NHS
Buckinghamshire
System Resilience Group

Serious Incidents Requiring Investigation (SIRI) Report

Black system escalation 16th and 17th December 2014

Summary

Nationally there was a significant increase in the number of elderly people requiring NHS services including hospitalisation due to flu, compared to previous years. This put increasing pressure on local primary care, community, hospital and Social Care services from early December, which was higher than had been predicted. The ability of acute hospitals to manage the demand caused by increased admissions and length of stay was exacerbated by the four day Christmas and New Year bank holiday when reduced NHS and Social Care staff capacity lead to fewer patients being discharged. There may have also been an underlying reduced functional bed capacity in the hospital due to there being more patients with length of stay over 14 days in 2015 compared to 2014. The reasons for this are unclear and may be due to NHS or Social Care reasons. But a 40% cut in Council funding over the last 5 years will inevitably have contributed to this.

Preparations to manage this demand were better than previous years, due partly to 7 day working initiatives and Operational Resilience and Capacity Planning (ORCP) which have been implemented across health and social care. But the system pressures led to patients waiting on trollies in A&E for significant periods of time, ambulances queuing outside due to not being able to handover their patients and so longer response times of the ambulance service to patients in the community dialling 999.

To mitigate the effects of this situation on patients, the CCG Director on Call escalated the whole system to black status on 16th December. This is the highest possible status. This ensured all health and social care staff focused resources on mitigating the effects and triggering additional staff and bed capacity, which resulted in very co-operative joint working, rapid learning and implementation of innovative solutions across the system. However, these actions were clearly insufficient to prevent significant delays for patients.

The system returned to red status two days later. Lessons have been learned and actions to avoid this situation occurring again are being implemented. These are being governed by the System Resilience Group and the effectiveness of these actions overseen by NHSE.

Sequence of events

At 0710 on 16 Dec 14, BHT, in consultation with Dr Annet Gamell, CCG Director on Call, raised their escalation status to BLACK.

At 0945 on 16 Dec 14 the CCG Director on Call escalated the whole system to BLACK in response to extreme high acuity pressure being experienced by BHT, SCAS and BCC.

Gold command was established at SMH with meetings at 1230, 1500 and 1730. Senior managers from all organisations in the system participated fully in Gold meetings.

The system and BHT were de-escalated from BLACK to RED at 1820 on 17 Dec 14.

Root Cause Analysis

It is increased numbers of patients requiring hospital admission which put greatest pressure on services, because patients with minor illness and injuries are managed effectively by A&E departments and MIIUs.

Increased demand

During December there were about 7% more hospital admissions than normal, and this was higher than the number predicted by BHT by approximately 25 per week (Appendix 1) particularly in early December. The hospital perception was that patients were also sicker (higher acuity) than normal. Up until Christmas Day on average 10 more (5%) majors arriving per day than previous months averages. This is corroborated by there being more conveyed to hospital by ambulance (approximately 80 more per week than average, 22%). This will have meant the patients were likely to have a longer length of stay due to needing longer to recover. This would have also reduced the BHT bed capacity.

Potential reasons for increased admissions

a) Influenza

The reason for increased acuity may be due to influenza. This season (2014/15) overall flu activity commenced in week commencing 1 Dec and peaked in week commencing 5 Jan. There were an increasing number of acute respiratory outbreaks reported across the UK during Nov and Dec with most occurring in care homes. Twelve months ago, the World Health Organisation settled on the three most likely strains of flu that would be circulating this winter. But one of them has since mutated so significantly that the vaccine offers far less protection. It works in just three out of every 100 cases. A flu vaccine normally works in 50 out of every 100. The strain in question, H3N2, is also a particular worry as it primarily kills the elderly. There has been reflected in a higher than expected number of deaths in elderly people this year. Prof Nick Phin, from Public Health England, said "We have seen an increase in excess deaths, probably the biggest increase we've seen since 2008-09"

Nationally there had been an increase in the numbers since early December.

Weekly provisional figures on deaths registered in England and Wales

Week number	49	50	51	52	1	2	3	4
Week ended	05-Dec-14	12-Dec-14	19-Dec-14	26-Dec-14	02-Jan-15	09-Jan-15	16-Jan-15	23-Jan-15
Total deaths, all ages	10,267	10,550	11,681	7,837	12,286	16,237	14,866	13,934
Total deaths: average of corresponding week over the previous five years[1]	10,112	10,324	10,886	8,310	11,838	12,277	11,145	10,714

Source: Office for National Statistics

Prof John Newton, chief knowledge officer at Public Health England (PHE), was reported to have said the forces that are driving the higher death rates would certainly have contributed to the problems facing A&E units. But that the problems both in A&Es and social care are unlikely to have contributed materially to the higher death rates, noting the chronology of the surge.

