The purpose of this paper is to provide details on the Nursing & Midwifery workforce numbers and skill mix at the Countess of Chester NHS Foundation Trust. It will evaluate if the current establishment provides the right number of staff, with the right skills in the right place at the right time.

Reporting period 1st January 2017-31st December 2017
Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Section 1: National context</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Section 2: Local context</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>Section 3: 2017 Staffing review &amp; evaluation of compliance against national standards</strong></td>
<td>11</td>
</tr>
<tr>
<td>o Position against 2018 National Quality Board (NQB) recommendations</td>
<td></td>
</tr>
<tr>
<td>o Position against ‘Safe staffing for nursing in adult inpatient wards in acute hospitals’ (NICE 2014)</td>
<td></td>
</tr>
<tr>
<td>o Position against Safe Midwife staffing in Maternity settings (NICE 2015)</td>
<td></td>
</tr>
<tr>
<td>o Organisational overview on staffing numbers, triangulated with key safety, quality &amp; patient experience outcomes</td>
<td></td>
</tr>
<tr>
<td><strong>Section 5: Actions taken during 2017 to support the Nursing &amp; Midwifery workforce</strong></td>
<td>27</td>
</tr>
<tr>
<td><strong>Section 6: Conclusion &amp; Recommendations for 2018</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>References</strong></td>
<td>32</td>
</tr>
<tr>
<td><strong>Appendices: Ward &amp; department establishment reviews</strong></td>
<td>1-101</td>
</tr>
<tr>
<td><strong>Appendix 1: Emergency Department</strong></td>
<td>(appendices document)</td>
</tr>
<tr>
<td><strong>Appendix 2: Ward 29 &amp; 30 (Children’s)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 3: Neonatal Unit (NNU)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 4: Maternity</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 5: Ward 33 (Stroke)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 6: Ward 34 (Intermediate Care)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 7: Ward 40 (Women’s Surgical Unit)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 8: Ward 41 (Surgery)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 9: Ward 42 (CCU &amp; Cardiology)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 10: Ward 43 (Haematology &amp; Oncology)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 11: Ward 44 (Surgery)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 12: Ward 45 (Surgery)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 13: Ward 46 (Short Stay)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 14: Ward 47 (Acute Medical Assessment Unit)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 15: Ward 48 (Respiratory)</strong></td>
<td></td>
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<tr>
<td><strong>Appendix 16: Ward 49 (Gastroenterology)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 17: Ward 50 (Elderly Care)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 18: Ward 51 (Elderly Care)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 19: Ward 52 (Trauma &amp; Orthopaedics)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 20: Ward 53 (Vascular)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 21: Ward 54 (General Medicine)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 22: Ward 60 (Haematology &amp; Oncology)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 23: Bluebell (EPH)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 24: Poppy Unit (EPH)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appendix 25: Critical Care (ICU)</strong></td>
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<tr>
<td><strong>Appendix 26: Renal Unit</strong></td>
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</table>
Introduction

The purpose of this paper is to provide details on the Nursing & Midwifery workforce numbers and skill mix at the Countess of Chester NHS Foundation Trust. It will evaluate if the current establishment provides the right number of staff, with the right skills in the right place at the right time. Using intelligence from evidenced based tools and the triangulation of meaningful safety, quality & patient experience measures to appraise the information provide and where necessary make recommendations for improvement during 2018.

Safe registered nurse & midwifery staffing levels are required to deliver safe, effective, quality care and treatment to patients and families accessing healthcare services. In order to deliver services that are efficient and sustainable the right numbers of appropriately skilled people need to be provided. In nursing and midwifery, the number of people needed and skills required depend on a number of factors, including but not limited to:

- Patients level of dependency & the complexity of their condition
- Acuity & severity of illness
- Ward or department activity
- Geographical layout of the ward or department
- Medical staffing model in place
- AHP support available

As a consequence setting nationally agreed standards for safe staffing levels is problematic and each area needs to be assessed within the context of the patient case-mix seen and the expected level of activity. As acuity and activity can vary and at times behave unpredictably, a flexible and transferable nursing and midwifery workforce model is required to respond to fluctuating demand and operational pressures. Monitoring key safety, quality and experience metrics is essential to evaluating if the nurse and midwifery staffing levels in a particular area are appropriate. The triangulation of these metrics, alongside the use of a validated evidenced based tool and professional judgement are central to making informed decisions about staffing requirements in real-time, or over a period of time to ensure nursing & midwifery establishments meet patients’ expectations and provide high quality care.

Traditional methodologies for assessing the number of staff needed are recognised to be out dated. Care Hours Per Patient Day (CHPPD) was introduced as part of Lord Carters review of operational productivity and performance in English acute hospitals in 2015, as a way of representing staffing data that can better summarise the complexity of the constant change in staff and patient numbers. It measures how many hours of care are provided collectively by registered nurses/midwives, healthcare assistants and therapists (if included in the ward establishment model) per patient in a 24 hour period. CHPPD is calculated by dividing the total number of nursing hours on a ward or unit by the number of patients in beds at the midnight census, representing the number of nursing hours that are available to each patient.

\[
\text{Care Hours per Patient Day (CHPPD)} = \frac{\text{Hours of RN/RM + Hours of NA over 24 hour period}}{\text{Total Number of In Patients (Midnight Census)}}
\]
CHPPD is a way of representing staffing data that puts the care hours in the context of the patient activity, in an easy to understand figure. Using CHPPD has a number of advantages over other methods as it:

- gives a single figure that represents both staffing levels and patient requirements, unlike actual hours alone
- allows for comparisons between wards/units, as CHPPD has been divided by the number of patients, the value doesn’t increase due to the size of the unit – allowing comparisons between different units of different sizes
Section 1: National Context

