



**Safe, sustainable and productive staffing**

**An improvement resource for  
children and young people's  
inpatient wards in acute  
hospitals: Appendices**

This document was developed by NHS Improvement on behalf of the National Quality Board (NQB).

The NQB provides co-ordinated clinical leadership for care quality across the NHS on behalf of the national bodies:

- NHS England
- Care Quality Commission
- NHS Improvement
- Health Education England
- Public Health England
- National Institute for Health and Care Excellence
- NHS Digital
- Department of Health and Social Care

For further information about the NQB, please see:

<https://www.england.nhs.uk/ourwork/part-rel/nqb/>

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# Appendix 1: Defining staffing levels for children's and young people's services

Defining staffing levels for children and young people services (RCN 2013)<sup>1</sup> provides the indicative baseline day and night nurse-to-patient ratios which are widely adopted. These are:

- Level 3 critical care = 1:1
- Level 2 critical care = 1:2
- Level 1 critical care = 1:3
- Ward care = 1: 4 if the children are over 2 years old
- In combination with the RCN (2013) standard, a ward care level of 1:3 if the child is under 2 years old.

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<sup>1</sup> Royal College of Nursing (2013) *Defining staffing levels for children and young people's services*.  
[https://www2.rcn.org.uk/\\_data/assets/pdf\\_file/0004/78592/002-172.pdf](https://www2.rcn.org.uk/_data/assets/pdf_file/0004/78592/002-172.pdf)

## Appendix 2: Example feedback from children, young people and families

As part of the development of this improvement resource, we asked families and children what makes them feel safe when in hospital. We had feedback from 66 children, young people or families.



## **Appendix 3: Examples of decision support tools in use in England**

### **Safer nursing care tool (SNCT) (The Shelford Group 2017)**

The children and young people version of this tool was released in 2017. The tool is free but trust managers may be asked to register as users before they can access the software so that they are known and can be informed when updates are released.

The tool should be completed for a period of one month at least twice each year. Patients are classified into one of five categories; each category has a multiplier which calculates the nursing requirement.

Like any other tool it should not be used in isolation but in combination with recommendations from the RCN (2013) and professional judgement.

The interface between acuity measurements and workforce planning tools combined with electronic rostering has been developed in some areas. This can be useful but has limitations as human factors are not considered. Real-time reporting to provide management alerts in response to staffing issues is another key area of development.

## PANDA (paediatric acuity and nursing dependency assessment)

This [web-based tool](#)<sup>2</sup> was developed at Great Ormond Street Hospital in partnership with the Department of Health and Social Care (DHSC). There is a licensing charge and the annual fees per bed may mean this tool is not cost-effective for all NHS trusts.

To determine safe staffing PANDA calculates patient dependency and acuity levels by assessing patients against over 70 'care categories'. Fifty care categories were derived from DHSC guidance on high dependency care in children and the UK Paediatric Critical Care Minimum Data Set (PCCMDS). To ensure PANDA is a holistic tool reflecting both general and specialist paediatric hospital populations, additional categories have been added over time. These have been informed by nursing experts and user feedback.

PANDA identifies the appropriate 'nursing dependency' category from four standard categories based on guidance on paediatric nurse staffing from the Royal College of Nursing.

The patient acuity level is derived from the care category selected. Each child is individually assessed on a shift-by-shift basis against the PANDA care categories by the nursing team.

The appropriate nurse-to-patient ratio for each child on each shift is calculated based on patient acuity/dependency.

Ward staffing levels are then calculated on a daily and monthly basis. PANDA calculates the percentage of a shift's nursing used if a patient is admitted or discharged part way through a shift.

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<sup>2</sup> <http://www.gosh.nhs.uk/about-us/our-corporate-information/publications-and-reports/safe-nursing-staffing-reports/gosh-panda-tool>

As most categories are linked to PCCMDS, data is collected for all high dependency unit (HDU) and walk-in centre (WIC) patients regardless of location.