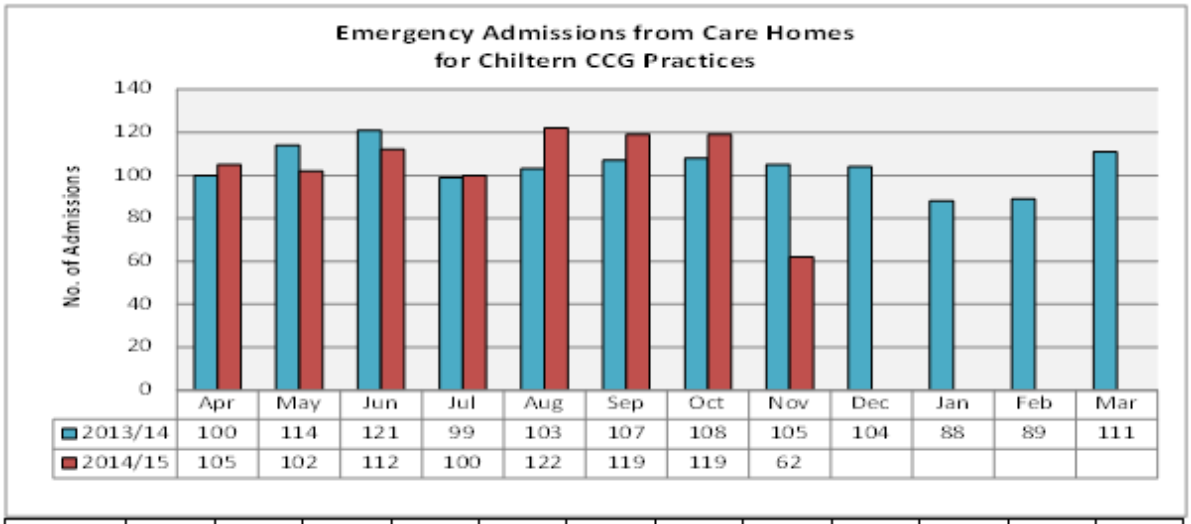
Outbreaks in Bucks care homes

- The Chestnuts RH and The Willowmead Court Independent living.
  Total residents: 75; Affected: 25; Hospitalised: 9 at SMH; and died:1

- Ichnield Court, Princes Risborough
  34 cases beginning end of November/ early December 2014. As of 20th Jan 2015, 34 residents affected, 9 hospitalised and 7 died.