It is recognised that there is a shortfall in nurse numbers across the United Kingdom (UK). In adult nursing this represents 10% of the overall nursing workforce needed, which equates to a shortfall of 22,000 nurses\(^5\). Depending on the number of nurses trained and/or recruited this figure may increase, with the most pessimistic national scenario reporting a shortfall of 38,000 nurses\(^4\) by 2020. In addition to the growing shortfall reported, a number of other national challenges compound this issue; these include but are not limited to:

- Aging workforce profile\(^6\)
- Increase in number of nurses and midwives leaving the profession\(^7\)
- Changes in nurse training & loss of bursary payments\(^8\)
- Reduction of CPD funding impacting on training & development opportunities
- No backfill provided for nurse apprenticeship programmes
- Growing number of advanced nurse practitioner roles to support medical rotas

Further statistics released in the national press in January 2018 outlines that 33,000 nurses a year are leaving the NHS in England (over 1 in 10 employed); this is 20% more than left in the same period four years ago. Evidence is growing in this area and is demonstrating the number leaving outweighs the number joining. The retirement age for nurses and midwives is also reducing and younger staff are choosing not to stay in the profession (24% of leavers are under 30, 27% are 30 to 39, 16% are 40 to 49, 23% are 50 to 59)\(^9\). Applications to Higher Education Institutes (HEIs) for Nursing, Midwifery & Allied Healthcare Professional (AHP) training have fallen by 23% across the United Kingdom (UK) since the loss of the bursary, with reports of 1200 less students enrolled on Registered Nursing programmes in England in the autumn of 2017\(^6\).

Health Education England (HEE) is responsible for ensuring that there is sufficient future supply of staff to meet the workforce requirements for Healthcare in England. The introduction of the Apprenticeship Levey and the development of Higher Apprenticeship programme for Registered Nursing (soon to include Midwives), supported by the new Nursing Associate role have been welcomed by NHS Employers. Together they offer a solution to ensure a sustainable model that is underpinned by clear career progression and allows for Local Providers to determine the number of training places needed & offered to meet demand. However, challenges to implementing such programmes include:

- Releasing students for supernumerary placements
- Mentorship capacity within the clinical environment
- No backfill monies available to support clinical areas releasing staff which is compounded further by growing vacancy, sickness, maternity & turnover rates
- Funding for backfill is the responsibility of the Local Provider
Section 2: Local Context
The current position for nursing & midwifery staffing at the Countess of Chester NHS Foundation Trust is creating a growing challenge, with **70.14 FTE registered nursing & midwifery posts currently unfilled** (found in table 1) and **an increasing trend in staff turnover currently reaching 14.31%** (found in graph 1). Compounding this situation is the additional staff required to cover sickness/absence and unfunded parent leave creating a growing reliance on temporary staffing solutions (including bank & agency). In addition, the growing complexity & increasing acuity has been coupled with an increase in the number of additional staff required to maintain safety in the clinical area, with a significate increase noted for 1:1 supervision shifts during 2017.

**Table 1: Current registered nurse & midwifery vacancies (FTE)-update-Julie Weeks**

<table>
<thead>
<tr>
<th></th>
<th>Nov 2017</th>
<th>Dec 2017</th>
<th>Jan 2018</th>
<th>Feb 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 6</td>
<td>7.34</td>
<td>5.06</td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Band 5</td>
<td>60.65</td>
<td>67.58</td>
<td>64.14</td>
<td>64.14</td>
</tr>
<tr>
<td>Total</td>
<td>67.99</td>
<td>72.64</td>
<td>70.14</td>
<td>70.14</td>
</tr>
</tbody>
</table>

**Graph 1: Current turnover (Starters & leavers figures, January- December 2017)**

Recruitment of newly qualified nurses from the University of Chester remains a priority in the trusts recruitment strategy. However, **the number of new recruits fall short of the expected numbers of registered nurses needed** (found in graph 2). In June 2017 a snap shot of the current nursing age profile was taken which demonstrates that **24.5% of the nursing workforce is aged 50 years or over** (found in graph 3), with **8.9% of these aged 55 years or over**. When these components are reviewed together (found in graph 4) it demonstrates that there is a significant risk if university recruitment alone is relied upon to fill nurse vacancies. **NB. These projections were made prior to the loss of**
The overarching nursing and midwifery workforce risks are articulated in the relevant people & workforce section within the Board Assurance Framework.

**Graph 2: COCH projected shortfall figures for RNs**

![Graph 2](image)

**Graph 3: Age profile of nursing & midwifery staff in post (June 2017)**

![Graph 3](image)
Graph 4: Shortfall in nurse fill rates when reviewing University recruitment only

Staffing Solutions demand & supply has grown significantly during 2017 and reached an unsustainable position in December. The data presented below (found in table 2 & 3) shows a comparison between December 2016 & December 2017 for both RNs & NAs in relation to:

- Number of staff employed by Staffing Solutions
- Number of shifts requested
- Fill rates

Table 2: Registered Nurse (RN) demand & supply

<table>
<thead>
<tr>
<th></th>
<th>December 2016</th>
<th>December 2017</th>
<th>Difference</th>
<th>% increase/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of RNs registered on our bank</td>
<td>298</td>
<td>318</td>
<td>20</td>
<td>7%</td>
</tr>
<tr>
<td>RN Shifts requested (demand)</td>
<td>596</td>
<td>1210</td>
<td>614</td>
<td>103%</td>
</tr>
<tr>
<td>RN hours requested</td>
<td>4591</td>
<td>10137</td>
<td>5546</td>
<td>121%</td>
</tr>
<tr>
<td>WTE requested</td>
<td>122.43</td>
<td>270.32</td>
<td>147.89</td>
<td>121%</td>
</tr>
<tr>
<td>RN shifts filled (supply)</td>
<td>254</td>
<td>490</td>
<td>236</td>
<td>93%</td>
</tr>
<tr>
<td>RN hours filled</td>
<td>1962</td>
<td>4025</td>
<td>2063</td>
<td>105%</td>
</tr>
<tr>
<td>WTE filled</td>
<td>52.32</td>
<td>107.33</td>
<td>55.01</td>
<td>105%</td>
</tr>
<tr>
<td>Fill rates (shifts)</td>
<td>42.62%</td>
<td>40.50%</td>
<td>-0.02</td>
<td>-5%</td>
</tr>
<tr>
<td>RN agency shift fill</td>
<td>50</td>
<td>255</td>
<td>205.00</td>
<td>410%</td>
</tr>
</tbody>
</table>