Some trusts state the tool does not fit well into their existing information technology infrastructure. Furthermore both SNCT and PANDA do not work well on wards with fewer than 10 occupied beds, especially when the patients are of low acuity and/or dependency. The software calculations may not recommend enough staff for safe cover; in these situations professional judgement overrides the tool.

## **SCAMPS (Scottish children's acuity measurement in paediatric settings)**

This [tool](#)<sup>3</sup> was developed by NHS Scotland in line with standards for paediatric intensive care units (PICU) and the Paediatric Intensive Care Society in 2010. It was designed as a children's inpatient nursing workload measurement tool; however, it has been further developed to include the specialist paediatric intensive care workload so that one tool covers the range of workload in children's units in the NHS in Scotland.

The tool requires a daily workload measurement, with seven levels of care identified, from ward level care to intensive care. Patients are scored every 12 hours. Admissions, discharges and transfers are included as well as additional work which may impact on workload. An overview of daily workload data is captured and this enables staffing for the next shift to be planned and, over a period of time, for establishment levels to be set.

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<sup>3</sup> <http://www.knowledge.scot.nhs.uk/workforceplanning/resources/nursing-and-midwifery-workload-and-workforce-planning-tools.aspx>



## Occupied bed-to-staff ratio methods (using healthcare resource groups)

This method is widely used for calculating establishments for acute ward and critical care beds (Knauf et al 2006, RCPCH 2014, PICS 2015):

- Level 3 critical care = 1:1
- Level 2 critical care = 1:2
- Level 1 critical care = 1:3
- Ward care = 1: 4 if the children are over 2 years old
- In combination with the RCN (2013) standard, a ward care level of 1:3 if the child is under 2 years old.

## Summary

Tool	Initial and ongoing level of IT support	Validated for CYP	Costs – set up and recurrent	Linked to outcomes	Detail of reports	User friendly
<b>SNCT*</b>	Yes	Yes	None	Yes	Low	Yes
<b>PANDA</b>	Yes	Partially	Yes	No	High	Yes
<b>SCAMPS</b>	Yes	Yes	Yes	No	Low	Yes
<b>Occupied bed-to-staff ratio methods</b>	No	No	No	No	No	Yes

\*SCNT children and young people version released in 2017; this includes actual and recommended staffing costs using CHPPD.

## Appendix 4: Principles of professional judgement

Staffing decisions based solely on professional judgement – the expert opinion of clinical staff – are considered subjective and may not be transparent. But professional judgement and scrutiny should be used when interpreting the results from evidence-based tools to take account of the local context and patient care needs. This element of a triangulated approach is key to bringing the outcomes from evidence-based tools and comparisons with peers together in a meaningful way.

Professional judgement and knowledge should also inform the skill mix of staff and is used at all levels to inform real-time decisions about staffing that are taken to reflect changes in casemix, acuity/dependency and activity.

The skill mix between registered and non-registered care staff reflects the likely workload and skills and competencies required to care for patients locally.

Principles of professional judgement in the context of this improvement resource include:

- considers the contextual factors in reaching a decision (eg competence, experience, staff known to the patient, familiarity with the team, activities and environment, etc)
- suitable for use in all specialties
- based on both subjective and objective judgement of lead nurse for each particular area
- registered professionals are accountable and responsible for their decisions and actions including legal and ethical considerations
- benefits from multiprofessional peer review where the experience, confidence and competence of those involved in making staffing decisions is monitored
- takes account of actual workload over a specific period of time

- inclusive of all activity, eg planned and unplanned workload, ward attenders and ad-hoc activity
- informs decisions on required numbers
- numbers and skill mix judgements validated when agreement reached between lead nurse and manager.