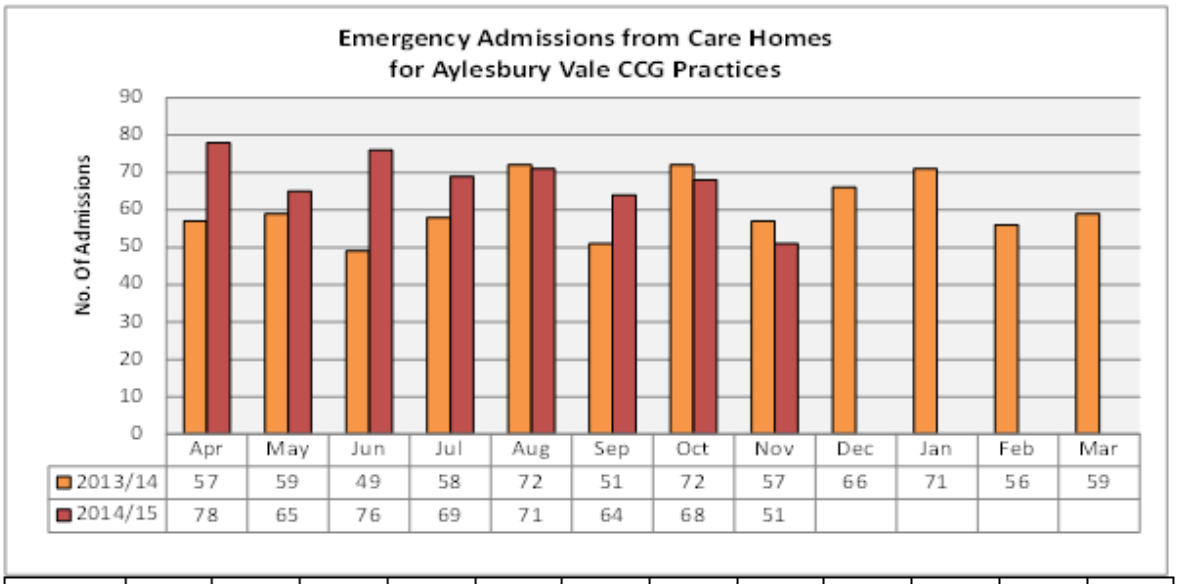
b) <u>Care Homes</u>

The trend to November has been for increased admissions to hospital from care homes in AVCCG (+65; 14% YTD) and falling in Chiltern CCG (-16; 2% YTD). BHT services both CCGs amongst others, and so the overall trend in admissions from care homes experienced may have shown an increase. This is unlikely to be due to influenza as cases only started to show a significant increase in the first week of December. It may be due to increased number of Care Home beds in AVCCG which have opened during 2014.



Chiltern	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2013/14	100	214	335	434	537	644	752	857	961	1049	1138	1249
2014/15 YTD	105	207	319	419	541	660	779	841				

Source: SUS CDS APC and national Care Homes list.



Aylesbury Vale	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2013/14	57	116	165	223	295	346	418	475	541	612	668	727
2014/15 YTD	78	143	219	288	359	423	491	542				

Source: SUS CDS APC and national Care Homes list.

Factors influencing capacity to manage the increased demand

Short term

Discharges are always reduced on bank holidays due to being fewer NHS staff to take blood tests and x-rays, review patients and identify which are medically fit for discharge, and provide medication to take home. In addition there are fewer adult social care staff to assess patients requiring Bucks CC input, and home care providers and Care Home Managers are reluctant to accept new patients. But this year the holiday was for four consecutive days, which put increased pressure on the hospital to staff escalation beds to accommodate the patients who would have otherwise gone home on a normal working day. The reduced discharges are clearly shown below.

Christmas week and New year	Day	Discharges, Medicine stoke only Dec actual	Arvg discharges in Nov by day of week	diff between arvg discharges and actual	Comments
24/12/2014	Wed	59	50.25	8.8	Christmas Eve clear out
25/12/2014	Thu	26	43.5	-17.5	Christmas Day
26/12/2014	Fri	23	59.25	-36.3	Boxing day
27/12/2014	Sat	23	19	4.0	
28/12/2014	Sun	23	21	2.0	
29/12/2014	Mon	46	48	-2.0	
30/12/2014	Tue	48	49	-1.0	
31/12/2014	Wed	61	50	11.0	NY Eve clear out
01/01/2015	Thu	25	43	-18.0	NY Day

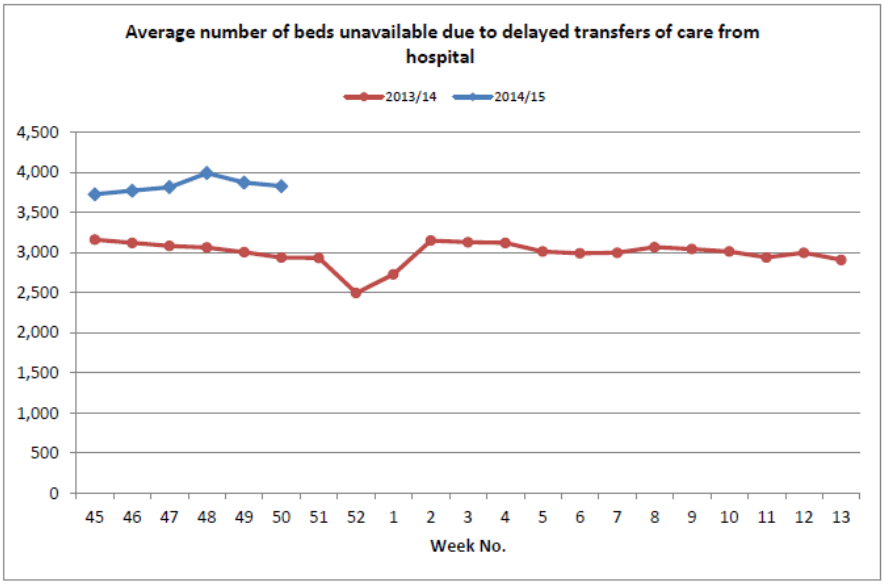
Source: BHT

Longer term

a) Delayed transfers of care

The other factor which could influence the ability of the system to manage this increased demand would be a longer term reduced bed capacity. National information from NHSE shows a 44% increase in beds unavailable due to delayed transfers of care (DTOC) as shown below.

