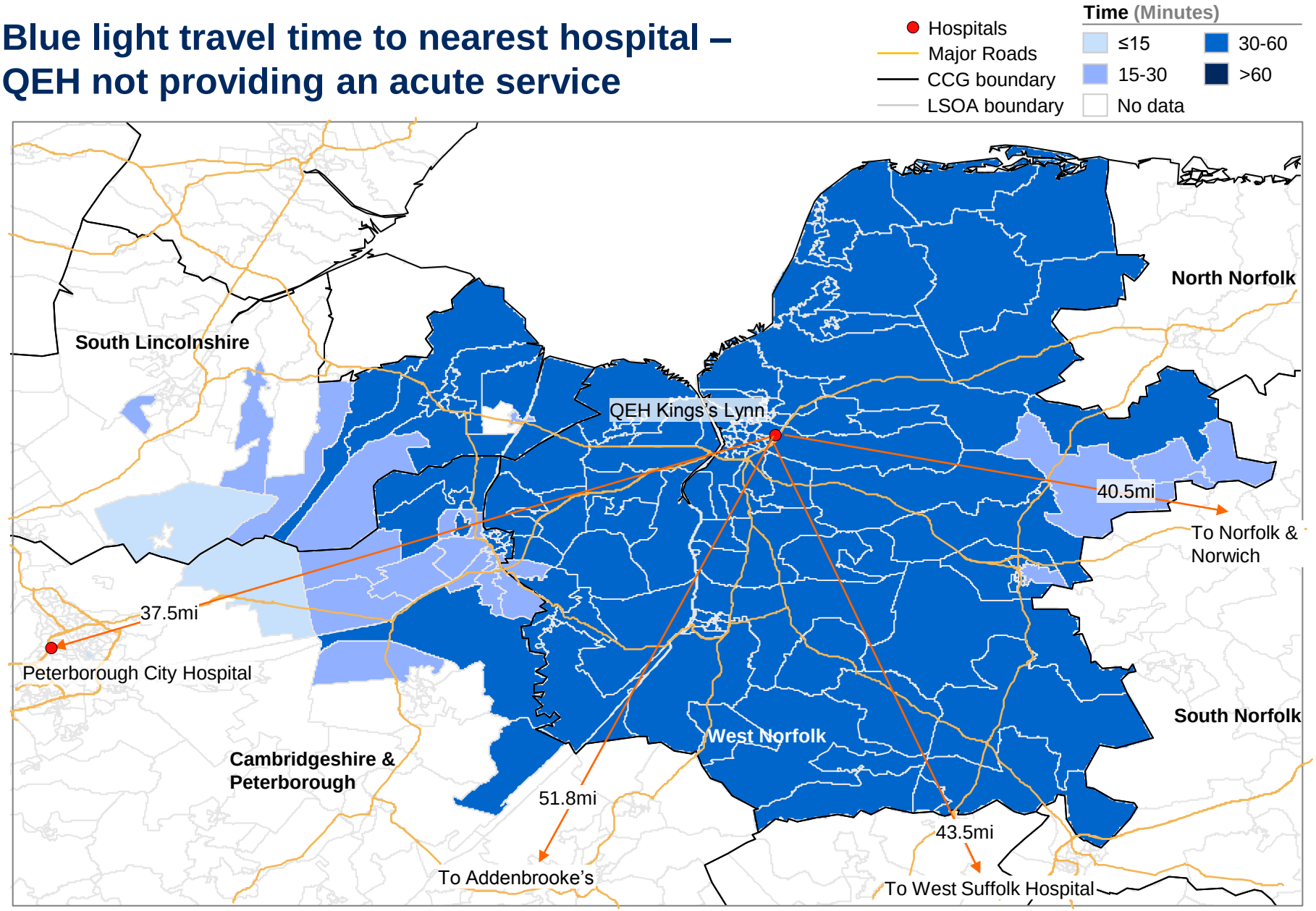
Contents

Blue light travel time to nearest hospital – with QEH providing an acute service



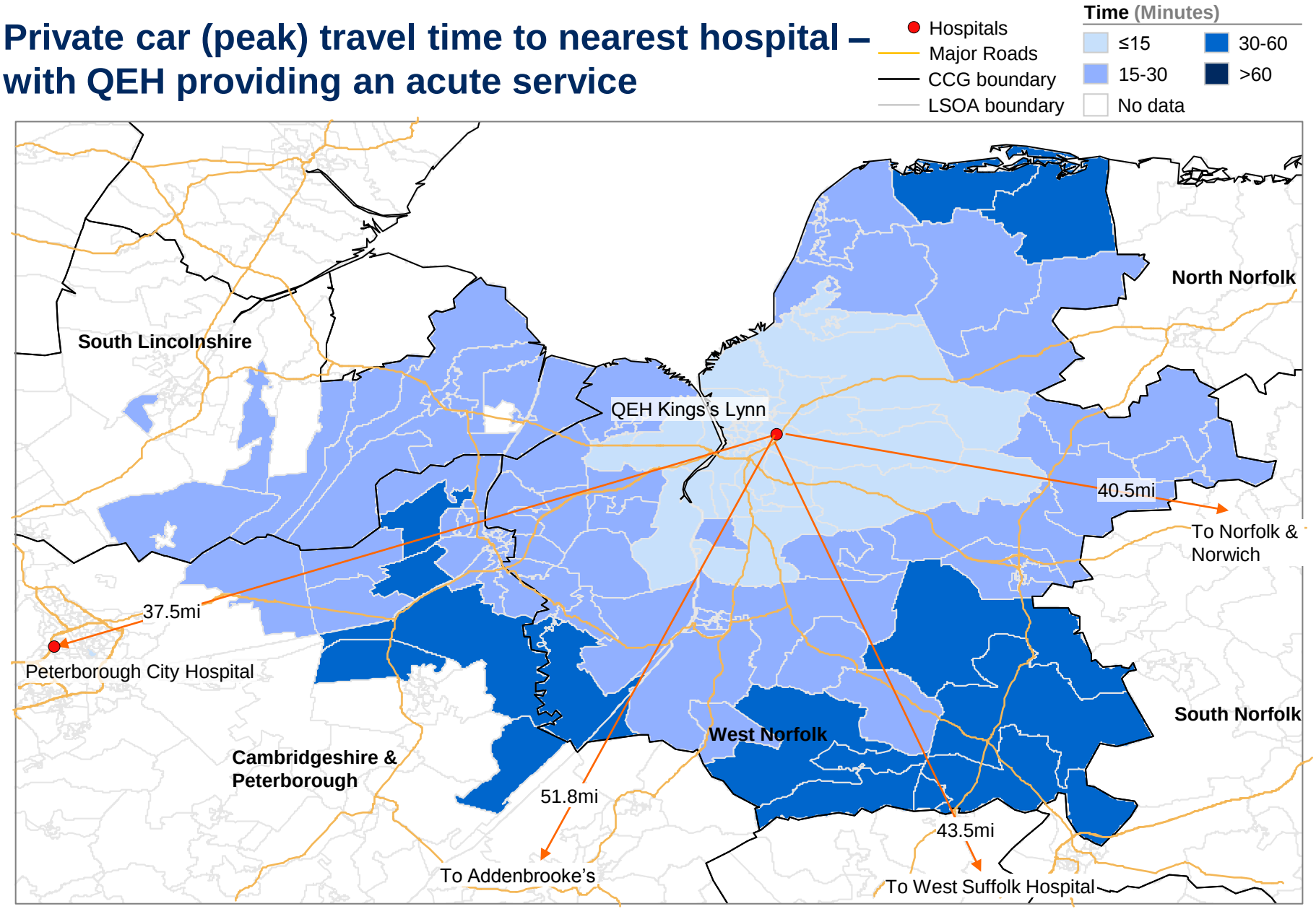
SOURCE: SDG