This information demonstrates that there has been an increase of 103% on RN requests & a 121% increase in hours needed when compared to December 2016. Despite there being a growth of 7% in the number of RNs working on the bank it is clear there is a shortfall on the supply of RNs needed and as a result fill rates have reduced by 5% in comparison. This increases reliance on agency staff
and adds additional pressure to roster management, as temporary staff (bank or agency) tend to work desirable shifts and often in a chosen area. There are also many substantive staff members who work on the bank which increases the risk of ‘burnout’ and can affect team & individual resilience.

**Table 3: Nursing Assistants (NA) demand & supply**

<table>
<thead>
<tr>
<th></th>
<th>December 2016</th>
<th>December 2017</th>
<th>Difference</th>
<th>% increase/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of NAs registered on our bank</td>
<td>563</td>
<td>608</td>
<td>45</td>
<td>8%</td>
</tr>
<tr>
<td>NA Shifts requested (demand)</td>
<td>1190</td>
<td>2433</td>
<td>1243</td>
<td>104%</td>
</tr>
<tr>
<td>NA hours requested</td>
<td>10345</td>
<td>18592</td>
<td>8247</td>
<td>80%</td>
</tr>
<tr>
<td>WTE requested</td>
<td>275.87</td>
<td>495.79</td>
<td>219.92</td>
<td>80%</td>
</tr>
<tr>
<td>NA shifts filled (supply)</td>
<td>894</td>
<td>1681</td>
<td>787</td>
<td>88%</td>
</tr>
<tr>
<td>NA hours filled</td>
<td>7879</td>
<td>12709</td>
<td>4830</td>
<td>61%</td>
</tr>
<tr>
<td>WTE filled</td>
<td>210.11</td>
<td>338.91</td>
<td>128.8</td>
<td>61%</td>
</tr>
<tr>
<td>Fill rates (shifts)</td>
<td>75.13%</td>
<td>69.09%</td>
<td>-0.06</td>
<td>-8%</td>
</tr>
<tr>
<td>NA agency shift fill</td>
<td>0</td>
<td>31</td>
<td>31.00</td>
<td>310%</td>
</tr>
</tbody>
</table>

This information demonstrates an 8% increase in NAs working on the bank; however there has been a 104% increase in the number of shifts requested which equates to an additional 1243 shifts when compared to December 2016. This has resulted in an overall reduction in fill rates by 8% and a 310% increase in agency shifts at NA band 2 to support.

This increased reliance on temporary staffing solutions correlates with the increase in;

- Number of vacancies
- % turnover
- % maternity/adoption leave
- Acuity & dependency

An analysis taken from HealthRoster comparing maternity/adoption leave in April 2017 with December 2017 demonstrates a 43% increase in Planned Care and a further 3% increase in Urgent Care. **This is not currently reflected in the uplift provided in establishments for ‘unavailability’**.

During 2017 between 500-1000 shifts were requests for 1:1 supervision (NA band 2) per month. Table 4 shows those wards who requested more than 300 shifts consistently each month, with the highest requesters in blue. Graph 5 demonstrates the increase in demand for 1:1 shifts between April 2017 & December 2017.

**Table 4: 1:1 care incidences (over 300) by ward, with the 5 highest wards highlighted in blue (data range April 2017 & December 2017)**

<table>
<thead>
<tr>
<th>Ward Name</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 48</td>
<td>32</td>
<td>15</td>
<td>168</td>
<td>166</td>
<td>234</td>
<td>312</td>
<td>283</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Ward 33</td>
<td>82</td>
<td>0</td>
<td>0</td>
<td>146</td>
<td>187</td>
<td>138</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
In order to optimise use of the substantive nursing & midwifery workforce, the Trust has implemented innovative systems and processes to support the achievement of an acuity based workforce. The purpose of this programme is to move away from traditional staffing models and flex the workforce (both number & skill mix) to support the actual acuity and dependency of patients, resulting in the right staff, with the right skills, in the right place at the right time to meet patient’s needs. Electronic rosters (HealthRoster) have been implemented in 40 wards/departments across the Trust with 2999 nurses and midwives now able to instantly access and view their rosters from a phone or tablet. Rosters are published 6 weeks in advance which supports a healthy work/life balance and allows for early planning to cover unfilled shifts. The electronic roster links with BankStaff which supports 24 hour direct booking of nurse bank shifts when shifts cannot be filled by substantive staff.

Staff record live acuity data in SafeCare, 3 times in each 24 hour period within adult & paediatric inpatient areas. SafeCare links to HealthRoster and provides visibility and transparency of nurse staffing and patient acuity across the Trust. Senior nursing teams are able to identify a shortage or excess of nursing hours based on live patient acuity and can use this information alongside professional judgement to redeploy staff accordingly. The combination of efficient rostering, utilising all contracted hours, improving annual leave management, staffing to establishment levels and not
above them, challenge of rosters by senior nurses, peer review through the ward managers key performance indicators (KPIs) and redeployment of staff in accordance with patient acuity, has resulted in optimum use of nursing hours and care that is tailored to the needs of patients. The acuity based workforce programme has also supported efficiency savings during 2017 including a 41% reduction in nurse agency spend and a 9% reduction in nurse overtime.

