



ANNUAL REPORT 2021-22

Thames Valley & Wessex
Critical Care Network



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FOREWORD

It is with pleasure that we introduce you to our Annual Report for the Thames Valley & Wessex Adult Critical Care Operational Delivery Network (ODN). This report aims to inform you of the work that has been undertaken by the Network during 2021/22.

With wave 2 of the pandemic behind us, the focus for the Network during 2021/22 remained around managing capacity and supporting our critical care workforce. Highlights for the Network during this year included:

- Supporting our Critical Care Units through times of surge, by:
 - Working with NHS England regional teams and associated critical care projects/cells
 - Understanding current capacity need and barriers to reaching this within our units
 - Daily production of a Network dashboard, shared with clinicians and commissioners
 - Sharing modelling data around covid numbers to aid planning and preparation.
- Development and completion of our first collaborative Network Adult Critical Care course, which saw 54 nurses across eight Trusts participate
- Creation of a Network staff retention and wellbeing survey and associated report and recommendations (shared widely across Trusts, commissioners and national critical care nursing organisations)
- Working with interim Network Transfer Service to provide an optimal service for our Units, whilst also working closely with NHS England regional commissioners for future plans for a substantive service
- Continuing to share insight, experience, learning and best practice amongst our critical care units through Network clinical forums and subgroups
- Welcoming our new Medical Lead (Steve Wimbush) into role and starting informal network visits with Units
- Our Network Manager (Kujan Paramanatham) taking on the role of co-chair of the National Adult Critical Care Network Managers Group

For many members of the team, this was their first full year working for us, and many of the achievements of the Network would not have been possible without them. We are extremely proud of how well everyone has settled into the team, and the work that was delivered by them all during the year.

For 2022/23, our work programme looks to return to priorities that were in place before the pandemic, whilst ensuring our Units and NHS England colleagues remain supported with all surge, capacity and transfer related projects. These priorities include the resumption of peer review visits, supporting the development of new subgroups, benchmarking amongst some existing subgroups, as well as the return of our Network conference! We look forward to reporting on the progress of this work in our 2022/23 report!

STAKEHOLDERS AND GOVERNANCE

'The Way Forward: Developing Operational Delivery Networks' (NHS Commissioning Board 2012) proposed Adult Critical Care Operational Delivery Networks (ODNs) be established nationally, with a remit for ODNs to ensure outcomes and quality standards are improved and evidence based networked patient pathways are agreed. The focus for ODNs will be supporting the activity of Provider Trusts in service delivery, improvement and delivery of a commissioned pathway, with a key focus on the quality and equity of access to service provision.

The Thames Valley & Wessex Adult Critical Care Operational Delivery Network (TV&W ACC ODN) is hosted by the University Hospital Southampton NHS Foundation Trust. As a host provider, they are responsible for employing the ODN team and supporting their roles. Oversight and governance of the ODN is provided by NHS England & Improvement, Specialised Commissioning South East Region.

THE ODN TEAM

The ODN team has seen some changes in the last year with Dr Kathy Nolan stepping down as Medical Lead and Dr Steve Wimbush joining the team as the new Medical Lead in September 2021.

The Thames Valley & Wessex Adult Critical Care ODN team consists of:

- Kujan Paramanatham: Network Manager
- Dr Steve Wimbush: Network Medical Lead
- Gill Leaver: Network Lead Nurse
- Dr Wassim Shamsuddin: Network Medical Lead for Transfers
- Mary Meeks: Network Education Project Lead
- Lynette Kinnaird: Network Education Administrator (shared with TV&W Neonatal ODN)
- Roxy Burns: Network Data Analyst (shared with Kent, Surrey & Sussex ACC ODN)
- Catherine Ridgewell: Network Project Support Officer (shared with TV&W Neonatal ODN)

We also appointed an Education Facilitator, Carl Ridgley, part time to lead on the development of a Foundation Step 1 e-learning programme, who started in role April 2022.