Blue light travel time to nearest hospital – QEH not providing an acute service



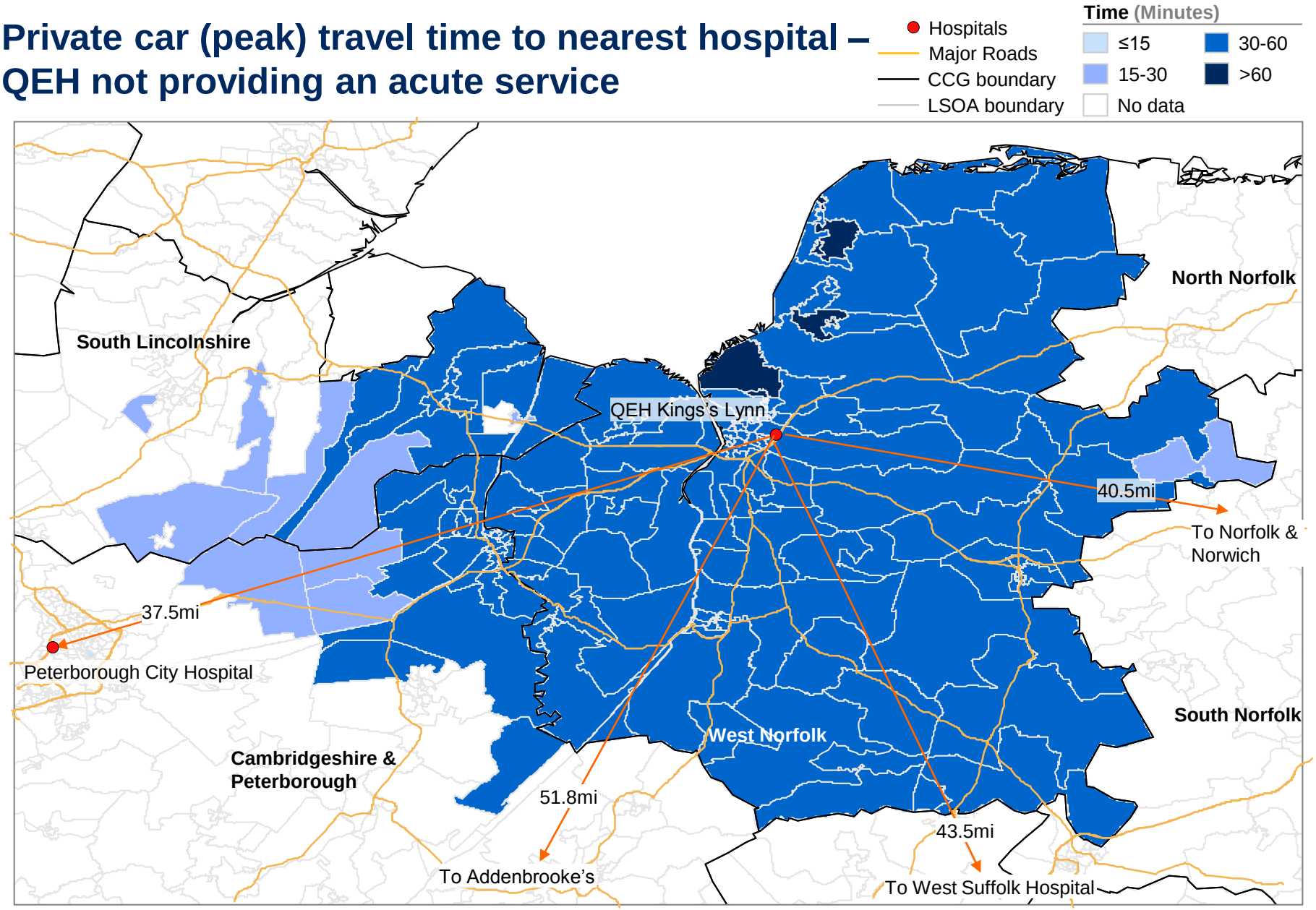
SOURCE: SDG

Private car (peak) travel time to nearest hospital – with QEH providing an acute service