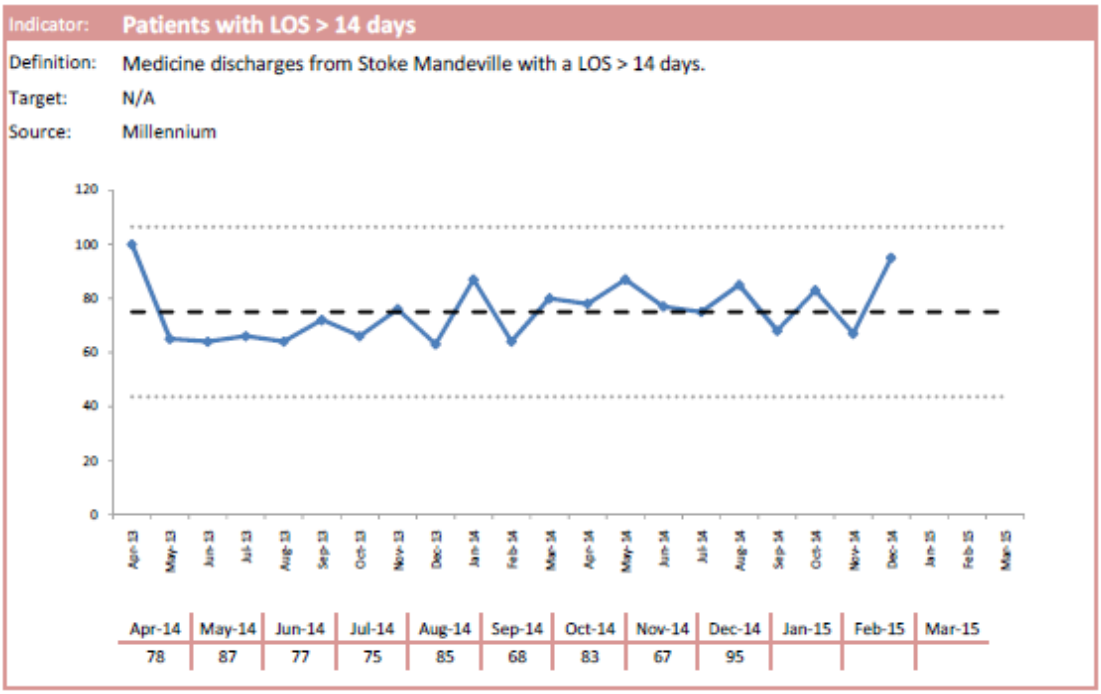
Indicator	Measure	Week 50 2014/15	Average for week 50 (2010/11 - 2013/14)
Number of beds closed due to diarrhoea and vomiting or norovirus-like symptoms	Average number of beds closed per day	1,420	1,672
Number of beds unavailable due to delayed transfers of care from hospital	Average number of beds unavailable per day	3,825	2,656
General and acute beds occupancy rate	Percentage of beds occupied	95.1%	94.7%



But is seems as though locally this has not been the case for officially recorded DTOCs as number of DTOCs at BHT are fairly constant at 12-14 at any particular time.