Graph 6: Provides details of agency spend in Nursing & Midwifery over time
Section 3: Staffing review & evaluation of compliance against national standards

Assessing the nursing & midwifery needs of individual patients is central to making informed decisions about staffing levels and the skills needed by staff.\textsuperscript{6,10} There is no single nurse to patient ratio that can be applied across all acute provider settings, largely due to the diversity of inpatient areas, the complexity of patient needs and the geographical layout of wards & departments. As such, it is paramount that a combination of factors are taken into consideration when reviewing if the nursing & midwifery staffing numbers & skill mix are sufficient to maintain the safety of patients and provided a high quality experience\textsuperscript{1}.

Methodology

The National Quality Board (NQB) has published a framework for provider organisations to use when assessing and reviewing nursing & midwifery establishments. It is designed to ensure transparency in reporting from ward level to board level and details the information that should be used to provide assurance\textsuperscript{1}. The recommendations ensure that staffing reviews focus on 3 expectations;

- **Expectation 1: Right staff**
- **Expectation 2: Right skills**
- **Expectation 3: Right place & time**

This framework provides a structured approach, using the best available evidence to ensure triangulation of key safety, quality & patient experience measures that can then be used to interpret if staffing levels meet the expectations of patients. This review includes the overall organisational position and then a breakdown by ward/department (appendix 1—26) by evaluating;

- Number of nurses & midwives planned for
- Number of nurses & midwives available
- Number of nurses needed based on acuity assessment (using a validated tool & CHPPD)
- Any shortfall in nursing & midwifery hours
- Current vacancy & sickness rates by ward/department
- Triangulation of information from;
  - Red flags analysis\textsuperscript{4}
  - Analysis of staffing incidents with harm\textsuperscript{1}
  - Evaluation of concerns or complaints raised by patients\textsuperscript{1}

\textit{In addition for Midwifery a further analysis against relevant national standards can be found in appendix 4.}
Position against 2018 National Quality Board (NQB) recommendations

Table 5 & 6 demonstrate the Countess of Chester NHS Foundation Trusts compliance against the newly published 2018 NQB recommendations and provides details of how these are achieve. Where gaps do exist the plan for achieving compliance during 2018 is outlined.

Table 5: Compliance to NQB (2018) ‘adult inpatient wards in acute hospitals’ recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Compliance</th>
<th>Evidence and/or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A systematic approach should be adopted using an evidence-informed decision</td>
<td>Achieved</td>
<td>SafeCare uses NICE recommended ‘Shelford Safer nursing care’ tool. Acuity census is taken 3 times daily to measure number of care hours needed. Data collected is used to inform staffing decisions alongside professional judgement. Comparative data on model hospital portal is available.</td>
</tr>
<tr>
<td>deployment tool triangulated with professional judgement and comparison with relevant peers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A strategic staff review must be undertaken annually or sooner if changes to</td>
<td>Achieved</td>
<td>Annual staffing paper presented to Trust Board in March 2018. If changes to services are made, individual workforce reviews form part of the overarching operational plan, with any additional requirements and/or staffing model changes outlined.</td>
</tr>
<tr>
<td>services are planned.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staffing decisions should be taken in the context of the wider registered</td>
<td>Partially achieved</td>
<td>This is in place in the intermediate care areas (ward 34 &amp; Bluebell), however further work is needed to assess the acute ward staffing models to meet patients’ needs in the next 5-10 years. An action plan has been designed to support this work stream, details of which can be found in section 5.</td>
</tr>
<tr>
<td>multi-professional team.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consideration of safer staffing requirements and workforce productivity</td>
<td>Achieved</td>
<td>Operational planning includes the workforce requirements needed to underpin new models of care or changes in operational process. This will continue during 2018 and is a key feature in the Trust’s Business Plan and the Model Ward programme.</td>
</tr>
<tr>
<td>should form an integral part of the operational planning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action plans to address local recruitment and retention prioritises should be</td>
<td>Achieved</td>
<td>Recruitment &amp; Retention Strategy in place, supported by comprehensive work programme (overview can be found in section 5). Task &amp; finish group meet monthly to progress actions and report to the Nursing &amp; Midwifery Workforce Committee. Membership recently extended to include AHP colleagues.</td>
</tr>
<tr>
<td>in place and subject to regular review.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible employment options and efficient deployment of staff should be</td>
<td>Partially achieved</td>
<td>Flexible employment options available, acuity based deployment model in place, however due to vacancies, increase in parenting leave &amp; increase in patient acuity (in particular 1:1 requests) there</td>
</tr>
<tr>
<td>maximised across the hospital to limit the use of temporary staff.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
has been an increase in the reliance on temporary staffing solutions towards the end of 2017.

A local dashboard should be in place to assure stakeholders regarding safe and sustainable staffing. The dashboard should include quality indicators to support decision making.

Partially achieved

Safe staffing dashboard developed & in use, reported to QSPEC monthly. Care assurance framework under development and Qlikview ‘Safety & Quality’ dashboard to be launched by April 2018.

Organisations should ensure they have an appropriate escalation process in cases where staffing is not delivering the outcomes identified.

Achieved

Real time reporting: Red flags are loaded into SafeCare system; ward managers & matrons have oversight & manage and/or escalate the risks identified. Any incidents relating to staffing are recorded in the Datix system and investigated in line with governance procedure. If staff redeployment is required the matrons will use the SafeCare tool alongside professional judgement to make staffing decisions (site coordinators out of hours take on this role).

Weekly reporting: Virtual nursing & midwifery staffing call held weekly, chaired by one of the Associate Directors of Nursing, looking forward at the staffing & skill mix numbers, making decisions regarding redeployment, need for temporary staffing & peak annual leave periods. Concerns & issues may also be raised and actioned.