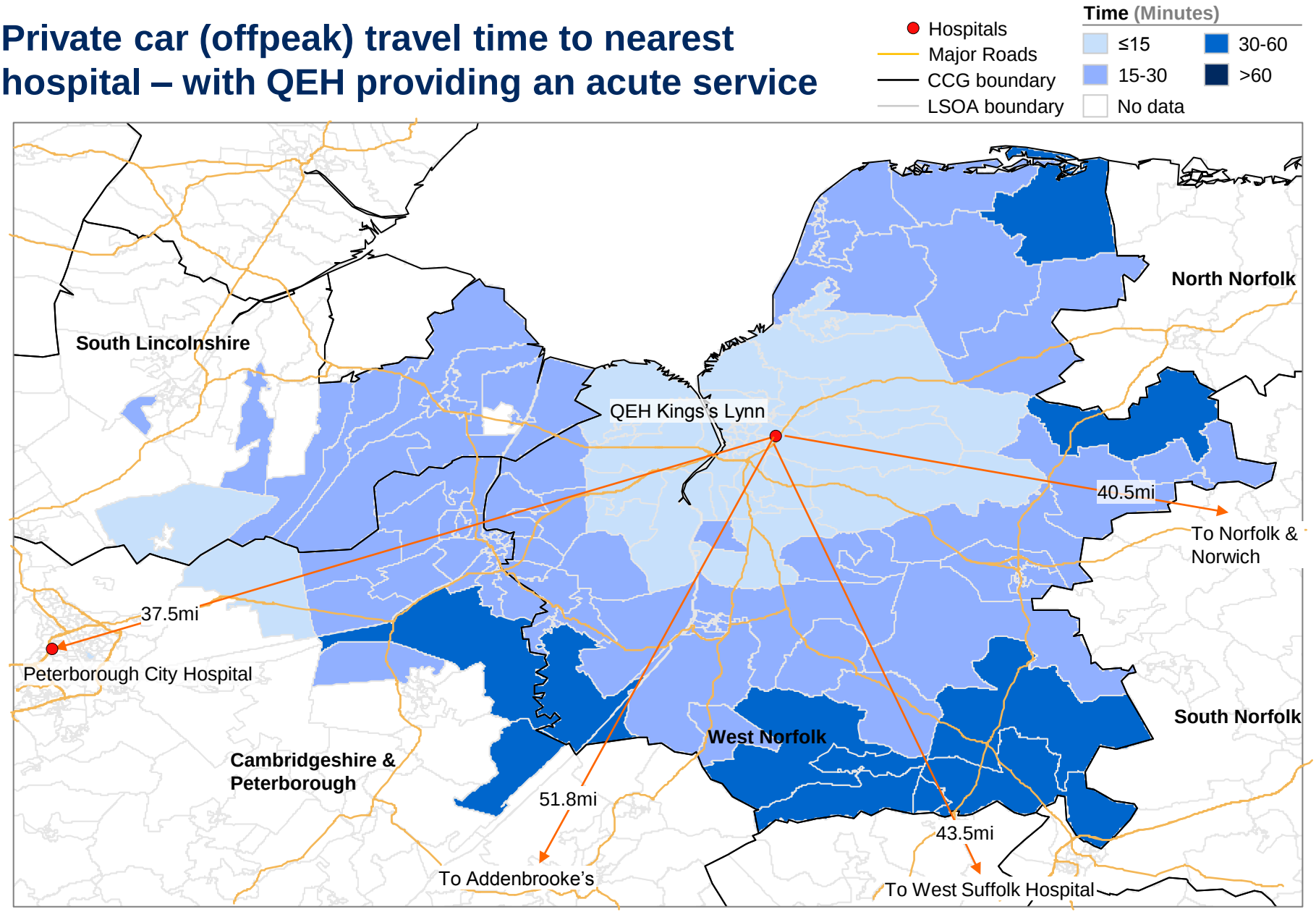
SOURCE: SDG

Private car (peak) travel time to nearest hospital – QEH not providing an acute service



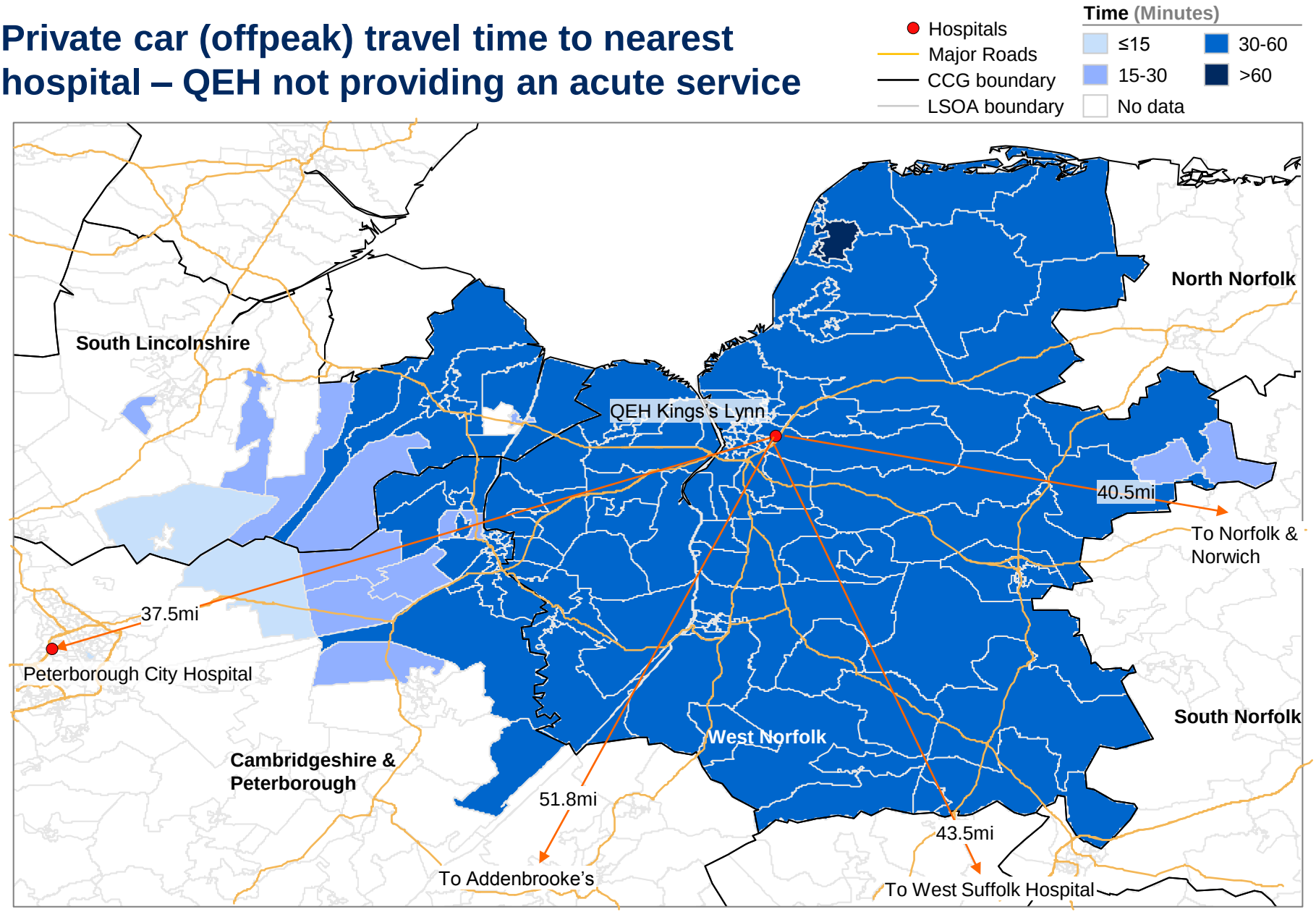
SOURCE: SDG

Private car (offpeak) travel time to nearest hospital – with QEH providing an acute service