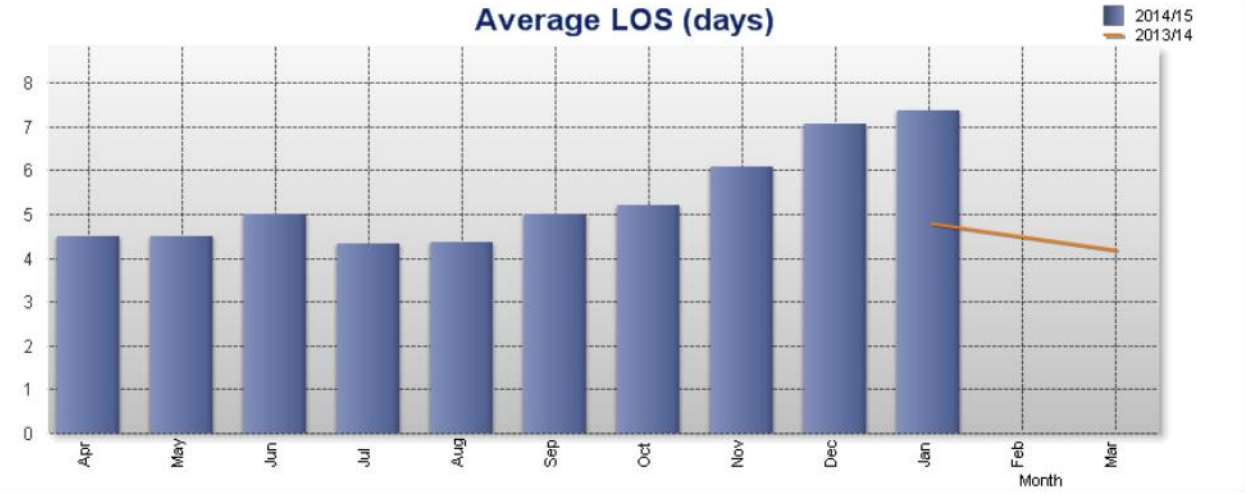
b) Length of stay

Although the number of medical patients with LOS>14 days appears to be more during 2014 compared to last year as shown below. This may be due to either patients taking longer to recover, internal hospital delays or a larger number of patients waiting for social care assessment which have not yet reached the stage of being defined as a formal DTOC. In addition to this background increase, patients in over 14 days increased by 3% in medicine during December from the following month and 1.5% for surgery which is a significant amount of bed days.



Data source: BHT RUC dashboard December 2014

Medicine average LOS on the Stoke Mandeville site increase by 1 day on average in Dec 14– this equates to circa 25 beds on the SMH site, early signs indicate this continued into Jan 2015.



Source: BHT

Conclusion of root cause analysis

There was a significant increase in the number of elderly people requiring NHS services including hospitalisation due to flu, compared to previous years. This put increasing pressure on primary care, community, hospital and Social Care services from early December, which was higher than had been predicted. The ability of acute hospitals to manage the demand caused by increased admissions and length of stay was exacerbated by the four day Christmas and New Year bank holiday when reduced NHS and Social Care staff capacity lead to fewer patients being discharged. There may have also been an underlying reduced functional bed capacity in the hospital due to there being more patients with length of stay over 14 days in 2015 compared to 2014. The reasons for this are unclear and may

be due to NHS or Social Care reasons. But a 40% cut in Council funding over the last 5 years will inevitably have contributed to this.

Action Taken

Command and Control

Establishment of Gold Command structure at SMH to manage the system response to the extreme pressure. Gold Command was extremely well led by BHT's COO. There was whole system involvement that meant pressure was exerted and additional money spent to achieve discharges that allowed patient flow to be re-established. The system worked collaboratively, innovative solutions were sought and delivered and real momentum to de-escalate was established and maintained.

Silver Command established at SMH. Very ably led by BHT's ACOO, Silver fostered joint working that led to robust plans to manage discharges and patient flow. It also improved the working relationship with community providers and encouraged a whole system response at working level.

Patient care

- Additional ED Consultant cover throughout the day until midnight.
- Additional medical and nursing staff deployed to ED and to support ward rounds.
- Consultant led AEC and MuDAS services.
- Consultant Geriatrician (GOD) taking GP/SCAS calls to support GP referrals.
- Local GPs joining ward rounds in ED and wards in SMH.
- All patients reviewed at least twice daily.
- Patients in non inpatient areas (corridor) close to ED with clear medical and nursing support
- 30 escalation beds created in BHT
- 10 additional step down beds purchased
- 80 care packages reviewed to release capacity
- ACHT support to local residential care homes and GP Practices
- Additional GP hours to support BUC OOH service
- Early Bird GP project launched to support admission avoidance
- Additional GP + car for BUC OOH