Monthly report: Ward manager KPI’s include key safety, quality & patient experience measures, these are reported on and discussed monthly with relevant matron, oversight is provided by the Divisional Associate Director of Nursing who reports monthly the Divisional position to the Director of Nursing & Quality.

All organisations should include a process to determine additional staff uplift requirements based on the needs of patients & staff.

Not met

Current uplift is not reflective of patient & staff requirements.

All organisations should investigate staffing-related incidents and their outcomes on patients and ensure action & feedback.

Achieved

COCH Risk Management system is Datix; this system incorporates all aspects of Incident Management. The online incident reporting form is simple to use and suitable for both clinical and non-clinical incident reporting. Staffing is a category and in addition every submission has the section ‘is this incident related to staffing’? The system allows the reporter
The Risk & Safety Team send all low/no harm staffing incidents to the specific ward/departmental manager to review and action, this allows ownership, prompt action and feedback to staff. The Risk & Safety Leads monitor incidents that have caused moderate and above categories of harm, produce SBAR’s for the Trust Serious Incident panel who then decide upon the level of action required. Any action plans that form part of a Level 1 or 2 Investigation are monitored by the Divisional Governance Board until completed and are signed off by the CCG. The Datix system promotes a culture of learning by recording, investigating and analysing COCH’s incidents and stores evidence to support compliance/action plans/emails to colleagues/contacts with service users. The compliance manager has built a staffing incidents dashboard which facilitates ease of review for current status/trends/themes.

Table 6: Compliance to NQ8 (2018) improvement resource for maternity services’ recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Compliance</th>
<th>Evidence and/or actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boards are accountable for assuring themselves that appropriate tools (such as the NICE-recommended Birthrate Plus (BR+) tool for midwifery staffing) are used to assess multi-professional staffing requirements.</td>
<td>In process</td>
<td>Planned for May 2018.</td>
</tr>
<tr>
<td>Boards are accountable for assuring themselves that results from using workforce planning tools are cross-checked with professional judgement and benchmarking peers.</td>
<td>Not met</td>
<td>No workforce planning tool in use currently (please refer to section 6; recommendations for 2018).</td>
</tr>
<tr>
<td>Boards must review midwifery staffing annually, aligned to their operational and strategic planning processes and review of workforce productivity, as well as a midpoint review every six months in line with NICE guideline NG4.</td>
<td>Partially achieved</td>
<td>Staffing reviewed conducted 6 monthly, however accurate staffing requirements not available as yet to implement evidence based workforce planning tool.</td>
</tr>
<tr>
<td>Boards are accountable for assuring themselves that staffing reviews use the RCOG, RCoA and OAA guidelines on effective maternity staffing resources.</td>
<td>Achieved</td>
<td>All staff attend mandatory training.</td>
</tr>
<tr>
<td>Boards are accountable for assuring</td>
<td>Achieved</td>
<td></td>
</tr>
</tbody>
</table>
themselves that sufficient staff have attended required training and development, and are competent to deliver safe maternity care.

Organisations should have action plans to address local recruitment and retention priorities, which are subject to regular review.  
Achieved  
Recruitment & Retention Strategy in place, support by comprehensive work programme (details of which can be found in section 5). Task & finish group meet monthly to progress actions and report to the Nursing & Midwifery Workforce Committee. Membership recently extended to include AHP colleagues.

Flexible employment options and efficient deployment of trained staff should be maximised across the hospital to limit numbers of temporary staff.  
Achieved  
Only 1 midwife utilised through temporary staffing, fix term/temporary midwives employed to cover maternity/adoption leave.

Organisations should have a local dashboard to assure stakeholders about safe and sustainable staffing. The dashboard should include quality indicators to support decision-making.  
Partially achieved  
Safe staffing dashboard developed & in use, reported to QSPEC monthly. Care assurance framework under development and Qlikview ‘Safety & Quality’ dashboard to be launched by April 2018.

Organisations should have clear escalation processes to enable them to respond to unpredicted service needs and concerns about staffing.  
Achieved  
Escalation process found in staffing guideline.

Establishments should include an uplift to allow for the management of planned and unplanned leave to ensure that absences can be managed effectively.  
Achieved  
Annual leave rostered evenly throughout the year (in line with KPI’s). Introduction of e-rostering supports this.

Organisations must have mandatory training, development and education programmes for the multidisciplinary team, and establishments must allow for staff to be released for training and development.  
Achieved  
Robust training programme staff rostered to attend.

Organisations must take an evidence-based approach to supporting efficient and effective team working.  
Achieved  
All training and guidelines are evidence based.

Services should regularly review red flag events and feedback from women, regarding them as an early warning system.  
Achieved  
Red flags as per report (found in appendix 4). Safety thermometer and F&F completed monthly.

Organisations should investigate staffing-related incidents, outcomes on staff and patients, and ensure action, learning and feedback.  
Achieved  
COCH Risk Management system is Datix; this system incorporates all aspects of Incident Management. The online incident reporting form is simple to use and suitable for both clinical and non-clinical incident reporting. Staffing is a category and in addition every submission has the section ‘is this incident related to staffing’? The system allows the reporter
to add detail that is specific to the incident. The Risk & Safety Team send all low/no harm staffing incidents to the specific ward/departmental manager to review and action, this allows ownership, prompt action and feedback to staff. The Risk & Safety Leads monitor incidents that have caused moderate and above categories of harm, produce SBAR’s for the Trust Serious Incident panel who then decide upon the level of action required. Any action plans that form part of a Level 1 or 2 Investigation are monitored by the Divisional Governance Board until completed and are signed off by the CCG. The Datix system promotes a culture of learning by recording, investigating and analysing COCH’s incidents and stores evidence to support compliance/action plans/emails to colleagues/contacts with service users. The compliance manager has built a staffing incidents dashboard which facilitates ease of review for current status/trends/themes.

