CC3N National Critical Care Nursing & Outreach Workforce Survey

Introduction: A national critical care nursing and outreach survey was conducted in 2017 by the Critical Care Network National Nurse Leads Group (CC3N). This survey was a repeat of a previous data collection exercise carried out in 2015 hence comparison between the 2 time periods provides useful information about trends and changes over time relating to the nursing and outreach workforce across England, Wales and Northern Ireland.

Background & Aim: Much work has been conducted and continues to be undertaken around standards for Intensive Care, the planning of the services, reconfiguration and what the future might look like along with detailed standards for commissioning highlighted in the proposed D05 Service Specification. All of this work requires a more in-depth knowledge of the nursing and outreach workforce in order to compliment information already collected and collated on the medical workforce. The data collected from this survey will hopefully contribute to the future development of improved collaborative workforce planning models. .
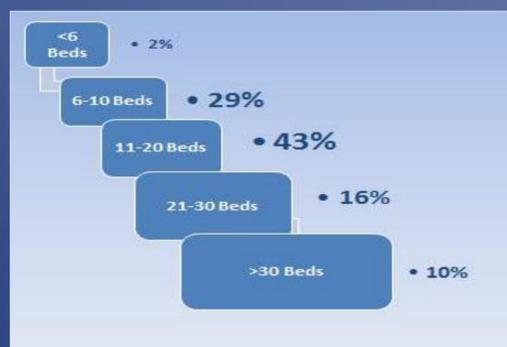
Methodology: The survey tool was developed in 2015 using Microsoft Excel 2003 and in order to enable direct comparisons between the two surveys very few amendments were made. Some additional data fields were requested to capture data specifically in relation to the number of nurses contributing to the critical care workforce from EU and overseas non-EU countries, along with more detailed information about leadership and bands of critical care educators. The survey was devised around the standards detailed within the Guidelines for the Provision of Intensive Care Services (GPICS) (Joint Standards Committee (JSC), 2015) and the Core Standards for Intensive Care (IJSC, November 2013) and the draft D05 Service Specification Framework for Adult Critical Care (NHSE, February 2017). Letters were sent out to all Network Lead Nurses and unit Lead Nurses explaining the rationale for the survey, how to complete the data fields, the specific time period the data collection related to, along with the data submission closing date. Dissemination of the survey was conducted through the Network Lead Nurses (CC3N) who sent the data collection tool to their unit Lead Nurses to complete and return via the Network Lead Nurse. The data collection period took place between 1st September 2017 and 31st October 2017. A contact email address was provided to answer any queries and a list of frequently asked questions (FAQ's) was compiled from the previous survey experience; these were uploaded to the CC3N website and updated throughout the duration of the data collection period. Where data was requested retrospectively over a 12 month period, the time frame identified was September 1st 2016 - 31st August 2017, and information pertaining to staffing on a particular point in time was based on those in post / funded on the 1st September 2017. The survey was circulated to all the critical care units in England, Northern Ireland and Wales.

Results: There are 288 Critical Care Units in England, Wales and Northern Ireland. 210 spreadsheets were returned providing nursing workforce data for 242 clinical areas that produced a return rate of 84%, which is an increase from the 2015 survey which had a response rate of 70%.
The majority of units provided combined Level 2 and Level 3 care (66%), followed by stand alone L2 and L3 units. Further breakdown can be seen in Table 1. Information related to the size of units showed that the majority comprised 11-20 beds (43%), followed by those with 6-10 beds (29%). There were only 4 units with less than 6 beds (2%) (Table 2).