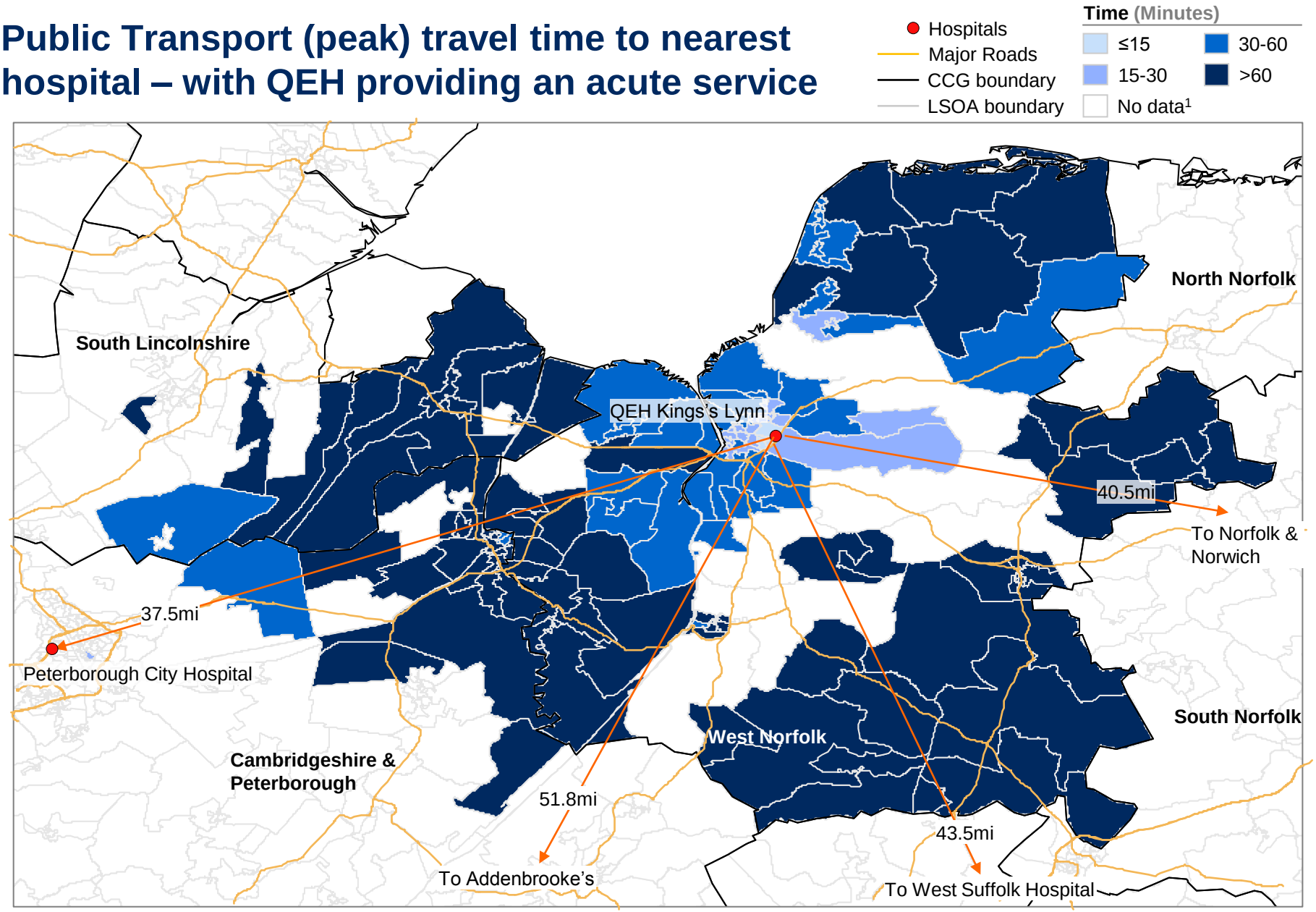
SOURCE: SDG

Private car (offpeak) travel time to nearest hospital – QEH not providing an acute service



SOURCE: SDG

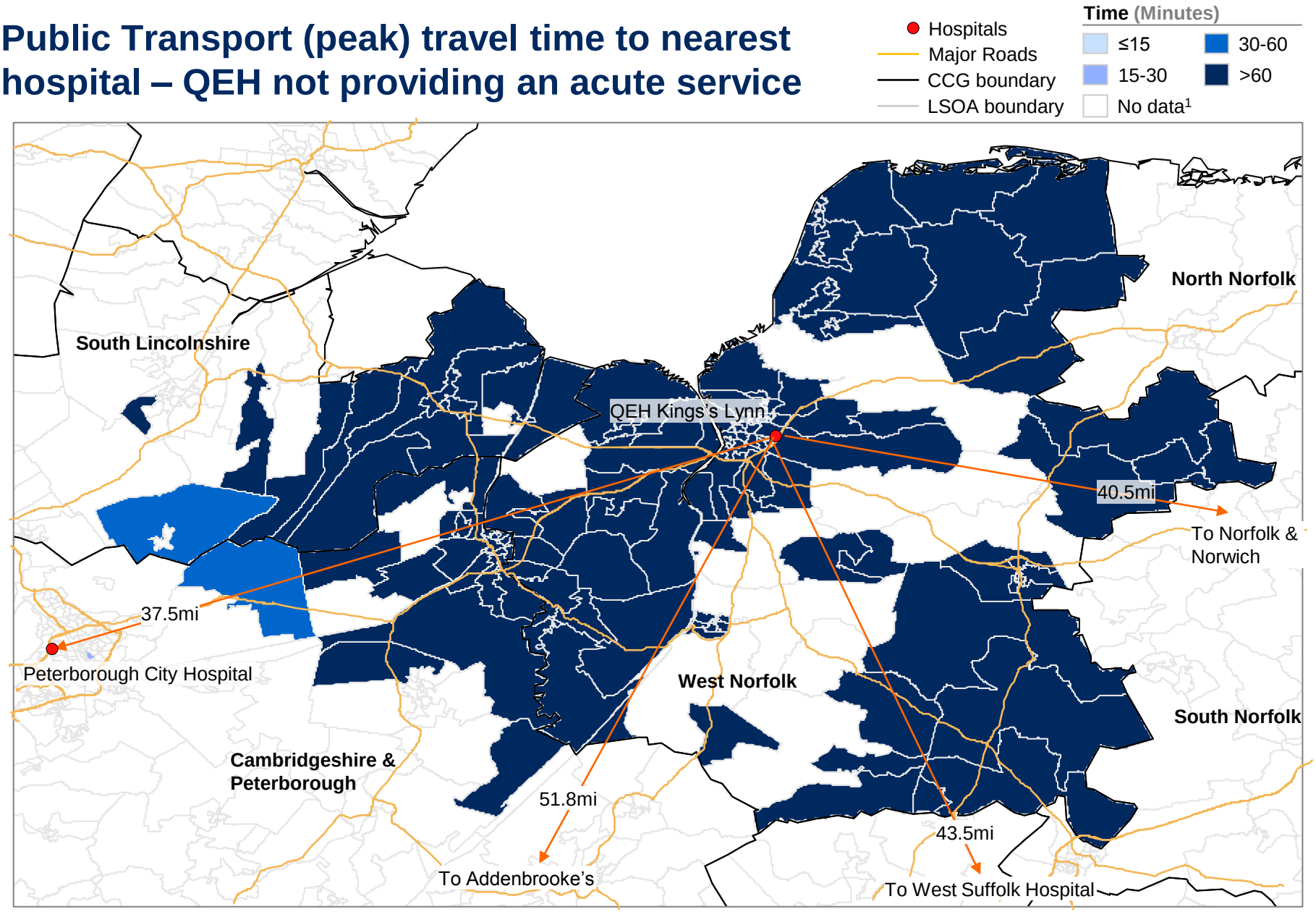
Public Transport (peak) travel time to nearest hospital – with QEH providing an acute service