Health Bucks Leaders

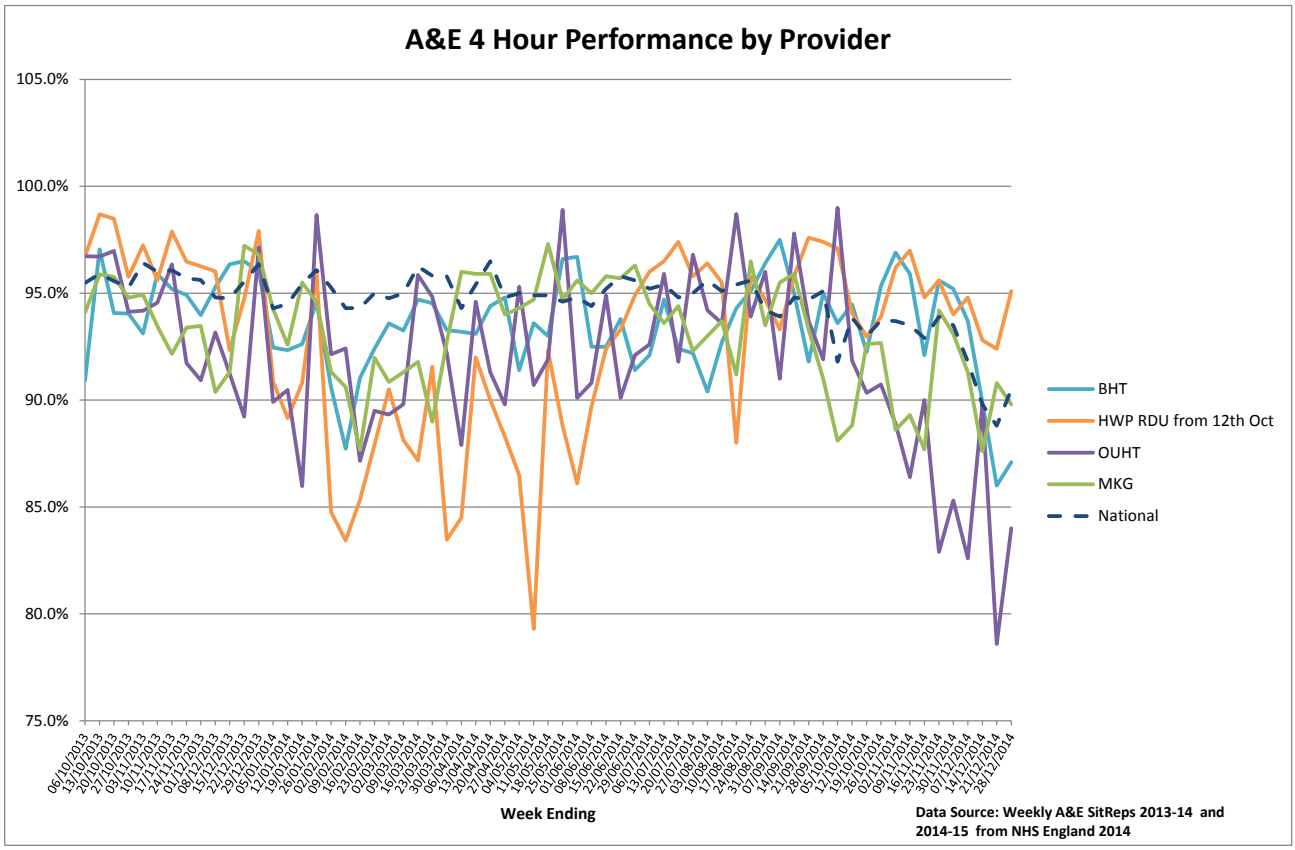
The planned meeting of Chief Executives across health and Adult Social Care in Bucks was postponed and the opportunity used to identify key actions to address the system wide pressures.

Communication

- 'Alternatives to Hospital Admission' circulated to GPs
- Press conference with BHT Medical Director, CCG Chief Clinical Officer and SCAS Regional Lead
- Increased Twitter and Facebook communication to re-assure 'worried well'
- Twice daily system wide teleconference calls
- NHS 111 directing patients to services with capacity

How effective was it?

National A&E performance has significantly reduced in December dipping below 90%. BHT experienced the same problems leading to not achieving the A&E standard in any week during the month. Performance became worse than the national average just before Christmas when all surrounding Trusts. The pressures led to BHT only achieving 92.9% in Q3 rather than the plan of 93.6%. Although BHT was the last acute trust in Thames Valley to declare black status and the first to come out of it, which is testament to the effectiveness of the actions taken at the time. This will make it very unlikely that BHT will achieve the Q4 target of 95% even with an additional ward opening in late January, as significant pressure are expected to continue through the winter.