CRITICAL CARE UNITS

The Thames Valley and Wessex Adult Critical Care Operational Delivery Network covers a population between 5 and 6 million people across Thames Valley & Wessex, including Dorset and extending to Milton Keynes, West Sussex and Wiltshire. The Network covers 21 Critical Care Units, hosted by 13 Trusts.



Thames Valley Units

Trust	Unit	Lvl 3 equiv. beds	Total physical beds
Buckinghamshire Healthcare NHS Trust	Bucks: Stoke Mandeville	10	12
	Bucks: Wycombe	4	6
Frimley Health NHS Foundation Trust-Wexham	Wexham Park	10	12
Milton Keynes University Hospital NHS Foundation Trust	Milton Keynes	7	10
Oxford University Hospitals NHS Foundation Trust	OUH - OCC	16	16
	OUH - Churchill	7	8
	OUH - CTCCU	12	21
	OUH - Neuro ICU	14	17
Royal Berkshire NHS Foundation Trust	Reading	15	19

Wessex Units

Trust	Unit	Lvl 3 equiv. beds	Total physical beds
Dorset County Hospital NHS Foundation Trust	Dorset County	6	12
Hampshire Hospitals NHS Foundation Trust	HHFT: Basingstoke	12	18
	HHFT: Winchester	6	9
Isle of Wight NHS Trust	Isle of Wight	6	8
Portsmouth Hospitals University NHS Trust	Portsmouth	19	24
Salisbury NHS Foundation Trust	Salisbury	8	12
University Hospital Southampton NHS Foundation Trust	UHS - CICU	14	16
	UHS - GICU	21	31
	UHS - NICU	12	13
University Hospitals Dorset NHS Foundation Trust	UHD: Bournemouth	8	11
	UHD: Poole	8	12
University Hospitals Sussex NHS Foundation Trust	Chichester	8	10

NETWORK TRANSFER SERVICE

In December 2020, our networks interim Adult Critical Care Transfer (ACCT) service: RESCUE, went live just as the second peak of COVID-19 took hold across the region. The service hit the ground running, and our colleagues in South Central Ambulance Service (SCAS) worked closely with the Network and our units to provide as optimal a service as they could. During 2021/22, RESCUE made several advancements to the service that was in place, as they looked to continually develop the service. These included providing a single point of contact, new website with an online referral system, updating booking forms and posters, joint training sessions with units and behind the scenes team changes with roles created to better support the service (operations managers, team leader and lead practitioner). There was also a large recruitment drive for doctors during the year, particularly within the Wessex region.

From December 2020 to the end of March 2022, the service had transferred just short of one thousand patients with no incidents reported to the Network. As a Network, we continue to gather feedback and work with SCAS, to ensure the service continues to meet our needs. We requested specific feedback from all our Units (fifteen responses received from our twenty units who access the service), which was overwhelmingly positive. Many benefits to the units were highlighted (particularly around timeliness and not having to release staff), with the main area for improvement being a desire to increase the medical staffing on the service, which is something we know RESCUE is currently working on and hope to see improvements with for 2022/23. There was also a desire to see the interim service being made substantive, which we know is high on the NHS England South East regional team's work programme, and is something we will be working with them on during 2022/23.

We can be proud of the service that has been developed in the network, and we look forward to continuing to work closely with RESCUE as they continue to grow the service across the network.



NETWORK EDUCATION

The past year has seen the development and completion of our first Collaborative Adult Critical Care course, this was delivered to staff from eight hospitals within the network. The course is mapped to the National Standards for Adult Critical Care Nurse Education (CC3N, 2015) and encompasses a systems-based approach to education. Other relevant subjects such as the long-term patient, leadership, human factors, obstetrics, and burns are included. Simulation is also incorporated to embed some of the learning from the course.

The quality and the delivery of this course would not be possible without the support and input from a variety of staff across the network, this includes our Practice Educators who play a key role in delivering some of the seminars, members of this group also form our marking team. Other key Lecturers include Consultant Intensivists, Specialist Registrars, Pharmacists, Physiotherapists, Advanced Critical Care Practitioners, Microbiologist, ANP's, Senior Research Fellows, and a Palliative Care Consultant to name but a few. A huge thank you goes to them for being involved and dedicating their time towards the course, without them we would not be able to deliver a course that is of the highest quality and content.