Organisational overview: Staffing numbers, triangulated with key safety, quality & patient experience outcomes

Reviewing staffing numbers at organisational level is a useful indication of whether the planned hours expected were matched with the actual hours provided. However, it is important to also consider the skill mix available by breaking down the staff groups by registered and unregistered staff and comparing that to the expected ratio. Graphs 7, 8 & 9 provide information on the Trusts overall compliance to the planned staffing needed.

Graph 7: Overall compliance, all staff
During 2017 the target of 95% compliance was achieved consistently throughout the year, however when broken down by staff group it shows the registered staff numbers were under the required amount (ranging between 85-94% compliance), with an over performance in the unregistered staff group (ranging between 95-107% compliance). This suggests that the shortfall in registered hours was covered with unregistered hours to maintain adequate numbers in ward & department areas. However, the skill mix needed overall fell below the expected level. The following triangulation of safety and quality measures will provide context as to whether this reduction in registered hours has had an impact on patient experience.

**Graph 8: Overall compliance, registered staff**

![Graph 8: Overall compliance, registered staff](image)

**Graph 9: Overall compliance, unregistered staff**

![Graph 9: Overall compliance, unregistered staff](image)

To provide more meaningful analysis the overall staffing numbers have been converted into CHPPD to better understand the complexity of the constant change in staff and patient numbers. Graph 10 provides an overall position across the Trust by month (starting in April 2017 when SafeCare was implemented).
When taking the activity and acuity into consideration (hours needed in blue) using an evidence based tool (SafeCare) it demonstrates that the overall staffing levels consistently meet or exceed the required amount. This can be broken down further to review staffing levels across a Division as seen in graphs 11 & 12.

**Graph 11: Planned Care; Care Hours Per Patient Day delivered by month**
When evaluating levels across a Division it becomes clear that some areas have more challenges in relation to staffing levels than others. Therefore it is important each ward & department is reviewed to provide detail on areas with potential risks, which may require additional support. Appendix 1—26 provide details of each ward & department across the organisation.

‘Red flag’ reporting can be used to identify areas with potential risks. Nursing & Midwifery red flags are defined nationally4, 10 and are collected within the SafeCare tool in general ward areas and through continuous audit in Maternity. All red flags are reviewed in real-time by ward managers, team leaders and matrons, actions are taken as required to reduce or mitigate any actual or potential issues. Graphs 13, 14 & 15 provide an analysis overtime of the number of red flags reported since March 2017. When reviewing the data it is important to note that not all these incidents relate to actual harm or risk. The data shows that there has been a significant increase in the reporting of red flags since August 2017 and this does correlate with the reduction in registered nursing levels, the increases in vacancies & the increase in staff turnover. This would suggest that the increase in registered nurse workload has created an improved reporting culture to identify & escalate potential issues within clinical areas.

Red flags have been split in graphs 14 & 15 to show the spread across patient and staff risks. This helps to interpret if the staffing levels in the area have the potential to impact on patient safety, quality or experience or whether it has the potential to impact on staff health & wellbeing.
Graph 13: Trust wide red flags reported

Graph 14: Patient risk red flags reported

Graph 15: Staff risk red flags reported
In addition to reviewing potential risks it is essential to consider the number of actual incidents reported in relation to staffing levels and/or skill mix. During 2017 the trend mirrors that of the red flag analysis (graph 16), demonstrating an increase in the number of staffing incidents reported since August 2017, however unlike the red flag data it also shows that these incidents have reduced back to the expected range during November & December. When reviewing the incidents by theme it identifies (graph 17) that the largest reporting category is lack of staff. **Please note, not all of these incidents resulted in harm to patients & whilst the data extract from Datix is robust it is unable to account for instances when the Datix is submitted for multiple staffing incidents.** Information on the number of staffing incidents resulting in harm can be found by ward or department in appendix 1—26.

**Graph 16: Number of staffing incidents reported by month during 2017**

**Graph 17: Staffing incidents by theme during 2017**
Key quality metrics are monitored throughout the year and can when reviewed against staffing levels provide a strong indication if the numbers & skill mix within the area are adequate to meet patients expectations and care needs. Figure 1 provides a Trust overview of the main measurements used and associated patient outcomes, including:

- Incidents with harm (including infections, pressure ulcers, falls & serious incident reviews)
- Safety thermometer
- Care metrics
- Friends & family

Figure 1: Overview of safety, quality & experience measures (March 2017 to present)

<table>
<thead>
<tr>
<th>Metric/Desc</th>
<th>Latest Mo</th>
<th>Trend</th>
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<tbody>
<tr>
<td>Care Metrics Safeguarding</td>
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<tr>
<td>Falls No Harm</td>
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<tr>
<td>Care Metrics Exchange</td>
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<td>Friends and Family AGE Score</td>
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<td>Friends and Family Antenatal</td>
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<tr>
<td>Friends and Family Birth</td>
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<tr>
<td>Friends and Family Inpatient Score</td>
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<tr>
<td>Friends and Family Postnatal Community</td>
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<td></td>
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<tr>
<td>Friends and Family Postnatal Ward</td>
<td></td>
<td></td>
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<tr>
<td>Care Metrics Catheters</td>
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<tr>
<td>Care Metrics Continence</td>
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<tr>
<td>Care Metrics Falls Assessment</td>
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<tr>
<td>Care Metrics Infection Control / Prin</td>
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<tr>
<td>Care Metrics Medication Storage</td>
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Presenting the data in this way can articulate easily those areas were improvements across the Trust are required. In this case the 2 priority areas are adult safeguarding and reduction of falls. Both of these measures have quality improvement programmes agreed and are at various stages of implementation. Falls in particular has already shown a reduction in the latter reporting period as changes in practice are taking shape (also refer to figure 2).

