Retrospective review of impact in NWL of A&E changes at CMH and HH

CONFIDENTIAL

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Contents

Greater admissions at NPH and Hillingdon appear related to higher local demand

System-level overview of the impact from changes at CMH and HH

Performance

- 4-hour performance declined for all A&Es in NWL in Oct 14 versus Oct 13
  - Most significant declines at St. Mary's (-7%) and NPH (-6%) and Ealing (-6%)
  - Performance across London in the same period declined by 2%

Demand

- Overall emergency admissions from NWL CCGs declined 3% despite a pan-London increase of 5% (Oct 13 vs Oct 14)
- There is significant variation at the CCG level
  - Harrow, a core CCG for NPH, was up 6% while Hillingdon CCG was up 7%[1]
  - Central London CCG was down 14%
- Average daily emergency admissions at NWL providers were also down (15 admissions per day lower in Oct'14 vs. Oct '13)
- However there were significant differences in emergency admissions per day at site level
  - NPH admitted 16 additional patients in Oct '14 vs Oct' 13, 4 more than the Trust had planned for
  - THH admitted 8 additional patients, 8 more than planned
  - St. Mary's admitted 8 additional non-elective patients, 5 less than ICHT planned (NOTE: comparison is Oct-Dec 13 vs Oct-Dec 14 for St Mary's)
- Type 1 conversion rates to admissions for NPH and Hillingdon also increased in Oct 14 vs Oct 13 (5% and 9% respectively)
- Even though ambulances arrivals into ED in NWL declined 11% versus October last year, Category A arrivals increased by 3% across NWL, which suggests higher acuity of ambulance patients overall
  - St. Mary's and Charing Cross had the highest increase in Cat A conveyances as a percent of total conveyances (up 9% and 11% respectively) followed by NPH at with a 8% increase

Bed capacity

- Capacity for the system is slightly up overall, with NPH having the largest increase in capacity over the period (+37 beds)

Throughput

- ALOS has improved in 4 of 7 sites in NWL, with NPH showing significant improvement by 9%

1. CCG wide numbers based on SUS data. THH saw an increase of 16% between Oct '13 and Oct '14

System-level overview of the impact from changes at CMH and HH

- **Overall emergency admissions are down in NWL (Oct 13 vs Oct) though there are significant local demand spikes:** Hillingdon and Harrow CCGs admissions increased 7% and 6% respectively in Oct 14 versus Oct 13 whereas Central London and West London CCGs are down 14% and 11% respectively
- **Overall ambulance conveyances are down by 11% though category A conveyances are up 3%**
- **The change in activity flows associated with the CMH/HH changes were largely as expected but underlying increases in local demand were not planned for by Trusts or the SAHF programme**
  - The distribution of demand from CMH and HH is in line with or lower than SAHF modelling for most sites (based on ambulance conveyances) with the exception of Charing Cross where conveyances from HH/CMH catchment are higher than expected
  - Underlying demand appears higher than modelled
- **The increase in admissions at NPH and THH led to capacity constraints**
  - Admissions at THH and NPH increasing by 8 and 16 per day vs a plan of 0 and 12 respectively
  - The increase in attendances at THH Oct 14 vs Oct 13 was significant though appears to have driven by a spike in local demand rather than hospital configuration changes,
- **Capacity planning assumptions at NPH were materially different to the site's actual experience in October '14**
  - NPH used an Average Length of Stay for incoming patients that was both shorter than the Trust's historical length of stay and the ALOS of patients transferring from CMH
  - NPH used a historical attendance to admission conversion rate that was substantially lower than the actual conversion rate in Oct '14
- **Admissions at St Mary's were lower than ICHT planning assumptions but in line with SAHF projections. Planned capacity and operating model initiatives appear to have been executed but rising ALOS across all non-elective admissions at St Mary's appears to have led to capacity constraints which in turn led to increased A&E wait times**
  - Admissions increased by 8.4 per day (in line with SAHF projections but lower than Trust plans at 13 per day)
  - ICHT added 15 beds on the assumption that Average Length of Stay for additional incoming patients would be 1.1 days
  - ALOS was consistent with HH ALOS but required transfers to HH from St Mary's and increased Ambulatory Emergency Care volumes to be sutained
  - 15 beds were added, ambulatory care volumes have increased at St Mary's by approximately 6 per day and ward transfers from St Mary's to HH increased by 3 per day which appear to have offset the impact of increased admissions
  - Non-elective ALOS at St Mary's increased from 4.8 to 5.2 (unrelated to SAHF) leading to capacity constraints which in turn appears to have increased A&E wait times
- **Ealing A&E performance appears unrelated to admissions volumes**
  - Ealing's A&E 4 hr performance went down significantly from 97% to 91% from Oct '13 to Oct'14 even though daily admissions decreased by six, Oct 14 vs Oct 13. Emergency ALOS has increased from 4.28 to 5.14

Analysis by site (1/2)

Site	Change in 4-hour perfor-mance	Analysis	Note: all comparisons are the October 2014 value compared to the October 2013 value
NPH	-6%	**A combination of higher demand and insufficient capacity led to decline in 4-hour performance** • Emergency admissions from Harrow CCG increased 6% • Category A ambulance arrivals were up 16% (in absolute numbers)[1] • Conversion rate of Category 1 attendances to admissions was up 5% • Net result is NPH receiving 16 additional admissions per day when they had planned for 12 • Capacity required was underestimated because of: – Higher conversion rate than planned leading to higher admissions than planned – ALOS assumptions that were lower than the ALOS observed in October 14	
Ealing	-6%	**Overall admissions declined however operating challenges, particularly with regard to the management of non-elective medical inpatients, led to a decline in performance** • Local demand declined, with Ealing CCG seeing a 5% drop in admissions • Ealing hospital had 6 fewer emergency admissions, which is consistent with the lower local demand • Ealing hospital appears to not have received displaced activity from the A&E changes at CMH and HH • Performance has deteriorated: in addition to the -6% change in 4-hour performance, Ealing occupancy was around 106% in Oct ’14 and DTOCs increased to 15 per day from 3 per day with emergency ALOS increasing from 4.28 to 5.14 days	

1 8% increase as % of total conveyances

Analysis by site (2/2)

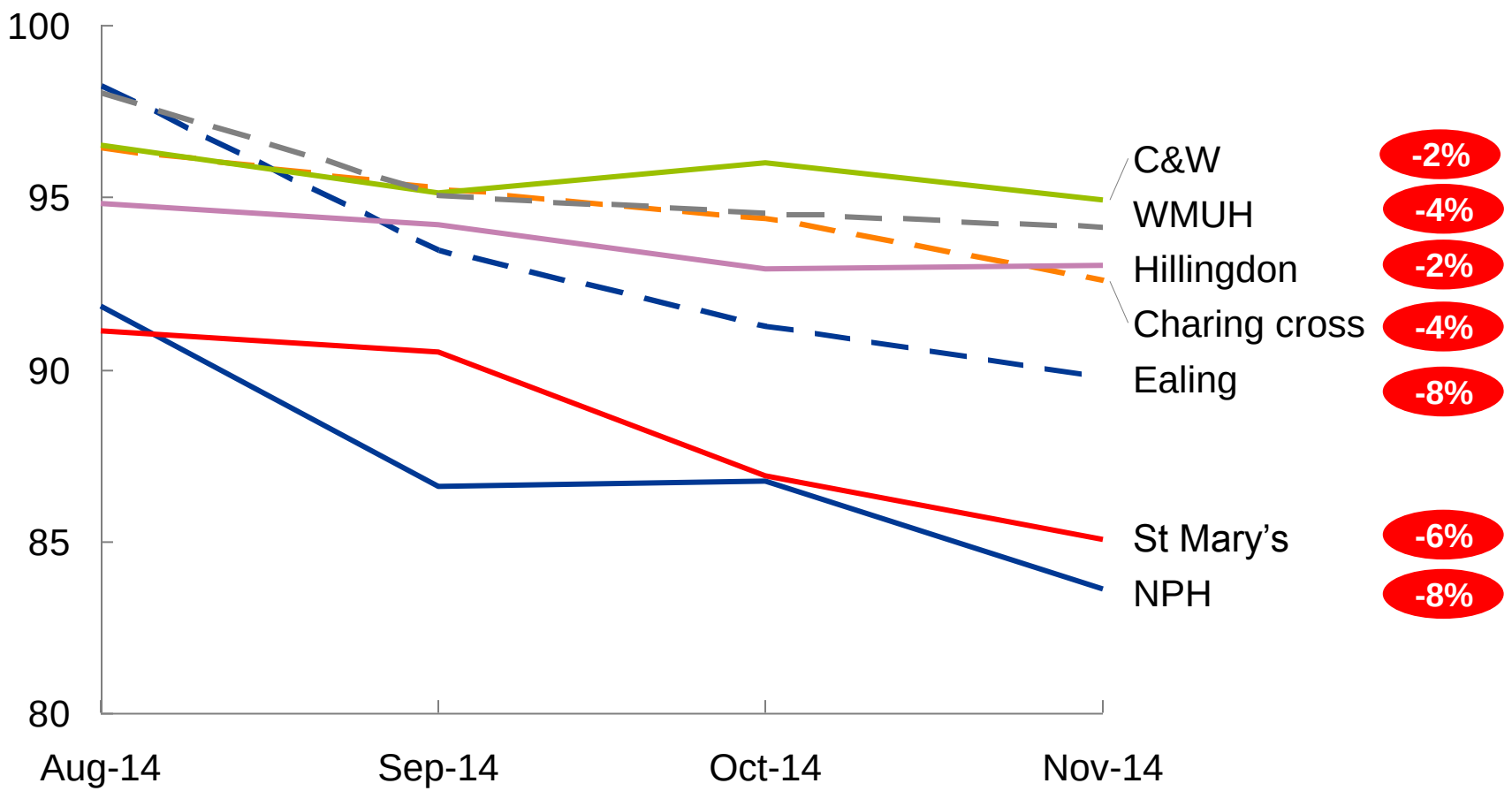
Site	Change in 4-hour perfor-mance	Analysis	Note: all comparisons are the October 2014 value compared to the October 2013 value[2]
SMH	-7%	**A combination of higher demand, increased ALOS and higher acuity led to decline in 4-hour performance** • Total ED attendances increased by 10% and reported Type 1 ED attendances reduced by 20 per day (however changes to run UCC 24 hours/day resulted in fewer patients categorised as Type 1 and the Trust believes its underlying attendance mix and conversation rate is stable) • Category A ambulance arrivals increased by 10 per day, or 35% • Non-elective admissions increased by 8.4 per day (vs SaFH forecast of 8 and a Trust plan of 13). • SMH added 15 beds to handle the additional demand which would be sufficient if LOS of remained 1.1 days (actual ALOS at HH ward B1) • Sustaining 1.1 LOS required increases of early transfers to HH from St Mary's and increases in Ambulatory Emergency Care • Ambulatory care volumes increased at St Mary's by 6 per day and ward transfers from St Mary's to HH increased by 3 per day largely offsetting the increased admissions volumes • Observed non-elective LOS increased from 4.8 to 5.2 days (not SaFH related e.g. repatriation delays, lack of flow and delays in discharge) at St Mary's which led to capacity constraints and increases in A&E wait times	
THH	-4%	**Higher local demand was not sufficiently offset by a higher number of beds** • Local demand increased 7% (i.e. from Hillingdon CCG) • Category A ambulance arrivals did not materially increase, although Blue light ambulances were up by 30% for this period • All type conversion rate is similar[1] • Net result is THH receiving 8 additional admissions per day when they had planned for none • Ward capacity has increased over last year, although not linked to A&E changes	

1 Type 1 Conversion rate was up 9% although this does not show the accurate picture given UCC changes last year
2 SMH comparisons are for Oct-Dec

Performance has declined for all the NWL A&Es over last few months

-X Percent point decrease from Aug '14 to Nov '14

All type monthly performance against the 4-hour standard, Aug – Nov'14, %



Note: WMUH Nov'14 performance not known

SOURCE: Trust submissions

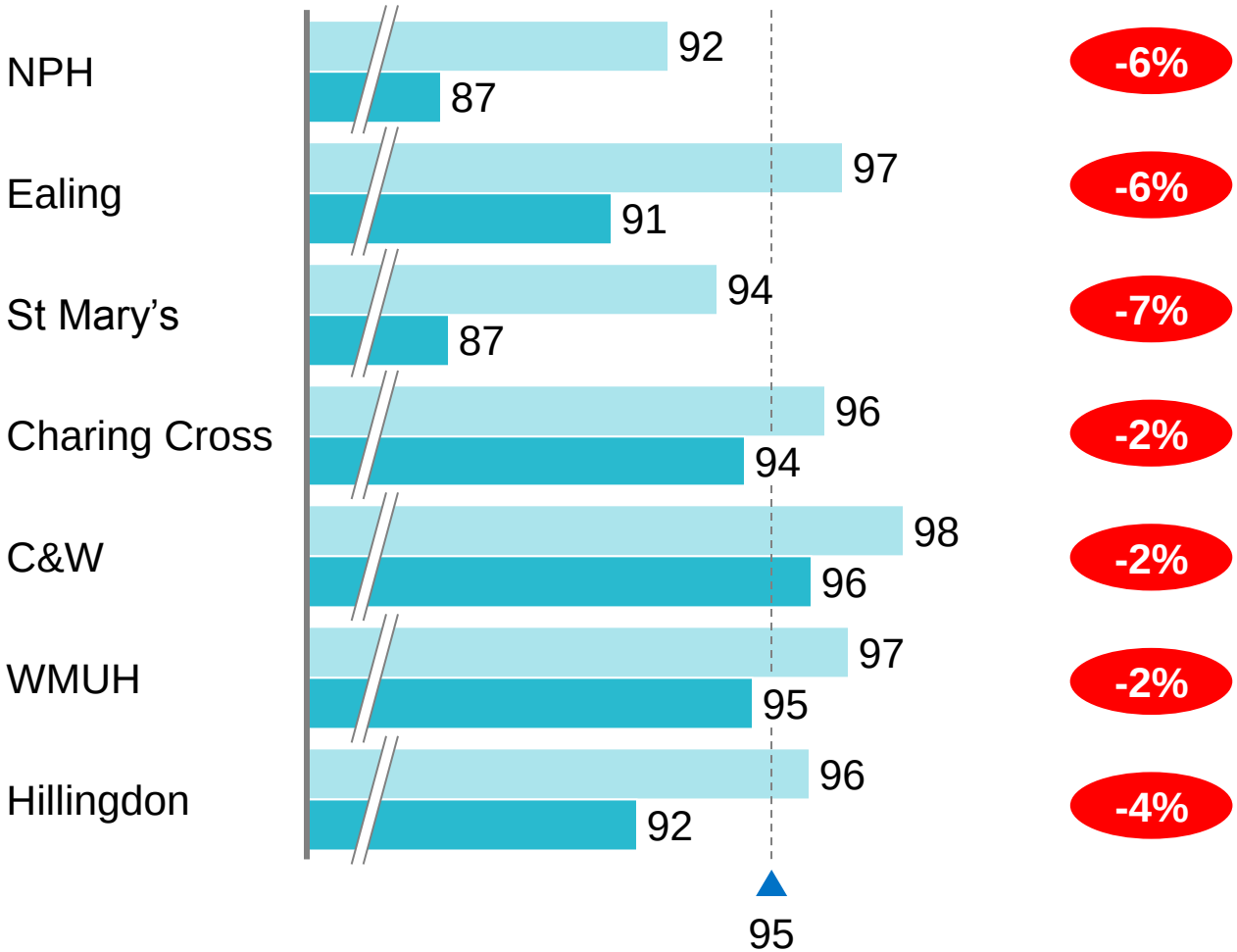
Performance is also down compared to last year (Oct '14 vs. Oct '13)

-X Percent point decrease

Oct '13

Oct '14

All type monthly performance against the 4-hour standard, %

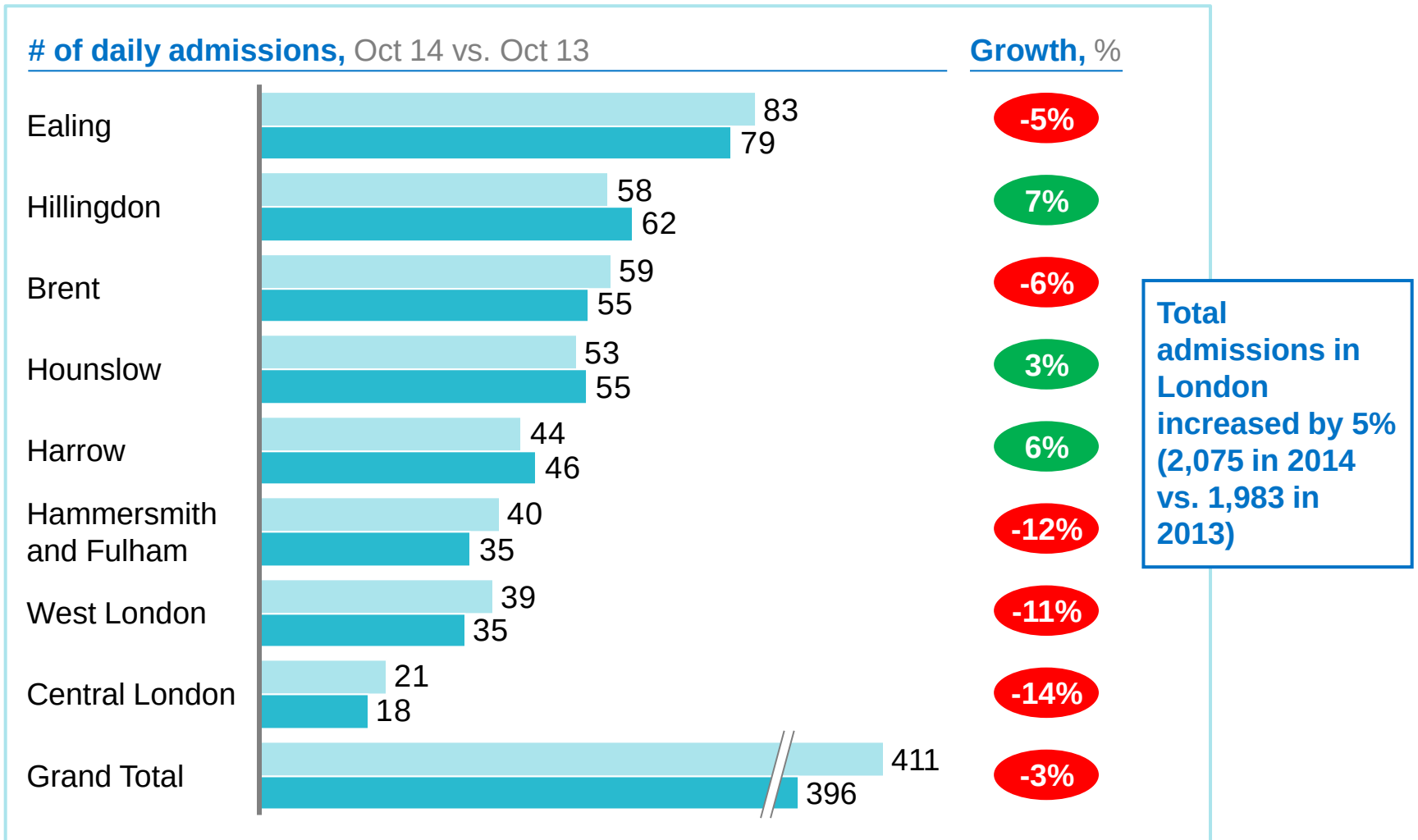


- **NPH, Ealing and St Mary's have shown significant decline (5%+)**
- **London overall has shown a decline of 2% in same time period (92% to 90%)[1]**

1 An approximation based on weekly sitreps performance by all London trusts

SOURCE: Trust submissions, Weekly sitreps performance

Overall decline of 3% in ED admissions in NWL CCGs, but significant local variations



Note: Total includes admissions from other CCGs as per SUS data

SOURCE: SUS data, London data from the weekly sit rep reports

Across NWL admissions are down by 15 in Oct'14 vs Oct '13, although NPH and Hillingdon have increased by 16 and 8 respectively

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Base figure; other numbers in row are changes from this figure

Focus areas

Changes in attendance and admissions from Oct '13 to Oct '14, SaHF and Trust plans vs Actuals[3]

		All type att.			Type 1 Attendance				Admissions[2]			
	Sites	2013 Base	Trust plan	2014 Actual	2013 Base	SaHF plan	Trust plan[1]	2014 Actual	2013 Base	SaHF plan	Trust plan	2014 Actual
Sending hospitals	CMH	151	N/A	-60	42	-37	-37	-40	18	-19	-19	-15
	HH	135	N/A	-51	59	-50	-50	-58	28	-15	-15	-12
Receiving hospitals	NPH	410	+38	+80	233	+37	+23	+8	98	+18	+12	+16
	Ealing	278	0	+14	115	+10	0	-7	55	+3	0	-6
	St Mary's	240	+60	+28	150	+24	+40	-20	31	+8	+13	+9
	Charing cross	216	0	+2	96	+11	0	+2	44	+3	0	-2
	C&W	307	0	+21	307	+1	0	+21	36	0	0	0
	WMUH	369	+3	+7	162	+3	+3	+4	45	+1	+1	+3
	Hillingdon	308	0	+48	141	+1	0	+19	56	+1	0	+8
	Total	**2,128**	**N/A**	**+121**	**1,204**	**0**	**-13**	**-68**	**365**	**0**	**-9**	**-15**

SAHF modelled only type 1 attendance

- Higher admissions than planned at NPH, Hillingdon and St Mary's

1 CMH and HH numbers taken from SAHF model NPH & SMH which are based on trust data. St Mary's shows no change modeled

2. All emergency excluding maternity comparison is Oct-Dec 13 to Oct –Dec 14 .

3. All actuals based on SUS data except Note: For trust model assumption a '0'

SOURCE: SAHF, SUS, Trust, Team analysis

Type 1 conversion rates vary significantly between actual and plans

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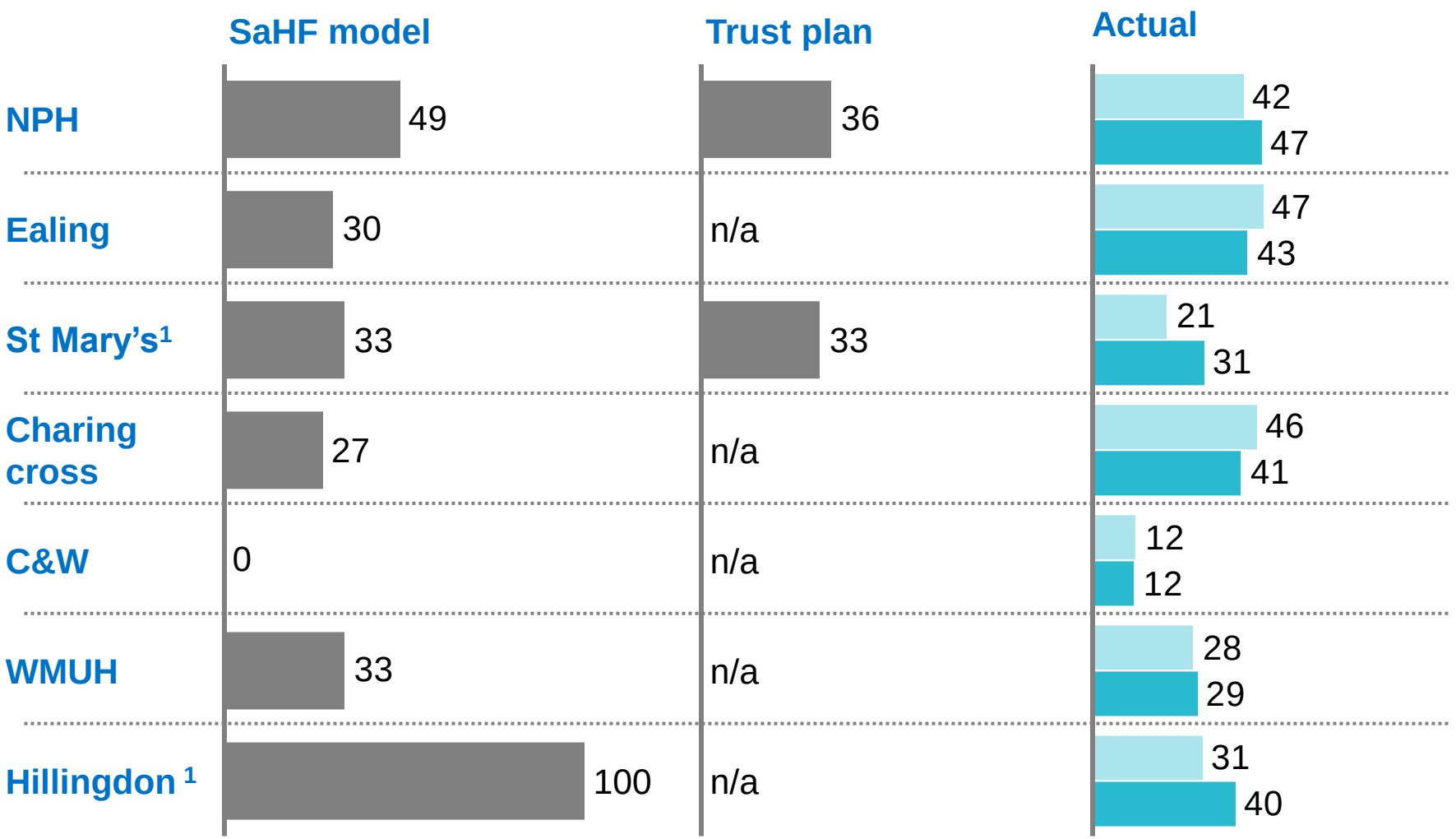
Oct-13 Oct-14

Conversion rates of emergency admissions from type 1 attendances, %



[1] Type 1 conversion rate may not give accurate picture of changes over last 1 year given the UCC changes at THH in 2013

SOURCE: SUS data, Trust data for NPH and St. Mary's

www.england.nhs.uk

Ambulances arrivals into ED in NWL declined 11% versus October last year, while Category A arrivals increased by 3%