Table 1: Type of Unit

- Combined General Level 2 & 3 (66%)
- General L2 (7%) General L3 (7%)
- Combined Cardiac Surgery L2 & L3 (6%)
- Combined General Neurosurgery (4%) Neurosurgery L2&L3 (3%)
- Other (7%)

Table 2: Size of Unit

- <6 Beds • 2%
- 6-10 Beds • 29%
- 11-20 Beds • 43%
- 21-30 Beds • 16%
- >30 Beds • 10%

Registered Nursing Workforce: At the time of the survey, there were 17768 whole time equivalent (WTE) funded registered nursing posts (Bands 5-8), with a slight increase noted in the proportion of clinical educators from 1.3% in 2015 to 1.7% in 2017. 8.3% of registered nursing posts were vacant (n=1447), with Southern areas having the highest vacancy rates.
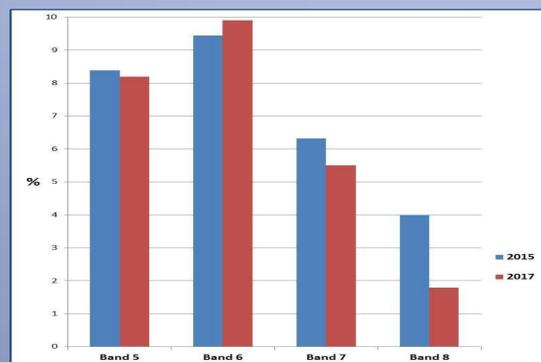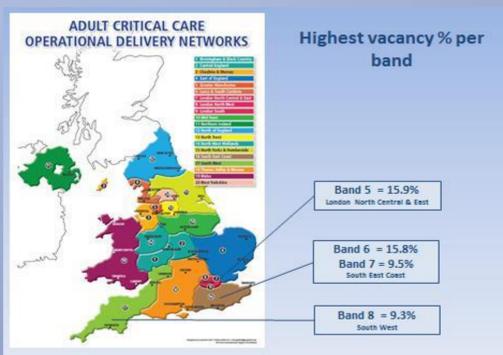
Table 3: % Vacancies by band

Table 4: Highest % vacancies by region & band

ADULT CRITICAL CARE OPERATIONAL DELIVERY NETWORKS

Highest vacancy % per band

- Band 5 = 15.9% London North Central & East
- Band 6 = 15.8% Band 7 = 9.5% South East Coast
- Band 8 = 9.3% South West

The proportion of overseas nursing staff varied considerably by region, but on average 9.9% of registered nursing staff are from EU countries and 16.6% are from non-EU countries. 80 respondents stated that they have actively sought to recruit critical care nursing staff from overseas within the past 2 years. This is an increase of 23 units from the survey in 2015. 79% of critical care units rely on Bank/Agency staff to supplement the nursing workforce, however only 13% state that these staff make up >20% of the substantive compliment on any given shift. This is a significant reduction since 2015, when 46% of units had above the recommended threshold (GPICS, 2015). Despite apparent staffing challenges, all units stated that they achieved 1:1 nurse patient ratios for level 3 patients and 99.5% of units were able to achieve 1:2 staffing ratios for level 2 patients.
There is a requirement that all units provide a supernumerary clinical coordinator on shift 24/7 (GPICS, 2015), and the results indicate that there has been an increase in achieving this requirement across all shifts. Further analysis appears to indicate that units with 11 beds or more are increasingly likely to meet this standard.

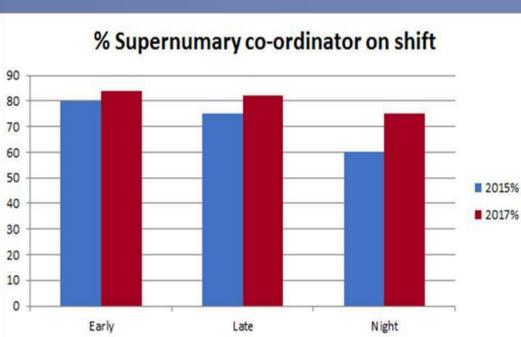### Table 5: % Units with Supernumerary coordinator by shift

Table 6: % Units with Supernumerary coordinator by shift and no. of beds

| No. of Beds	Early	Late	Night
<6	33.3%	33.3%	33.3%
6-10	62.7%	57.6%	44.1%
11-20	94.4%	93.3%	86.7%
21-30	97.1%	97.1%	97.1%
>30	95.2%	95.2%	95.2%

Education: Clinical educator posts are vital to the delivery of effective training strategies and whilst 80% of critical care units had an educator post, only 57.4%, met the standard advocating 1 WTE clinical educator post per 75 staff.
Following the introduction of the National Critical Care Competency Framework (CC3N, 2012) anecdotally there appears to have been a gradual move towards adopting the framework for assessing registered nurses in practice and underpinning academic courses. The framework is broken down in to 3 steps;

- Step 1 for use when staff commence on critical care
- Steps 2 & 3 support further competency development in practice, and are for use in academic programmes as part of a critical care educational award.