1 No data or no route is available under the following limitations: 3 hour travel time maximum, no more than 5 switches

SOURCE: SDG

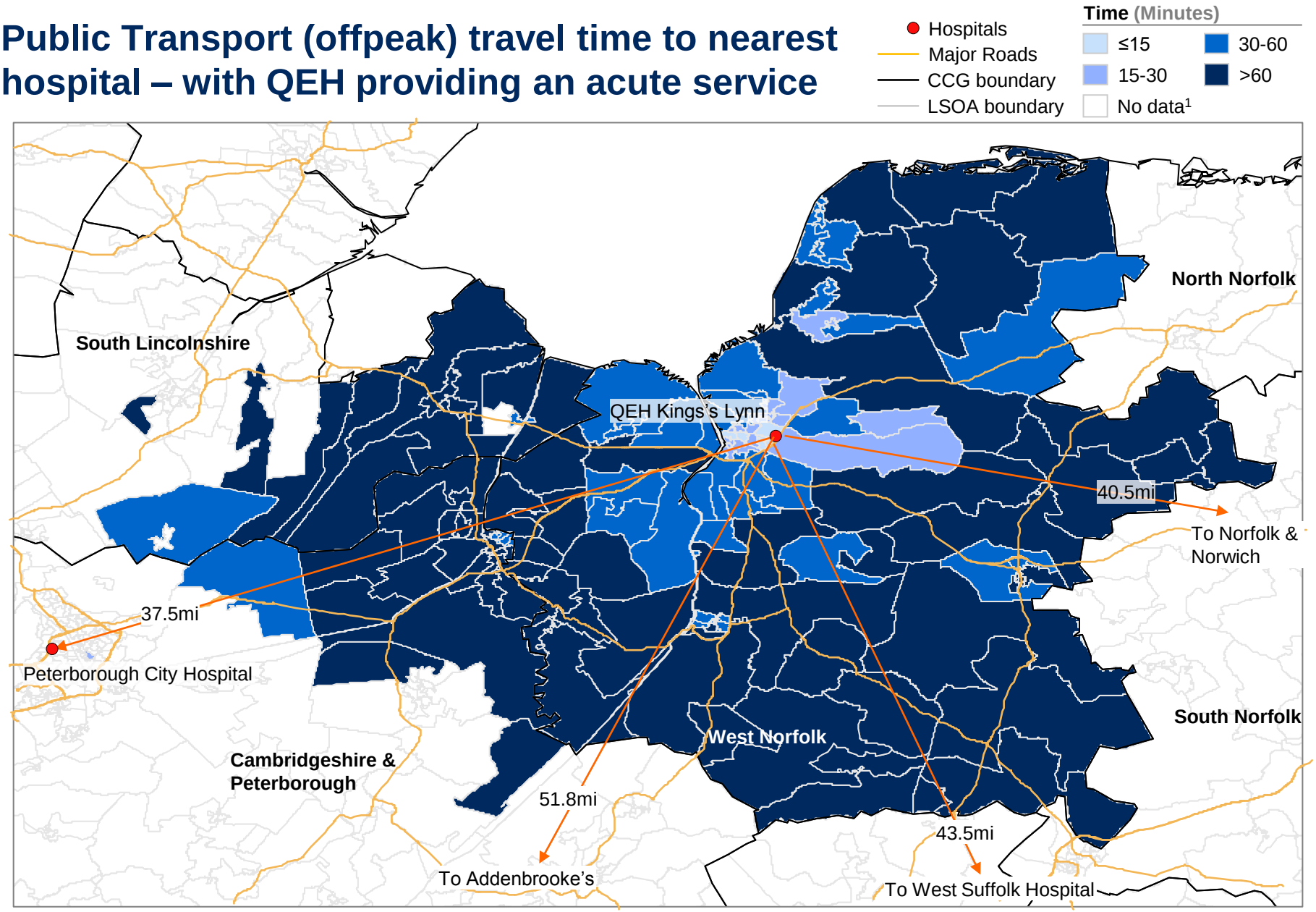
Public Transport (peak) travel time to nearest hospital – QEH not providing an acute service



1 No data or no route is available under the following limitations: 3 hour travel time maximum, no more than 5 switches

SOURCE: SDG

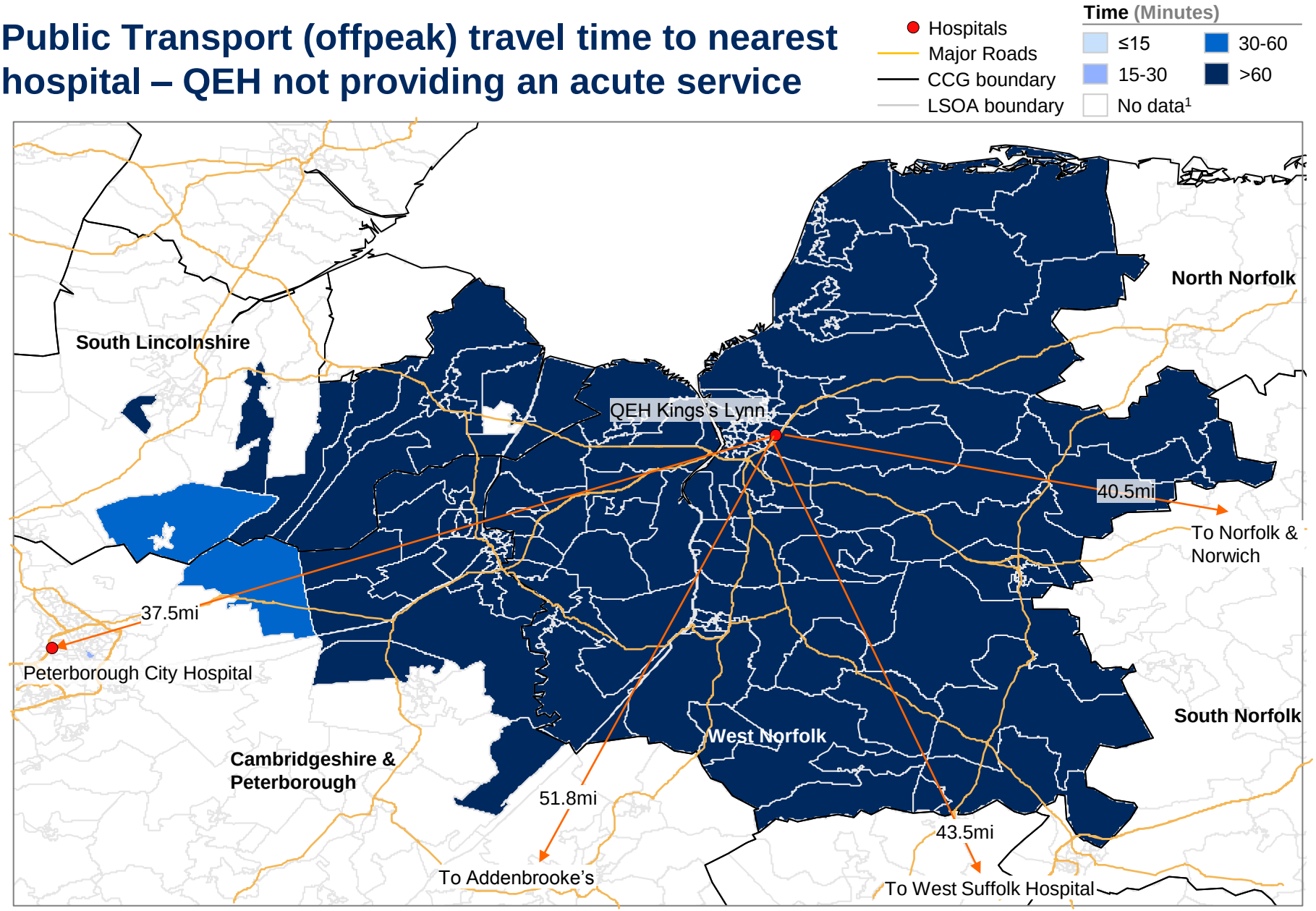
Public Transport (offpeak) travel time to nearest hospital – with QEH providing an acute service