Figure 2 & graph 18 demonstrates the overall position in relation to incidents with harm. Pressure ulcers are a key indicator for the quality of fundamental nursing & midwifery care delivered. It is reassuring to see that the numbers of grade 3 & 4 pressure ulcers remain consistently low, accompanied by a reduction in grade 2 and an increasing trend in grade 1 ulcers. This would suggest that there are good prevention measures in place across the Trust and that when an ulcer is identified it is managed in a timely & effective way to prevent further deterioration to a grade 2 or above.
Figure 2: Overview of incidents dashboard: March 2017 to present

Graph 18: Overview of safety thermometer trends: January – December 2017
Graph 19 & figure 3 provide further detail on the quality of care delivered to patients during 2017 using the Care Metrics data set which has been designed to incorporate nationally agreed standards of care. The analysis in graph 19 provides confidence that the care metrics measures across the Trust hold consistently high compliance, above the target expected. Figure 5 demonstrates compliance by category and can be used to monitor trends in patient outcomes and identify areas for further improvement.

**Graph 19: Overview of care metrics trends: March 2017 to present**

![Graph 19](image)

**Figure 3: Overview of care metrics dashboard: March 2017 to present**

![Figure 3](image)

*Please note, the Care Metrics data set is due to be reviewed & updated during 2018.*
Seeking the views of patients is a key component when reviewing staffing levels & skill mix. Patient experience is a reflection of the care that has been received but also the lived experience of those receiving it. It is personal to the individuals involved and goes beyond the traditional measures of safety, quality & outcome. There are various approaches to capturing patient experience from high level quantitative methods such as the Friends & Family test, through to rich qualitative methods that capture the whole patient journey. Figure 4 provides information on Friend & Family recommendation rates during 2017 which demonstrates consistently high scores across all areas and graphs 20—24 show the number & types of concerns and formal complaints raised by patients.

Figure 4: Overview of Friend & Family: March 2017 to present

Graph 20: Number of concerns received during 2017
Graph 21: Concerns by theme

Graph 22: Number of complaints received during 2017

Graph 21: Complaints by theme
Section 5: Actions taken during 2017 to support the Nursing & Midwifery workforce

Weekly staffing teleconference
During 2017 the senior nursing team has introduced a weekly teleconference for nursing & midwifery staffing. This is held on a Monday and looks forward to the week ahead. An unfilled shift report is produced by day to evaluate gaps across the Trust and identify where additional support or temporary staffing solutions may need to be adopted. The Divisions work together to respond to patient’s needs. Actions are taken forward to reduce gaps & mitigate risks and agreement for bank, overtime and agency staff is sort. This prospective review allows for plans to be put into place ahead of time and the workforce is flexed and mobilised to the areas of greatest need and to ensure there is adequate cover for expected operational needs. This forum also provides the opportunity to challenge leave allocation (particularly during school holidays) and question the need for ‘unavailable shift’ which result from education, management and administration days.

Recruitment & Retention work programme
The Nursing & Midwifery (N&M) ‘Recruitment & Retention’ task & finish group (a sub-group of the N&M Workforce Committee) undertook a review of the current nursing & midwifery workforce numbers, vacancies & turnover during 2017. As a result a number of work streams are being progressed to support the successful recruitment & retention of registered staff. The group has recently extended its membership to include AHP colleagues and incorporate the theatre working group which also focuses on the Operating Department Practitioner (ODP) shortfall and plans during 2018 include joining with medical colleagues to work collaboratively across all clinical professional groups.

Recruitment work streams include (but are not limited to):
- Review & update of Comms Strategy to support recruitment (including utilising LinkedIn, FB & Twitter)
- Update of recruitment materials
- Update of website to include a ‘one stop shop’ to living in Chester & working at the Countess
- Redesign of job advert & review of benefits offered to new starters
- Introduction of ‘book on tours’ for interested applicants to visit the hospital & meet teams
- Rotational posts offering structured development opportunities
- Maximising National recruitment fairs
- Engagement with local University
- Increasing return to practice numbers
- Theatre open days & career events
- Evaluation of recruitment process using feedback from end-users
- Collaboration with ‘Temporary Staffing’ to support pay incentives (moving to weekly payroll) & improve technology to support recruitment process
- International recruitment

Retention work streams that include (but are not limited to):
- Review of ward staffing models, utilising acuity & teletracking data to support model development and design teams that reflect the needs of patients
• Scope the nursing & midwifery workforce requirements over the next 5—10 years and develop a training strategy using apprenticeship models to support career development towards professional registration
• ODP training programmes using apprenticeship models
• Theatre practitioner programmes using apprenticeship models
• Review of additional hours payments & incentives to join the Countess Bank
• Building a ‘pool’ of flexible staff on contracts to support short notice/unplanned gaps
• Collaboration with Education & Training to offer competency based/higher apprenticeship development opportunities

Registered Nursing & Midwifery staff survey
A snapshot survey of registered nurses & midwives has also been undertaken during 2017, this comprised of 26 questions, covering the topics of working patterns, incentives and professional development. A total of 70 nursing & midwifery staff completed this. The feedback from this survey was listened and responded to by the Executive team and as a result the following has been implemented;
• Offer to increase contracted hours from 36 to 37.5
• Offer of 37.5 hour contracts to new registered nursing & midwifery employees
• Offer to work regularly over 37.5 hours (for individuals who requested this as an option)
• Increase bank pay in line with substantive pay for registered nurses & midwives

Staffing Solutions
Work has started to attract more bank staff to support the filling of unplanned registered nursing gaps, this includes;
• Weekly pay
• Regularly advertising bank posts across multiple staff groups
• Offering shorter shift patterns for peak hours in the day/early evening
• Reviewing nursery options and childcare for bank workers
• Working collaboratively across Cheshire & Merseyside on the ‘Collaborative Bank’ project