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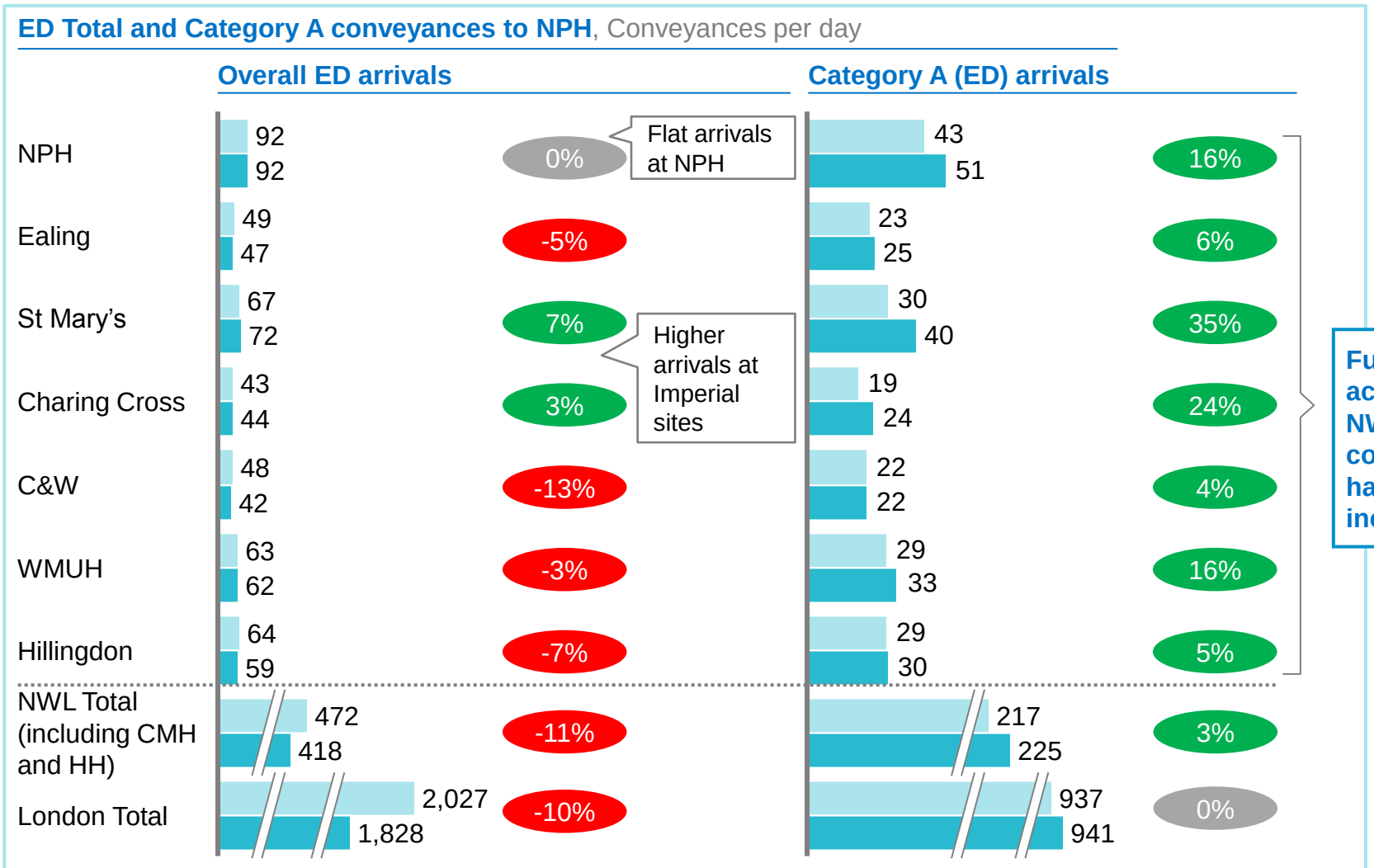
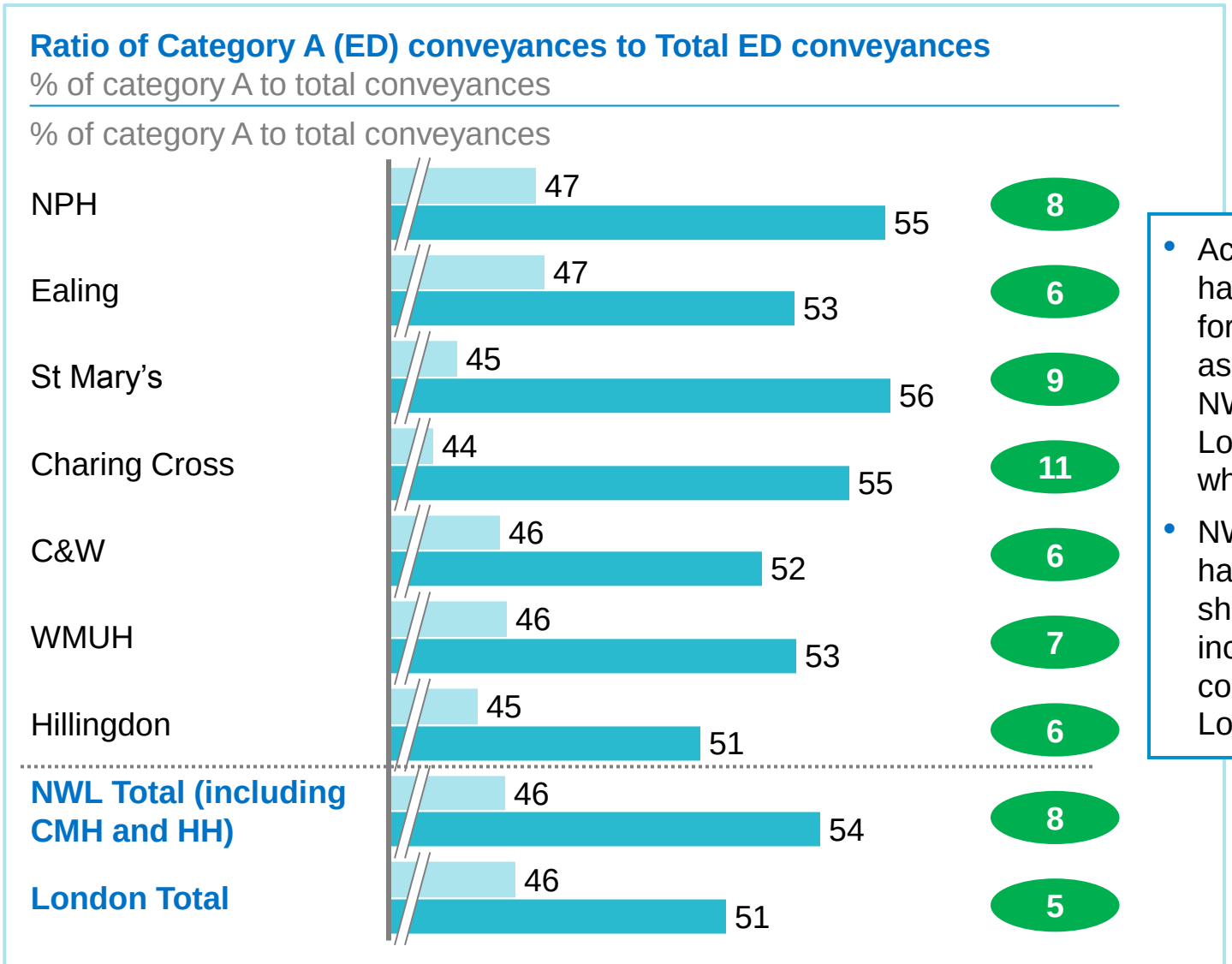
+X Percent point increase
-X Percent point decrease



SOURCE: LAS ED conveyance data

Category A conveyances as a percent of all ED conveyances has increased significantly



- Acuity ratio has increased for each site as well as NWL and London as a whole
- NWL however has seen a sharper increase compared with London

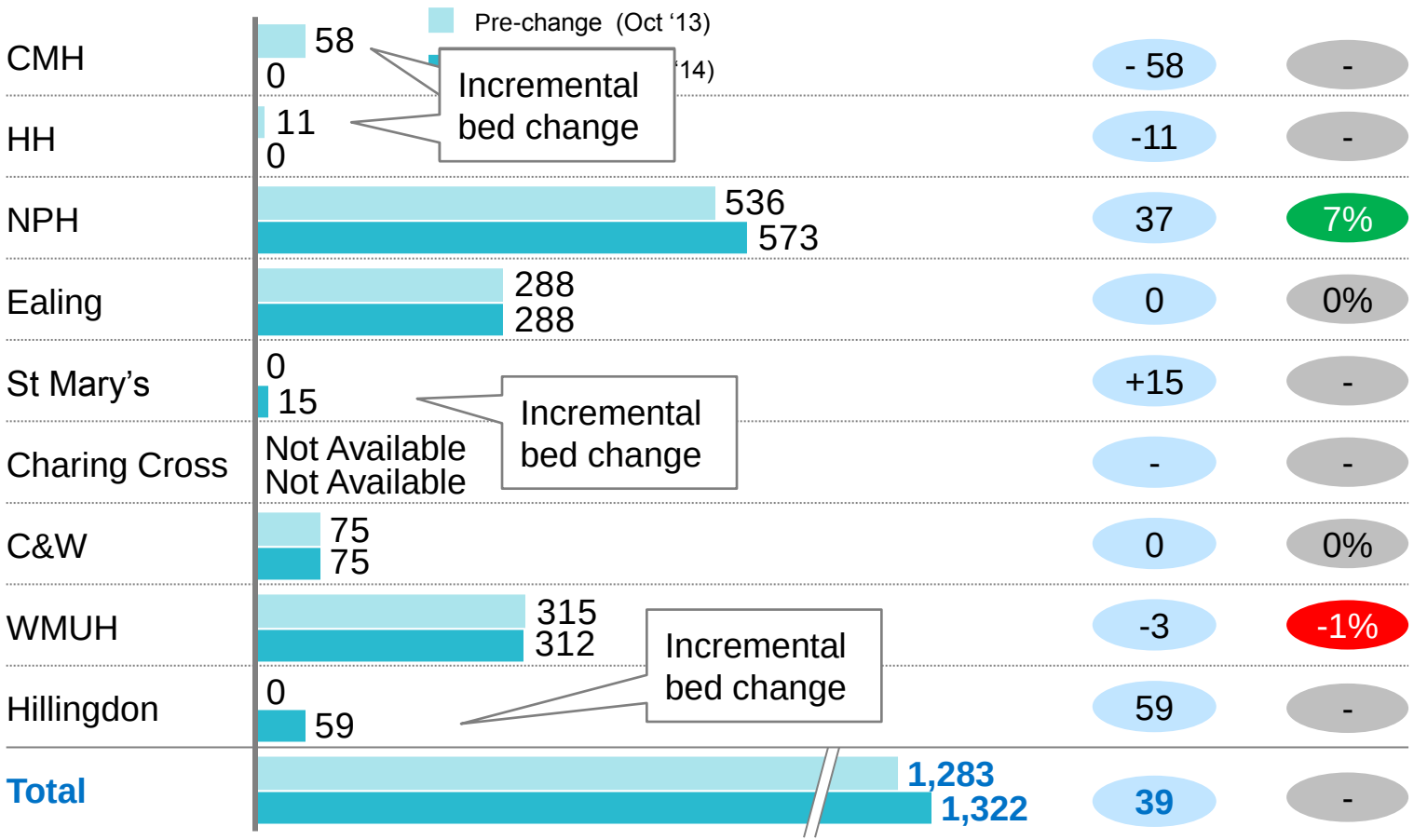
SOURCE: LAS ED conveyance data

Capacity for the system is up overall, with THH and NPH having the largest increase in capacity over the period

PRELIMINARY

+X Absolute diff (2014-2013) | +X Percent point increase | -X Percent point decrease

General and acute beds by site,

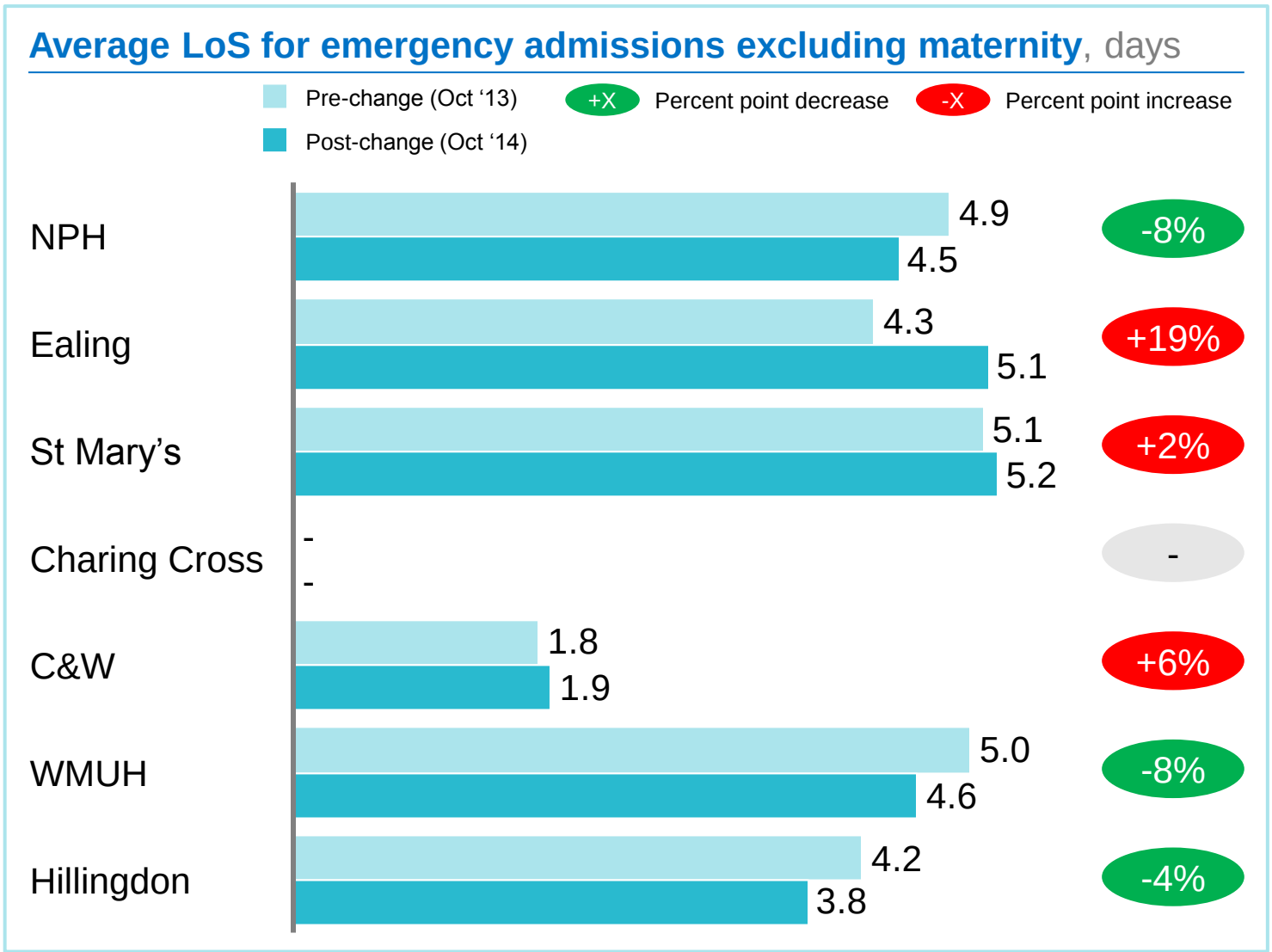


Note: Does not include changes in type of beds. CX bed information not provided by the trust, although no bed increase was planned

SOURCE: Trust

ALOS has reduced in 4 of 7 sites in NWL, with NPH and WMUH showing significant reduction by 8%

Average LoS for emergency admissions excluding maternity, days



Note: SMH and CX ALOS information not provided by the trust
SOURCE: Trust

CXH data not available from Trust

Contents

- System wide impact of the A&E changes
- **Deep-dive on high impact hospitals: Analysis of the plan vs. actual performance**
  - **NPH**
  - Ealing
  - St. Mary's
  - Hillingdon
- Planning and execution at NPH
- Assurance process followed for the A&E changes
- Lessons learned

Overall Analysis for NPH

Modelling

1. Process involved three models: SAHF end-state model (not used to model transition); SAHF transition model (modelled attendances and admissions); NPH site specific Trust model (modelled attendances, admissions and capacity)
2. SAHF modelling assumed 18 per day CMH/HH admissions would be redirected to NPH
3. The NPH capacity model assumed that 12 additional admissions[1] would occur per day as a result of an improved conversion rate of expected attendances compared to that at CMH. The assumption was based on a view that there would be better A&E staffing at NPHcompared CMH
4. The NPH model assumed a lower length of stay at NPH (3.5 days) vs. 7.1 days at CMH
5. The combination of lower admission rate and a lower ALOS at NPH reduced the net bed requirement of the system
6. The NPH model assumed 22 beds would be added to the NPH site and there would be 4 transfers per day from NPH to CMH
7. The capacity model implied a bed surplus after the transfers to CMH occurred

Reality

1. The NPH model had assumed admitting an additional 12 patients per day – the observed incremental admissions were 16 The admissions over the period are therefore 4 greater per day than planned
2. The following appear to have impacted the higher than expected number of admissions
   a) Local growth from Harrow and Brent CCGs
   b) Higher conversion rates from type 1 attendances, potentially related to the higher acuity of LAS patients (Category A arrivals up 16% in Oct 14 versus Oct 13)
   c) LAS conveyances were flat at NPH in Oct 14 vs Oct 13, but acuity (as measured by Cat A arrivals) increased by 16% points
   d) An analysis of LAS conveyances suggests patient flows to NPH are in line with travel-time modelling
   e) Mixed results from the ambulatory pathway as attendances increased by 8 per day versus 10 per day in plan, although unclear how many of these attendances are referred to from CMH
3. Average length of stay at NPH is longer than modelled (4.47 days vs 3.5 days), which implies a bed demand for incoming patients that is 31 beds higher than planned; The impact on beds of transfers out to CMH is estimated to be less than half of what was modelled (a decline of 20 vs 56)
4. The current estimated bed deficit is in the region of 20 to 40

Governance and assurance

1. The SAHF assumptions were shared with LNWH
2. LNWH board reviewed and approved the bed modelling
3. The LNWH capacity and transition plans were reviewed and agreed by the SAHF implementation board and the lead CCGS
4. NHS England and the TDA assured the LNWH plans
5. The various reviews do not appear to have sufficeintly focused on key assumptions in the modelling, explained the rationale for those assumptions, or challenged/validated them versus available evidence

1 All emergency excluding maternity

There are significant differences between the LNWH plan and the actual impact seen

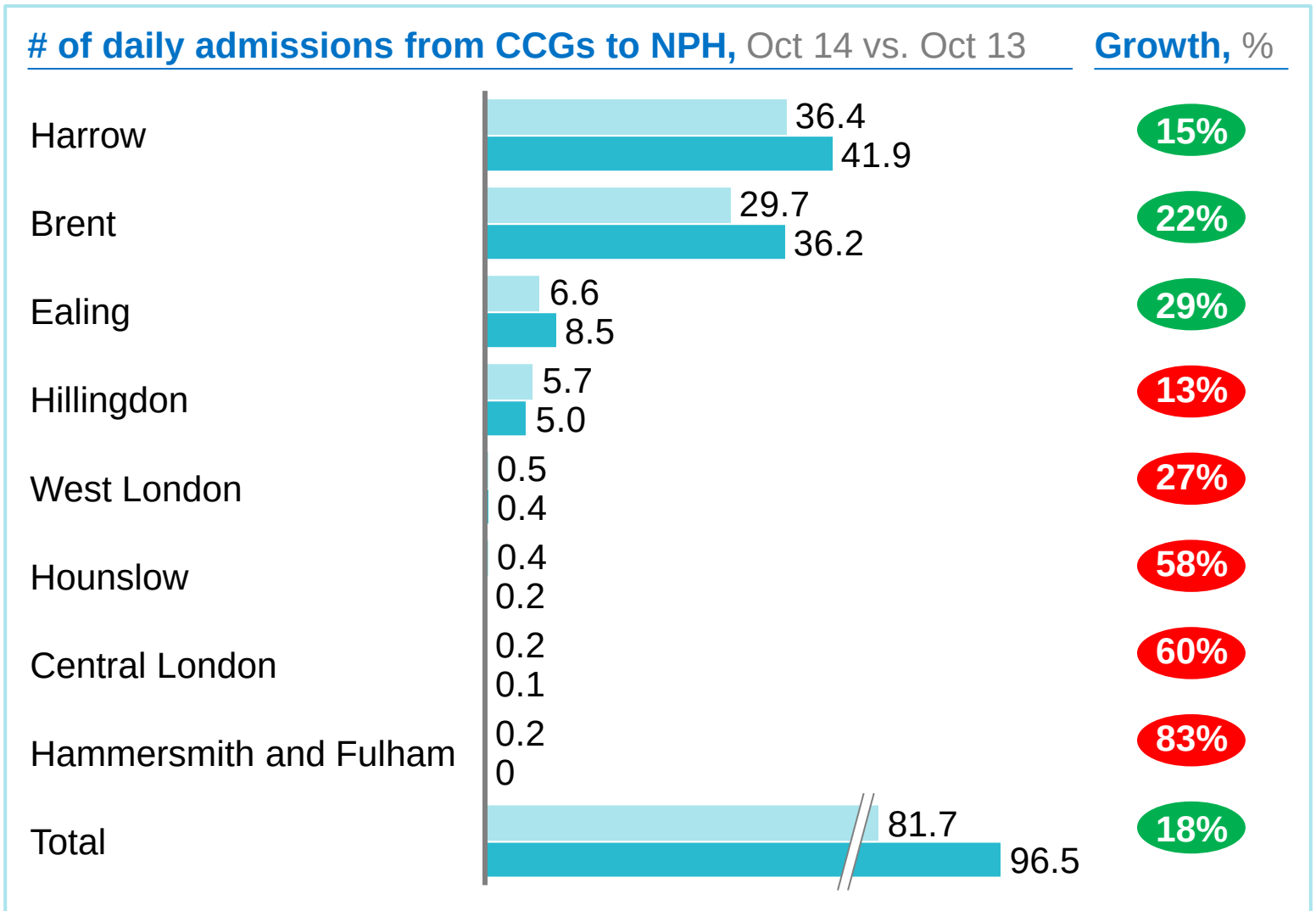
Assumptions and changes in activity, October 2014 vs. October 2013

	Modelling for NPH site			
	SaHF	Trust	Actual	Comments (actual versus model)
Performance				
• 4 hr performance	N/A	93.5%[2]	87%	• Performance has decreased significantly since the modelling was completed
Demand (NPH)				
• Daily all type attendances	N/A	+38	+80	• Activity has increased substantially , although type 1 attendance is only up 8 attendances
• Daily type 1 attendances	+37	+23	+8	
• Daily A&E Admissions	+18	+12	+16	• Actual admissions are in line with the SAHF modelling at 16 per day but higher than the Trust's plan
• Conversion rate (type 1)[3]	48.6%	36%	47%	
• # daily attendances in ambulatory care	N/A	+10	+8	• Actual type 1 conversion rate is significantly higher than planned. It has increased from 42% in Oct '13
• # ambulance conveyances into ED	N/A	+14	+6	
• Transfers to CMH	N/A	+3.5	+4.4	
Capacity				
• Non-elective beds				
– NPH	N/A	+22	+28	• The Trust initially added 20 beds, followed by 8 beds in mid-November
– CMH	N/A	=62	=62	
• Occupancy %	N/A	89.0%	99.0%	• The Trust's occupancy has steadily increased to near 100% since the closure
Throughput				
• NPH ALOS	N/A	3.5	4.47	• ALoS at NPH is ~1 days higher than the plan, about 0.5 days lower than before the closure of A&E at CMH
• CMH ALOS[1]	N/A	16	26	• Oct'14 DTOC increased
• Discharge to community beds	N/A	Not available[4]		
• DTOC - Hospital	N/A	10	16.7	
• DTOC - Pathway	N/A	20	Not available[4]	

1 For the Gladstone 1,2,3 ward
2 NPH performance assumption taken from trust model; trajectory agreed for overall trust was around ~94.1% for Oct (avg. of w/e 5th Oct to w/e 2nd Nov)
3 All type conversion rates are SaHF N/A, Trust: 31.5%, Actual 23% 4 Data not provided by the trust

SOURCE: SaHF, Trust, Team analysis

NPH saw significant growth in admissions from all of its top 3 CCGs - Harrow, Brent and Ealing



Note: Total includes admissions from other CCGs as per SUS data. SUS data indicates +15 admissions compared to Trust data of +16 admissions

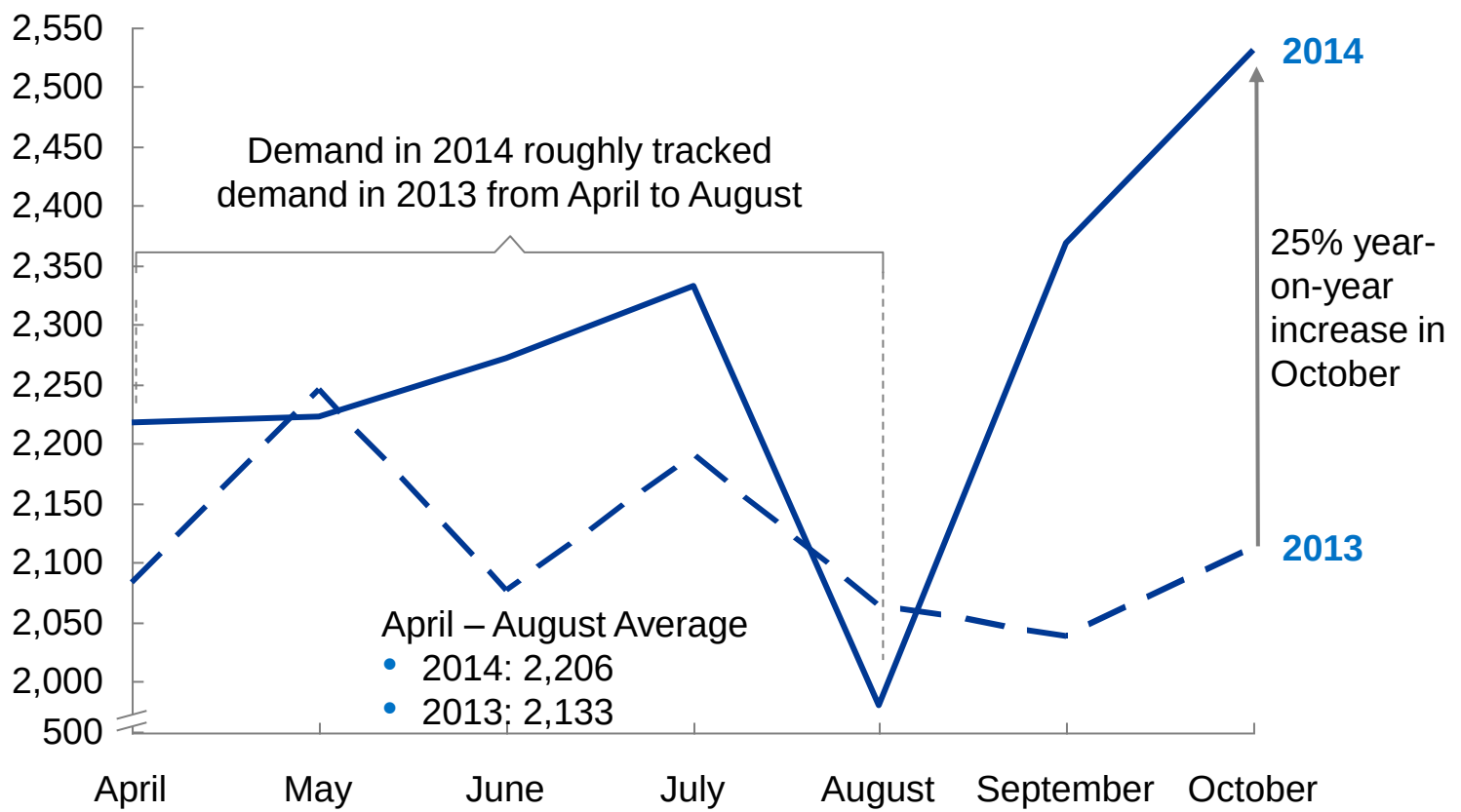
SOURCE: SUS data

In Harrow and Brent CCGs demand sharply increased after August

Harrow and Brent CCG/NWL admissions each month

Number

Monthly admissions



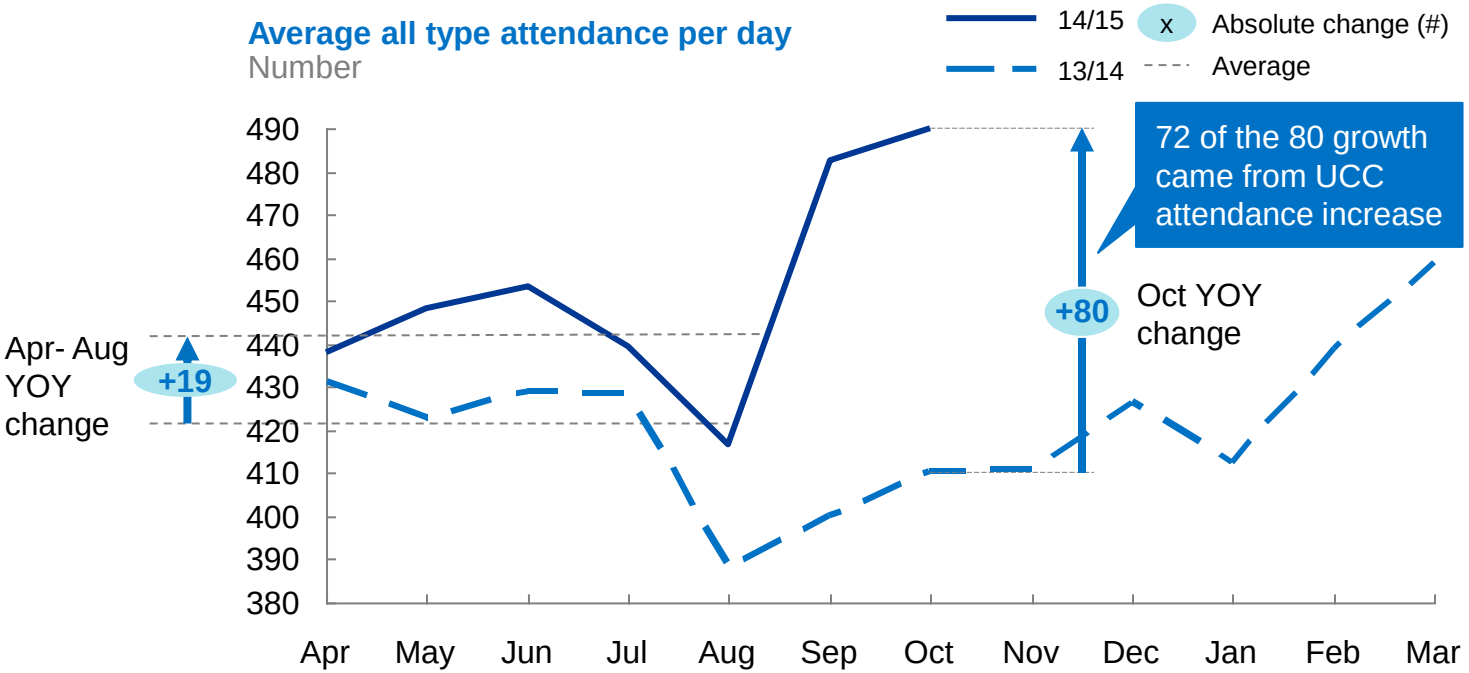
SOURCE: NPH

NPH saw a significant increase of 80 all type attendances per day in Oct '14 vs. Oct '13

PRELIMINARY

NPH average all type attendance per day 14/15 vs. 13/14

Number



YoY Change

	Apr	May	Jun	Jul	Aug	Sep	Oct
Percentage	2	6	6	3	7	21	19
Absolute	7	26	25	11	29	82	80

- Pre CMH A&E closure the average daily all type attendances at NPH increased 5% or 19 patients (April – Aug '14 vs. same period last year)
- Post CMH A&E closure NPH on average saw a 19% increase or 80 additional all type attendances a day than NWL last year (Oct'14 vs. Oct'13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