# Appendix 5: Quality dashboard (Birmingham Children's Hospital)

Ward Staffing	Early		Late		Night	
	RN (%)	CSW (%)	RN (%)	CSW (%)	RN (%)	CSW (%)
Feb 2017	26.4	22	24.8	22.6	28.4	27.3
Jan 2017	96.5	108	96.4	104	92.7	115.6
Dec 2016	88.2	126.5	89.7	123.5	87.1	106.5
Nov 2016	95.9	107.5	99.3	102.6	96.7	100

[Visit Ward Tool](#)

HII Overview (%)
Month Overall(%)
Feb 99.37
Jan 98.70
Dec 98.39

[Visit Full Report](#)

Hand Hygiene (%)
Month Overall(%)
Feb 99.76
Jan 99.78
Dec 99.53

[Visit Full Report](#)

NCQI (%)	Jan17	Dec16	Nov16	Oct16	Sep16
Cannula Care	90.5%	100%	97.2%	100%	88.2%
Communication	100%	100%	95.8%	100%	86.7%
Drug	95%	90%	94.4%	97.4%	88%
F&N	100%	100%	100%	100%	77.1%
Hygiene	91.7%	100%	100%	100%	96.7%
Observations	100%	95.7%	98.1%	100%	95.7%
Pain	100%	100%	100%	93.8%	93%
Skin Care	97.4%	100%	90.9%	100%	88%

Training Data (%)	May16	Apr16	Mar16
Appraisals	93.1	96.2	90
Basic Life Support	92.3	92	88.5
Child Protection Level 1	100	100	100
Information Governance	80.8	80	76.9
Medicines Management	92.3	92	88.5

Patient Experience - 1 Year
Positive Negative %(+)
26 3 89.7

[Visit Patient Experience](#)

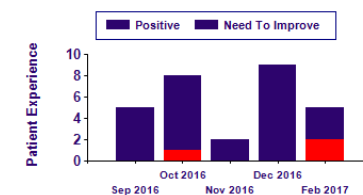
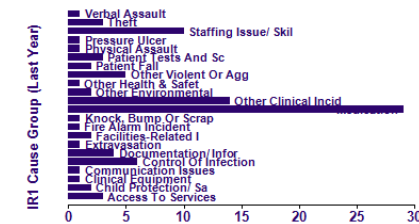
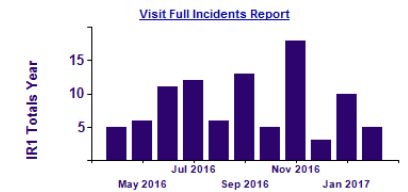
F&F Overall
Month Total Resp Positive Neutral Negative %(+)
Feb 114 110 4 0 96.49
Jan 6 6 0 0 100
Dec 26 26 0 0 100

[Visit Full Report](#)

F&F Adult Scores	Jan-17
Total Ward Discharges	100
Total number of responses in period	2
Positive Comments	2
Need To Improve	0
Net Positive Score	100
Ward Response Score (30% Target)	2%

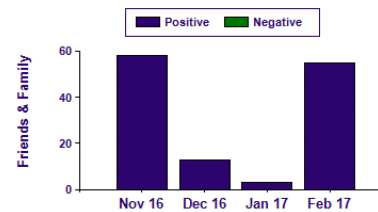
F&F Young People Scores	Jan-17
Total Ward Discharges	26
Total number of responses in period	0
Positive Comments	0
Need To Improve	0
Net Positive Score	0
Ward Response Score (30% Target)	0%

[Go To Full Friends & Family Report](#)



[National Paediatric Safety Thermometer Report](#)

Medication Safety Thermometer						
Month	Total Forms Collected	Medicine Reconciliation Rate	Omitted Doses Rate	Prescribed Critical Medicine	Wrong Dose Cases Rate	High Risk Medicine Rate
January 2017	17	-	17.6%	88.2%	-	11.8%
November 2016	17	-	-	94.1%	-	29.4%
October 2016	11	-	9.1%	100%	9.1%	9.1%



## Example process to develop a dashboard: pressure damage care at Great Ormond Street Hospital

At GOSH there is currently a strong focus on pressure damage care to ensure patients are receiving quality care at high standards and there is assurance around the process. All patients are assessed on admission in order to ascertain if they are at risk with a relevant plan of care. This assessment is then carried out on a regular basis (this may vary on patients depending on their risk score) to ensure that the risk is monitored.

The trust reports all pressure damage from grade 1 to 4 even though only grade 3 and grade 4 damage is reported externally.