Local Trusts continue not to meet A&E waiting times. Please note from the 12th October HWP is included with Frimley Park (provider code RUD)

Lessons learnt

See appendix 2

Action Plan

The Bucks escalation framework has been reviewed and updated in light of the lessons learnt.

System Resilience Group (Bucks) is developing an urgent care work plan for 2015-16 which includes projects to improve matching capacity to predicted demand and also establishing specific additional capacity at times of the year when capacity is expected not be sufficient to manage demand.

Key local actions to prevent recurrence of this performance include:

1. Improved matching of staff capacity across the system in response to predicted demand, being led by the System Resilience Group as part of implementing 7 day working initiatives
2. Increasing BHT bed capacity to manage surges in demand by 24 beds by creating a permanent new ward which opened in late January
3. Improved joint working between health and Social Care to reduce delays e.g. Bucks CC trusting the assessment of BHT therapists.
4. Reducing delays within BHT as a result of implementing the action plan following the “Ideal Week”.

Monitoring of action plan

1. Monitoring of action plan will be undertaken by SRG which reports to each CCGs Executive Teams and onto the Governing Bodies.
2. Reforming Urgent Care dashboard at BHT will provide governance of internal BHT actions
3. Improved prediction and monitoring of demand and capacity to manage it will be put in place across the urgent care system via daily teleconferences.
4. NHS England will monitor A&E Performance as part of regular

Demand and capacity in BHT during winter 2014-15

Week commencing	days of black esc status	Predicted admissions	Actual admissions	admissions difference from predicted	Ave ambulance conveyences per day	Actual ambulance conveyences per week	Number of patients over 14 day LoS (ave per day Mon - Fri)
Average week	0				55	385	
2014 10 13	0	535	443	-92	63	442	95
2014 10 20	0			0			
2014 10 27	0			0			
2014 11 03	0			0			
2014 11 10	0	515	500	-15	59	414	110
2014 11 17	0			0			
2014 11 24	0			0			
2014 12 01	0	513	613	100	59	415	98
2014 12 08	0	528	550	22	64	445	91
2014 12 15	2	605	618	13	68	547	91
2014 12 29	2	612	576	-36	62	497	104
2015 01 05	3	557	538	-19	53	424	116
Source: BHT Weekly SofS briefing, Elaine McDaid							

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Lessons learned from the Whole System Escalation BLACK Status 16 – 17 Dec 2014

What went well?

Whole system

1. Director level whole system involvement provided rapid decisions and clear actions which supported innovative solutions being implemented effectively.
2. Identification of lessons learnt a day after de-escalation, while fresh in people's memories

BHT

1. COO provided senior leadership at Gold Command
2. Creating 30 escalation beds, some in day surgery, cardiac echo, and Wycombe treatment centre

ACHT

1. ACHT offering support to residential care home with flu outbreak, to reduce numbers of residents requiring hospital admission and enabling patients admitted to BHT to return back to the care home as soon as possible. ACHT initially contacted GP practice to offer this support.
2. ACHTs with capacity proactively offering support to GP Surgeries to manage as many people in primary care as possible.
3. Maintaining capacity in The Community Urgent Response service to reduce the need for people to require community hospital beds.
4. Locality managers coming to hospital rather than more junior staff, as more able to convince ward staff that they can manage particular patients at home.

Bucks CC

1. Director level involvement in Gold Command and System Resilience teleconferences
2. Prioritisation across discharge teams
3. Bucks CC Business Continuity Plans being implemented and prioritising maintaining staff in acute trusts so maintaining assessments and patient flow
4. Use of ORCP and s256 funding to spot purchase 10 step down beds in care homes.
5. Reviewing 80 existing care packages to release capacity
6. Adult Social Care staff working in BHT at weekends to maintain assessments and purchase of care packages
7. Going outside existing providers after enacting "breach of contract" and finding additional "high cost" capacity.
8. Not relying on pink forms for section 2 and section 5 referral, but finding a quicker way of making such referrals
9. Bucks CC Contracts team contacting all care home providers to identify potential additional step down capacity for both Bucks CC funded patients and also NHS spot purchasing.
10. Extending the window for morning calls to 6.30am where possible
11. Providing a suitable carer regardless of gender, with client consent.
12. Maintaining capacity in The Health Professionals Hotline to reduce the need for people to require community hospital beds