134 out of 205 (65%) responders stated that they were using all 3 competency assessment documents, a total of 198 (97%) were using a combination of the framework, leaving only 7 units where the competency framework was not in use at the time of the survey. This is a significant improvement from the 2015 survey, where only 85 units were using all 3 step competency documents and 40 units were not using any part of the framework. Overall 48.8% of nurses possess a post registration critical care award.

Table 7: Step Competency Use

Competency Framework Usage 2017

- Not Using
- Step 1
- Steps 1&2
- Step 3
- Steps 1 2&3
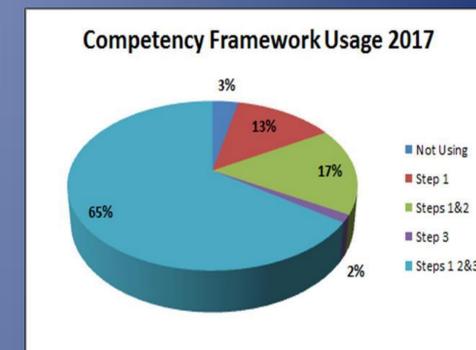
There has been a rise in the number of units employing Advanced Critical Care Practitioners (ACCPs) from 11.6% (2015) to 23% (2017), with 44% of units who didn't already employ such practitioners stating that they were considering having such a role in the future. At the time of the survey there were 116 trainee ACCP's in post with a further 93 already qualified and in post.

Outreach: there has been increase in hours covered by critical care outreach teams, or their equivalent, between 2015 and 2017 with fewer teams covering Monday – Friday and more providing Monday – Sunday or 24/7 cover. There has been a decrease in the use of band 2 - band 5 staff and an increase in band 6 to band 8. Overall average turnover and sickness rates remain low amongst these staff.

Conclusion: An increased number of critical care units are seeking to recruit nurses from overseas to fill vacancies with some regions reporting up to half of the registered nursing workforce being from EU and Non-EU countries. Over 8% of registered nursing posts were vacant at the time of the survey and with changes to nurse training from a bursary supported programme, this is likely to impact on the numbers of newly qualified nurses in the near future. The reliance on agency and bank staff has reduced although this is likely to be as a result of the cap on agency spending and may not necessarily reflect improved staffing numbers. Despite these challenges, the majority of units were able to achieve recommended nurse: patient ratios and there has been investment in education provision, as evidenced by the expansion in the cohort of clinical educators and the increased uptake of the step competency framework. New roles continue to be developed within critical care and the introduction of ACCPs into the multi professional workforce is expanding, however these roles are likely to be filled by experienced nursing staff. Outreach teams are increasingly covering more hours from the traditional Monday to Friday model, moving to 24/7 services.
It should be acknowledged that this survey provides an overview of national data and it is important that regional and local workforce intelligence is interrogated to identify the particular challenges in each unit /area. National groups such as the CC3N will continue to review nursing workforce data and aim to provide intelligence on the challenges and support actions that ensure the development of effective quality critical care services.

References:
- CC3N (2012 updated in 2016) National Competency Framework for Adult Critical Care Nurses
- Joint Standards Committee ICS & FICM (2013) Core Standards for Intensive Care Units
- Joint Standards Committee ICS & FICM (2015) Guidelines for the provision of Intensive Care Services
- NHS England (2017) Service Specification for Adult Critical Care Services (D05) Draft document

Contact: Claire Horsfield - Chair CC3N & Quality Improvement Lead Nurse, Lancashire and South Cumbria Critical Care Network. Email: Claire.horsfield@lthtr.nhs.uk