All pressure damage is reported on the trust datix system (incident reporting system) regardless of grade, and any grade 3 and above will lead to a detailed root cause analysis (RCA) demonstrated whether the pressure damage was avoidable or not.

As a trust we would like to see no pressure damage reach to a grade 3 or above, which has led to a more robust approach to how pressure damage is managed at the very early stages.

The trust has a tissue viability nursing team (TVN) whose role is to assess all pressure damage at grade 2 and above. The TVN team has a referral system in place which is an electronic form that must be completed by staff who have identified pressure damage. The form also provides out-of-hours cover which at the trust is the plastics team. The form provides a dataset for the TVN team who will log this data enable the trust to focus on trends and changes over time. Once referred the TVN team will assess the patient and provide a plan of care that is appropriate for the patient. The patient will continue to be assessed.

The process for grade 2 pressures damage will ensure that a mini RCA is carried out as appropriate for all device-related pressure damage. Device-related pressure

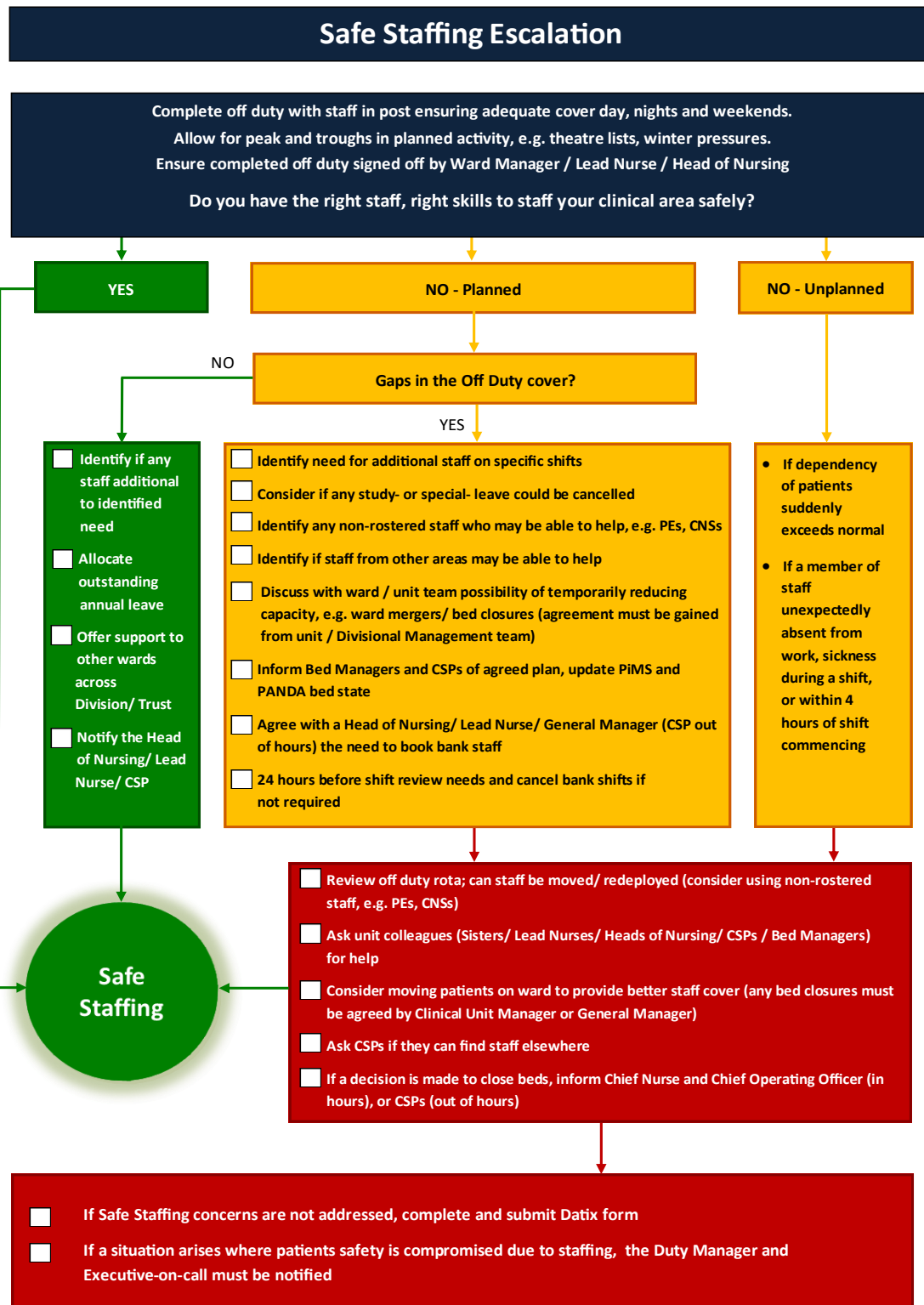
damage will have a RCA that will be determined on what is considered to be out of the normal range for that particular clinical area. The normal range is determined by previous data with regards to trends. If a clinical area has deviated from the normal range then a device-related RCA will be carried out with a focus on device changes, education, users, etc, which will involve the staff.