1 No data or no route is available under the following limitations: 5 hour travel time maximum, no more than 5 switches

SOURCE: SDG

Public Transport (offpeak) travel time to nearest hospital – QEH not providing an acute service



1 No data or no route is available under the following limitations: 5 hour travel time maximum, no more than 5 switches

SOURCE: SDG

Ceilings of care – UCC model assumptions

2018/2019

	Change for service lines	Rationale
Activity	▪ **A&E:** Remove 30% of A&E attendances	▪ Lower acute level of care
	▪ **Non-elective surgery:** Remove all NEL procedures/ non procedure spells	▪ All non-elective surgery
	▪ **NEL IP Paediatrics:** Remove 4000 NEL Paediatrics spells	▪ All NEL paediatrics spells
	▪ **NICU:** Remove all NEL Neo-natal spells	▪ All Neonatology spells
	▪ **CC:** Remove all of activity from critical care medicine	▪ No critical care
	▪ **OBGYN:** Keep only 25% of births	▪ Number of non complex
	▪ **Elective + DC medicine + surgery:** Losing 100% of activity	▪ All elective and daycase activity
Income	▪ **A&E:** Remove 30% of A&E income	▪ In line with activity change
	▪ **Non-elective surgery:** Remove income associated with NEL procedures (£5.4 – 43% of total income)	▪ Related income to NEL procedures vs non-procedures spells
	▪ **NEL IP Paediatrics:** Remove all income associated with NEL Paediatrics (£3.2)	▪ In line with activity change
	▪ **NICU:** Remove all income associated with NICU	▪ In line with activity change
	▪ **CC:** Remove all income associated with critical care medicine	▪ In line with activity change
	▪ **OBGYN:** Remove £9m of income (Keeping 25% of births income and ante/post natal activity)	▪ In line with keeping only low complexity births and ante/post natal activity)
	▪ **Elective + DC medicine + surgery :** losing 100% of income (£20m)	▪ In line with activity change
Cost	▪ **A&E:** Remove 30% of variable and semi variable cost of A&E	▪ In line with activity change
	▪ **Non-elective surgery:** – Remove 43% of variable and semi variable cost of NEL Surgery	▪ Assumes cost reduction is in line with income
	▪ **NEL IP Paediatrics** – Remove 75% of variable and semi variable cost of NEL Paediatrics (£3.3)	▪ Keeping 25% of costs to run PAU (High level estimation due to no inpatients)
	▪ **NICU:** Remove all of variable and semi variable cost of NEL Neonatology	▪ In line with activity change
	▪ **CC:** Remove all of variable and semi variable cost of critical care	▪ Lower acute level assumed to change nurse to bed ration from 1:1 to 1:2
	▪ **OBGYN**: Remove all medical pay cost, remove 75% of nursing spend	▪ In accordance with new model of care
	▪ **Elective + DC medicine + surgery:** Remove 100% of variable and semi variable cost of EL+ DC spells (medicine + surgery)	▪ In line with activity change

SOURCE: 2013/2014 QEH outturn data

Ceilings of care – Core model assumptions

2018/2019

	Change for service lines	Rationale
Activity	▪ **Non-elective surgery:** Remove 2000 non elective procedures	▪ All non-elective surgery
	▪ **NEL IP Paediatrics:** Remove 4000 NEL Paediatrics spells	▪ All NEL paediatrics spells
	▪ **NICU:** Remove all NEL Neo-natal spells	▪ All Neonatology spells
	▪ **HDU:** Remove 20% of activity from critical care medicine	▪ Reduced activity due to moving to lower acute level of critical care
	▪ **OBGYN:** Keep only 25% of births	▪ Number of non complex
	▪ **Elective + DC surgery:** Losing 100% of activity (22000 procedure + non procedure spells)	▪ All elective and daycase activity
Income	▪ **Non-elective surgery:** Remove income associated with NEL procedures (£5.4 – 43% of total income)	▪ Related income to NEL procedures vs non-procedures spells
	▪ **NEL IP Paediatrics:** Remove all income associated with NEL Paediatrics (£3.2)	▪ In line with activity change
	▪ **NICU:** Remove all income associated with NICU	▪ In line with activity change
	▪ **HDU:** Remove 20% of income associated with critical care medicine (£1m)	▪ In line with activity change
	▪ **OBGYN:** Remove £9m of income (Keeping 25% of births income and ante/post natal activity)	▪ In line with keeping only low complexity births and ante/post natal activity)
	▪ **Elective + DC surgery:** losing 100% of income due to NEL surgery (£20m)	▪ In line with activity change
Cost	▪ **Non-elective surgery** – Remove 43% of variable and semi variable cost of NEL Surgery	▪ Assumes cost reduction is in line with income
	▪ **NEL IP Paediatrics** – Remove 75% of variable and semi variable cost of NEL Paediatrics (£3.3) – Keep 25% of variable and semi variable cost (Running PAU costs)	▪ Keeping costs to run PAU (High level estimation due to no inpatients)
	▪ **NICU:** Remove all of variable and semi variable cost of NEL Neonatology	▪ In line with activity change
	▪ **HDU:** Remove half of nursing spend for bands 5 & 6 due to modified nurse to bed ratio (£1.2m)	▪ Lower acute level assumed to change nurse to bed ration from 1:1 to 1:2
	▪ **OBGYN**: Remove all medical pay cost, remove 75% of nursing spend	▪ In accordance with new model of care
	▪ **Elective + DC surgery:** Remove 100% of variable and semi variable cost of EL+ DC surgery	▪ In line with activity change

SOURCE: 2013/2014 QEH outturn data

Ceilings of care – Core and elective care assumptions

2018/2019

	Change for service lines	Rationale
Activity	▪ **Non-elective surgery:** Remove 2000 non elective procedures	▪ All non-elective surgery
	▪ **NEL IP Paediatrics:** Remove 4000 NEL Paediatrics spells	▪ All NEL paediatrics spells
	▪ **NICU:** Remove all NEL Neo-natal spells	▪ All Neonatology spells
	▪ **HDU:** Remove 20% of activity from critical care medicine	▪ Reduced activity due to moving to lower acute level of critical care
	▪ **OBGYN:** Keep only 25% of births	▪ Number of non complex
	▪ **Elective + DC surgery:** Losing 15% of activity (3300 procedure + non procedure spells) due to no NEL surgery	▪ Assuming no NEL surgery would reduce referrals to Elective surgery at QEH
Income	▪ **Non-elective surgery:** Remove income associated with NEL procedures (£5.4 – 43% of total income)	▪ Related income to NEL procedures vs non-procedures spells
	▪ **NEL IP Paediatrics:** Remove all income associated with NEL Paediatrics (£3.2)	▪ In line with activity change
	▪ **NICU:** Remove all income associated with NICU	▪ In line with activity change
	▪ **HDU:** Remove 20% of income associated with critical care medicine (£1m)	▪ In line with activity change
	▪ **OBGYN:** Remove £9m of income (Keeping 25% of births income and ante/post natal activity)	▪ In line with keeping only low complexity births and ante/post natal activity)
	▪ **Elective + DC surgery:** losing 15% of income due to NEL surgery	▪ In line with activity change
Cost	▪ **Non-elective surgery** – Remove 43% of variable and semi variable cost of NEL Surgery	▪ Assumes cost reduction is in line with income
	▪ **NEL IP Paediatrics** – Remove 75% of variable and semi variable cost of NEL Paediatrics (£3.3) – Keep 25% of variable and semi variable cost (Running PAU costs)	▪ Keeping costs to run PAU (High level estimation due to no inpatients)
	▪ **NICU:** Remove all of variable and semi variable cost of NEL Neonatology	▪ In line with activity change
	▪ **HDU:** Remove half of nursing spend for bands 5 & 6 due to modified nurse to bed ratio (£1.2m)	▪ Lower acute level assumed to change nurse to bed ration from 1:1 to 1:2
	▪ **OBGYN**: Remove all medical pay cost, remove 75% of nursing spend	▪ In accordance with new model of care
	▪ **Elective + DC surgery:** Remove 15% of variable and semi variable cost of EL+ DC surgery	▪ In line with activity change