Winter staffing action planning
The Director of Nursing held meetings during September/October of 2017 with Ward Managers and senior nursing & midwifery leaders, to obtain their ideas on how further support can be provided to the nursing & midwifery workforce to mitigate risks. Some examples of additional ideas and options are as follows;
• Advance book 10 agency staff eight weeks in advance & allocate on arrival by Clinical Site Coordinator
• Train all pre-booked agency staff in Meditech & EMAR
• Increase the number of pharmacy technicians, converting band 5 nursing posts to cover cost
• Review Band 3 role, identify skills required and the specific areas where these could be utilised
• Consider incentives for new staff to encourage recruitment i.e. Supermarket vouchers
• Develop a shorter shifts e.g. 4 hour shifts or ‘Twilight’ shifts (increasing flexibility)
• Increase the number of band 2 pool staff for all shifts
• Introduce a revised induction process for staff who have left & returned to a substantive post within 18 months of leaving
• Each Specialist Nursing role with no direct clinical activity mandated to allocate one shift per month from November 2017 to March 2018
• Train non-clinical volunteers to support with patient experience

Clinical Nurse Specialist (CNS) & Advanced Nurse Practitioner (ANP) Review
During 2017 a review of the CNS & ANP roles has been undertaken. This has provided the opportunity to map the current service models and operational requirement to the knowledge & skills provided through the CNS & ANP teams. This is essential to ensuring the right staff, with the right skills are available to provide care and treatment at the point of need. In addition, it has allowed for the standardisation of job descriptions and the completion of a training needs analysis to reduce variation and improve efficiency. The revised job descriptions & new job plans now mirror the national standards for advanced practice.
Section 6: Conclusions & Recommendations for 2018

In conclusion; it is clear that 2017 has been challenging for ensuring the right staffing numbers & skill mix are provided consistently across wards and departments to maintain safety, quality & patient experience. There has been an increase in vacancies (particularly in registered groups) and an increase in turnover seen, making the overall numbers and skill mix available difficult to manage particularly in the later part of the year (September through to December 2017). This has been compounded by the increase in activity and demand seen, with escalation areas remaining open throughout the year. However, there is evidence to demonstrate that the safety of patients has been maintained alongside patient outcomes, quality measures and experience metrics.

There has been a reduction in the number of registered staff available and wards & departments have needed additional unregistered staff to support these gaps, this has allowed for the provision of the right numbers in each clinical area. However, this has resulted in a reduction in skill mix available which has impacted on the workload of the registered staff and has caused addition pressure as seen in the increase reporting of red flags & staffing incidents.

**Planned Care overall staffing analysis** demonstrates that the planned nursing hours were less than the actual hours provided, suggesting that additional staffing has been needed to support activity and acuity. However, when considering the hours needed (based on the available acuity data), it shows there is an excess of hours provided overall. When this high level data is broken down by ward/department it shows there are some areas with more challenges than others, with Ward 41, 44 & 53 experiencing lower levels of staffing & skill mix in comparison to others.

**Urgent Care overall staffing analysis** demonstrates that the planned hours were less than the actual hours provided in 10 out of the 12 months included. However, when considering the hours needed (based on the available acuity data) it shows that more hours were needed than provided. This is likely a result of the growing demand on services, the increase patient turnover, and the escalation ward remaining open throughout the year without a funded establishment.

The acuity based workforce model has been key to supporting decision making across the Trust, to mobilise staff as and when required to the areas of greatest need. This has provided transparency (at a glance) and has been used alongside professional judgement to make real-time decisions to maintain the safety of patients and provide the best possible staffing & skill mix within each clinical area.

Despite the challenges seen, it is testament to the nursing & midwifery teams that they have continued to provide high quality care and a positive experience to our patients, as seen in the safety, quality & patient experience measures outlined within this review.
Recommendations for 2018

Ward team model reviews
As part of the ‘Model Ward’ programme of work there will be a focus on testing different workforce models to support the changing nature of the acute care environment. This will include;
- Undertaking a literature review
- Analysis of demographic data locally
- Reviewing ward profile (across all professional groups)
- Developing toolkits and defining job plans for ward managers & deputies (to include training on staff engagement & empowerment)
- Growing the link nurse/champion roles (to include all bands), developing an outline for each link nurse role/responsibilities
- Implementing a Care Assurance Framework (CAF), with ward managers leading improvement plans in response to findings
- Using lessons learning from patient feedback and clinical incidents (includes trends over time)
- Designing ward accreditation & implementing individual recognition
- Further developing & embedding a high performance culture
- Outlining expectations, roles & responsibilities (designing a cascade for learning, support/clinical supervision & appraisals)

Recruitment & Retention work programme
Building on work started in 2017 & further progressing at pace the retention elements of the programme which include;
- Protected status for newly qualified (2-3 year programme)
- University engagement to progress local recruitment & improve attrition rates at the Countess on qualifying
- Building a programme for rotational posts
- Working with university colleagues to establish a PG Cert (18-24 month programme post registration)
- Developing clear career pathways from Nursing Assistant through to Director of nursing
- Options appraisal for registered nursing training (university & apprenticeship models)

Effective use of intelligence
A key focus during 2018 will be to ensure the data collected from HealthRoster & SafeCare is used to make informed real-time decisions and analysed overtime to structure team models and establishments and improve reporting from ward to Board. This work stream will be strengthened through the ‘Trust’s Business Plan’, within the context of the Model Hospital programme and Tele-tracking efficiency work.
References


3. National Quality Board (2016) Supporting NHS providers to deliver the right staff, with the right skills, in the right place at the right time. Available at: https://www.england.nhs.uk/wp-content/uploads/2013/04/nqb-guidance.pdf

4. NICE (2014) Safe staffing for nursing in adult inpatient wards in acute hospitals. Available at: https://www.nice.org.uk/guidance/sg1


10. NICE (2015) Safe midwifery staffing for maternity settings. Available at: https://www.nice.org.uk/guidance/ng4