If grade 2 pressure damage non device-related occurs, a mini RCA will be carried out immediately with the TVN team and the relevant ward to understand the cause and to carry out any actions required in order to prevent further deterioration.

Challenge meetings have also been implemented for grade 3 and above hospital-acquired pressure damage. The meeting involves presentation of the RCA to senior nursing staff by the senior ward staff to determine if the pressure damage was avoidable and would the team take a different approach if presented with similar circumstances. Learning from this challenge will also be disseminated with the staff and trust wide.

The above approach to pressure damage provides a robust assessment and assurance process.

# Appendix 6: Escalation algorithm (Great Ormond Street Hospital 2015)



# Appendix 7: Cultural enhancement care study

## Birmingham Children's Hospital

### Developing culture through enhanced teamwork

In September 2013, BCH embarked on a mission to extend team-based working across the trust, to support staff experience, patient experience, quality and safety. Team and inter-team working are critical to developing improved patient pathways which will provide high quality, efficient services for the next generation of children and families at BCH.

We committed to building Team BCH through introduction of a formal programme of team development, aimed at improving team leader capability, based on Professor Michael West's components of team effectiveness. BCH recognised that effective team working aided staff engagement, reduced sickness and absenteeism, provided higher quality safe care and enhanced patient experience.

Team leaders in clinical and non-clinical rolls are invited to sign up to a 6-month programme. This consists of:

- 2 days 'core skills' workshop
- Assessment of current levels of team effectiveness
- On-the-job application of team effectiveness principles utilising our Team Maker workbook
- Action learning and additional input on valuing diversity and creating a resilient workplace
- Follow up report on team effectiveness
- **Award ceremony presided over by one of the Chief Officers to acknowledge delegates as 'BCH Team Makers'.**



To complement this we introduced other interventions to enhance team work, eg 'In their shoes' shadowing programme, 'Paired Learning' linking managers and doctors to break down traditional perceptions and barriers.

In July 2014 we introduced the Team Player programme, suitable for all staff and raising awareness of personal responsibility in effective team working. This philosophy was also embedded in trust induction and all new starters are inducted into the TeamBCH philosophy.

We developed the concept of effective team working further and in September 2014 launched the health and wellbeing strategy, Caring for Team BCH. This recognises that team-based working is more effective when people are emotionally and physically healthy. When we care for our teams, and teams care for each other, our teams are better able to care for our children and families. The Team Maker model is also used to support specific teams in difficulty.

To provide world-class patient care for the next generation of children and families BCH must continue to enhance quality outcomes and experience. We must continue to attract a flow of children and young people to BCH to financially sustain our Trust and the care it provides, long term.

BCH recognises team and inter-team working as critical to developing improved patient pathways to provide high quality, efficient services for the next generation of children and families. New pathways were business critical to our merger with Birmingham Women's hospital and expanding hospital site.

Professor Michael West's research demonstrates evidence of link between teamwork, clinical outcomes and safety. BCH team based programmes enhance team leader capability, team work, and assists BCH's ability to continually improve quality.