Some feedback from the students:

"I feel that I am more prepared to care for acute ICU patients and hence the care that I can provide is more specialised. Hence, I can maybe identify certain aspects of deterioration quicker than when I was more junior. Hence, maybe improve on ventilated days or length of stay for our patients."

"There will be more qualified nurses on the unit. This promotes safer environment for the patients with better quality of service."

"From the evidence and research that we have been given and the teaching, I have got more confidence in my knowledge. Also, I can inform my colleague and teach them regarding new and current practice by bedside teaching."

“I have gained a lot of knowledge which has enhanced my care and skills at the bedside. I have also had ideas on how to progress our unit and keep moving forward which I am being supported to put into action.”

From the first cohort, having listened to the student voice, we have made some changes and added more content to suit the requests and needs of the learners. We are currently in the process of holding stakeholder meetings, so far, we have received some very positive feedback, and some constructive suggestions which will help us to make the necessary changes that we know will assist the learners on future cohorts.

We also appointed an Education Facilitator, Carl Ridgley, part time to lead on the development of a Foundation Step 1 e-learning programme and look forward to reporting the progress of this in the next annual report.

We look forward to working with our practice partners in the future to continue to enhance the delivery of high quality streamlined, collaborative critical care education to our staff in the network and beyond.

NETWORK SUBGROUPS

A key aim of Adult Critical Care Networks is to improve equity of access, experience, and health outcomes for patients within critical care services, across healthcare organisations and geographical boundaries. One of the most effective ways of doing this is through the sharing of insight, experience, learning and best practice amongst our critical care units. As such, we have specialist area subgroups to help enable this cross-unit working. Group meetings and networking provide the opportunity for peer support to staff working in these areas.

Below is an update from each of our subgroup leads, highlighting the work and priorities during 2021/22.

Rehabilitation

We have had a busy year in the rehab subgroup! Our quarterly meetings have continued virtually, and we are now very much looking forward to our first face to face meeting in over 2 years, planned for December 2022. Peer support and the sharing of knowledge and resources have been highlighted as the key benefits of this group. We continue to work together to address the gaps in provision of ICU recovery services across the region. As part of the group, we have two representatives of only ten seats on the Physiotherapy Professional Advisory Group (PAG) for the Intensive Care Society, meaning we can learn from what is happening nationally from a rehabilitation perspective too.

Presentations from around the region have provided an opportunity for discussion and reflection on our own practices: The Oxford team presented their very thorough work on the PICUPS tool for screening rehab needs after ICU, Royal Berkshire fed back on their fantastic 7-day working pilot. Additionally, Milton Keynes have consulted the group about their proposal for a new orientation board which will have such a positive impact for the experience of their patients. Work on a region-wide project has been paused for now, as we have prioritised supporting each other in re-building our workforce following the pandemic, concentrating on staff wellbeing and managing the additional complexities of the current critical care caseload.

We look forward to what the next year will bring for us as a group, as the national agenda for rehabilitation following critical illness becomes more prominent.

Follow Up

The Follow Up Group reformed in November after the group's second meeting was prevented by the pandemic. The first two meetings were very well-received, and the group have been working on finalising questions for a benchmarking exercise of each unit's current service provision. The goal of this benchmarking will be so units can compare themselves against other units within the network, whilst also providing a directory of service of the provision in each unit, to aid with peer support and generating business cases. The group aim to continue to offer shared learning, peer support and help for units across the region to develop their service.

Outreach

Over the past year the Critical Care Outreach Team (CCOT) group have continued to meet online for support and the feedback we have received for these meetings has highlighted how useful this has been to the leads from each Trust. We have picked up on data work which was suspended due to COVID activity and are collecting monthly data again. It is hoped that the results of this will be presented at the Clinical Forum to highlight the work to the wider Critical Care group. The long awaited NorF (National Outreach Forum) Competencies and framework for practice have been circulated for consultation and we are reviewing these as a group for possible implementation. We have also now adopted a co-chair approach for the group to divide the work and ensure a more robust structure with all our conflicting work commitments. We are now reverting to our usual quarterly meetings and looking forward to holding a face-to-face meeting in September 2022.