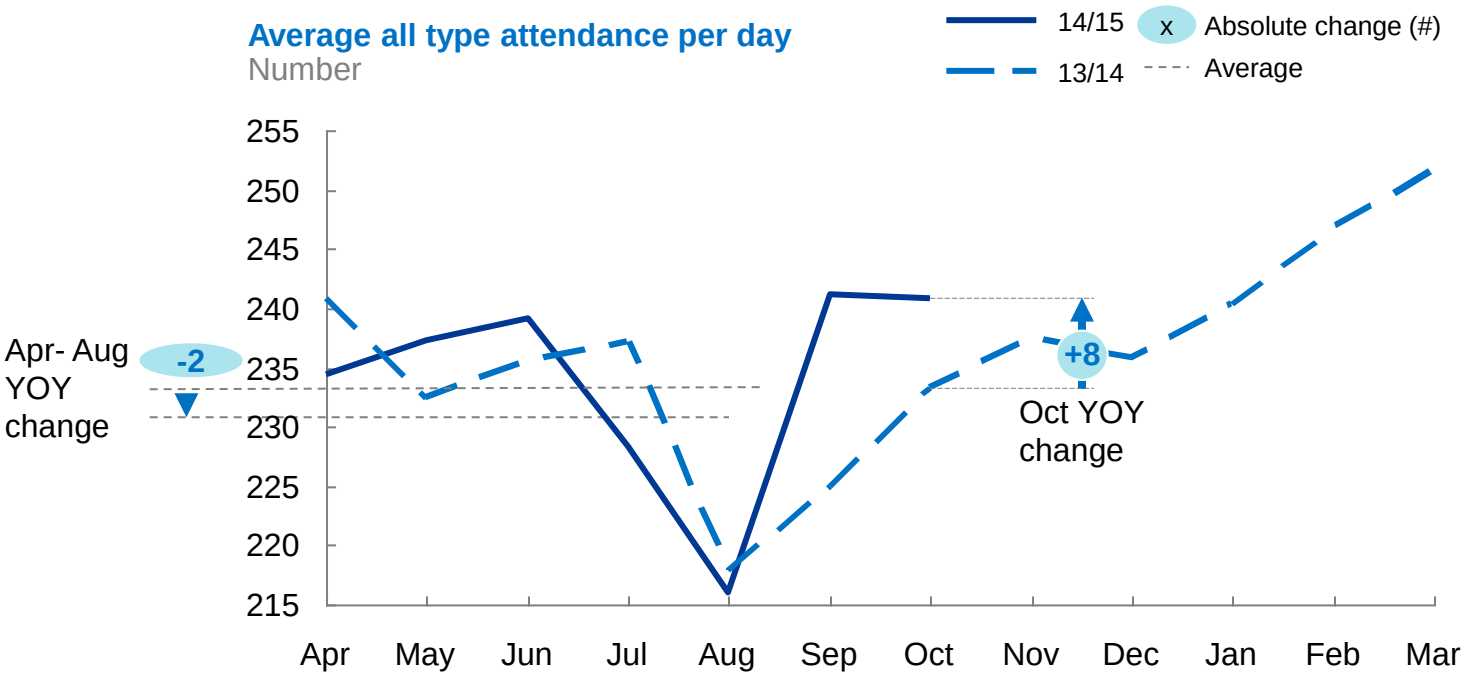
SOURCE: Trust data

NPH saw an increase of 8 type 1 attendances per day in Oct'14 vs. Oct '13

PRELIMINARY

NPH average type 1 attendance per day 14/15 vs. 13/14

Number



- Pre CMH A&E closure the average daily type 1 attendances at NPH declined 1% or 2 patients (April – Aug '14 vs. same period last year)
- Post CMH A&E closure NPH on average saw a 3% increase or 8 additional type 1 attendances a day than NWL last year (Oct'14 vs. Oct'13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

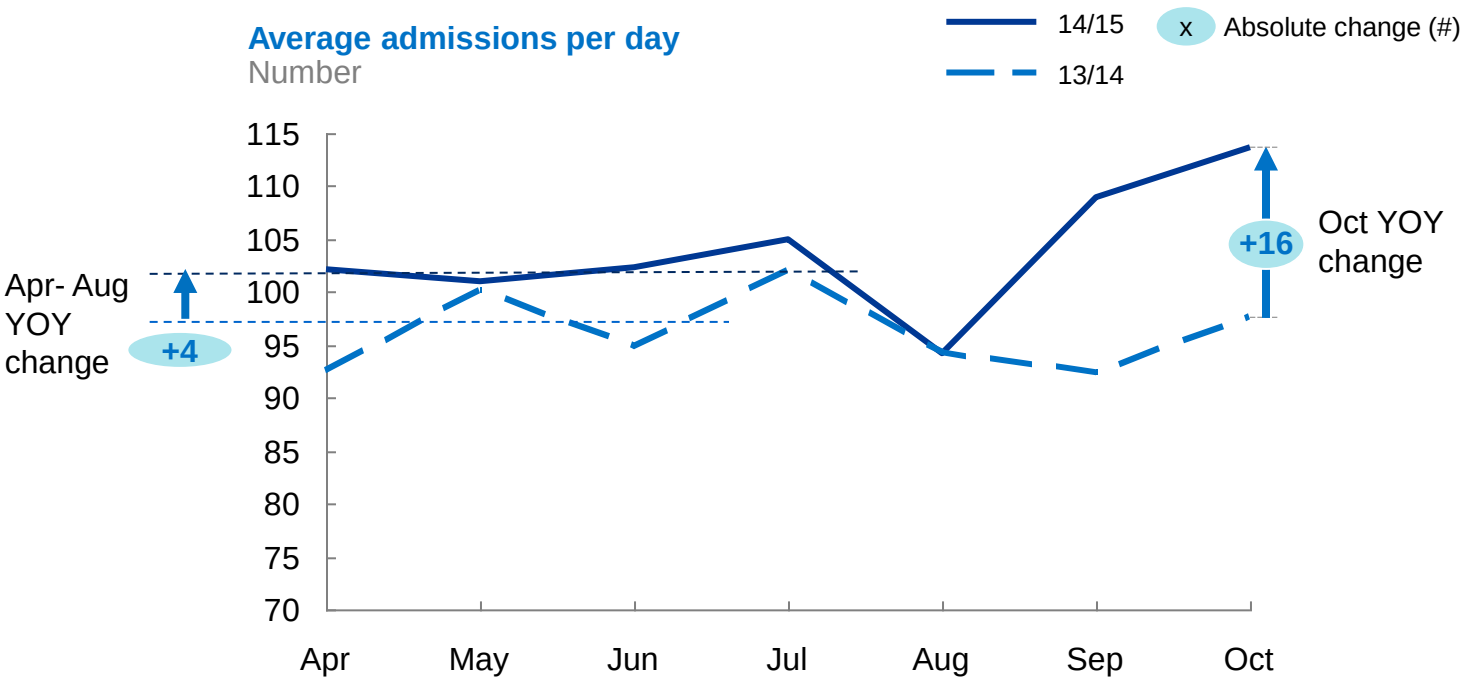
SOURCE: Trust data

In Oct'14 NPH had a total of 16 additional admissions per day over Oct'13 using trust data

PRELIMINARY

NPH average admissions per day 14/15 vs. 13/14

Number



YoY Change

	Apr	May	Jun	Jul	Aug	Sep	Oct
Percentage	10	1	8	3	0	18	16
Absolute	10	1	7	3	0	17	16

- Prior to the closure of CMH on 10 Sep, NPH average admissions were 4 per day higher than prior year
- Post CMH A&E closure NPH on average saw a 16% increase or 16/day additional admissions (Oct'14 vs. Oct'13)

NOTE: Analysis done by A&E team

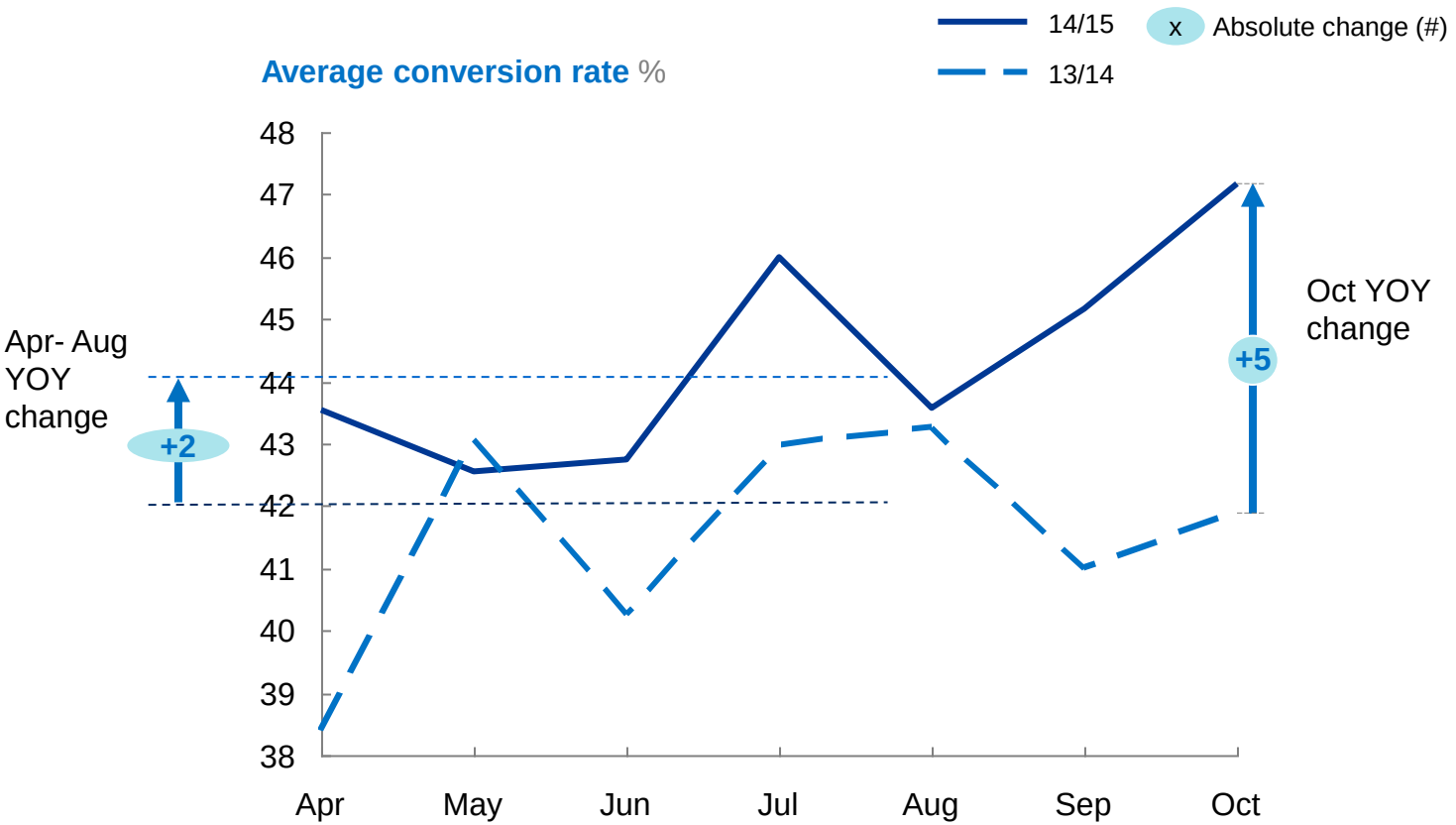
SOURCE: Trust data

NPH conversion rate has increased in Oct '14 by 5 percent points vs. Oct '13

PRELIMINARY

NPH conversion rate, 14/15 vs. 13/14

percent points



- NPH has seen a 5 percentage point increase year on year from October 2013 to October 2014

NOTE: Analysis done by A&E team

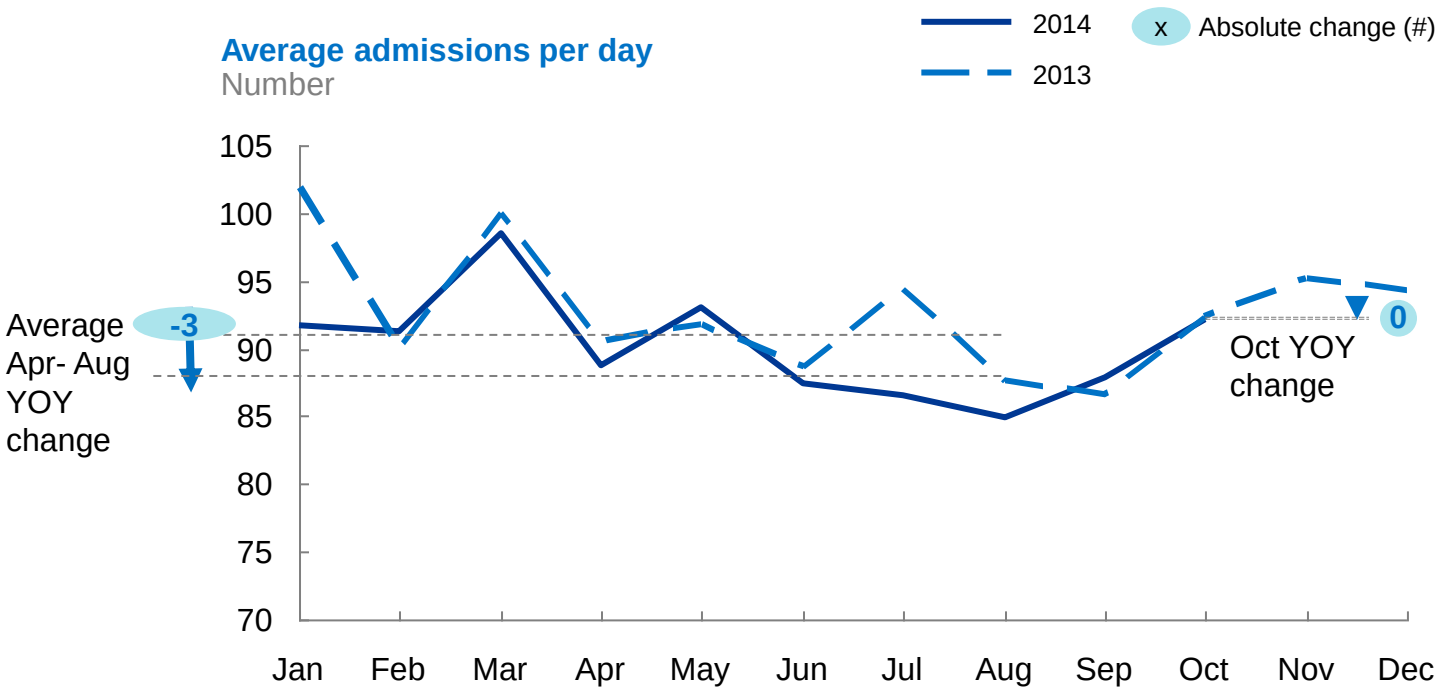
SOURCE: Trust data

NPH's daily conveyances are flat year-on-year

PRELIMINARY

NPH's ED LAS conveyances per day 2014 vs 2013

Number



- Daily conveyances are unchanged from Oct-13 to Oct-14

YoY Change

Percentage	-10	2	-1	-2	1	-1	-8	-3	2	0
Absolute	-10	1	-1	- 2	1	-1	-8	-3	1	0

NOTE: Analysis done by A&E team

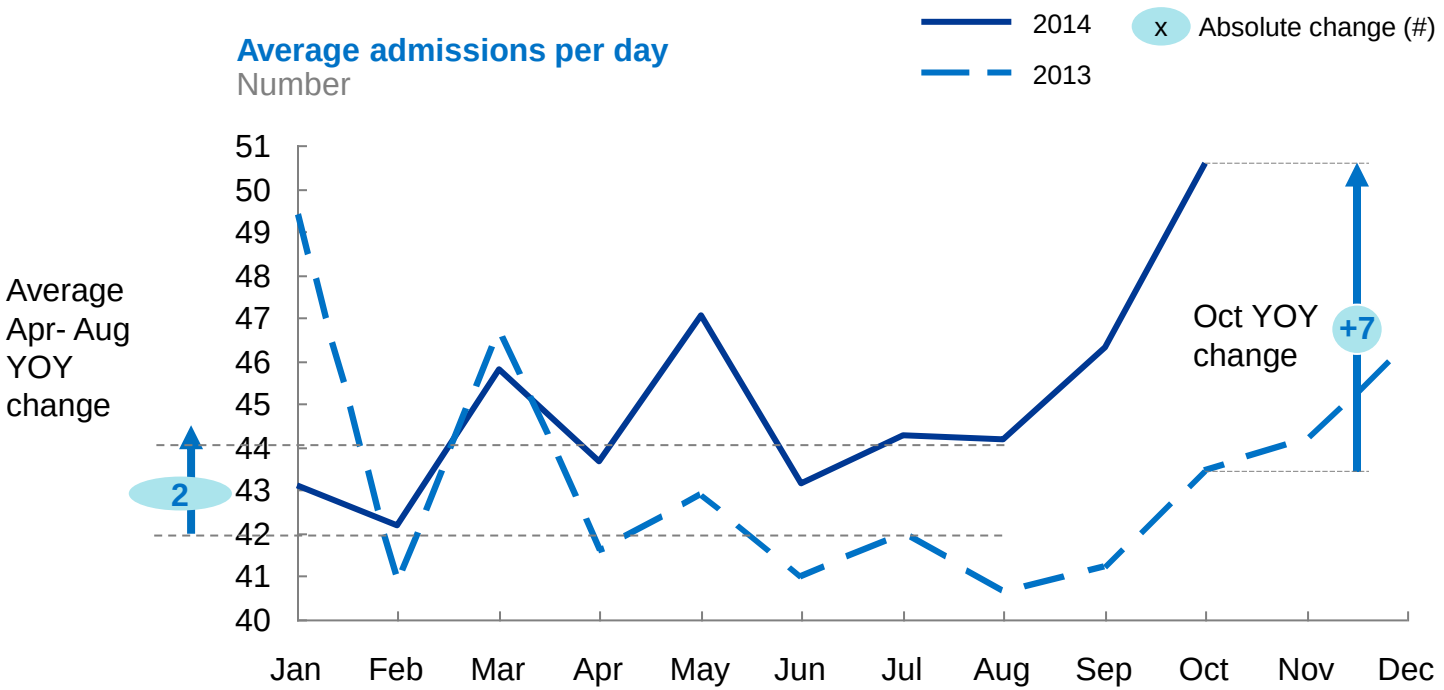
SOURCE: LAS Data

Category A conveyances to NPH show clear upward trend in 2014

PRELIMINARY

NPH's LAS Category A conveyances per day 2014 vs 2013

Number



- 2014 has been considerably above 2013 bar a fall in August
- October 2014 maintains this trend and is 6% ahead of prior year

YoY Change

Percentage	-13	3	-2	5	10	5	5	9	12	16
Absolute	-6	1	-1	2	4	2	2	4	5	7

NOTE: Analysis done by A&E team

SOURCE: LAS Data

+8 increase in ambulatory care attendance at NPH vs. plan of 10, although unclear if increase is due to inflow from CMH

	Per day value (actual)		Change in per day value Oct 13 vs Oct 14	
	Oct '13	Oct '14	Actual	Planned
Type 1 Attendances	231	243	+8	+23 (on 231)
Admissions	80-84	98	+16	+12 (on 80)
Ambulatory care attendances	18	26	+8	+10
Admissions through ambulatory care	7	12	+5	+4

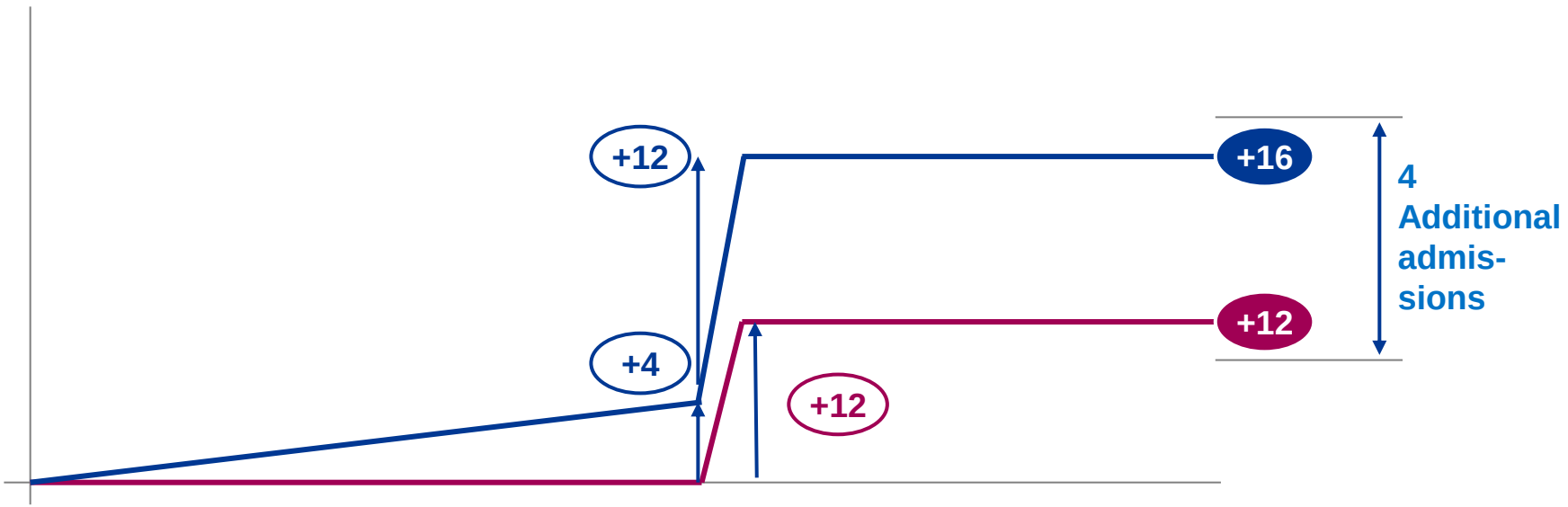
SOURCE: NPH

The original modelling assumed no growth in admissions prior to the closure, vs actual growth of 4-5% or 4 per day

Actual admissions
Modelled admissions

NPH admissions

Daily # admissions vs. October 2013 baseline



A

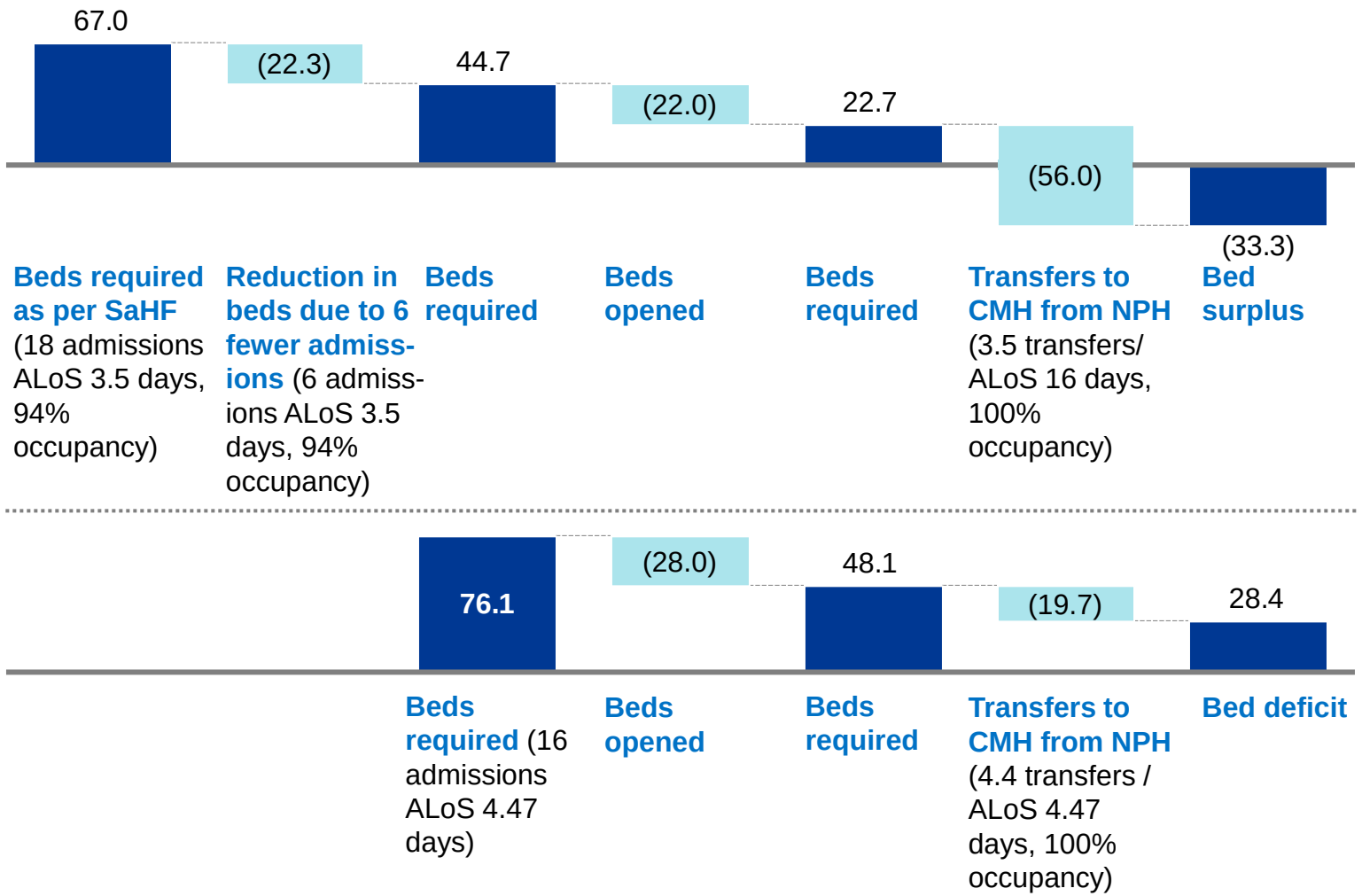
- The model assumed no growth in admissions through 2014/15 compared to 2013/14,
- Actually there was a 4-5% underlying growth of 2014/15 compared to 2013/14

B

- The model assumed 38 additional attendances, of which 12 would be admitted – i.e., 31.6% conversion rate
- Actually the site saw 80 additional attendances (all type), of which 16 were admitted with a 47% type 1 conversion rate

In October, there was an estimated bed deficit of 28 relating to non-elective ED activity

Planned vs. actual bed demand at NPH in October following A&E closure at CMH & HH, beds

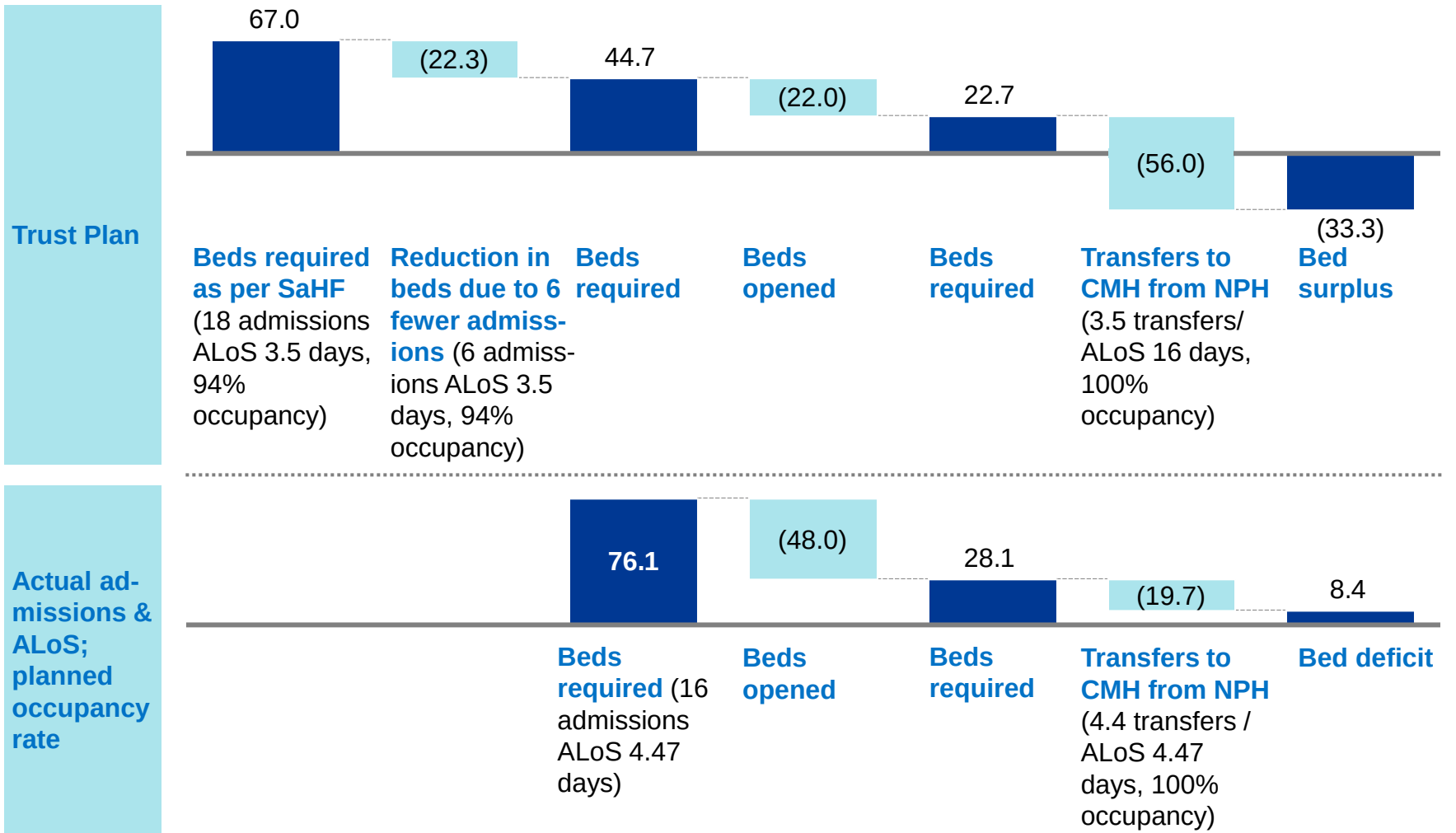


Note: Analysis done by A&E team

SOURCE: LNWH data

At the end of November, there was an estimated bed deficit of 8 relating to non-elective ED activity