The research demonstrates a link between staff engagement and team working. There is also an evidenced link between staff feeling safe and cared for and the ability to sustain high quality, compassionate care. The Building and Caring for Team

BCH approaches take the learning of the team leader back into the workplace and involves the whole team in moving forward. This is aimed to enhance engagement across the whole trust.

### **Design and implementation process and evaluation**

The catalyst was the work of Professor Michael West and BCH executive team's desire to utilise this research to build and care for Team BCH following feedback from staff during engagement and listening events and in line with the Next Generation strategy.

An organisation-wide audit on team-working took place in September at the annual large scale engagement event, 'InTent' and demonstrated the need to help team leaders focus on setting objectives, giving clarity and building teams.

The multiprofessional programme was designed around Michael West's 7 essential aspects of team working and each aspect was put into context of BCH by utilising InTent feedback. The design of the skills workshop and master class addresses both 'what' to do and 'how' team leaders can do this. This includes learning and practical application on communication, engagement and influence and understanding ourselves and others. Also, how we create environments that support resilience and encourage self-care and care of others in the team.

Design includes: 2 day skills workshop, team audit on 7 essential aspects of effective team working, practical application, master class/action learning set and a re-audit of effectiveness.

This approach is embedded into BCH induction and is used with teams in difficulty.

### **Measurable achievements, expected benefits and impact on patient/service user care**

The pre and post team effectiveness feedback evidences improvements in team identity, communication, team problem solving and decision making and leaders

taking positive actions when concerns are raised during the period December 2013 – January 2015.

Our staff survey data also demonstrates improvements in staff engagement, up from 3.84 (2013) to 4.01 (2015), and in staff recommendation of the Trust as a place to work, motivation, and team working 3.72 (2013) – 3.85 (2015). We have further seen improvements in job satisfaction management support, and staff feeling that the organisation takes an interest in their wellbeing. We saw a significant reduction in work related stress from 2013 (40%) to 2014 (34%), but saw this increase slightly in 2015 to 36%. This was anticipated given the pressures being faced by the Trust and wider NHS at the time. We await our 2016 results.

We can evidence the value of TeamBCH philosophy, our programmes and bespoke team interventions with our last 4 years' staff engagement scores. These have shown a year-on-year improvement over the past 4 years from 3.73 in 2012 to 4.01 in 2015.

Qualitative feedback includes:

“The Team Maker programme was invaluable. It helped me to bring a sense of unity and focus towards our shared goal. It allowed me to have the confidence to step back and clearly identify each team member as an individual and how I can use their strengths to not only to develop them personally but to make us a stronger team. Including them in decision making, encouraging open and honest feedback, developing our shared objectives and roles has helped us effectively realise our team identity. Following the Team Maker programme I can honestly say that the way we work as a team, the way we support and respect each other is our strongest asset. The stronger the Team the stronger the service we can provide to our service users.” **Ward Sister**

“Things we are doing differently...

- Weekly/bi weekly meetings to understand not only work pressures but to take time out to talk about ourselves as a team

- Take time out to have team lunches (Pizza Hut buffet!)
- We all did our learning styles to understand how each of us worked differently
- Posters on the walls about our team identity/how we celebrate success/inter team working and our team objective” ***Service lead***

“Inspirational board for our teams vision and values, which relate to our own group and working relationships” ***Audiologist***

“The Team Maker approach is fantastic. We need to spread the word with our consultant colleagues.” ***Paediatric Consultant***

### **Sustainability and spread**

The Team Maker programme has become a core part of our leadership and personal development offer, enabling access of up to 200 individuals per year. We have developed resources and capacity to continue to deliver, and have the full backing of the Executive and Senior Leadership Teams.

The programme aims to embed principles through ‘on the job’ activity to enable the real practical application of the tools and models taught. This is further sustained through embedding the approach into induction, bespoke team interventions and how we approach service transformation and improved patient pathways. Social media has played a big part in spreading the concepts of building #TeamBCH and #CaringforteamBCH. This approach has allowed our successes to be shared nationally and we are regularly contacted, through Twitter, by other trusts that want to learn from our approach. We were also selected by NHS England to be part of the Healthy Workforce pilot.