13. Red Cross excellent response
14. Care Management team responded quickly

CCG

1. Press conference was effective use of time for BHT Medical Director, CCG Chief Clinical Officer and SCAS Regional Lead as brought together several media organisations at the same time, midweek, in time for extended weekend media coverage.
2. Increasing comms with BHT (Twitter & Facebook etc) to update every 2 hours was effective in reducing "worried well" attendance at A&E
3. System Resilience programme Manager assisting with resolving issues with winter resilience (ORCP) initiatives
4. "Alternatives to hospital admission" circulated to all GP practices with a message that recognises the work primary care are under and how effectively they are already minimising referrals to hospital.
5. Having a Commissioning GP who knew what was available in the rest of the system, to join the MDT ward round in SMH to identify any remaining patients who could be discharged.

BUC

1. Rapidly increasing GP hours available in the SMH Primary Care Centre out of hours service to provide more face to face appointments and home visits, in response to activity which is higher than predicted.
2. Implementation of a "voucher system" which enables patients with minor illness who present to SMH A&E out of hours, to be seen in available appointment slots in the OOH service. So reducing workload for A&E when under pressure, reducing waiting times for patients and breaches of the 4 hour A&E standard.

Oxford health

1. Holding beds in the white leaf centre for patients who are admitted to acute hospital
2. Rapid PIRLS follow up of patients identified in A&E

SCAS

1. TVEA team co-ordinated response across the system.
2. TVEA team provided objective information about demand and capacity across Thames Valley and beyond, so local Trusts knew whether they could repatriate patients to create capacity.
3. Early Bird GP (SCAS winter project) is seeing about 5 patients per day and keeping 50% at home. The remaining 50% are being sent to hospital but earlier in the day than would otherwise be the case with GP afternoon visiting, to reduce batching of GP heralded patients in A&E in the evening.
4. Rapidly increasing capacity to "see and treat" and "Hear and treat" to reduce the number fo people requiring taking to hospital.
5. SCAS contact BUC OOH service to visit a care home when SCAS think this would be useful.

What could be improved?

Whole system

1. Mechanisms to maintain resilience over a prolonged time when black escalation lasts for more than 2 days, to avoid exhaustion of all involved.
2. Attendance at Gold Command quickly reduced when de-escalating from BLACK to RED
3. More concrete escalation triggers and actions for all organisations written in the Bucks version of the Thames Valley Escalation policy (NHSE local team would like to share this across the region when completed)
4. Identification of key people from each organisation to be involved with the daily system resilience call when the system is amber, red and black, even if individual organisations may not be escalated as high as the system.

5. Using NHS 111 daily demand as a proxy for demand in primary care to act as a leading indicator of increasing demand (and reducing demand) in the system, so giving other organisations a day to plan a response. Figures for actual calls, predicted calls and average daily calls, will enable the system to identify expected rises in demand and unexpected surges.
6. Having access to voluntary night sitters similar to those in palliative care, who can stay with someone overnight.
7. Invite key market providers into table top exercises, so that they understand the system pressures and impact of their not taking patients quickly.

BHT

ACHT

1. A mechanism so that ACHTs with capacity know when a care home could benefit from additional input to maintain residents in the home without admitting them to hospital.
2. A mechanism so ACHT teams with capacity know when local GP practices could benefit from additional support

Bucks CC

1. Initially slow response from contracting and procurement teams.
2. Implement as business as usual a quicker way of making referrals so that pink forms for section 2 and section 5 are not required.
3. Out of Hours ASC team to improve understanding of role required
4. Better understanding of gold / silver structure during escalation

CCG

1. CCGs having access to additional NHS spot purchase care home beds could have improved flow.
2. Availability of a GP to join ward round with BHT to identify any remaining patients which could be discharged
3. Immediately after system de-escalation from black to red – CCG to inform TVEA tvea@scas.nhs.uk
4. Explore the value of Practices diverting calls to NHS 111 when under significant pressure, so that some calls can be managed by telephone and others directly booked into GP appointments.
5. A primary care strategy so Practices can release capacity to focus more on those with chronic illness and more serious conditions.

SCAS

1. NHS 111 disposal options could be changed when A&E is on red so that more people from areas midway between Aylesbury and High Wycombe are sent to MIIU instead. An instruction from the SCAS Supervisor to the handlers to choose a service not the top when the system is very pressurised could achieve this.

BUC

Oxford health