Planned vs. actual bed demand at NPH following A&E closure at CMH & HH, beds

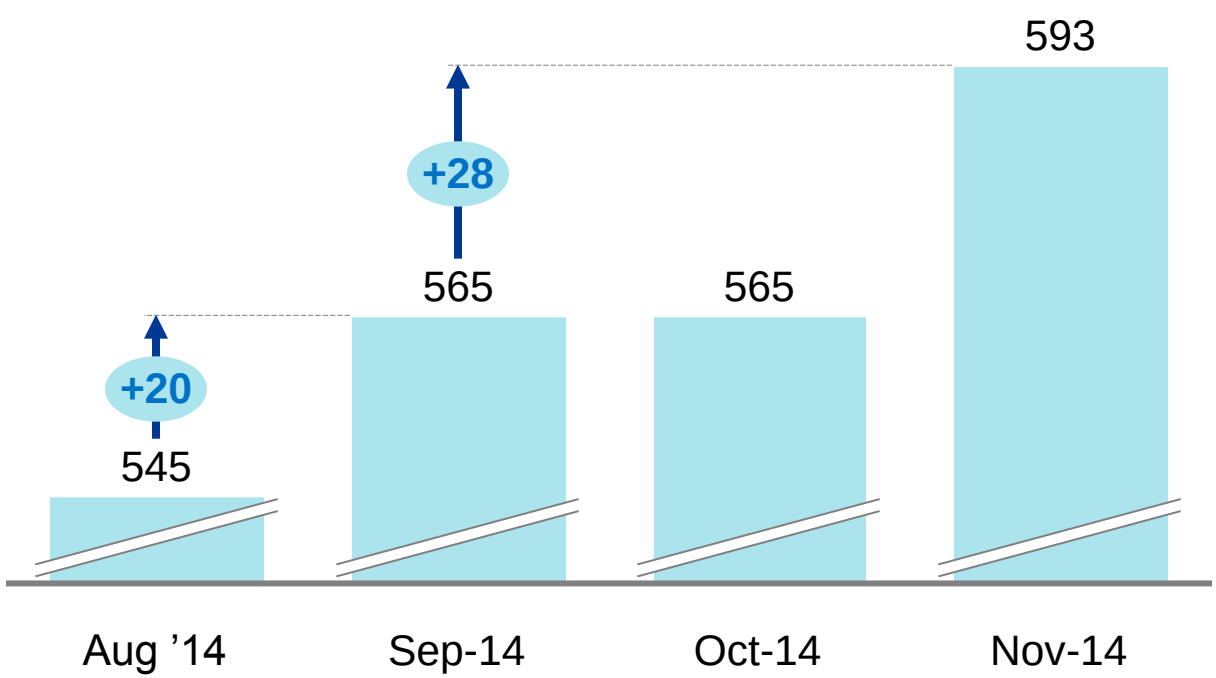


Note: Analysis done by A&E team

SOURCE: LNWH data

NPH added 48 beds by Nov ‘14 vs. the 22 originally planned to handle additional admissions

General and acute beds,



NPH planned to add 22 beds, however increased capacity by 20 beds before the A&E changes and further increased by 28 by Nov ‘14

SOURCE: Trust

There is material difference between the ALoS assumptions in the plan and the actual ALoS at the time of planning

ALoS comparison

- **The Trust's capacity model used an internal Trust measure of ALOS (3.5 days) which is based on episodic data and not spell data**
- **The Trust has acknowledged that the appropriate ALOS to use, which is consistent with national guidance, was 5.0 days based on the Apr – May average**

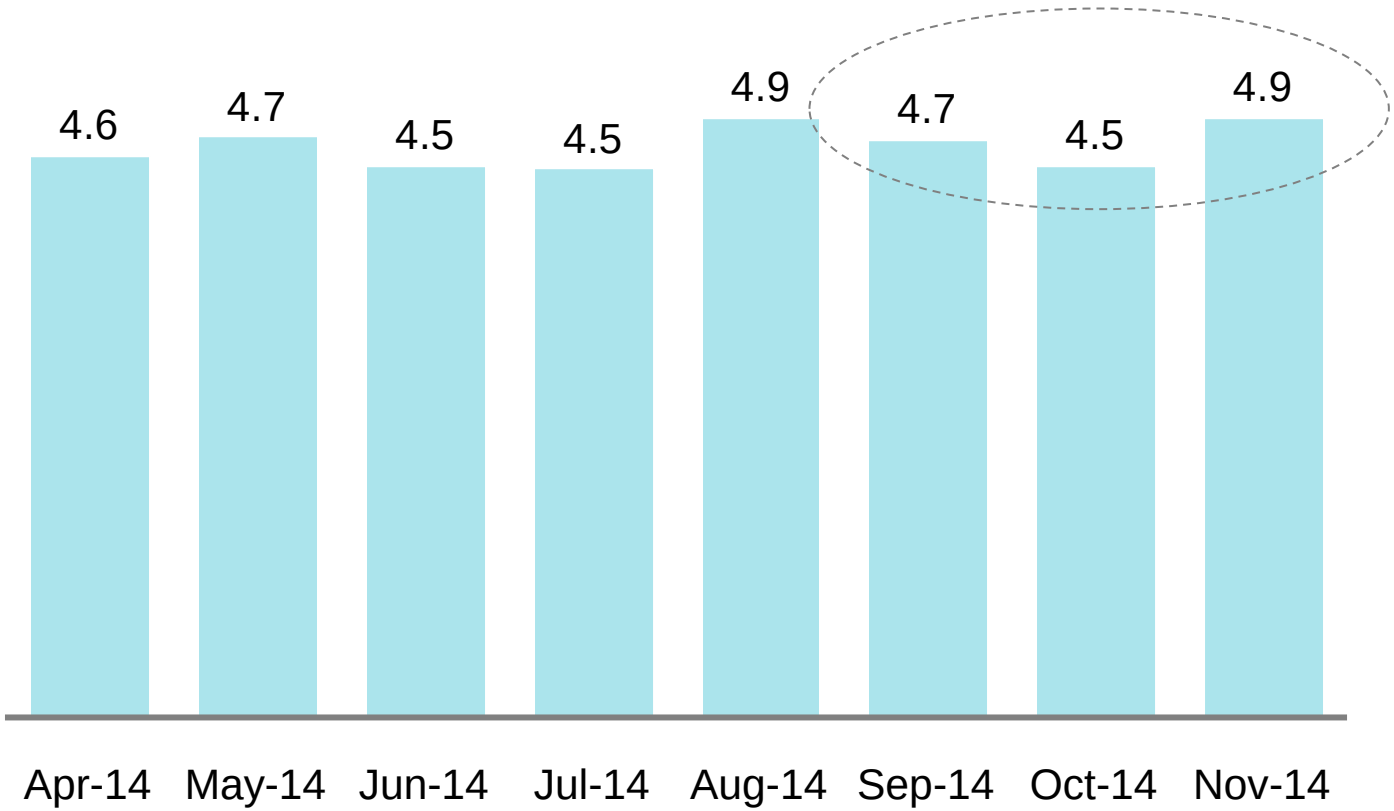
NOTE: Analysis done by A&E team

SOURCE: Information provided by LNWH

NPH ALOS has remained stable post the A&E changes

PRELIMINARY

NPH Non-elective ALOS, days



- LOS declined in October, however has picked up again in November
- LOS in Oct'13 was 4.9, thus an increase of 0.4 days in 2014 over 2013 in October

SOURCE: NPH

Contents

- System wide impact of the A&E changes
- **Deep-dive on high impact hospitals: Analysis of the plan vs. actual performance**
  - NPH
  - **Ealing**
  - St. Mary's
  - Hillingdon
- Planning and execution at NPH
- Assurance process followed for the A&E changes
- Lessons learned

Overall Analysis for Ealing

Modelling

1. Process involved the two central models: SAHF end-state model and the SAHF transition model. Trust did not model any impact from A&E changes given expected impact on Ealing was only marginal
2. SAHF modelling assumed +3 per day CMH/HH admissions would be redirected to Ealing

Reality

1. Ealing's A&E 4 hr performance has gone down significantly from 97% to 91% from Oct '13 to Oct'14
2. The underlying demand has declined
   - ED activity has gone down (both type 1 attendances and admissions) against the marginal increase in the SaHF plan
   - Ealing CCG has seen a 5% decline in admissions over last 1 year
3. Ealing hospital appears to not have received displaced activity from the A&E changes at CMH and HH
4. However, performance has deteriorated: in addition to the -6% change in 4-hour performance, Ealing occupancy was around 106% in Oct '14; DTOCs increased to 15 per day from 3 per day and ALOS increased from 4.28 to 5.14 days

Governance and assurance

1. The SAHF assumptions were shared with Ealing. The trust did not have a specific plan in place to handle impact of changes at Ealing Hospital.

Ealing: ED activity has declined with decline in both type 1 attendance and admissions

Notations	Definitions
0/ -	No Trust plan in place
TBD	Not available yet
N/A	Not applicable (no assumption taken)

Assumptions and changes in activity, October 2014 vs. October 2013

	Modelling			
	SaHF	Trust	Actual	Comments (actual versus model)
Performance				
• 4 hr performance	N/A	N/A	91%	• Performance has fallen from 97% in Oct'13 to 91% in Oct '14
Demand (NPH)				
• Daily all type attendances	N/A	+0	+14	• ED activity has declined with -7 drop in Type 1 attendances and -6 drop in admissions
• Daily type 1 attendances	+10	+0	-7	• Conversation rate has declined from 47% to 43% (Oct '13 to Oct '14)
• Daily A&E Admissions	+3	+0	-6	• Trust did not expect significant impact of A&E changes and thus did not model any increase in activity due to this
• Conversion rate (type 1)	30%	-	43%	
• Conversion rate into ambulatory care[5]	N/A	-	-	
Capacity				
• Non-elective beds				
– Ealing	N/A	+0	+0	• No planned increase in capacity
– CMH	N/A	-	-	
– Other	N/A	-	-	
• Occupancy %	N/A	-	106%	• Current occupancy running higher than 100%
Throughput				
• Ealing ALOS	N/A	-	5.14	• ALoS has increased from 4.28 to 5.14 (Oct '13 to Oct '14)
• CMH ALOS	N/A	-	-	
• DTOC - Hospital	N/A	+0	15	• DTOCs have increased from 3 per day avg. to 15 per day (Oct '13 to Oct '14)
• DTOC - Pathway	N/A	-	-	

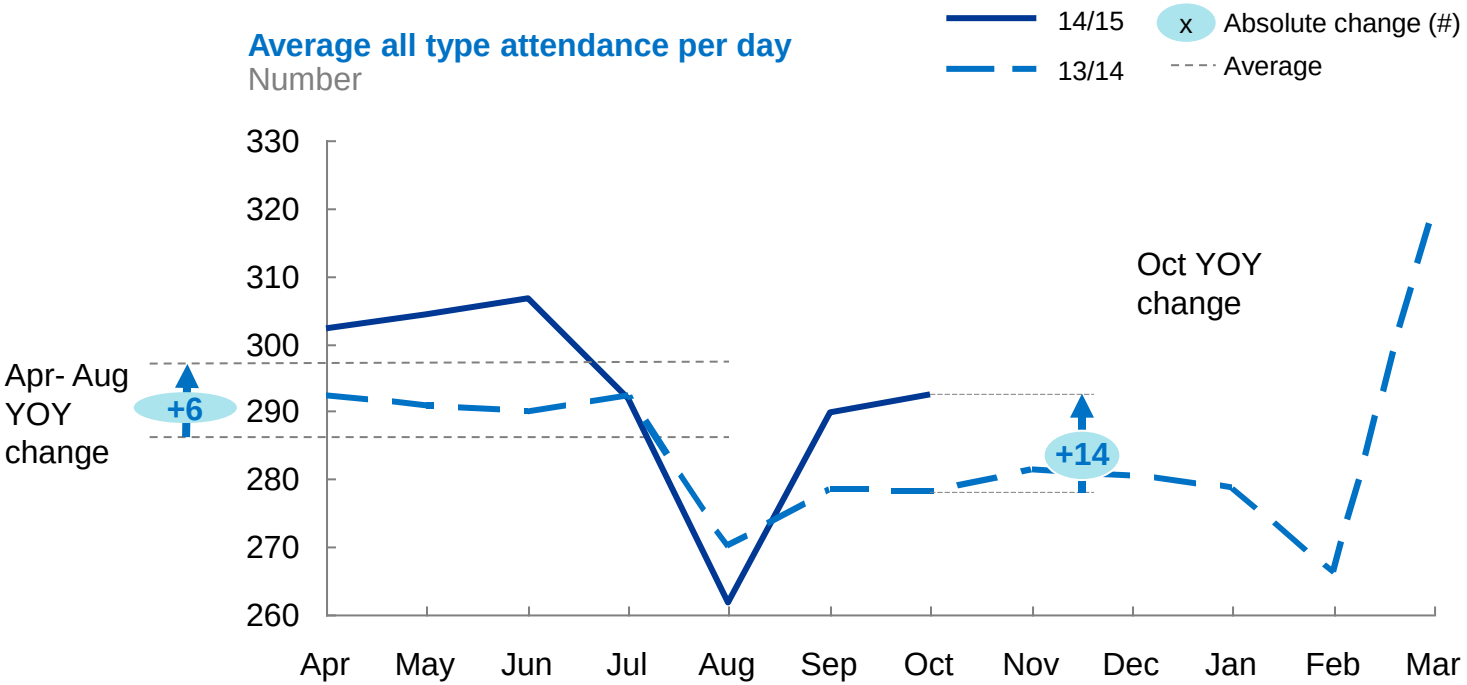
SOURCE: SaHF, Trust, Team analysis

Ealing saw an increase of 14/day all type attendances per day in Oct '14 vs. Oct '13

PRELIMINARY

Ealing average all type attendance per day 14/15 vs. 13/14

Number



YoY Change

	Apr	May	Jun	Jul	Aug	Sep	Oct
Percentage	3	5	6	0	-3	4	5
Absolute	10	14	17	0	-8	11	14

- **Pre A&E changes the average daily all type attendances at Ealing increased 2% or 6 patients (April – Aug '14 vs. same period last year)**
- **Post A&E changes Ealing on average saw a 5% increase or 14 additional all type attendances a day (Oct'14 vs. Oct'13)**

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

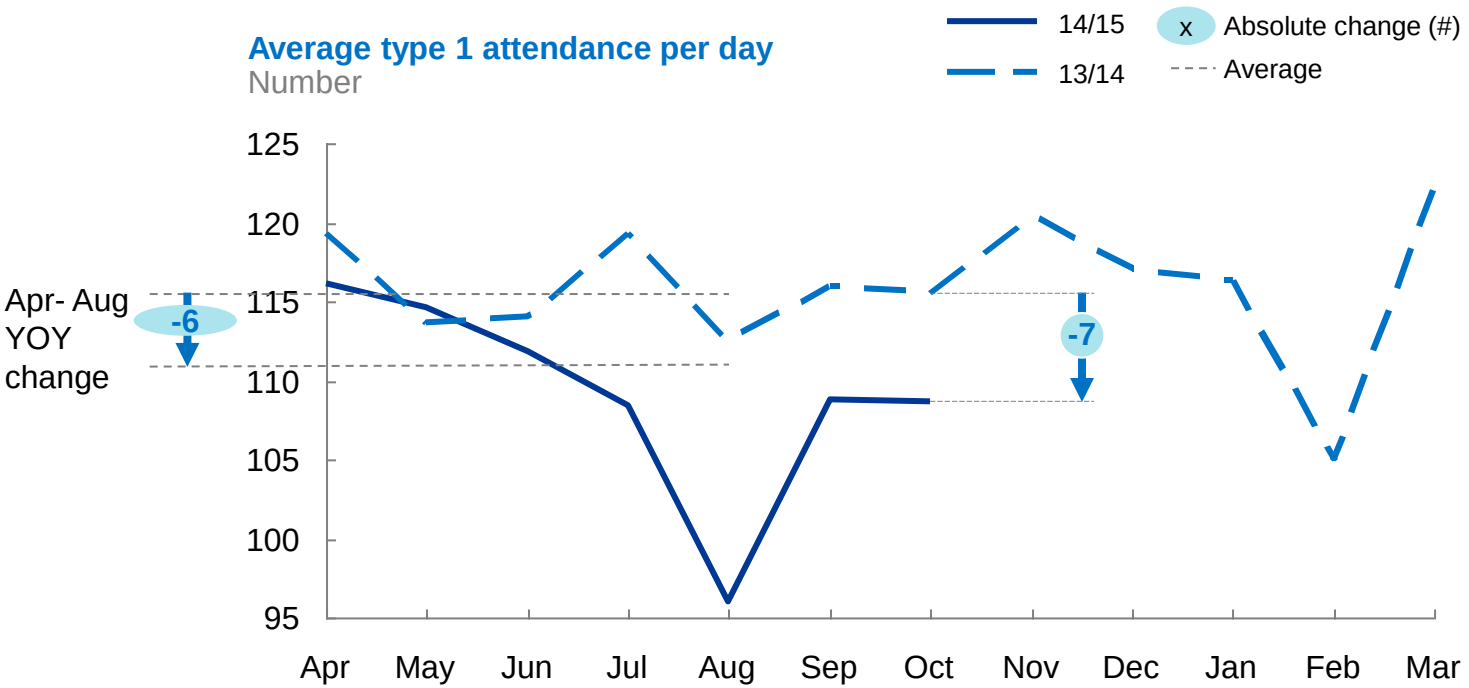
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

Ealing type 1 attendance declined by 7/day in Oct ’14 vs. Oct ’13

PRELIMINARY

Ealing average type 1 attendance per day 14/15 vs. 13/14

Number



YoY Change

Percentage	-3	1	-2	-9	-15	-6	-6
Absolute	-3	1	-2	-11	-16	-7	-7

- **Pre A&E change, the average daily type 1 attendances at Ealing dropped by 5% or 6 patients (April – Aug ’14 vs. same period last year)**
- **Post changes type 1 attendance decreased from 2013 numbers by 6% or 7 patients (Oct’14 vs. Oct’13)**

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

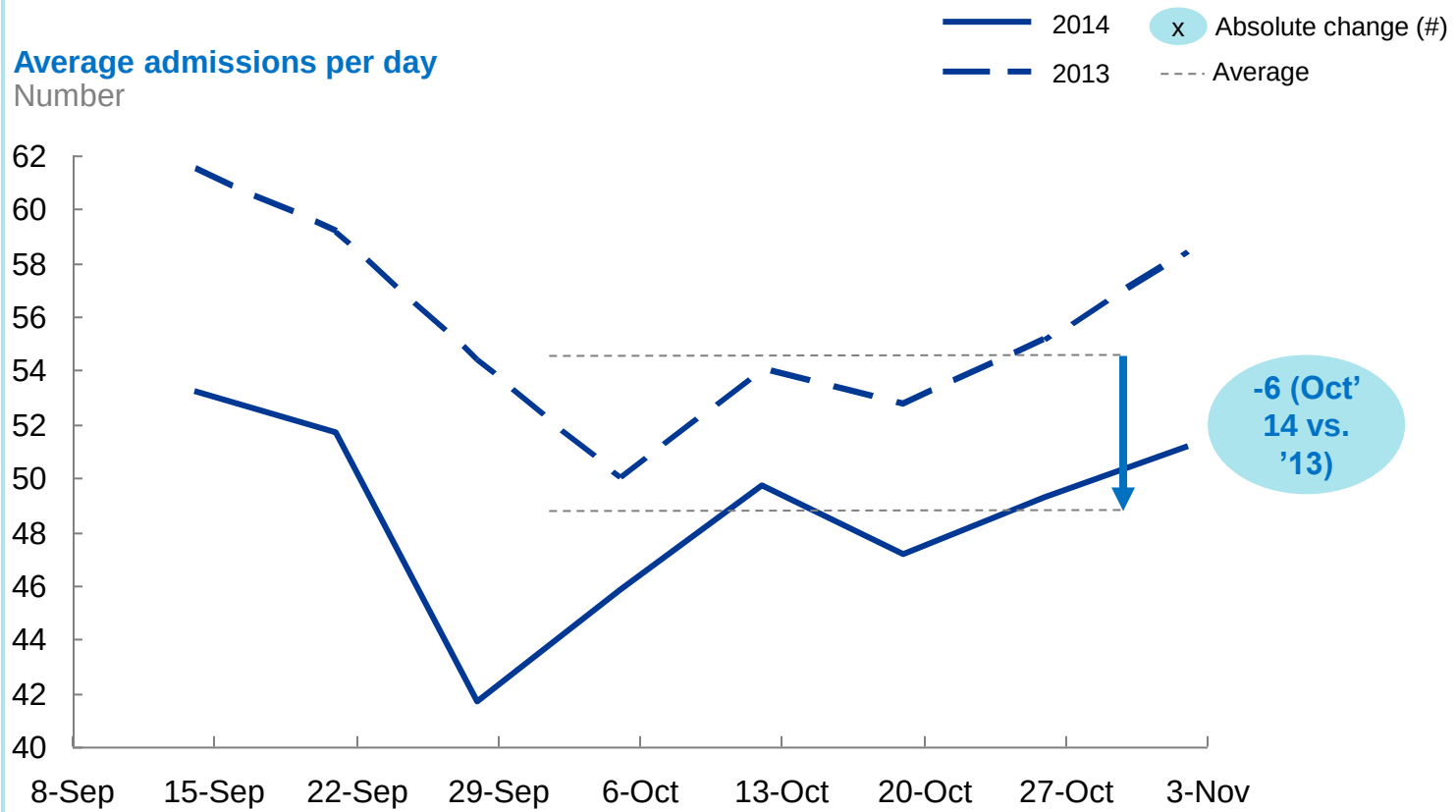
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

Ealing has seen a decline in admissions by 6 patients in the period of Oct ’13 vs. same period last year

PRELIMINARY

Ealing average admissions per day 14/15 vs. 13/14 (10 Sept – 31 Oct)

Number for week ending



- Admissions have increased by 15% OR 8 patients post the A&E changes (Oct ’14 vs. Oct ’13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

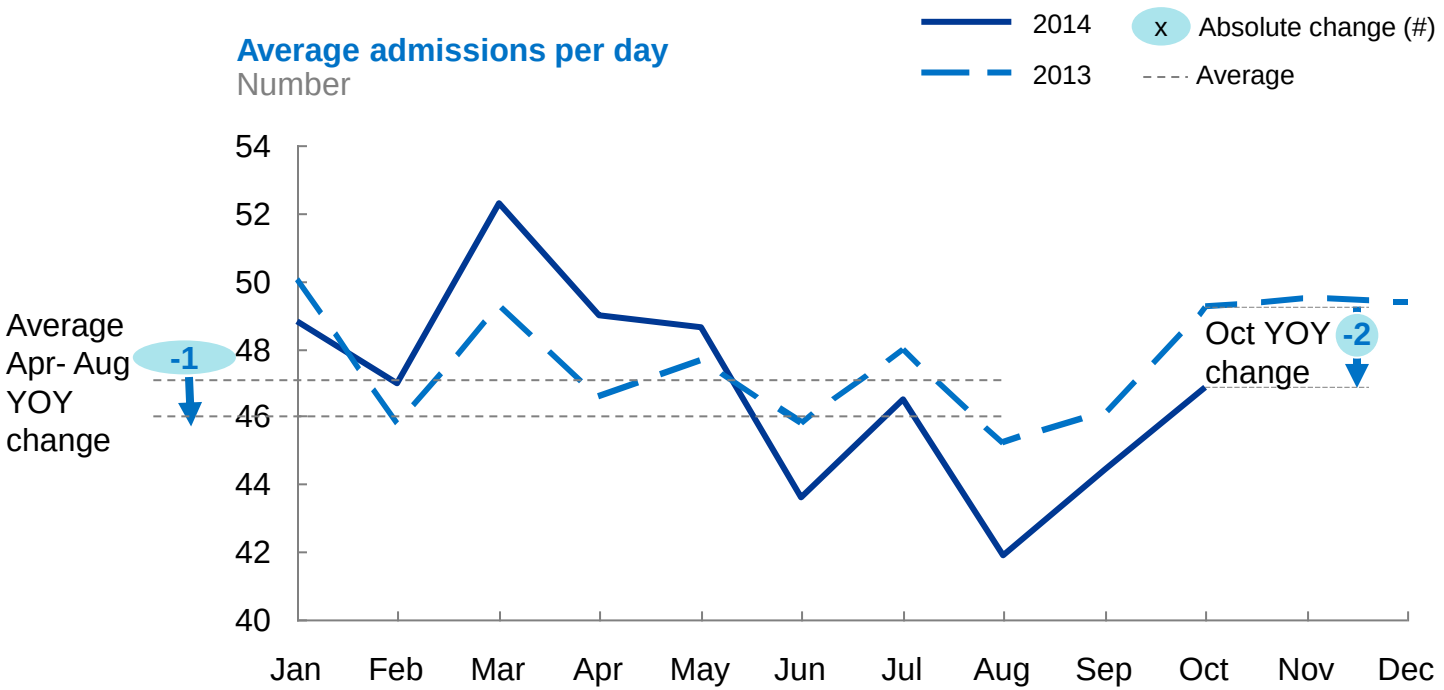
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

Ealing has seen a reduction in ED conveyances in October 2014 vs prior year

PRELIMINARY

Ealing's ED LAS conveyances per day 2014 vs 2013

Number



- Total conveyances have trended below 2013 since June

YoY Change

Percentage	-3	3	6	5	2	-5	-3	-7	-4	-5
Absolute	-1	1	3	2	1	-2	-1	-3	-2	-2

NOTE: Analysis done by A&E team

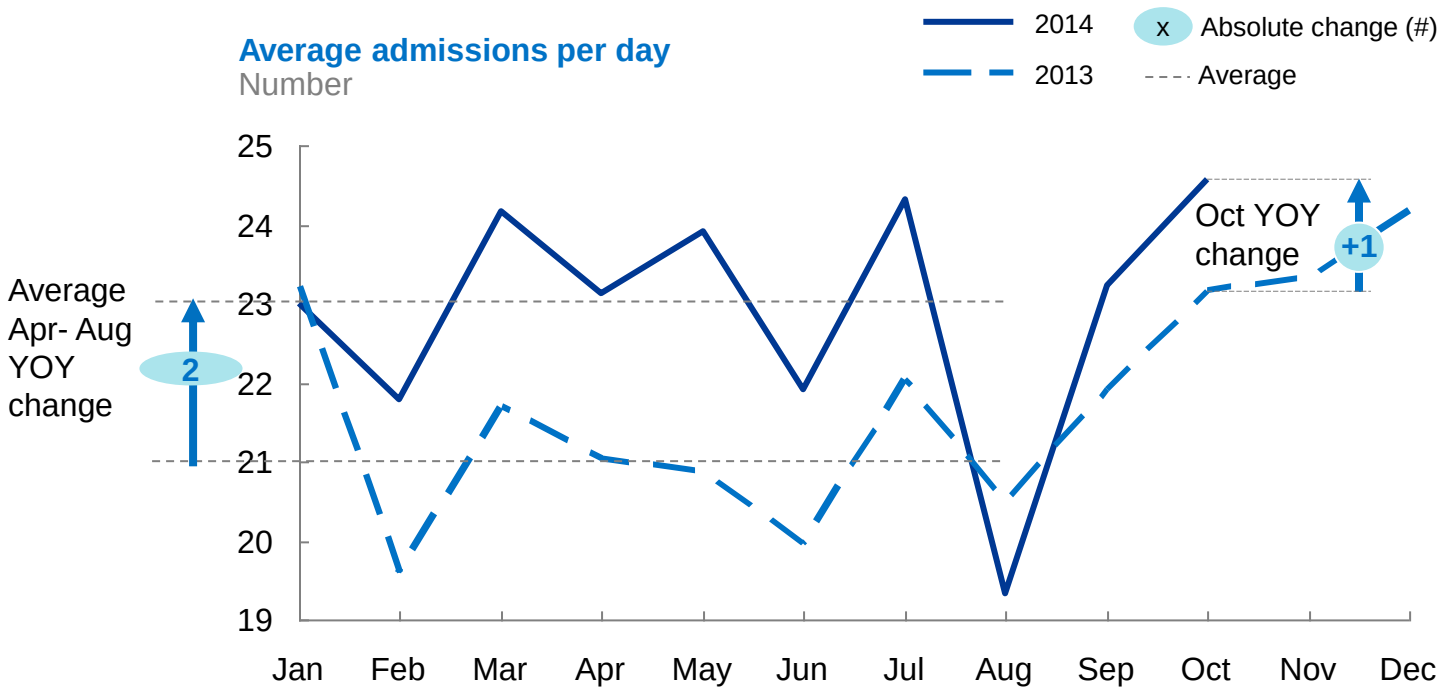
SOURCE: LAS Data

Category A conveyances in Ealing have been trending above prior year

PRELIMINARY

Ealing's LAS Category A conveyances per day 2014 vs 2013

Number



- 2014 has been considerably above 2013 bar a fall in August
- October 2014 maintains this trend and is 6% ahead of prior year

YoY Change

Percentage	-1	11	11	10	15	10	10	-6	6	6
Absolute	0	2	2	2	3	2	2	-1	1	1

NOTE: Analysis done by A&E team

SOURCE: LAS Data

Contents

Overall Analysis for St Mary's

Modelling

1. Process involved three models: The two SaHF models (end-state and transition) and the ICHT's site specific Trust model (modeled attendances, admissions and capacity)
2. SAHF modelling assumed 8 per day CMH/HH admissions would be redirected to SMH
3. The SMH capacity model assumed that 13 additional admissions per day would occur. The Trust planned to add 15 beds to manage the additional demand from HH/CMH. These were in addition to the planned 20 winter support beds.
4. The Trust assumed that additional admissions would have an ALOS of 1.1 days at St Mary's based existing LOS of Ward B1 at HH and assuming early transfers to HH and increased ambulatory care initiatives

Reality

1. SMH's A&E 4 hr performance has gone down significantly from 97% to 91% from Oct '13 to Oct'14 though has returned to 95% in March
   - Type 1 attendance declined by 20 per day against plan increases (SaHF +24 per day, Trust +40 per day although in part this is due to changes to the UCC which mean fewer attendances are classified as Type 1
   - Admissions have increased by 9 per day (Oct-Dec 13 vs Oct-Dec 14)
   - Acuity of patients coming in through ambulances has increased, with Category A arrivals seeing a 35% increase in Oct '14 vs. Oct '13
   - Distribution of LAS conveyances is in line with the SaHF time travel analysis
2. St Mary's added 15 beds offsetting 11 beds at HH that were converted to trolleys
3. Ambulatory care volumes increased at St Mary's (from 44 per week April-Sept to 84 per week in January and February) or by approximately 6 per day. Ward transfers from St Mary's to HH increased from approximately 3 per day (Jun/Jul/Aug) to approximately 6 per day (Oct-January). These changes appear to have offset the increased admissions at St Mary's
4. Non-elective ALOS at St Mary's increased from 4.8 days (May-Aug) to 5.2 days (Sep-Dec) unrelated to SAHF changes and due to repatriation delays, flow issues and some delayed discharge
5. The increase ALOS overall for non-electives raised the bed requirement at St Mary's which in turn led to flow problems within the hospital and increased A&E wait times. A further 12 beds opened subsequently in January.