### **Modelling excellent team working through the design and implementation phases**

- Created a strong vision of project success with stakeholders
- Identified where we are now with staff engagement and friends and family test and where we aspire to be

- Solicited feedback from across the organisation on building team BCH
- Assigned project roles and responsibilities
- Branded the programme as part of the building team BCH
- Cascade through the organisation that they had been listened to and this was on the way
- Worked across teams, eg with communications
- Ran a pilot with the PICU top team and constructively debated how to evolve the programme
- Cascade through the organisation that they had been listened to and this was on the way
- Regular review and feedback.

### **Potential learning for other health and social care organisations from this project**

Building and Caring for Team BCH, is based on research and evidence, and promotes effective team-working at every level. We strongly believe that too much focus is often put on 'leadership' development when many do not have the basic foundations of being an effective manager or team leader. Our programmes give people core skills, encourage the use of coaching as a management style, enable and empower individuals to become part of the team and enhance team-working. It has its roots in positive behaviours and uses simple tools. What we have developed is not just based on academic research, but on what our staff told us they wanted from their managers.

During the last 15 months we have shared our philosophy and programmes for Build and Care for Team BCH with trusts across the U.K. We have shared case studies with NHS Employers and our chief executive was interviewed by the HSJ on our approach.

Success brings challenges and our small Staff Experience team stretches to manage demand for support with building and caring for Team BCH. To manage demand we have restructured team roles to build facilitator capacity and used this as an opportunity for an intern to work with the team.

If you would like more information on this case study please contact Frances O'Connor ([Frances.O'Connor@nhs.net](mailto:Frances.O'Connor@nhs.net))

## Appendix 8: Generic statement on care of people with learning disabilities

All healthcare providers must strategically plan for an interdisciplinary workforce that can meet the often-complex needs of people with learning disabilities. It is a legal requirement that reasonable adjustments are made to ensure that people with learning disabilities have equal opportunities for their health needs to be met (Equality Act 2010).<sup>4</sup> People with learning disabilities are more likely to have undiagnosed or wrongly diagnosed health needs and die prematurely from preventable causes (Healthcare for All 2008, Blair et al 2013).

Meeting these requirements in terms of safe and sustainable staffing includes:

- ensuring that within the staffing establishment there are sufficient numbers of specialist staff available
- providing regular training to the wider workforce to ensure that they are able to identify people who may present with learning disabilities, autism or other complex communication needs
- embracing flexibility in the way care is delivered, allowing enough time and support to enable quality outcomes
- ensuring all staff are aware of their duties under the Mental Capacity Act (2005)<sup>5</sup> and the need to work in partnership with the individual, their families, carers and other multi-agency professionals
- having workforce plans with the capacity to ensure that everyone's right to receive appropriate healthcare is realised

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<sup>4</sup> <https://www.gov.uk/guidance/equality-act-2010-guidance>

<sup>5</sup> <http://www.legislation.gov.uk/ukpga/2005/9/contents>

- appropriate liaison with community multidisciplinary teams if reasonable adjustments are not sufficient to ensure equality of healthcare.

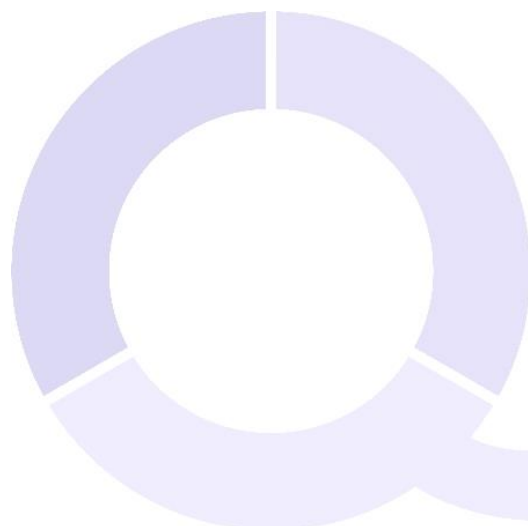


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