SOURCE: 2013/2014 QEH outturn data

Ceilings of care – Core, elective care & consultant led obstetrics

2018/2019

	Change for service lines	Rationale
Activity	▪ **Non-elective surgery:** Remove 2000 non elective procedures	▪ All non-elective surgery
	▪ **NEL IP Paediatrics:** Remove 4000 NEL Paediatrics spells	▪ All NEL paediatrics spells
	▪ **NICU:** Remove all NEL Neo-natal spells	▪ All Neonatology spells
	▪ **HDU:** Remove 20% of activity from critical care medicine	▪ Reduced activity due to moving to lower acute level of critical care
	▪ **Elective + DC surgery:** Losing 15% of activity (3300 procedure + non procedure spells) due to no NEL surgery	▪ Assuming no NEL surgery would reduce referrals to Elective surgery at QEH
Income	▪ **Non-elective surgery:** Remove income associated with NEL procedures (£5.4 – 43% of total income)	▪ Related income to NEL procedures vs non-procedures spells
	▪ **NEL IP Paediatrics:** Remove all income associated with NEL Paediatrics (£3.2)	▪ In line with activity change
	▪ **NICU:** Remove all income associated with NICU	▪ In line with activity change
	▪ **HDU:** Remove 20% of income associated with critical care medicine (£1m)	▪ In line with activity change
	▪ **Elective + DC surgery:** losing 15% of income due to NEL surgery	▪ In line with activity change
Cost	▪ **Non-elective surgery** – Remove 43% of variable and semi variable cost of NEL Surgery	▪ Assumes cost reduction is in line with income
	▪ **NEL IP Paediatrics** – Remove 75% of variable and semi variable cost of NEL Paediatrics (£3.3) – Keep 25% of variable and semi variable cost (Running PAU costs)	▪ Keeping costs to run PAU (High level estimation due to no inpatients)
	▪ **NICU:** Remove all of variable and semi variable cost of NEL Neonatology	▪ In line with activity change
	▪ **HDU:** Remove half of nursing spend for bands 5 & 6 due to modified nurse to bed ratio (£1.2m)	▪ Lower acute level assumed to change nurse to bed ration from 1:1 to 1:2
	▪ **Elective + DC surgery:** Remove 15% of variable and semi variable cost of EL+ DC surgery	▪ In line with activity change

SOURCE: 2013/2014 QEH outturn data

Ceilings of care – Core model with elective care and limited access to emergency surgery model assumptions

2018/2019

	Change for service lines	Rationale
Activity	▪ **Non-elective surgery:** Remove 280 non-elective surgeries	▪ All non-elective surgery
	▪ **NEL IP Paediatrics:** Remove 4000 NEL Paediatrics spells	▪ All NEL paediatrics spells
Income	▪ **Out of hours non-elective surgery:** Remove £765K calculated based on number of OOH non elective surgeries and average tariff per emergency surgery (£3,000).	▪ Related income according to outturn
	▪ **NEL IP Paediatrics**: Remove all income associated with NEL Paediatrics (£3.2)	▪ In line with activity change
Cost	▪ **Out of hours non-elective surgery:** – Remove £400K of nursing cost (6.6 nursing WTE supporting the theatre at night) – Remove £365K of medical pay (By reducing premium of being on call from 8% to 3%)	▪ Reducing on-call premium for related medical staff and support staff for 1 theatre at night
	▪ **NEL IP Paediatrics**: – Remove 75% of variable and semi variable cost of NEL Paediatrics (£3.3) – Keep 25% of variable and semi variable cost (Running PAU costs)	▪ Keeping costs to run PAU (High level estimation due to no inpatients)

SOURCE: 2013/2014 QEH outturn data

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (1/6)

Description	Spells
Abdominal Pain	157
Acute Bronchiolitis with CC	29
Acute Bronchiolitis without CC	127
Acute Lymphoblastic Leukaemia with length of stay 1 day or more with CC	1
Acute Lymphoblastic Leukaemia with length of stay 1 day or more without CC	5
Acute Upper Respiratory Tract Infection and Common Cold	152
Appendicectomy Procedures 18 years and under	53
Arrhythmia or Conduction Disorders	8
Asthma or Wheezing	121
Attention to Suprapubic Bladder Catheter	1
Behavioural Disorders with length of stay 1 day or less	14
Behavioural Disorders with length of stay between 2 and 7 days	3
Bladder Minor Procedure 18 years and under	1
Blood Cell Disorders with CC	5
Blood Cell Disorders without CC	8
Brain Tumours with length of stay 1 day or more	5
Cardiac Conditions with CC	11
Cardiac Conditions without CC	4
Chest Pain	17
Child Safeguarding (Welfare and Protection)	2
Coagulation Disorders	13
Convalescent or Other Relief Care	2
Conventional EEG/EMG/Nerve Conduction Studies with length of stay 2 days or less 18 years and under	4
Cystic Fibrosis with length of stay 0 days	14
Cystic Fibrosis with length of stay 15 days or more	3
Cystic Fibrosis with length of stay between 1 and 7 days	4

SOURCE: QEH Emergency Admissions HRG data 2013/14

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (2/6)

Description	Spells
Cystic Fibrosis with length of stay between 8 and 14 days	1
Diabetes Mellitus with Ketoacidosis or Coma	9
Diabetes Mellitus without Ketoacidosis or Coma	36
Diagnostic and Intermediate Procedures on the Upper GI Tract 18 years and under	3
Dynamic Studies of Urinary Tract	4
Eating Disorders with length of stay 8 days or more	1
Eating Disorders with length of stay less than 8 days	9
Endocrine Disorders (excluding Diabetes Mellitus)	16
Epilepsy Syndrome with CC	36
Epilepsy Syndrome without CC	27
Examination, Follow-up, Special Screening and Other Admissions with length of stay 0 days	63
Examination, Follow-up, Special Screening and Other Admissions with length of stay 1 day or more	13
Extraction of Multiple Teeth 18 years and under	1
Faltering Growth (Failure to Thrive) with CC	6
Faltering Growth (Failure to Thrive) without CC	2
Febrile Convulsions 1 year and over	46
Febrile Convulsions under 1 year	6
Febrile Neutropenia with Malignancy	7
Feeding Difficulties and Vomiting with CC	20
Feeding Difficulties and Vomiting without CC	55
Fever Unspecified with CC	14
Fever Unspecified without CC	37
General Abdominal - Very Major or Major Procedures 18 years and under	3
Head Injury without Intracranial Injury with CC	6
Head Injury without Intracranial Injury without CC	64
Head, Neck and Ear Disorders with length of stay 0 days	190