Governance and assurance

1. The SMH capacity plan and assumptions were approved internally by the ICHT Executive Committee (19 May 2014) and shared with the Trust Board (28 May 2014)
2. Capacity plan and assumptions were shared with the SaHF Programme Board, NHSE and the TDA (1 July 2014) and H&F CCG Governing Body (22 July 2014).

Non-elective admissions at St Mary's have increased in line with SaHF plan and are below Trust plan whilst acuity and LOS is higher than Trust plan

Assumptions and changes in activity, Oct-Dec 2014 vs. Oct-Dec 2013

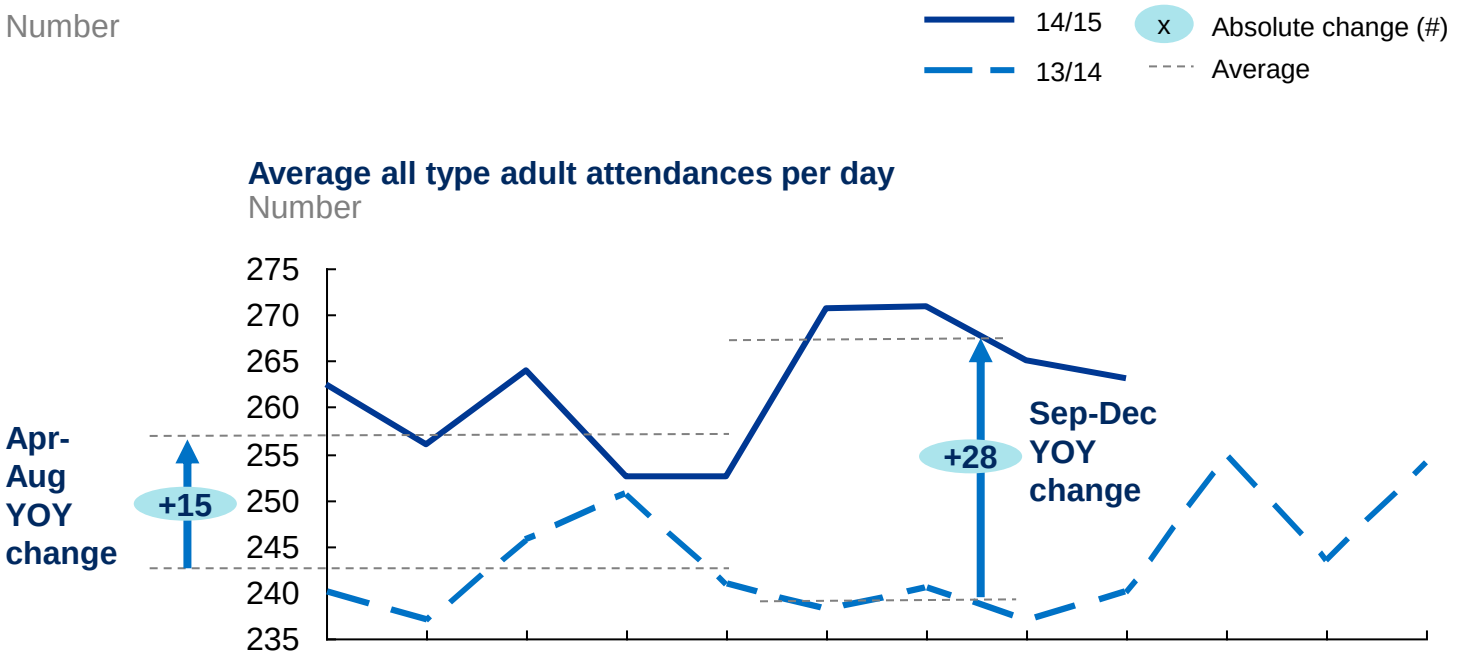
	Modelling			
	SaHF	Trust	Actual	Comments (actual versus model)
▪ 4 hr performance	N/A	95%	86.9%	▪ Performance has fell n from 93.6% in Oct'13 to 86.9% in Oct '14
Demand (St Marys)				
▪ Daily all type attendances	N/A	+60	+28	▪ Type-1 attendance decline is misleading. All UCC patients are coded as Type 3, and longer UCC opening hours funded by winter monies means that more patients are now using UCC . This has caused Type 1 coding to decrease despite overall rise in all-type attendances ▪ Daily non-elective admissions have increased by 8 vs. SaHF plan of increase of 8 and trust plan increase of 13
▪ Daily type 1 attendances	+24	+40	-20	
▪ Daily non-elective Admissions	+8	+13	+8	
Capacity				
▪ Non-elective overnight beds				
– St. Mary's	N/A	+15	+15	▪ 15 beds were opened up on SMH (Lewis Lloyd Ward)[1]
– HH	N/A	-11	-11	▪ 11 bed B1 ward at HH was converted into a specialist medical assessment unit with 11 patient trolleys
▪ ALOS				
– St. Mary's	N/A	1.1	?	▪ The Trust modelled based on an expected ALOS for additional admissions of 1.1 days (the HH ALOS). Actual ALOS for the incremental patients is unknown

1 12 further beds subsequently opened on Samaritan Ward and 3 extra beds opened on Samuel Lane Ward

SOURCE: SaHF, Trust, Team analysis

St Mary's has seen an increase of 28 per day of all type adult attendances to ED during Sept-Dec '14 which appears to be a combination of underlying growth and impact of sector changes

St Mary's average all type adult attendances per day 14/15 vs. 13/14



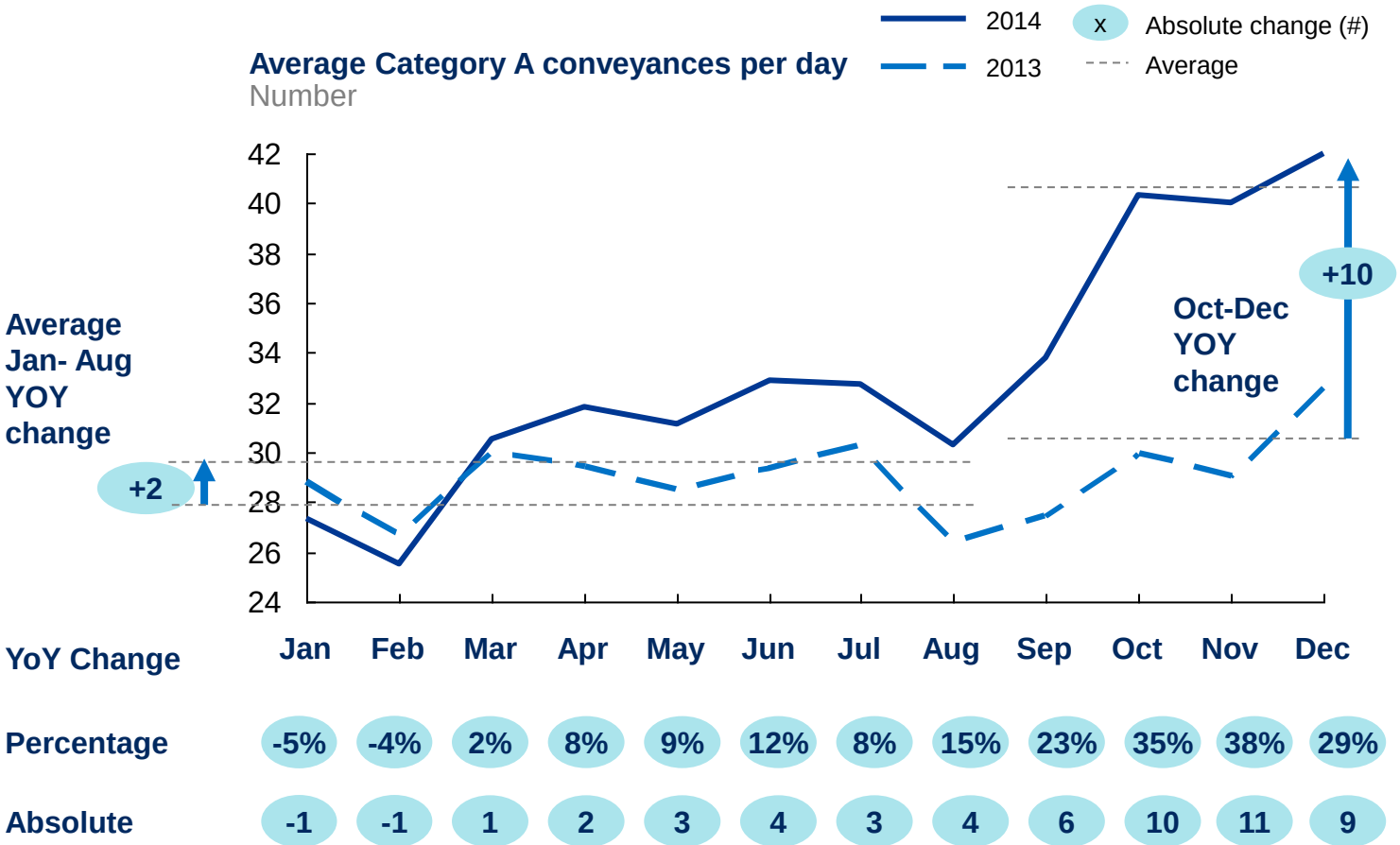
YoY Change	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	9%	8%	7%	1%	5%	14%	13%	12%	10%
Absolute	22	19	18	2	12	33	30	28	23

- Before A&E changes the average daily all type attendances at SMH were increasing at 6% (15 patients per day) April to Aug 2014 vs. same period in 2013
- After A&E changes SMH on average saw a 12% increase in all type attendances (28 patients per day) Sept-Dec 2014 vs same period in 2013

SOURCE: ICHT Symphony data, excluding Paediatrics; McKinsey Team Analysis

St Mary's 2014 category A conveyances were been higher compared to those in 2013, especially during the last quarter of 2014, which saw an increase of 33% compared to last year

St. Mary's LAS Category A conveyances per day 2014 vs. 2013



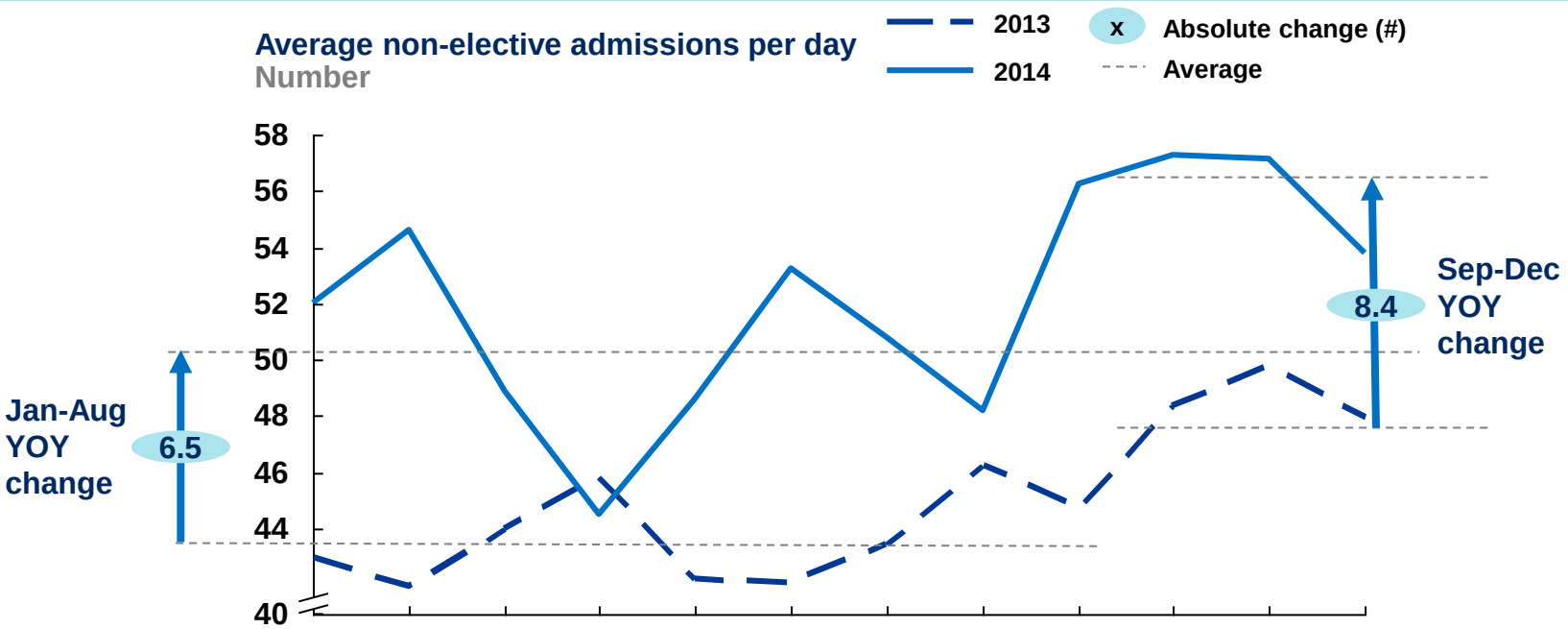
YoY Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	-5%	-4%	2%	8%	9%	12%	8%	15%	23%	35%	38%	29%
Absolute	-1	-1	1	2	3	4	3	4	6	10	11	9

- Average for Jan-Aug in 2014 has only been marginally greater than that of 2014 (6% or 2 patients)
- However the daily average from October to December of Cat A conveyances has been 33% (or 10 patients) higher than for the same period in 2013
- Despite increase in conveyances, since July there have been no 60 minute ambulance wait breaches at St Mary's

SOURCE: LAS Data
www.england.nhs.uk

Admissions of adult non-elective patients at St Mary's shows year on year growth throughout 2014 with an increase of 8 patients/day in Sep-Dec

St Mary's average adult non-elective admissions[1] per day 2014 vs. 2013



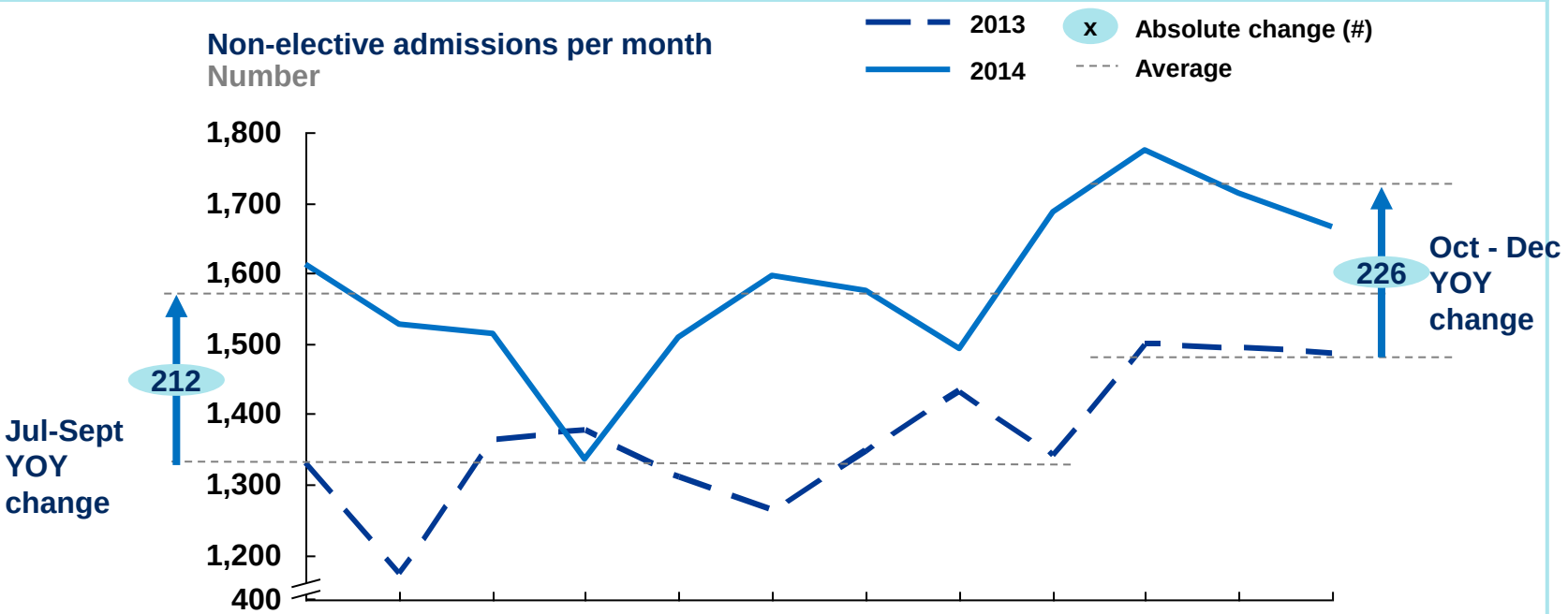
YoY Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	21%	30%	11%	-3%	15%	27%	17%	4%	26%	18%	15%	12%
Absolute	9	13	5	-1	6	11	8	2	11	9	7	6

1 Includes admission of over 18 patients only and admission types 21 to 28, 2A, 2B, 2D, 81 i.e. non elective patients (excluding maternity and electives)

SOURCE: ICHT PAS patient spell data, McKinsey Team analysis

Total adult non-elective admissions were significantly higher throughout 2014, between 11% to 26% growth, except for April and August

St Mary's adult non-elective admissions[1] per month 2014 vs. 2013



YoY Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	21%	30%	11%	-3%	15%	27%	17%	4%	26%	18%	15%	12%
Absolute	282	356	151	-39	199	337	229	62	346	277	220	181

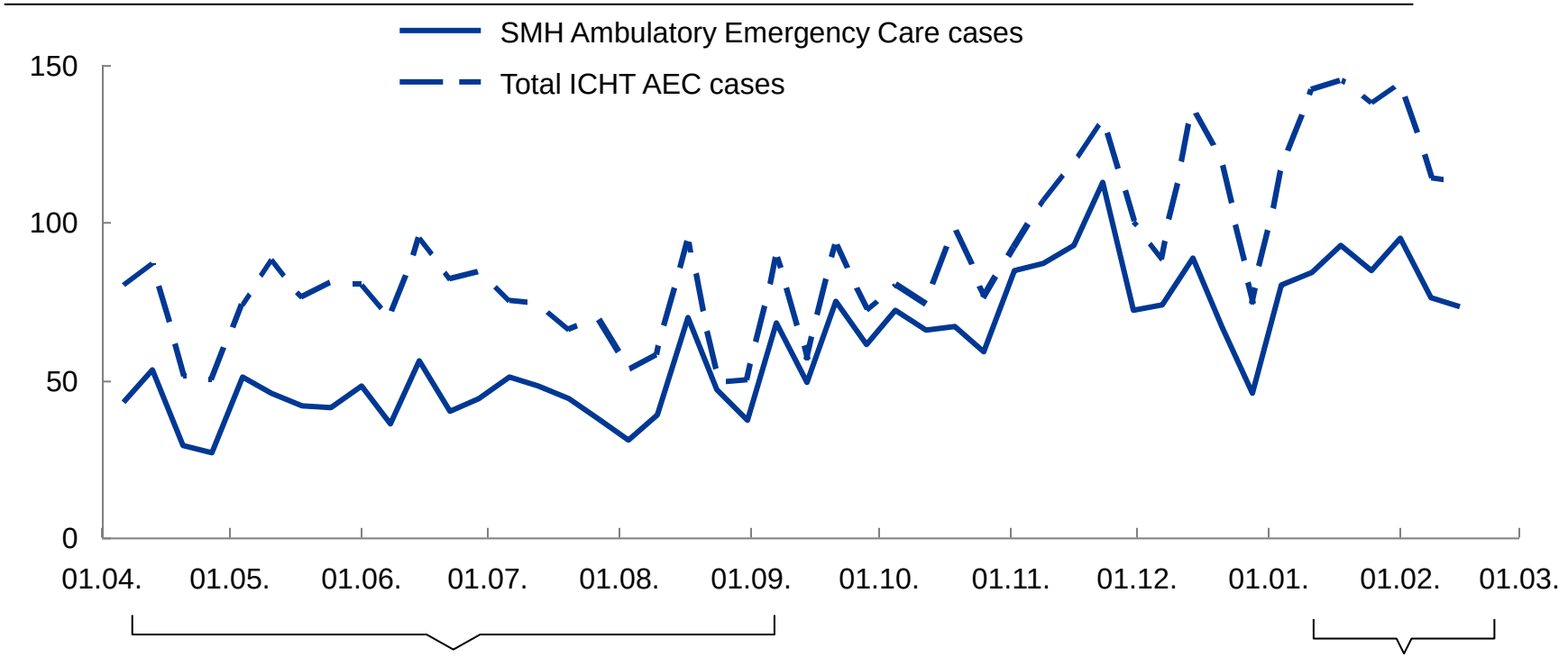
1 Includes admission of over 18 patients only and admission types 21 to 28, 2A, 2B, 2D, 81 i.e. non elective patients (excluding maternity and electives)

SOURCE: ICHT PAS patient spell data, McKinsey Team analysis

Ambulatory Emergency Care is growing across ICHT with SMH volumes up 91%, or 6 cases per day, on pre-September levels

Patients seen in ICHT Ambulatory Emergency Care (AEC) Units[1]

Weekly totals



Average SMH cases per week

44

01 Apr to 01 Sept

84

01 Jan to 15 Feb

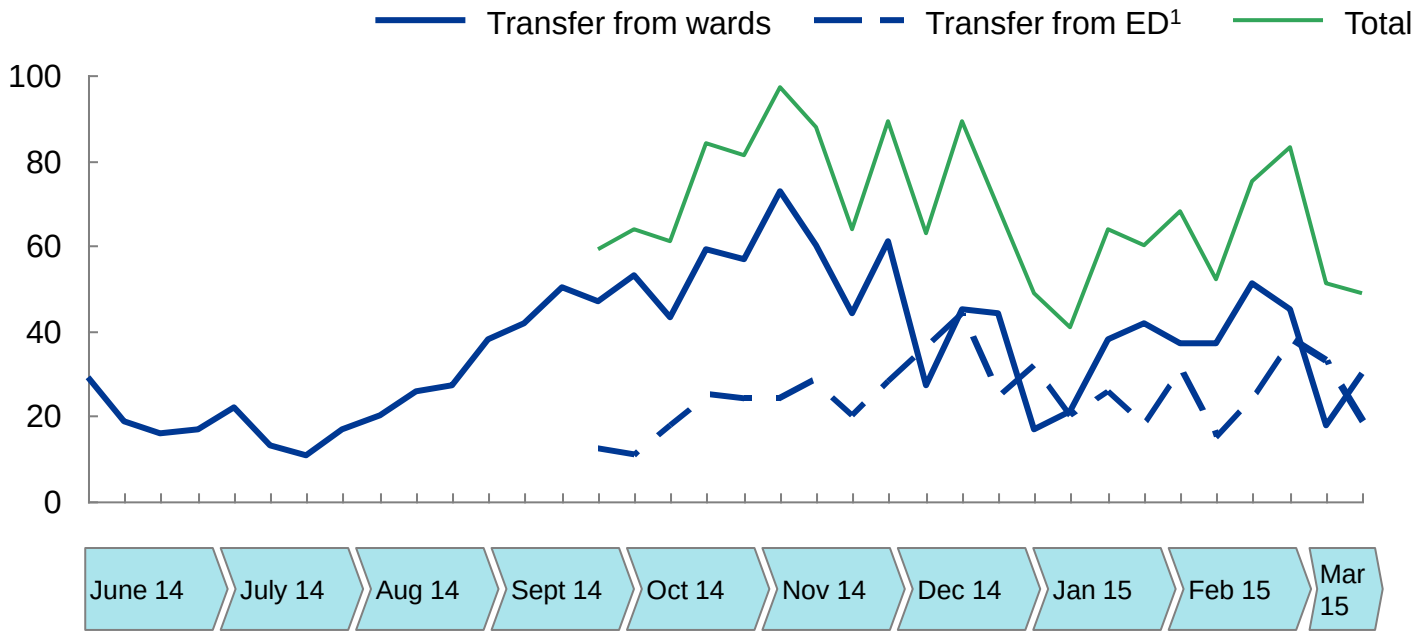
1 Approx. 7% of all cases result in admisison

SOURCE: ICHT Ambulatory Emergency Care unit data

Transfers from SMH to HH have risen from summer 2014 then fallen again since October to December peak

Transfers from the SMH wards and ED to HH

Weekly totals



Average ward transfers per day

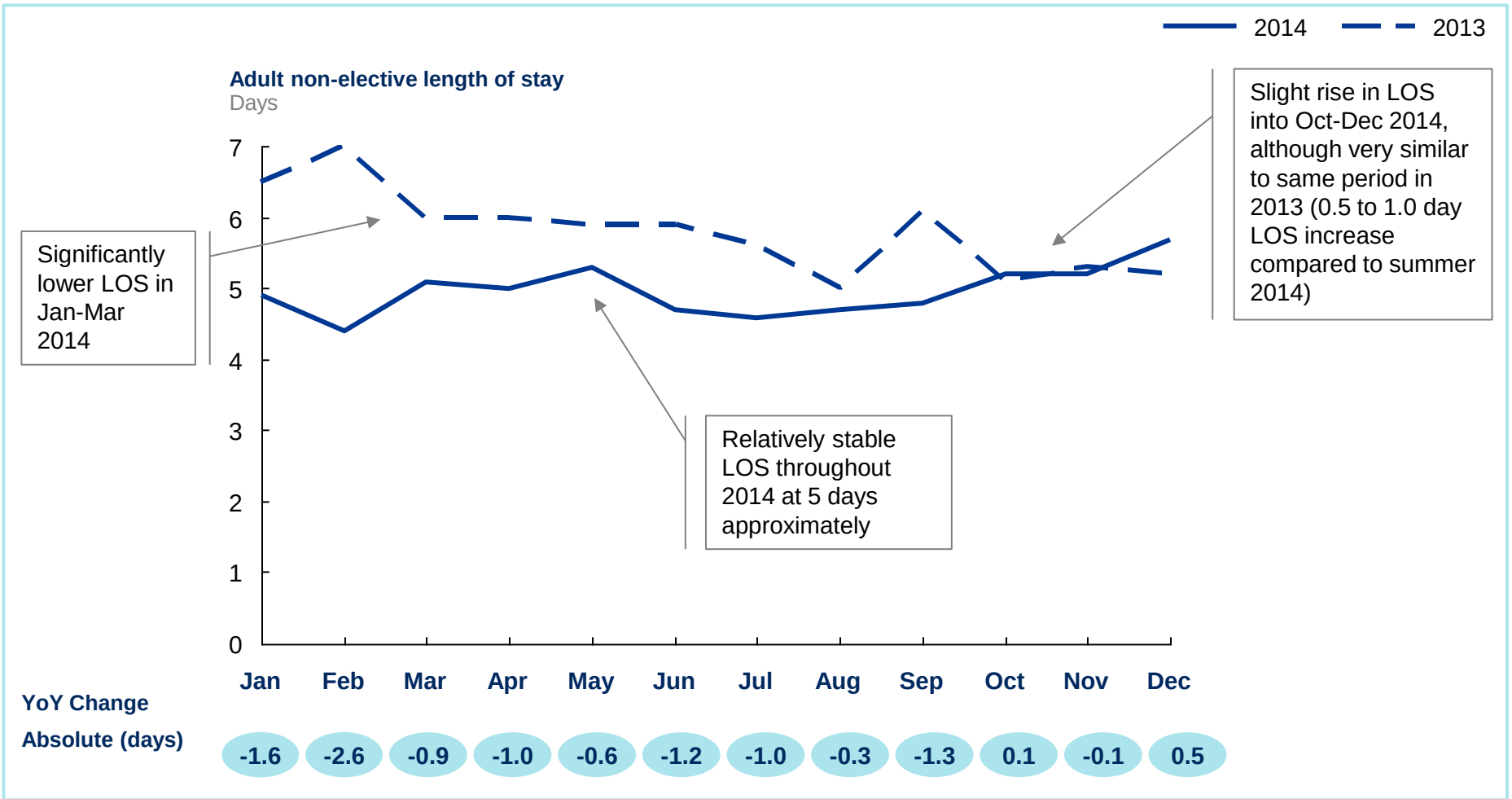
June 14	July 14	Aug 14	Sept 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15
2.9	2.3	4.0	6.9	8.3	6.9	3.8	4.9	5.4