SOURCE: QEH Emergency Admissions HRG data 2013/14

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (3/6)

Description	Spells
Head, Neck and Ear Disorders with length of stay 1 day or more with CC	16
Head, Neck and Ear Disorders with length of stay 1 day or more without CC	96
Headaches and Migraines with CC	7
Headaches and Migraines without CC	25
Infectious and Non-Infectious Gastroenteritis with CC	54
Infectious and Non-Infectious Gastroenteritis without CC	215
Inflammatory Bowel Disease	1
Ingestion Poisoning or Allergies	97
Intermediate Anal Procedures 18 years and under	1
Intermediate Foot Procedures for Trauma category 1	1
Intermediate Infections with CC	41
Intermediate Infections without CC	82
Intermediate Injury without Intracranial Injury without CC	6
Intermediate Skin Procedures category 1 without CC	5
Intermediate Skin Procedures category 2 without CC	2
Intradural Spine Minor 1	1
Lower Genital Tract Disorders without CC	1
Lower Respiratory Tract Disorders without Acute Bronchiolitis with length of stay 0 days	80
Lower Respiratory Tract Disorders without Acute Bronchiolitis with length of stay 1 day or more with CC	29
Lower Respiratory Tract Disorders without Acute Bronchiolitis with length of stay 1 day or more without CC	88
Major Congenital Conditions 1 year and over with CC	2
Major Congenital Conditions 1 year and over without CC	1
Major Congenital Conditions under 1 year with CC	3
Major Congenital Conditions under 1 year without CC	2
Major Elbow and Lower Arm Procedures for Trauma without CC	10
Major Gastrointestinal or Metabolic Disorders with CC	14

SOURCE: QEH Emergency Admissions HRG data 2013/14

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (4/6)

Description	Spells
Major Gastrointestinal or Metabolic Disorders without CC	8
Major Infections with CC	12
Major Infections without CC	10
Major Injury without Intracranial Injury	3
Major Neonatal Diagnoses	6
Major Skin Procedures category 1 without CC	1
Major Stomach or Duodenum Procedures 2 years and over with CC	1
Minor Dental Procedures 18 years and under	1
Minor Ear Procedures 18 years and under with CC	1
Minor Ear Procedures 18 years and under without CC	1
Minor Elbow and Lower Arm Procedures for Trauma 18 years and under	8
Minor Foot Procedures for Trauma category 2	1
Minor Hand Procedures for Non-Trauma category 2 with CC	1
Minor Infections with CC	2
Minor Infections without CC	14
Minor Injury without Intracranial Injury with CC	13
Minor Injury without Intracranial Injury without CC	99
Minor Mouth or Throat Procedures 18 years and under without CC	1
Minor Neonatal Diagnoses	137
Minor Nose Procedures 18 years and under	1
Minor Skin Procedures category 2 without CC	1
Multiple Trauma Diagnoses score <=23, with no Interventions	3
Musculoskeletal or Connective Tissue Disorders with CC	15
Musculoskeletal or Connective Tissue Disorders without CC	82
Neoplasm Diagnoses with length of stay 0 days	5
Nephritic and Nephrotic Renal Diseases	5

SOURCE: QEH Emergency Admissions HRG data 2013/14

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (5/6)

Description	Spells
Nervous System Disorders with CC	16
Nervous System Disorders without CC	20
Neurophysiological Operations 18 years and under	3
Non-Invasive Ventilation Support Assessment 18 years and under	1
Non-Malignant General Abdominal Disorders with length of stay 1 day or less	1
Non-Malignant Large Intestinal Disorders with length of stay 1 day or less	1
Non-Surgical Ophthalmology with length of stay 0 days	11
Non-Surgical Ophthalmology with length of stay 1 day or more with CC	2
Non-Surgical Ophthalmology with length of stay 1 day or more without CC	5
Open or Laparoscopic Cholecystectomy with CC	1
Orbits / Lacrimal category 3: 18 years and under	1
Other Burn without Other Procedure with Major CC	1
Other Burn without Other Procedure without Major CC	3
Other Congenital Conditions 1 year and over without CC	4
Other Congenital Conditions under 1 year with CC	1
Other Congenital Conditions under 1 year without CC	6
Other Diagnostic Skin Tests	2
Other Gastrointestinal or Metabolic Disorders with CC	16
Other Gastrointestinal or Metabolic Disorders without CC	122
Other Neoplasms with length of stay 1 day or more with CC	1
Other Renal Diseases	45
Paediatric Admission for Unexplained Symptoms with CC	6
Paediatric Admission for Unexplained Symptoms without CC	31
Penis Minor Procedures 18 years and under	3
Phototherapy	1
Planned Procedures Not Carried Out	1

SOURCE: QEH Emergency Admissions HRG data 2013/14

Currently, QEH admits c.3,500 in-patient paediatric patients a year for non-elective procedures, some of which could have been treated in the community (6/6)

Description	Spells
Rash or Other Non-Specific Skin Eruption	35
Renal Disease with Renal Failure with length of stay 0 days	4
Renal Disease with Renal Failure with length of stay 1 day or more	2
Scrotum, Testis or Vas Deferens Intermediate Open Procedures	2
Scrotum, Testis or Vas Deferens Minor Procedures 18 years and under	10
Single Plasma Exchange, Leucopheresis or Red Cell Exchange with length of stay 2 days or less and 18 years and under	35
Skin Disorders with CC	10
Skin Disorders without CC	46
Skin Therapies level 2	2
Skin Therapies level 3	3
Syncope and Collapse	18
Therapeutic Endoscopic or Intermediate Stomach or Duodenum Procedures 18 years and under	2
Threatened or Spontaneous Miscarriage	1
Thyroid Procedures without CC	1
Tonsillectomy 18 years and under with CC	1
Upper Genital Tract Laparoscopic / Endoscopic Intermediate Procedures	1
Upper Genital Tract Laparoscopic / Endoscopic Minor Procedures	1
Upper Respiratory Tract Disorders with length of stay 0 days	24
Upper Respiratory Tract Disorders with length of stay 1 day or more with CC	3
Upper Respiratory Tract Disorders with length of stay 1 day or more without CC	10
Uterus (including Fibroids) Disorders, Menstrual Disorders or Endometriosis without CC	4
Very Major and Major Small Intestine Procedures 18 years and under with CC	1
Very Major and Major Small Intestine Procedures 18 years and under without CC	1
Viral Infections with length of stay 1 day or less	269
Viral Infections with length of stay 2 days or more	49
	3434

SOURCE: QEH Emergency Admissions HRG data 2013/14