- Ward transfers from SMH HH rose significantly during Sept-Nov 14
- Direct from ED transfers have risen from Sept to Dec 14 are sustained at slightly raised levels
- Increased transfers appears to occur in response to admission and occupancy pressure

1 Data not available before this point for direct from ED transfers

SOURCE: ICHT inter-site transfer data

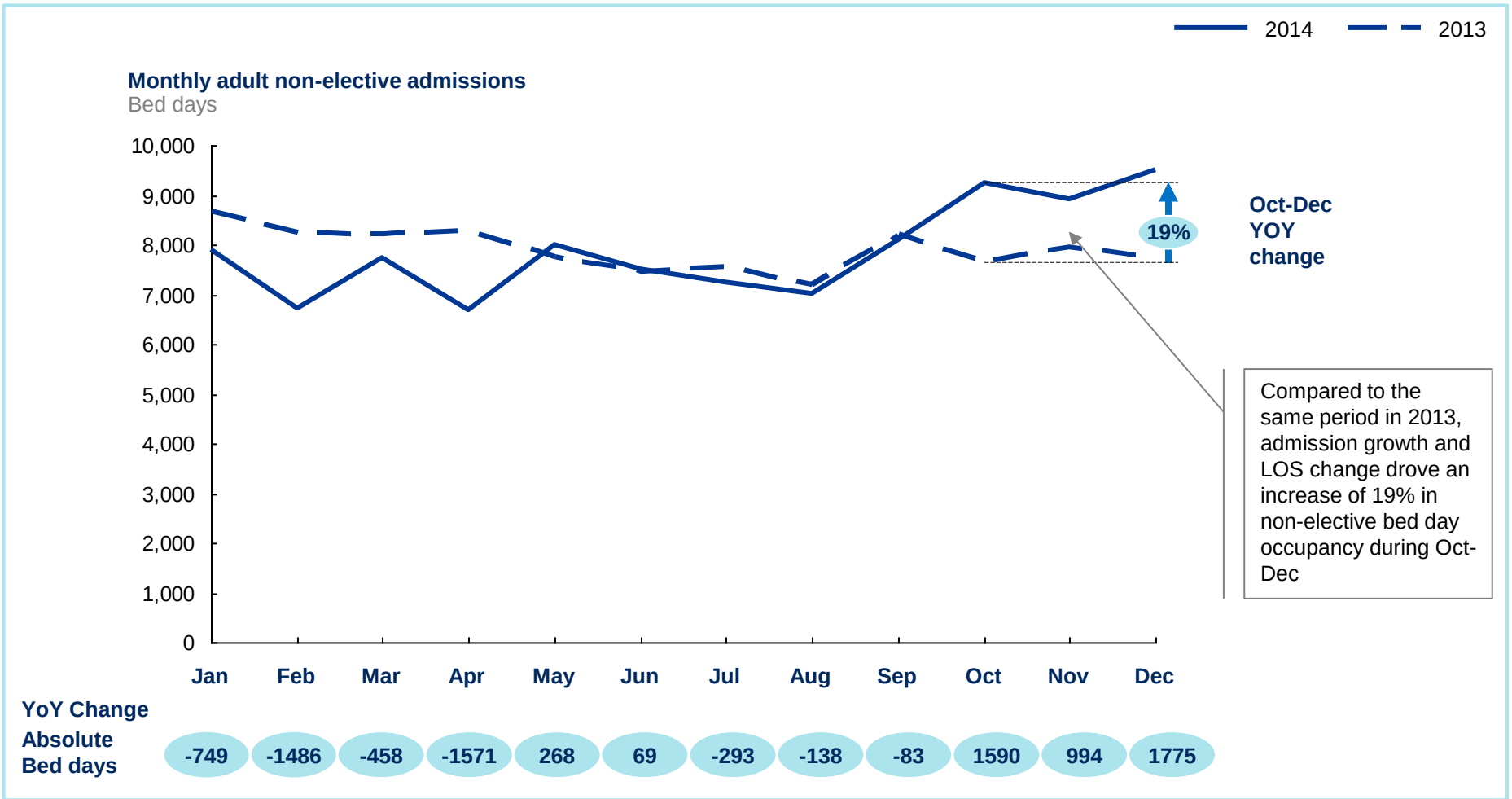
Adult non-elective average length of stay[1] for St.Mary's reduced throughout 2013 then stabilised during 2014 before a slight rise in winter



1 Average length of stay for patients discharged from St.Mary's site who were originally admitted as an adult non-elective episode, excluding any discharges of patients who have stayed over 6 months

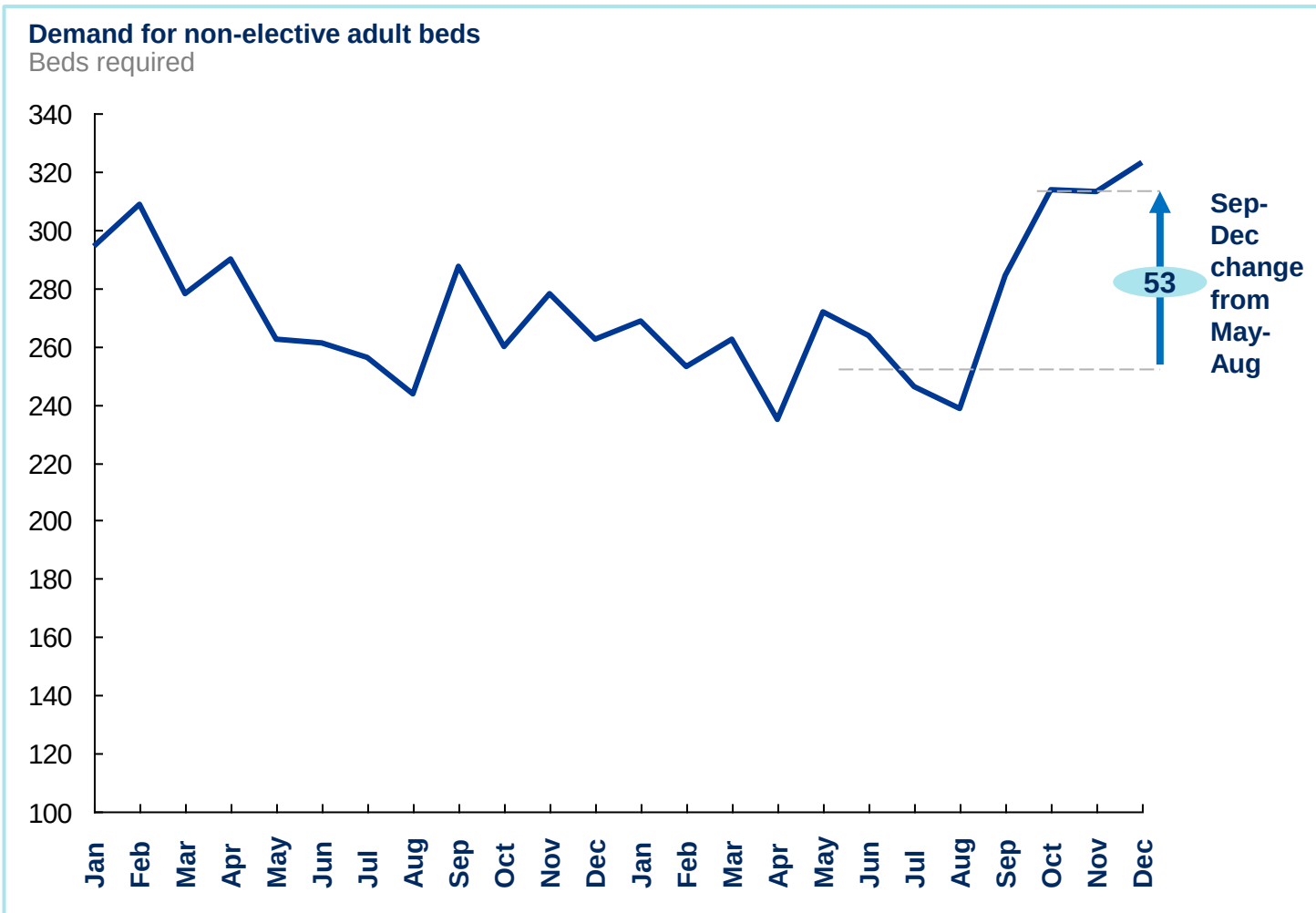
SOURCE: ICHT PAS patient spell data, McKinsey Team analysis

Combining total non-elective admissions and average LOS shows the significant rise in occupied bed days during Oct-Dec 2014



SOURCE: ICHT PAS patient spell data, McKinsey Team analysis

The increases in average non-elective LOS of 0.5-1.0 days and admission growth created an occupancy 'crunch' which was partially offset by planned transfers to HH and ambulatory care initiatives



- Compared to the May-Aug '14 average, the demand for non-elective adult **beds increased by 53** in Sep-Dec '14
- 52% of the increase is because of extra admissions and 48% is because of longer LOS

Capacity impact:

- 15 new beds opened
- AMU LOS increased beyond 24 hours
- 8 MAU trolleys converted to beds
- 12 CDU beds with increased LOS
- 3 to 10 patients regularly in ED overnight
- 12 additional beds opened in January

1 Available beds required calculated using 90% target bed occupancy

SOURCE: ICHT PAS patient spell data, McKinsey Team analysis

Staffing and capacity changes were implemented to support planned changes in patient flows from HH ED closure

St Mary's Hospital

Capacity changes

- ICHT Expected increase in admissions was 13 extra patients per day – in order to mitigate this
  - 15 extra beds were opened on Lewis Lloyd ward for inpatient care in September
  - 12 beds subsequently opened on Samaritan Ward on 5th January and 3 extra beds on Samuel Lane at the end of January
  - Based on avg LOS of 1.1 on B1 in HH, this was thought to be sufficient
  - Flow changes were planned into Ambulatory Care and direct access to HH for certain specialties
  - Additional majors cubicles in ED[1]

Staffing changes

- 6 additional consultants added to ED
- 3 additional Core Medical Trainees added to the acute medical teams at SMH and CXH
- 6 additional Band 5 nurses added to ED establishment
- 1 8A Senior Nurse for Elderly Medicine appointed to lead Lewis Lloyd ward
- 2 additional clerical posts created to enable weekend and evening working on the admission wards

Rest of trust

- Single point of Access for GP referrals was based at HH, and GP referrals from local to HH were encouraged to refer here directly
- No closure of HH capacity to act as a buffer and enable local care pathway
- Relocation of ambulatory Care at CXH and creation of additional trolley assessment space
- Developed Older Persons Rapid Assessment Clinic & Frailty Unit on 4 South ward (CXH)
- Installation of patient monitoring on C8 Ward at HH to enable management of sick level 1 patients
- Cosmetic improvements to B1 ward at HH to enable it to be opened as the Specialist Medicine Assessment Centre with direct GP access
- Additional assessment space created in the Heart Attack Centre
- 5 extra beds at CXH in February (F bay in 5 wards)

- 3 additional Band 5 nurses added to the ED establishment at CXH;

How does reality compare to our assumptions?

- Admission growth year on year has been 8 to 9 cases per day, in line with SaFH expected rise
- This, however, appears to reflect a continuation of underlying growth and then an additional increase following sector changes
- There has been an increase in acuity and variability of admission
- Whilst transfers to HH have increased significantly, there are longer than expected stays before transfer
- A greater number of patients from NWL postcodes have been admitted with greater acuity then B1
- Charing Cross has been under greater pressure than anticipated for admission

1 Resuscitation cubicle being completed

SOURCE: Trust Board papers

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- Assurance process followed for the A&E changes
- Lessons learned

Overall Analysis for Hillingdon trust

PRELIMINARY

Modelling

1. Process involved the two central models: SAHF end-state model and the SAHF transition model. Given the expected impact on Hillingdon was only marginal, trust did not separately model the impact from A&E changes.
2. SAHF modelling assumed +1 per day CMH/HH admissions would be redirected to THH

Reality

1. THH's A&E 4 hr performance has gone done from 96% to 92% from Oct '13 to Oct'14
2. The underlying demand has increased significantly driving higher admissions than planned
   - Type 1 attendances have grown by 19 per day vs. SaHF plan of +1 per day. Admissions have grown by 8 per day vs. SaHF plan of +1 per day
   - Hillingdon CCG (which had ~85% share is the admissions at THH) has seen a 7% growth in admissions
   - All type conversion rate and Category A ambulance arrivals seen to have remained stable. Blue light ambulance arrivals have increased by 30%
3. Ward capacity has increased over last year, although not linked to A&E changes
   - 59 beds were added during last 1 year. Occupancy has stayed around at ~91% level from Oct '13 to Oct '14
4. THH's ALOS reduced by 10% (from 4.2 days in Oct '13 to 3.8 days in Oct '14) and DTOCs reduced from 41 to 9 in the same period

Governance and assurance

1. The SAHF assumptions were shared with THH.
2. The trust put a transition plan was in place with increased staffing at the front end of A&E as part of the closure.

THH: Significant increase in attendance and admissions vs. minimal plan impact

Notations	Definitions
0/ -	No Trust plan in place
TBD	Not available yet
N/A	Not applicable (no assumption taken)

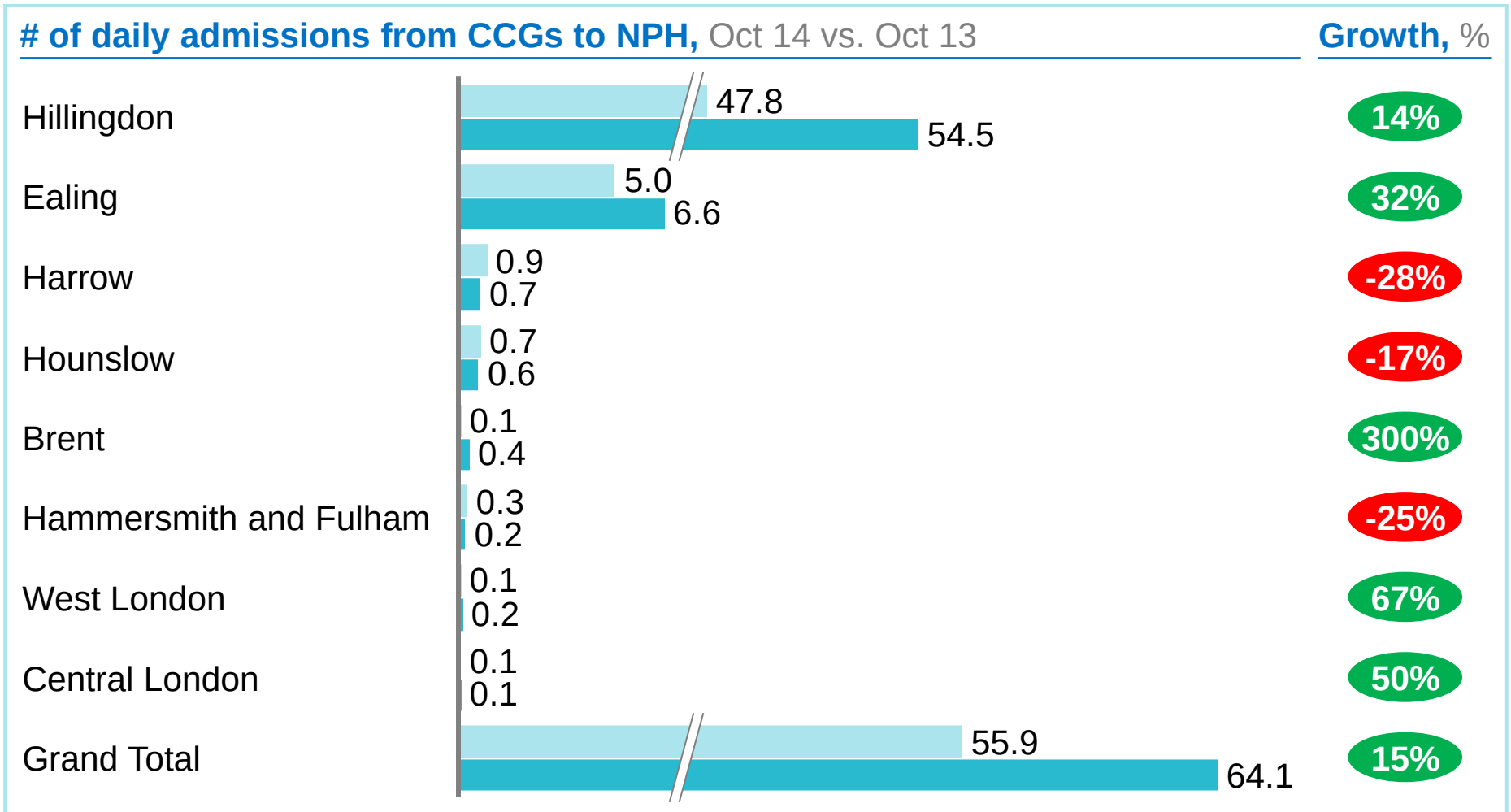
Assumptions and changes in activity, October 2014 vs. October 2013

	Modelling			
	SaHF	Trust	Actual	Comments (actual versus model)
Performance				
• 4 hr performance	N/A	N/A	91.6%	• Performance has fallen from 95.9% in Oct'13 to 91.6% in Oct '14
Demand (NPH)				
• Daily all type attendances	N/A	+0	+48	• ED activity has significantly increased with +19 increase in type 1 attendance vs. a SaHF plan of increase by 1 • Admissions have also increased by 8 vs. SaHF plan of increase by only 1
• Daily type 1 attendances	+1	+0	+19	
• Daily A&E Admissions	+1	+0	+8	
• Conversion rate (type 1)	0%	-	40%	• Conversation rate has remained at ~40% (Oct '14 vs. Oct '13)
• Conversion rate into ambulatory care[5]	N/A	-	-	• Trust did not expect significant impact of A&E changes and thus did not model any increase in activity due to this
Capacity				
• Non-elective beds	N/A	-	+59	• 59 beds opened over last 1 year
• Occupancy %	N/A	-	90.5%	• Occupancy is at almost similar level compared to Oct '13 (was at 89.7%)
Throughput				
• Hillingdon ALOS	N/A	-	3.8	• 10% reduction in ALOS from 4.2 days in Oct '13 to 3.8 days in Oct '14
• DTOC - Hospital	N/A	+0	9	• DTOCs have significantly reduced from 41 (hospital DTOC) and 67 (pathway DTOC) to 9 and 11 respectively (Oct '13 to Oct '14)
• DTOC - Pathway	N/A	+0	11	

SOURCE: SaHF, Trust, Team analysis

THH saw significant growth in admissions from its top 2 CCGs – Hillingdon and Ealing

Monitor Making the health sector work for patients | tda Trust Development Authority Quality. Delivery. Sustainability. | NHS England



Note: Total includes admissions from other CCGs as per SUS data

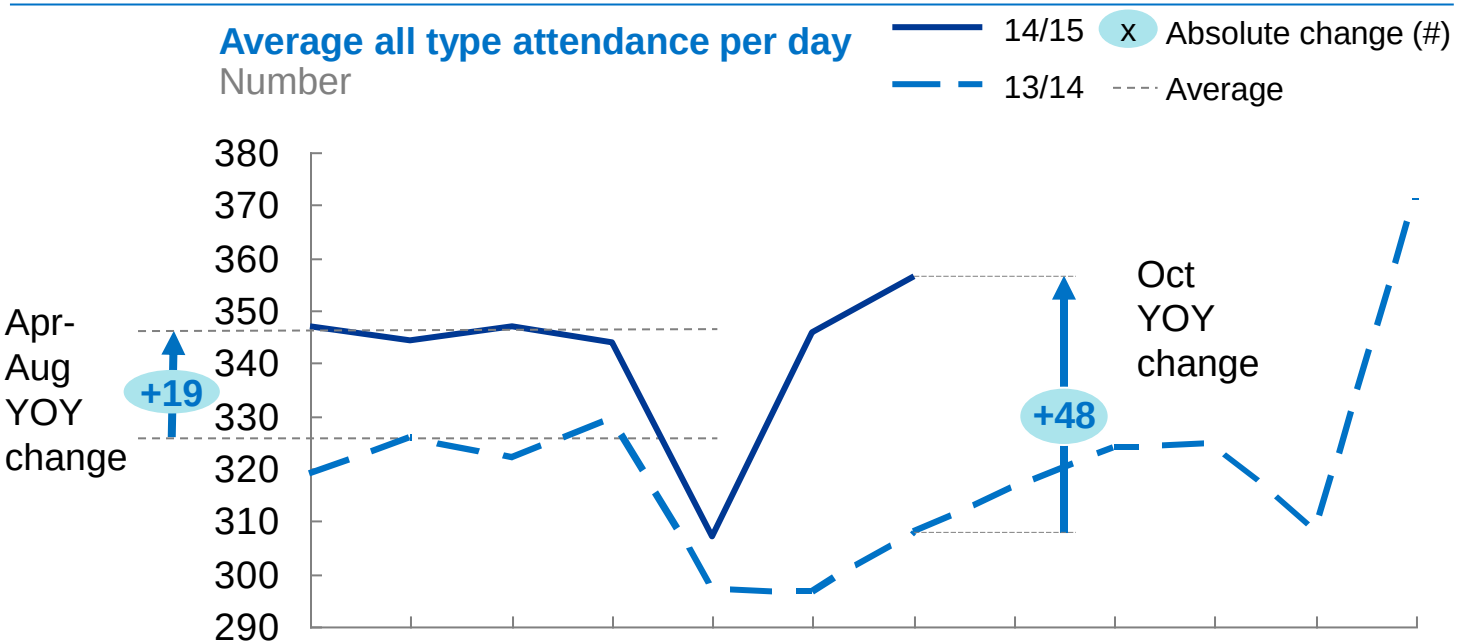
SOURCE: SUS data

THH saw an increase of 48/day all type attendances per day in Oct '14 vs. Oct '13

PRELIMINARY

Hillingdon average all type attendance per day 14/15 vs. 13/14

Number



YoY Change

	Apr	May	Jun	Jul	Aug	Sep	Oct
Percentage	9	6	8	4	3	17	16
Absolute	28	19	25	15	10	50	48

- Pre A&E changes the average daily all type attendances at THH increased 6% or 19 patients (April – Aug '14 vs. same period last year)
- Post A&E changes THH on average saw a 16% increase or 48 additional all type attendances a day (Oct'14 vs. Oct'13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

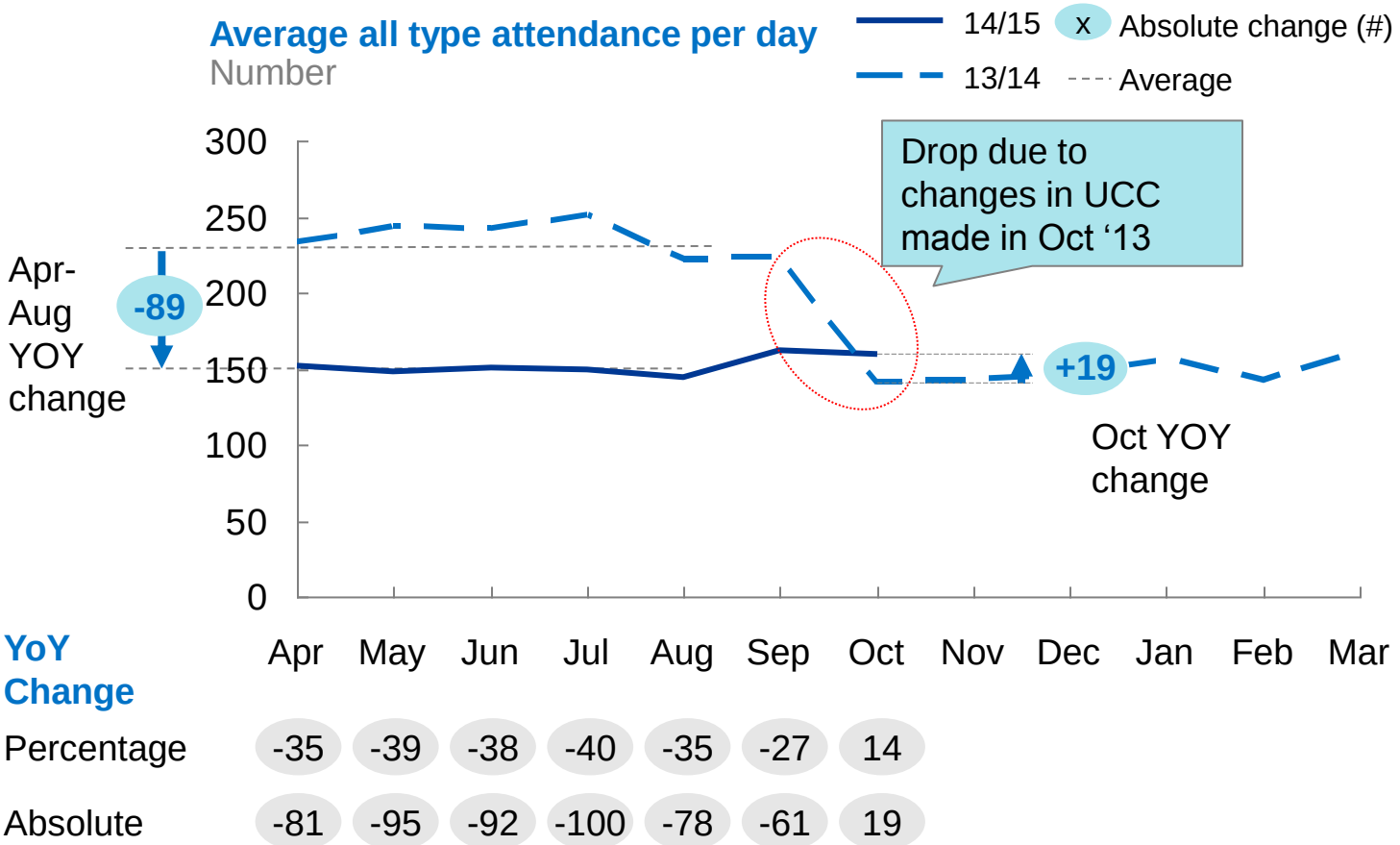
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

THH type 1 attendance increased by 19/day in Oct '14 vs. Oct '13

PRELIMINARY

Hillingdon average type 1 attendance per day 14/15 vs. 13/14

Number



YoY Change

	Apr	May	Jun	Jul	Aug	Sep	Oct
Percentage	-35	-39	-38	-40	-35	-27	14
Absolute	-81	-95	-92	-100	-78	-61	19

- Pre A&E change, the average daily type 1 attendances at THH drastically dropped by 37% or 89 patients (April – Aug '14 vs. same period last year)
- Post changes type 1 attendance increased above 2013 numbers by 14% or 19 higher attendances (Oct'14 vs. Oct'13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

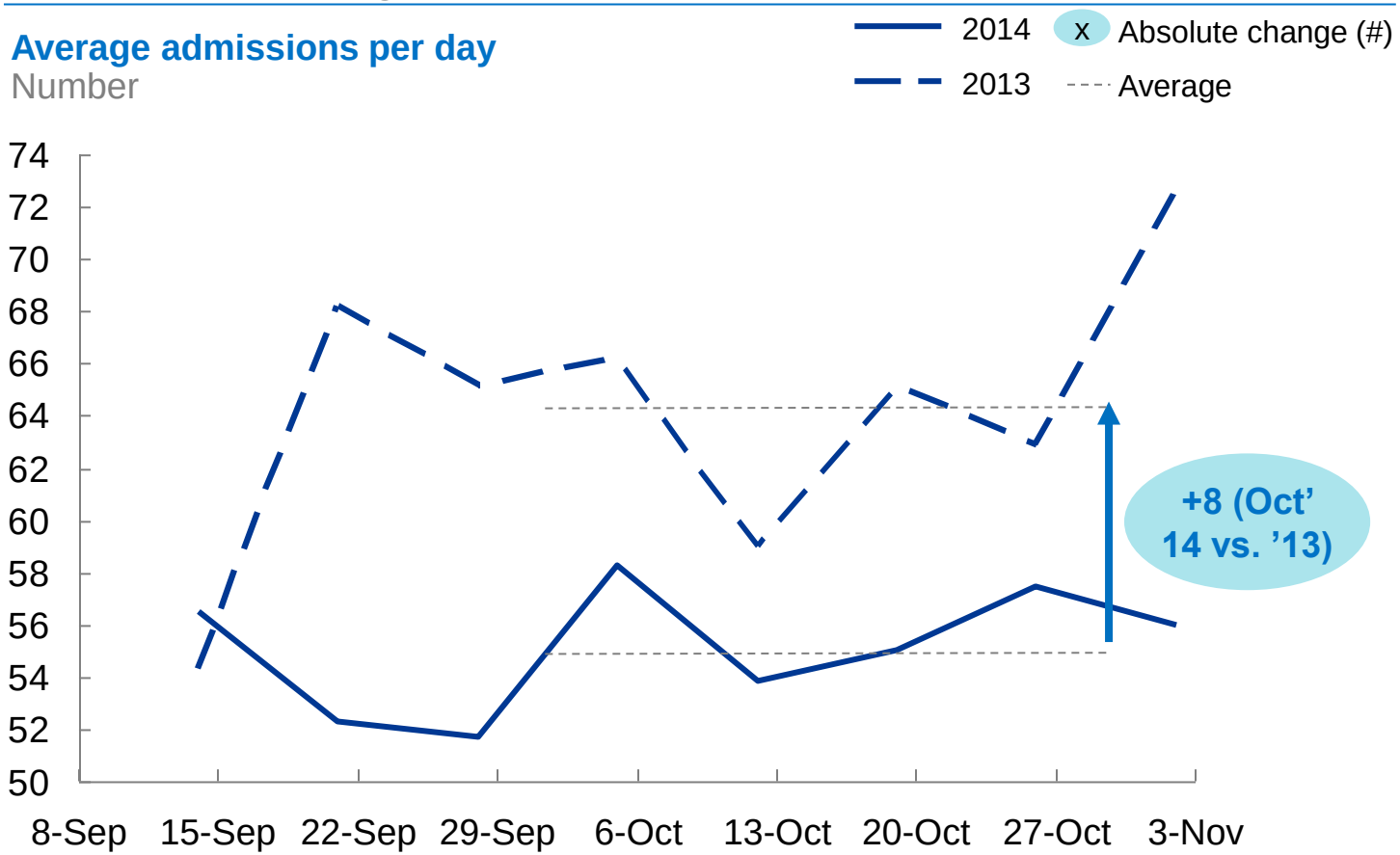
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

THH has seen increase in admissions by 8 patients in the period of Oct '13 vs. same period last year

PRELIMINARY

Hillingdon average admissions per day 14/15 vs. 13/14 (10 Sept – 31 Oct)

Number for week ending



- Admissions have increased by 15% OR 8 patients post the A&E changes (Oct '14 vs. Oct '13)

NOTE: Analysis done by A&E team, CMH A&E closed on 10 Sept, 2014

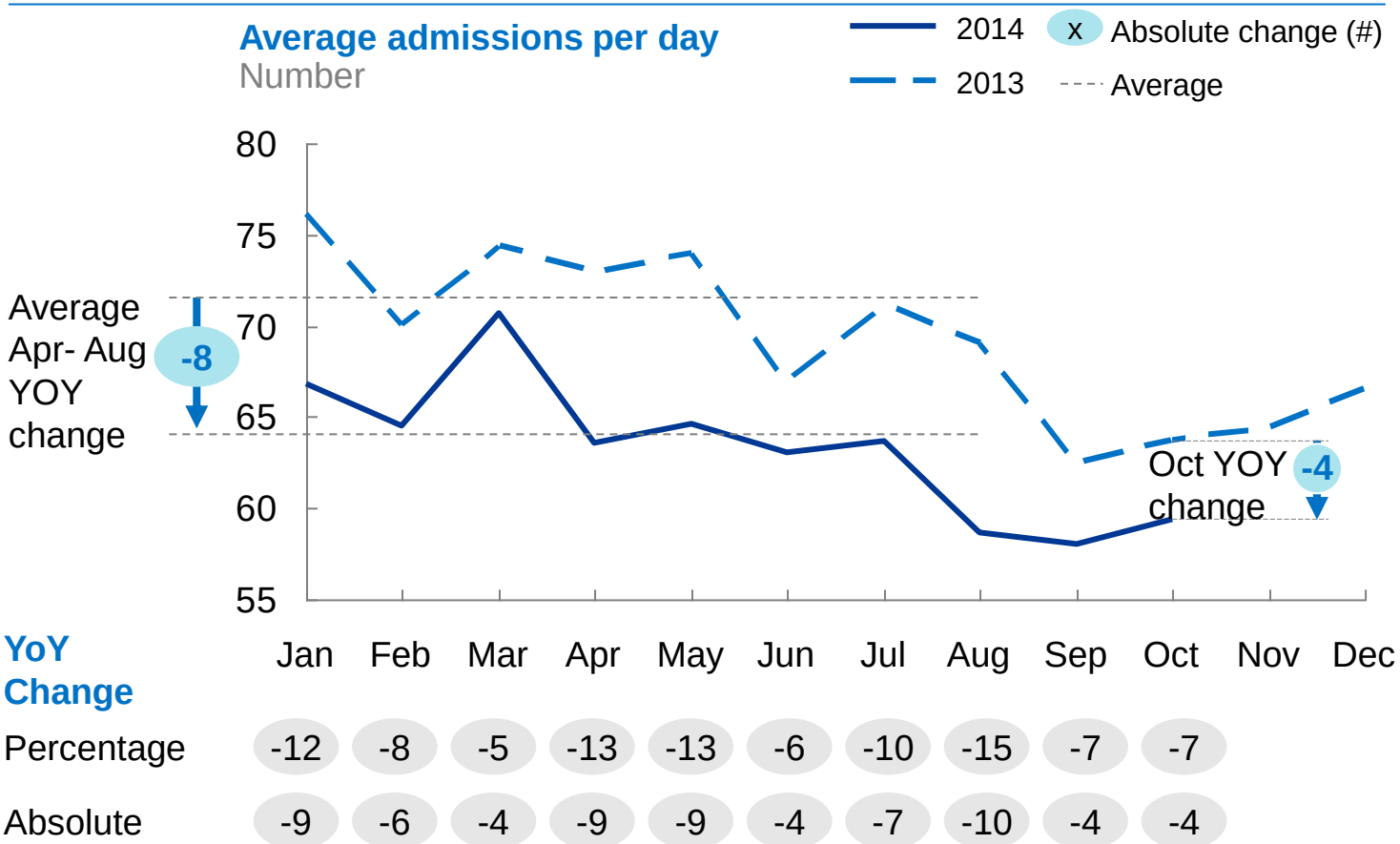
SOURCE: Daily Trust Submissions (Unvalidated) from SaHF

Daily ED conveyances to THH has decreased by 4 arrivals in 2014 vs. 2013

PRELIMINARY

Hillingdon's ED LAS conveyances per day 2014 vs 2013

Number



YoY Change

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	-12	-8	-5	-13	-13	-6	-10	-15	-7	-7		
Absolute	-9	-6	-4	-9	-9	-4	-7	-10	-4	-4		

- Daily conveyances to Hillingdon have been down in every month for 2014 vs 2013

NOTE: Analysis done by A&E team

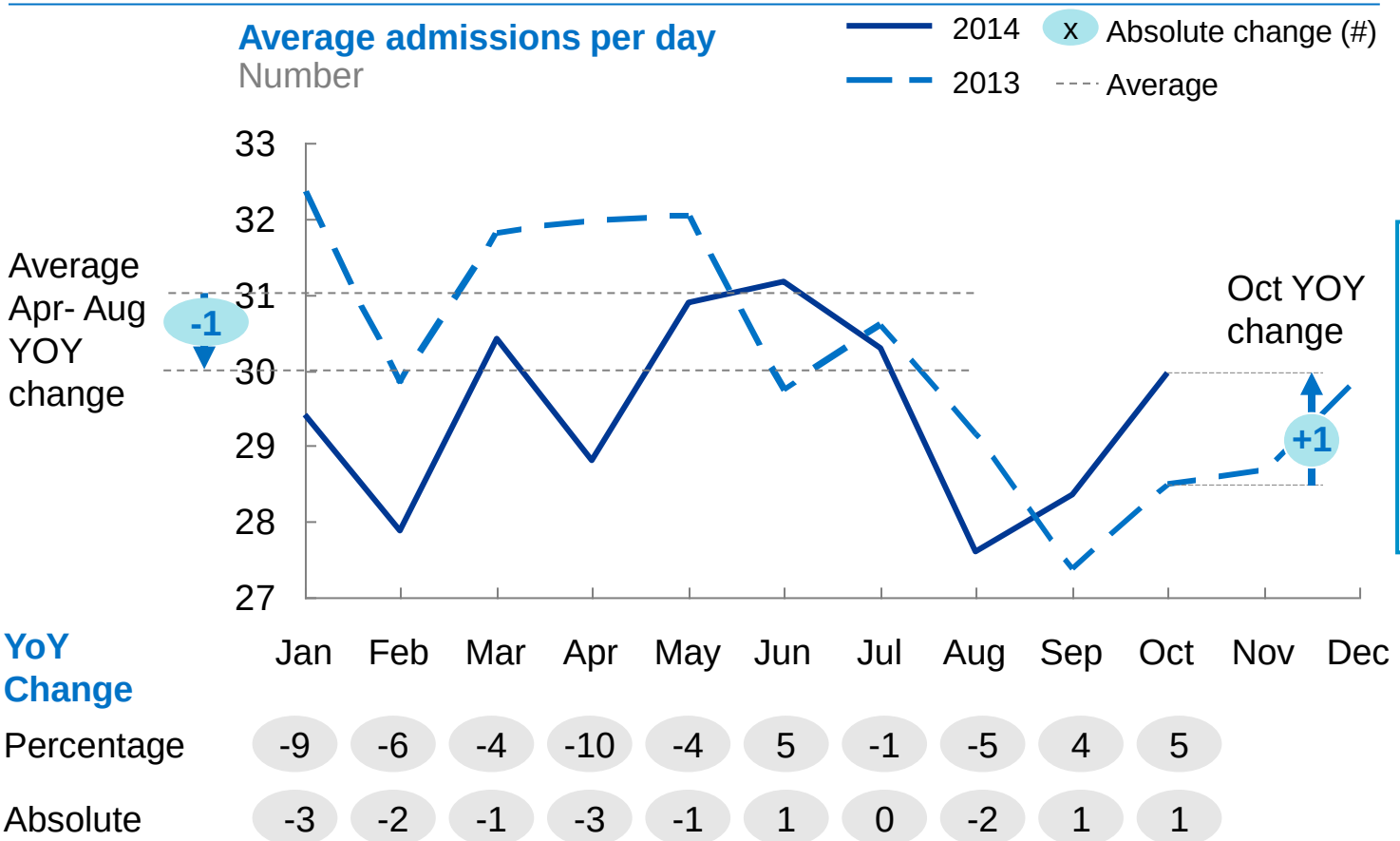
SOURCE: LAS Data

THH Cat A conveyances have been less in 2014 than 2013 although were higher in October by 1 arrival

PRELIMINARY

Hillingdon's LAS Category A conveyances per day 2014 vs 2013

Number



- 2014 was trending behind 2013 but increased in September and was 5% ahead in October

YoY Change

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage	-9	-6	-4	-10	-4	5	-1	-5	4	5		
Absolute	-3	-2	-1	-3	-1	1	0	-2	1	1		

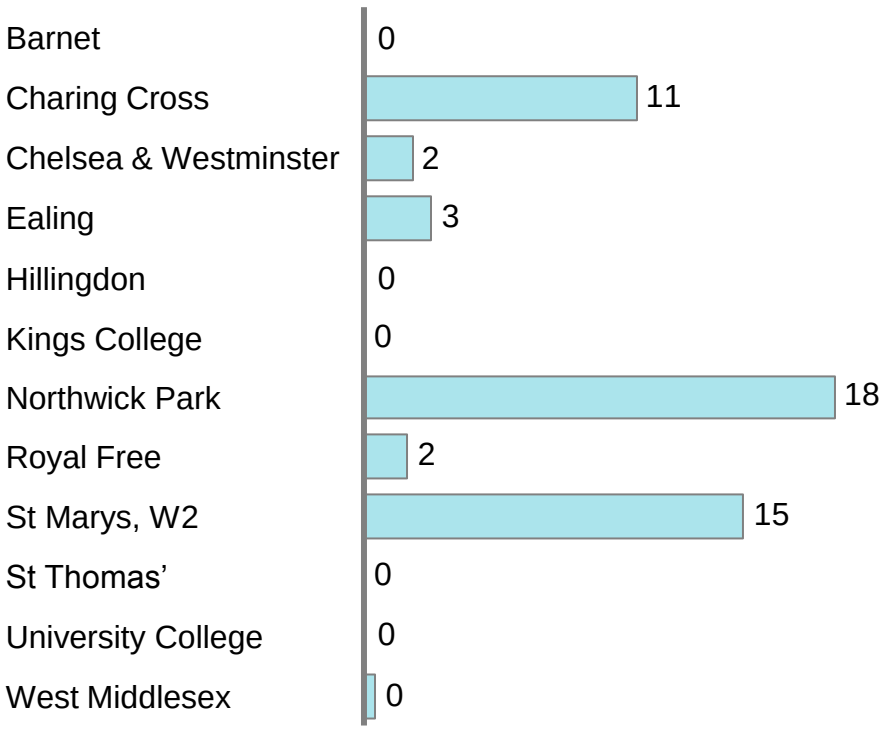
NOTE: Analysis done by A&E team

SOURCE: LAS Data

THH did not materially receive conveyances from LSOAs that previously went to CMH / HH

Distribution of conveyances in Oct-14 from major feeder LSOAs to CMH / HH

Daily conveyances



- Analysis considers LSOAs which had 5 or more conveyances in October 2013 to CMH & HH
- Chart shows conveyance distribution amongst these LSOAs in October 2014
- NPH, St. Mary's and Charing Cross received 87% of conveyances from the previously CMH / HH feeding LSOAs

SOURCE: IM&T Management Information Request LAS data

Contents

Planning and execution overview

- Planning and execution of the A&E changes involved programmes of work by NPH and by the system-wide Operations Executive
- NPH plans covered a wide range of areas, including operations, clinical quality, communications and engagement, travel, equalities, EPRR planning, system assurance and risk of non-closure, and began 9 months before the A&E changes in January 2014
  - SaHF modeled additional attendance and admissions flow into NPH due to A&E changes. NPH then modeled its capacity based on information from SaHF and assumptions on LOS and its capacity plan
  - NPH capacity and staffing plan was largely delivered. Additional beds were opened in time and daily patient transfer to CMH is being achieved.
  - However, the plan had underestimated bed requirement leading to a deficit
- The operations executive was established to ensure a safe transition. It had oversight of the ‘A&E closure project delivery boards’ at each site
  - The operations executive oversaw the “surge” process and escalations
  - It was able to propose actions, but had no authority to implement actions.

Operations executive was able to propose actions, but had no authority to implement actions

Actions proposed during the transition

Actions proposed	• Activated a plan in place to provide additional capacity at St. Mary's, THH, and Ealing, however the capacity was not available because of the increased activity at those sites • Re-directed ambulance conveyances away from NPH and SMH where possible
Impact and observations	• Approximately 1 week delay between the decision to re-route and the beginning of re-routing, potentially because it was unclear who between Trusts and LAS had authority to initiate the re-routing • Intelligent conveyancing did not appear to reduce queues at the sites due to a time lag effect in getting instructions to ambulances

NPH plans covered all key areas, and began 9 months before the A&E changes in January 2014

PRELIMINARY

Overview of the NPH plan

Trust planning process

- Planning process began in Jan'14 with PIDs approved by SaHF IPB
- The Trust worked with Commissioners to plan for 7 main areas:
  - Clinical quality
  - Operational and capacity
  - Staffing
  - Comms & engagement
  - Travel
  - Equalities
  - EPRR planning
- Trusts model the impact of the A&E closures on their sites from Jan – Jul '14
- On 1st Jul '14 trusts (along with SAHF) brief NHSE and TDA during the provider stock take session
- In May'14 Imperial and NWLHT Boards decide to plan to close A&Es on 10 September

Transition plan for managing trust operations[1]

Bed capacity

- To manage the additional admissions 34 beds required, planned addition of 22 beds by 31st Aug '14
- Remaining (12 bed) capacity to be released from the 'treat and transfer' model
- UCC at NPH has planned for the increase in activity

Staffing

To support activity transfer to NW Park A&E

- Additional nursing staff per shift in ED enabling rapid triage
- Additional ED medical shifts as a result of moving staff from CMH
- Enhanced skill mix in the Surgical assessment unit and the new Carroll ward
- Increased consultant physician and junior cover on the wards 7 days a week.

SOURCE: Presentation by NWLHT Director of Operations to Brent CCG, 23rd July '14

NPH plan was largely delivered, with beds opening as expected and staffing changes occurring

✓ Completed on time/ High effectiveness
✓ Partially completed/ Moderate effectiveness
✗ Not completed on time/ Low effectiveness

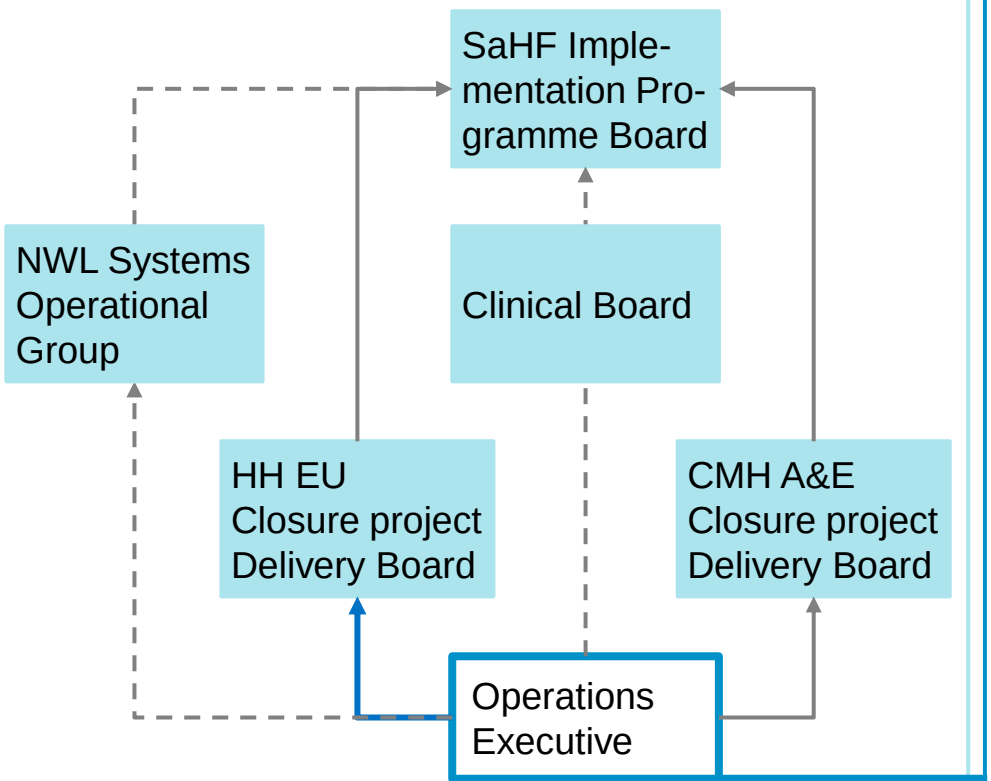
Effectiveness of plan execution

Category	Plan elements	On time execution?	Was it effective?	Comments
Bed capacity	• To manage the additional admissions 34 beds required, planned addition of 22 beds by 31st Aug '14	✓	✗	• 20 beds in place by 10 Sept. and 8 additional beds in place by Sept. end
	• Remaining (12 bed) capacity to be released from the 'treat and transfer' model	✓	✓	• 28 additional beds added by end of November
	• UCC at NPH has planned for the increase in activity	✓	✓	• Plan considered effective by Trust
Staffing	• Additional nursing staff per shift in ED enabling rapid triage	✓	✓	• Staff successfully moved across
	• Additional ED medical shifts as a result of moving staff from CMH	✓	✓	
	• Enhanced skill mix in the Surgical assessment unit and the new Carroll ward	✓	✓	• Plan considered effective by Trust
	• Increased consultant physician and junior cover on the wards 7 days a week.	✓	✓	• Partially complete, had to leave a cover for the ITU
Channelling of demand	• Increase in ambulatory care attendances	✓	✓	• Planned for 10 more attendances and received 8 more
	• Reduction in DTOCs	✗	✗	• DTOCs increased from 10 to 16

SOURCE: Presentation by NWLHT Director of Operations to Brent CCG, 23rd July '14. Interview with NPH head of performance.

The operations executive was established to ensure a safe transition and had oversight of the A&E closure project delivery board at each site

Post A&E changes



Scope

- Monitor activity, performance and patient flows to ensure a safe transition of services in relation to closures
- A&E, UCC, and LAS to be monitored as well as demand, capacity and performance metrics across sending and receiving sites in North West London as well as neighbouring sites
- Ensure the identification of emerging risks, managing safety and quality
- Ascertain whether the transitions are proceeding according to plan

Struc-ture

- Group is composed of senior representatives from SaHF and CCGs as well as operational, LAS, HH/CMH, BHH & CWHHE and other SaHF representatives

Dura-tion

- The Executive was expected to meet weekly until the end of September and the frequency of meeting anticipated to increase in the immediately following of closures

Operations executive was able to propose actions, but had no authority to implement actions

Actions proposed during the transition

Actions proposed	• Activated a plan in place to provide additional capacity at St. Mary's, THH, and Ealing, however the capacity was not added because of the increased activity at those sites • Re-directed ambulance conveyances away from NPH and SMH where possible
Impact and observations	• Approximately 1 week delay between the decision to re-route and the beginning of re-routing, potentially because it was unclear who between Trusts and LAS had authority to initiate the re-routing • Intelligent conveyancing did not reduce queues at the sites due to a time lag effect in getting instructions to ambulances

Current escalation and mitigation plans, do not seem to be effective in handling additional pressure from A&E changes

PRELIMINARY

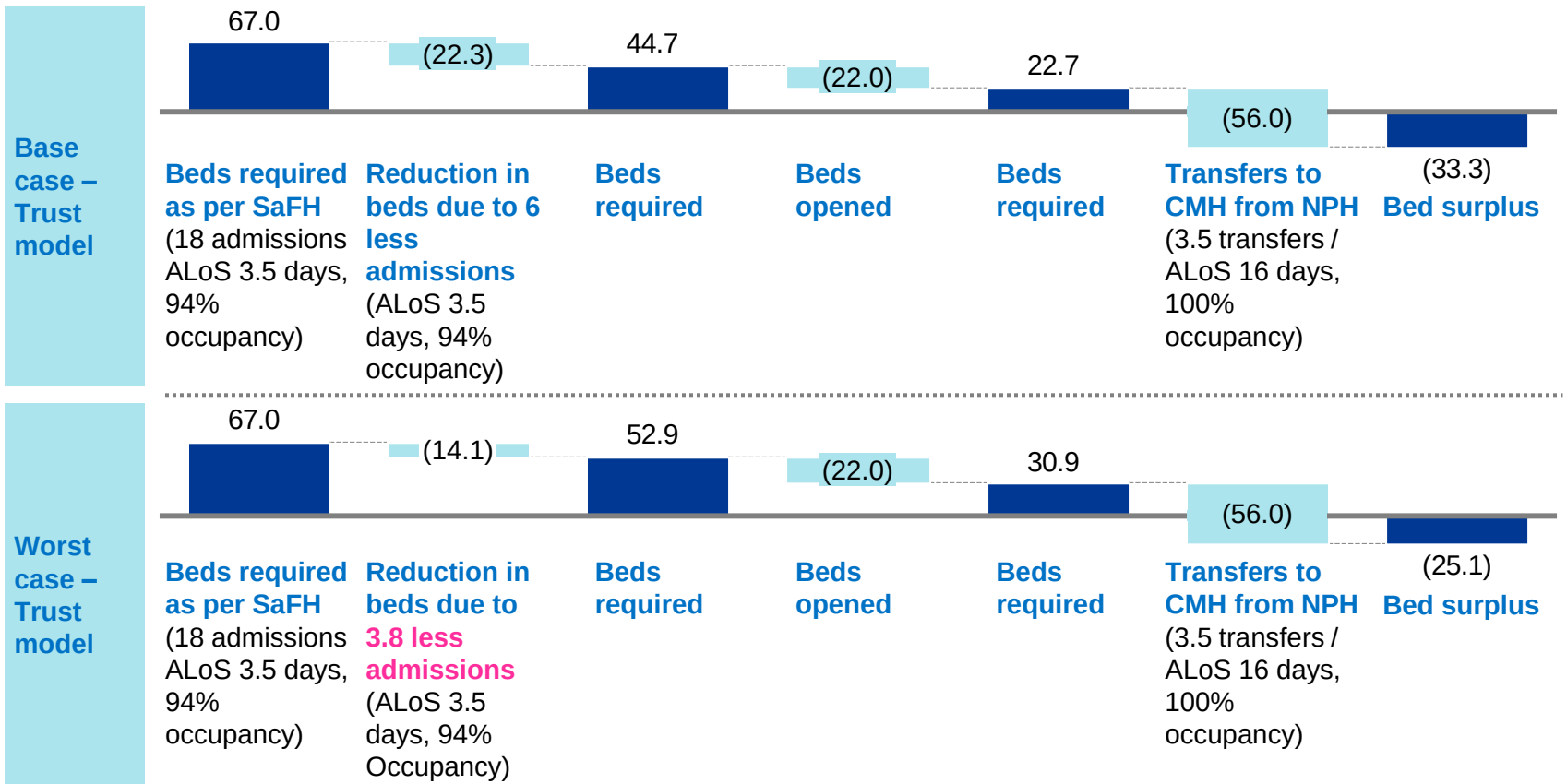
Initiative	Description	Effectiveness
1 Buffer in trust plan for A&E closures (19%)	• Trust model factored in a 19% increase in admissions from CMH/HH changes in the worst case scenario which could be absorbed given patient transfers to CMH	▪ Buffer does not seem to have taken into account increases in underlying demand and was insufficient
2 Surge plan: short-term	• Surge plans are daily monitoring and implementation plans • Highlights trigger points and escalation processes • Escalates appropriately to relevant decision-making authority	▪ A&E 4-hr underperformance (Ealing, SMH, Hillingdon) led to consistent triggers, rendering the surge plan ineffective
3 SRG plan: longer-term	• Funding approved in advance for initiatives to increase capacity and improve throughput • Significant funds outlayed (£11.8m in tranche 2) • 174 additional beds funded in 2014	▪ Unclear

SOURCE: LNW trust, SRG plans, Surge plans, Trust model, Team

1 Trust model had factored in a 19% increase in admissions in the worst case scenario which would be absorbed given patient transfers to CMH

PRELIMINARY

Base vs. worst case scenerio in the trust model, beds



- Worst case scenario in the model assumed that ~19% additional admissions i.e. ~14.2 instead of 12 per day
- The additional bed demand would be absorbed by the trust due to long stay patient transfers to CMH

SOURCE: LNWH model, Team

2 Surge escalation process led to two main actions

Illustration of surge process

Level	Triggers	Escalation Process
Red	• A&E 95% all types not achieved • A&E **type 1** 90% for 2 days or **below 90%** for **1 day** • 3-5 x 60min black breaches • Infection control (2 wards infected)	• **CSU Surge Monitoring** • Review performance and actions agreed • Check LAS IC • Review plans and checklist • Update virtual control room • Cascade
Black (more severe)	• A&E 95% all types not achieved; • **A&E type 1 below 90% for 2+ days** • 5+ x 60min black breaches • Infection control (2 wards infected)	

CCG escalation → Cluster escalation → London escalation

- Surge plans
  - Were owned by the operations executive
  - segment severity according to colour-coded levels and have clear trigger points dictate severity level
  - Outlined an escalation process but not a set of specific actions based on those triggers
- The main actions that resulted from the surge escalation process were
  - Application of “intelligent conveyancing” protocol for the management of LAS conveyances away from NPH
  - An attempt to utilise identified potential capacity at St. Mary’s, Ealing, and THH that was unsuccessful because beds were used up

SOURCE: NPH Surge plans

3 SRG plans provide for 174 beds in the next 4 months

NOT EXHAUSTIVE

Benefit	SRG	Trust	Initiative	Beds added	Cost	Start date	Status
Capacity	2	Brent & Harrow	Additional Step down beds (12 beds)	12 beds	£1.4m	1st December 2014	-
	2	Brent & Harrow	Additional specialist RRU neuro-rehab beds (increase capacity of 1)	1 bed	£1.5m	1st November 2014	-
	2	Brent & Harrow	Unfunded support for A&E	-	£4.2m	1st October 2014	-
	2	Hillingdon	Additional NEL bed capacity (60 beds)	60 beds	£750k	5th January 2015	-
	2	Ealing	EHT ICO – Winter escalation ward (23 extra beds)	23 beds	£770k	1st November 2014	Completed
	2	Hounslow	Escalation bed capacity (increase from 34 to 60 acute patient beds)	26 beds	£582k	1st October 2014	-
	2	Hounslow	Additional senior decision making to support medical take	-	£69k	1st October 2014	-
	1	Brent & Harrow	20 step down beds in ward	20 beds	£419k	-	-
	1	Brent & Harrow	3 neuro rehab beds	3 beds	£165k	-	-
	1	Brent & Harrow	29 non-acute beds	29 beds	£916k	-	-
	1	n/a	Nursing home beds to support outflow from NPH	-	£360k	-	Completed
	1	n/a	Social worker attached to STARRS to work directly in AE	-	£40k	-	-
	1	Brent & Harrow	Reablement beds in Harrow residential dementia care	-	£105k	-	-
	1	n/a	Additional capacity in Home Care market	-	£145k	-	-
				~174 beds			
Through-put	2	Brent & Harrow	Team review of AE pathway	-	£491k	1st November 2014	On track
	2	Brent & Harrow	Continuing care assessment	-	£60k	1st October 2014	-
	2	Brent & Harrow	Additional neuro-rehab beds	-	£1.2m	1st October 2014	-
	2	Hillingdon	Additional ED support	-	£174k	6th October 2014	-
	2	Ealing	EHT ICO – Patient flow co-ordinators	-	£107k	1st November 2014	-
	2	Tri Borough	ICHT – front line A&E staffing	-	£438k	1st October 2014	-
	2	Tri Borough	ICHT – extended level of consultant presence 7 days a week	-	£875k	1st October 2014	-
	2	Tri Borough	ICHT trauma lists	-	£130k	1st October 2014	-
	2	Tri Borough	Chel West – senior decision makers	-	£555k	1st October 2014	-
	1	n/a	Mental health transit lounge	-	£305k	-	-
	1	n/a	CAMHS Assessment service in A&E	-	£90k	-	-
	1	Brent & Harrow	Social care staffing review in Harrow	-	£40k	-	-

SOURCE: Trust SRG plans

Contents

- System wide impact of the A&E changes
- Deep-dive on high impact hospitals: Analysis of the plan vs. actual performance
- Planning and execution at NPH
- **Assurance process followed for the A&E changes**
- Lessons learned

Assurance process was extensive but lacked scrutiny on critical assumptions

Structure	• Assurance process involved every major stakeholder, including NSHE, TDA, CCGs, SaHF, LAS, CMH Steering Group, CMH A&E Closure Board, Imperial Trust, HH Emergency Unit Project Delivery Board • There was a three tier structure with the top level being the dual-process leads (NHSE / TDA for one assurance process & Brent / Hammersmith & Fulham CCGs running the other), SaHF acted as intermediary gathering information with Trusts and other relevant parties providing evidence to SaHF
Process	• NHSE / TDA & CCGs assessed information provided by SaHF and returned with ratings against specific criteria. This would lead to further information and evidence requests which SaHF would action down to the relevant bodies. This process was repeated until assurance was deemed sufficient • Assurance processes closely followed a detailed set of checklists – NHSE / TDA's checklist had 80 sub-criteria and the CCG checklist had 55 sub-criteria – Readiness was evidenced through this criteria and oftentimes specified audit trail of supporting documents referenced
Effectiveness	• Critical assumptions around demand and capacity were not subject to sufficeint scrutiny, with key assumptions on demand and capacity (beds), and throughput (ALoS): – Only briefly mentioned in 4 key final assurance reports – Mentioned briefly in 8 out of 31 governance documents regarding the A&E closures • Complicated governance structure existed with a dual NHSE/TDA and CCG assurance processes being carried out – Areas of enquiry were not prioritised or divided amongst stakeholders (i.e. according to a particular expertise area) – High degree of overlap of content covered by each stakeholder with no observed benefit from two separate processes

SOURCE: CCG documents, Trust Board documents, NHS E / TDA documents

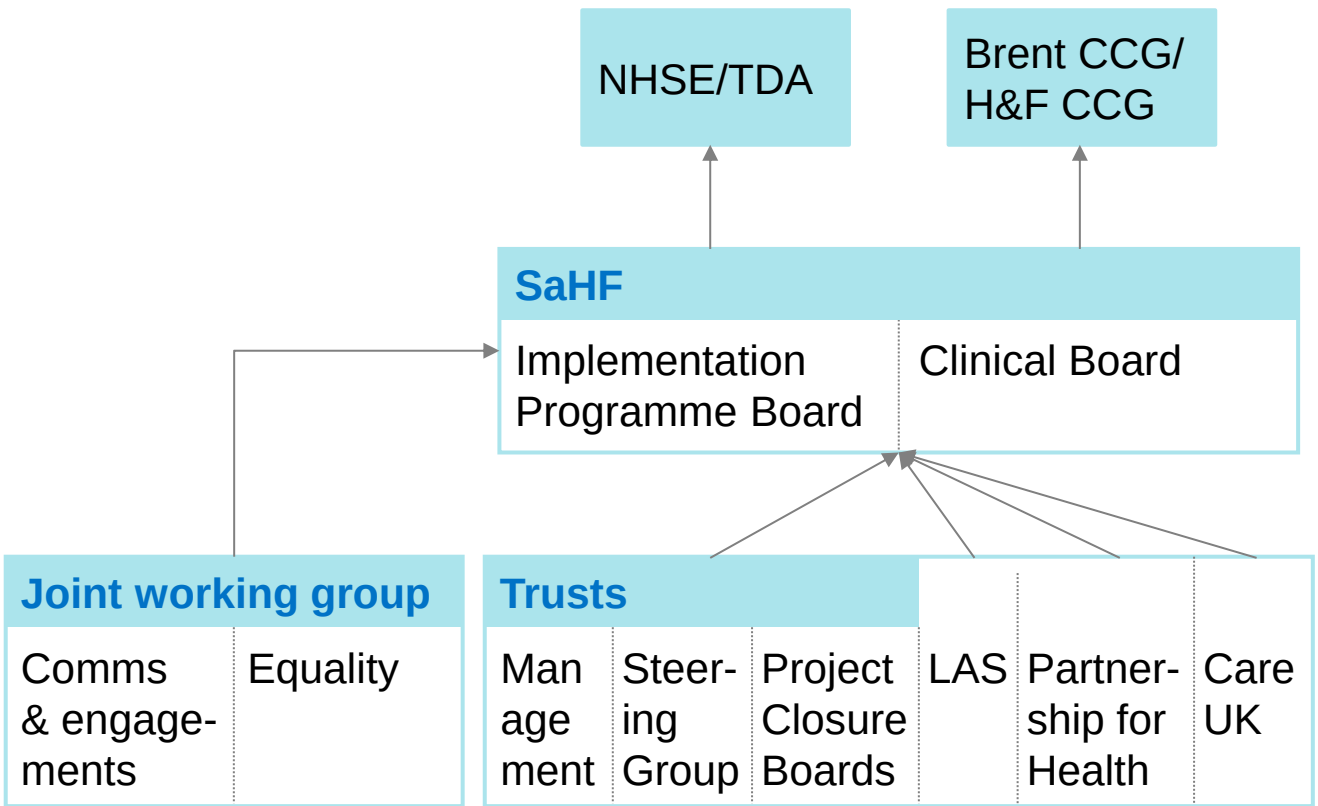
SaHF played role of intermediary in assurance process

- SaHF played an important role in the assurance process by gathering information from relevant sources and presenting them upwards to the authorities running the dual assurance process (NHSE/TDA & CCGs – Brent, Hammersmith & Fulham)
- SaHF made recommendations regarding assurance and readiness based on information provided by Trusts and other parties. These recommendations and reports would in turn provide assurance to NHSE / TDA & CCGs
- SaHF acted as conduit in a structured manner, through two Boards, the Implementation Programme Board and Clinical Board
  - The Implementation Programme Board liaised with CEOs and met every 4-6 weeks, producing readiness reports to documents progress on and preparations for A&E closures
  - The Clinical Board was corresponded with clinical staff and had a key meeting in August to assess readiness for closures
  - Both Boards provided information and guidance to support NHSE / TDA & CCGs conduct assessment

SOURCE: CCG documents, Trust Board documents, NHS E / TDA documents

A three tier structure of assurance process existed with information being fed up to lead assurance bodies (NHSE/ TSA and CCGs)

Data flow

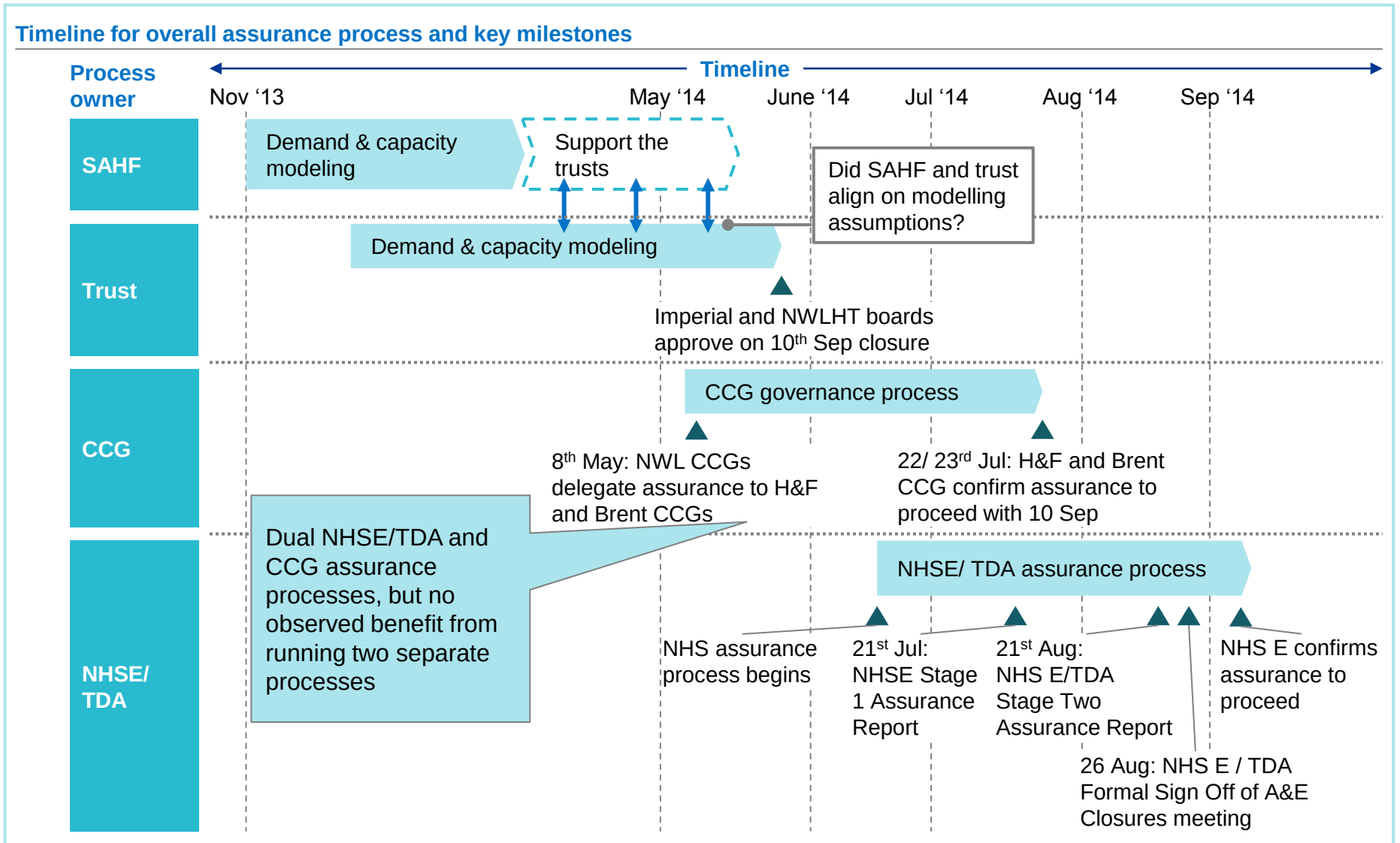


Process developed by

- SaHF
- NHSE
- TDA
- H&F CCG
- NWLHT
- Imperial Trust
- CMH
- CMH Steering Group
- CML A&E Closure Project Board
- HH Emerging Unit Project Delivery Board
- London Ambulance Service

Dual NHSE/TDA and CCG assurance processes with potentially overlapping areas of coverage

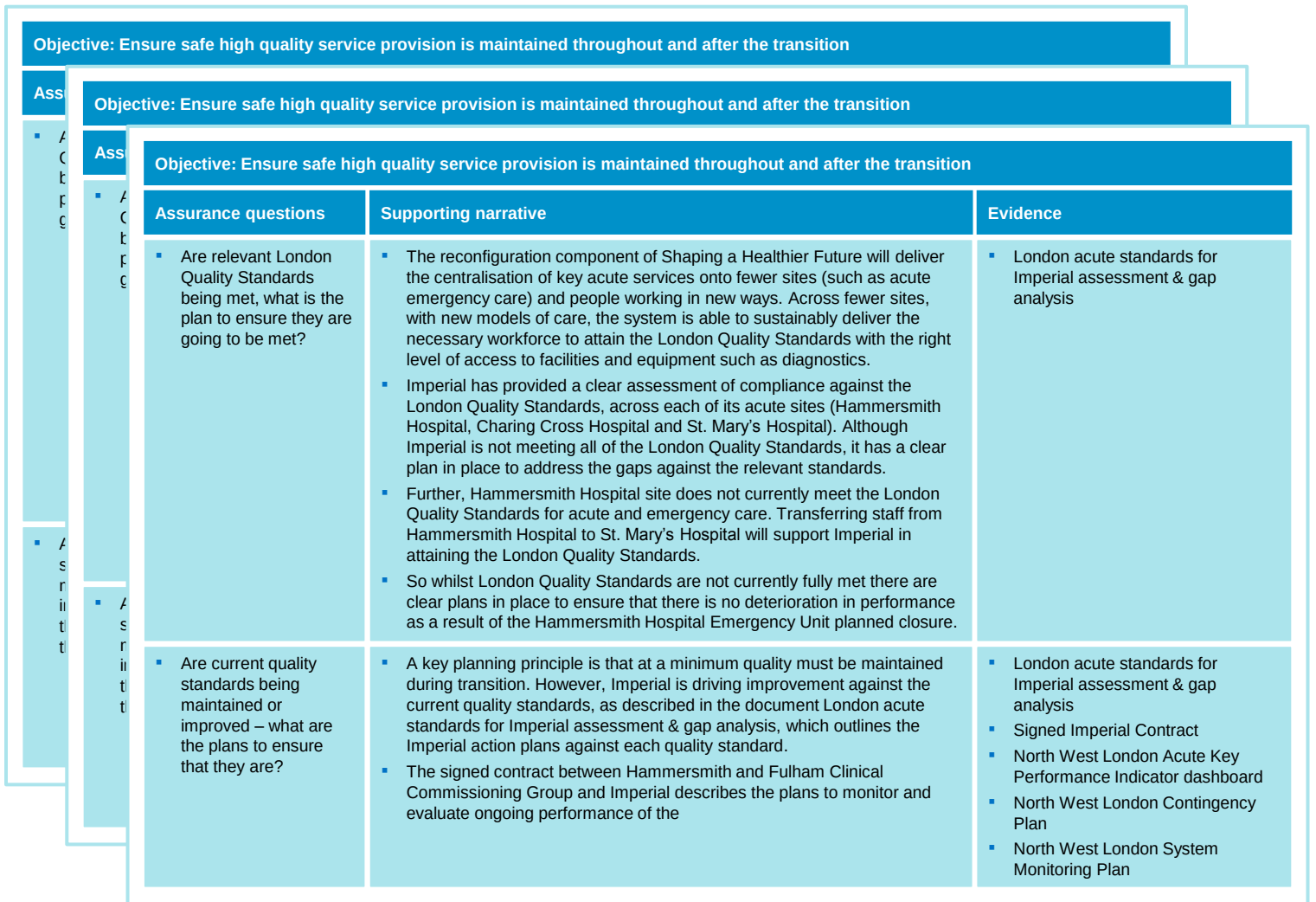
▲ Milestone



SOURCE: Assurance documents, SAHF, NHS England

Assurance closely followed a detailed set of checklists to evidence readiness

Sample checklist document



Objective: Ensure safe high quality service provision is maintained throughout and after the transition

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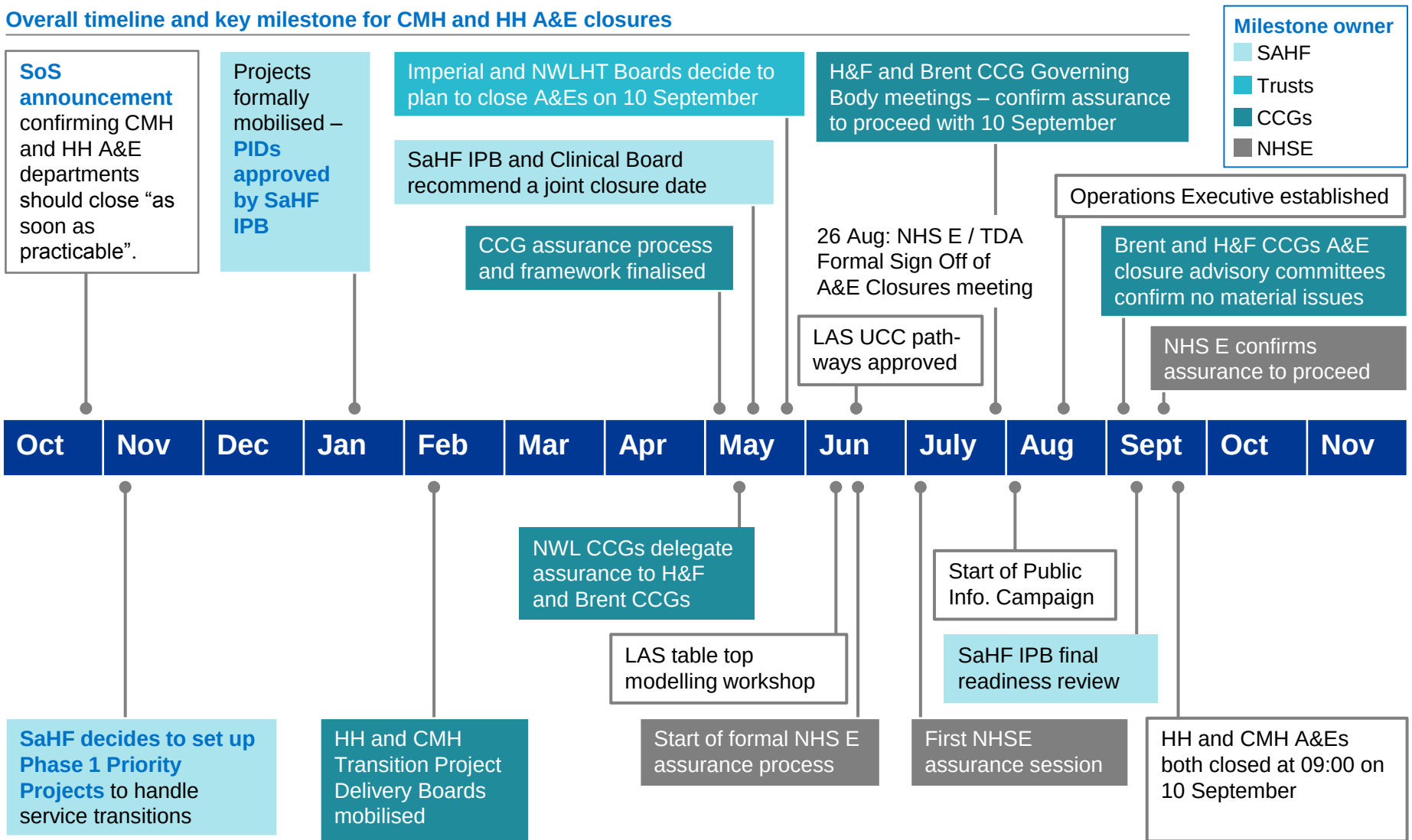
Objective: Ensure safe high quality service provision is maintained throughout and after the transition

Assurance questions	Supporting narrative	Evidence
▪ Are relevant London Quality Standards being met, what is the plan to ensure they are going to be met?	▪ The reconfiguration component of Shaping a Healthier Future will deliver the centralisation of key acute services onto fewer sites (such as acute emergency care) and people working in new ways. Across fewer sites, with new models of care, the system is able to sustainably deliver the necessary workforce to attain the London Quality Standards with the right level of access to facilities and equipment such as diagnostics. ▪ Imperial has provided a clear assessment of compliance against the London Quality Standards, across each of its acute sites (Hammersmith Hospital, Charing Cross Hospital and St. Mary's Hospital). Although Imperial is not meeting all of the London Quality Standards, it has a clear plan in place to address the gaps against the relevant standards. ▪ Further, Hammersmith Hospital site does not currently meet the London Quality Standards for acute and emergency care. Transferring staff from Hammersmith Hospital to St. Mary's Hospital will support Imperial in attaining the London Quality Standards. ▪ So whilst London Quality Standards are not currently fully met there are clear plans in place to ensure that there is no deterioration in performance as a result of the Hammersmith Hospital Emergency Unit planned closure.	▪ London acute standards for Imperial assessment & gap analysis
▪ Are current quality standards being maintained or improved – what are the plans to ensure that they are?	▪ A key planning principle is that at a minimum quality must be maintained during transition. However, Imperial is driving improvement against the current quality standards, as described in the document London acute standards for Imperial assessment & gap analysis, which outlines the Imperial action plans against each quality standard. ▪ The signed contract between Hammersmith and Fulham Clinical Commissioning Group and Imperial describes the plans to monitor and evaluate ongoing performance of the	▪ London acute standards for Imperial assessment & gap analysis ▪ Signed Imperial Contract ▪ North West London Acute Key Performance Indicator dashboard ▪ North West London Contingency Plan ▪ North West London System Monitoring Plan

SOURCE: Source: Brent CCG assurance paper

The dual-process was very structured with documents regularly published, timely meetings held and no slippage of final closure date

Overall timeline and key milestone for CMH and HH A&E closures



SOURCE: SAHF

Key assumption figures (beds required and average length of stay) not fully considered (1/2)

Trust Board documentation history related to the closures (April – July 2014), and tracking of beds / ALoS assumptions

Trust	Date	Trust Board Paper	Content related to closure	Beds required / ALos
NWLHT	Jul-14	• Public_TB_Minutes_June_2014	• Discussion about extra capacity at NPH;	
		• Standards fro CMH ED Closure September 2014	• Outlines what standards will be put in place prior to CMH closure	
		• Merger main CDD Rerport v5	• Highlights closure as risk	
		• Closure of CMH A&E - critical path update	• Progress today and remaining to dos	
		• Board report CMH closure	• Short update	
		• CMH AE Trust Board comms update july	• Focus on communications regarding closure	
	Jun-14	• Appendix 4 - CAPITA demand and capacity	• Modelling methodology and performance metrics including LoS	6.0 LoS / 22 beds
		• Closure of emergency services at CMH	• Paper on closures; update on modelling and capacity and additional bed requirements	28
		• Public_TB_Minutes_May_2014	• Minutes of Trust board meeting; noted concern that NPH would struggle to cope with additional demand	
		• Minutes of clinical performance & PEC, 11th April 2013	• Closure of CMH highlighted as concern which could see demand increase at NPH by 50%	
	May-14	• Board update on CMH A&E	• Update on workflows in advance of closure	
	Apr-14	• Closure of emergency services at CMH - notes from 18th March meeting	• Details of operations of closure	
		• Project Initiation Document - closure of CMH AE	• Outlines structure and plan of transition	
EHT	Jul-14	• Merger main CDD Report v5	• (same doc as for NWLHT) Highlights closure as risk	
Im-perial	Jul-14	• Minutes of May meeting	• Risk mitigation and importance of communicating benefit	
		• Trust Board Public	• On course for 10th September closure of Hammersmith; summary of readiness, infrastructure	
	May-14	• Closure of the emergency unit at hammersmith hospital	• Update on closure and additional requirements at St Marys and Charing Cross (not deemed significant)	
		• Quality committee's chairman's report	• Highlights the timetabled closures as an item for consideration	

SOURCE: Trust board documentation.

Key assumption figures (beds required and average length of stay) not fully considered (1/2)

Board documentation history related to the closures (April – July 2014), and tracking of beds / ALoS assumptions

Body	Date	Board Paper	Content related to closure	Beds required / ALos
SaHF	13th May	• Developing a view of activity redistribution	• Modelling needed to be updated to reflect phased approach; LSA data shows CMH and HH have wide LSOA footprint	
	25th Nov	• HH and CMH A&E closure projects – lessons learned workshop	• Dips in performance following closure in NWL mirrored across London; details Assurance process	
	-	• Bed and activity flow modelling CMH and HH closure impact on NPH	• Outlines SaHF modelling using LSOAs to determine impact as well as Trust operational model	
	-	• Programme plans for joint closure of A&E departments at CMH and HH	• 23 additional ED attendances at NPH expected – initial requirement of 34 beds; 22 will be put and place, the rest treat and transfer	34 beds required
CCG	22nd July	• Hammersmith & Fulham CCG Assurance paper	• CCG is assured that plan to close HH ED can take place safely	
	23rd July	• Brent CCG Assurance of the CMH A&E closure	• LSOA footprint analysis used see where traffic will flow; local activity modelling used to support Trust activity planning	22 beds opening
	23rd July	• Brent CCG – Transfer of CMH non-elective services	• 22 additional beds at NPH will be opened; NWL Trust have confirmed required capacity will be in place	22 beds opening
	25th June	• St. Mary's capacity plan	• Outlines extra beds that will be in place post HH closure (35)	
Addi-tional Docu-ments	21st July	• NHSE / TDA; Stage 1 Assurance report	• 2 of sub criteria were red, 77 were amber and 10 were green	
	21st Aug	• NHSE / TDA; Stage 2 Assurance report	• Further assurance requested at meeting for final sign-off; 1 sub criteria was red, 29 were amber and 59 green	22 beds opening
	22nd Aug	• NHSE review of HH ED closure	• HH emergency unit is not an A&E, unable to fulfill staffing requirements	
	26th Aug	• NHSE / TDA formal sign-off	• Stage 2 Assurance presents 66% of risks as green, 33% as amber with one red risk	22 beds opening
	-	• Stress test of NWLH bed model	• 3.49 days ALoS coming into NPH, 16 days ALOs going to CMH	3.49

SOURCE: Trust board documentation.

Key assumptions taken and risks identified during various stages of the NHSE assurance processes

Key steps of the assurance process	Key dates	Key assumptions on capacity	Any risks identified on capacity	Key next steps
a) **Provider stock take session**	• 1st Jul '14: SAHF and trust brief NHSE and TDA	• 6 - 12 additional NEL admissions at NPH post closure • Need for 34 beds to managed transferred activity. **22 will be added and the rest to be released through a treat and transfer model of care**	• Capacity	• N/A
b) **Stage 1 report**	• 21st Jul '14: Stage 1 report shared	• 22 bed increase proposed at NPH	• Report highlighted capacity issue: *"there is currently insufficient capacity to ensure that the 95% target is met on a consistent and sustainable basis (at NPH)"*	• SaHF asked to provide the revised trajectory and detail additional capacity needed for NPH
c) **System wide EPRRR planning exercise**	• 22nd July 2014; Key meeting	• N/A		
d) **Site visits**	• 5th & 6th Aug '14: Imperial and NWLHT Trust sites	• N/A		
e) **Stage Two Assurance Report**	• 21nd Aug '14: Stage two report shared	• Confirmation of availability of 22 beds in Carroll ward by 10th Sep at NPH sought and received. Revised capacity assumed sufficient	• A&E performance highlighted as a risk	• Joint Action Plan on A&E performance to be submitted by CCGs
f) **Closure**	• 26th August 2014: NHSE / TDA Formal sign-off • 4th Sep: Final letter sent	• Same as above	• A&E performance highlighted as a risk	• Post closure monitoring/ review

Bed demand assumptions remained unchanged throughout the process. Were they effectively challenged during any stage?

A&E performance highlighted as a risk in stage 1 report, and remained an open issue till formal sign off. Was proposed capacity found adequate to improve this?

SOURCE: Assurance documents, SAHF, NHS England
www.england.nhs.uk

Contents

- System wide impact of the A&E changes
- Deep-dive on high impact hospitals: Analysis of the plan vs. actual performance
- Planning and execution at NPH
- Assurance process followed for the A&E changes
- **Lessons learned**

Assurance process was extensive but lacked detailed scrutiny on critical assumptions

	Observation	Suggestion
Readiness vs adequacy of plans	• The assurance process focused more on understanding readiness to implement plans not detailed assessment of adequacy of those plans to mitigate the likely impact of the change	• Assurance processes should: – Identify the key assumptions on which the planning is based – Understand the rationale for those assumptions – Test those assumptions against available evidence – Rerun key analyses to test for calculation errors
Robustness of plans	• The planning and assurance process tested plan robustness against fluctuations in incremental demand from the A&E changes but not changes in underlying demand	• Planning and assurance processes should ensure sensitivities encompass the most significant potential variables
Governance of assurance	• Governance of the assurance process was complex with a dual NHSE/TDA and CCG assurance processes being carried out	• Move to a single integrated assurance process
Implementation oversight	• The operations executive had oversight of the 'A&E closure project delivery boards' overseeing the "surge" process and escalations. It was able to propose actions, but had no authority to implement actions.	• Ensure oversight boards have execution authority