Transfer

With the production of the national adult critical care transfer service specification, the importance of ensuring critically unwell patients receive high standards of critical care throughout their transfer process, has come to the forefront of attention. With the interim transfer service becoming more established within the network, the transfer group has provided a valuable forum for RESCUE to liaise with units and provide a two-way flow of information between the service and our units.

Outside the service, the group has continued to focus on its key role of sharing learning and ensuring equipment, policies and training are standardised across the network and are aligned with national guidelines where appropriate. During the year we ran and reviewed a gap analysis against the Intensive Care Society transfer guidelines, along with an equipment audit. We also had four of our units (Oxford Adult ICU, Winchester, Bucks Healthcare and Southampton Neuro ICU) present cases for shared learning. And finally, after several years as one of the chairs of the group, we were sad to see Carolyn Barrett step down from the role, as she announced her retirement. We wish her all the best.

Practice Educators

2021/22 was a busy year for critical care educators within the network, as units look to recruit high numbers of new staff and educators look to support them. The group continues to share learning and challenges amongst its members, whilst also supporting the Network critical care course. Education will be essential to how our critical care units move forward over the next few years, and the group remains committed to the development of all staff.

Wellbeing

Following the creation of this group to support our staff during the pandemic, we have continued to hold staff wellbeing meetings. These meetings are meant as safe and supportive meetings for the members, and they have given our unit wellbeing leads and professional nurse advocates (PNAs) an opportunity to share their initiatives and learn from each other.

Other Subgroups: ACCP, PNA

Towards the end of the financial year, the network started two further subgroups: one for advanced critical care practitioners (ACCPs) and another for professional nurse advocates (PNAs). These groups were started following a desire to share learning and provider peer support, and as they are in their infancy, we will update further progress from these groups in next year's annual report.

Organ Donation

In the year April 2021- March 2022 South Central Organ Donation Services team supported 131 donors, resulting in 321 lifesaving transplants. This is the highest number of organ donors facilitated within our region to date. In this time there were only 23 occasions when potential donors were not referred. We would like to thank all units for their continued support and look forward to working alongside you all in the coming year.

NURSING STAFF RETENTION SURVEY

As a Network, we had heard from our unit matrons and clinical leads around their concerns for the wellbeing of their staff. We also heard of the number of critical care nurses who had either left their roles or were planning to leave, and we were keen to gain a better understanding on some of the factors that might be influencing the wellbeing of our staff locally, any intentions to leave, and to see if this aligned with the published research.

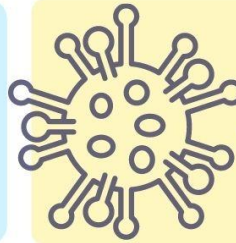
We invited the Kent, Surrey and Sussex critical care network to work with us on this piece of work and created this survey and subsequent report.

The survey received 427 responses from 33 units within the Thames Valley & Wessex and Kent, Surrey & Sussex Adult Critical Care Networks. The report was shared with unit matrons and Trust Directors of Nursing, as well as contacts within the intensive care society, the British Association of Critical Care nursing (BACCN) and the Critical Care National Network Nurse Leads Forum (CC3N). The CC3N were extremely interested in the findings and decided to work with us to run the survey nationally for 2022/23.

Below is an infographic which summarises the findings, but the full report, including recommendations, can be read [here](#).

Critical Care Nursing Staff Survey 2021 TVW and KSS ACC Networks

427 Responses



51%

of nurses said that the Covid-19 pandemic made them less likely to stay in their current job



91%

feel they are trusted to do their job



90%

always know what their responsibilities are



77%

are able to do their job to a standard they are pleased with



76%

feel valued and respected by my colleagues



51%

feel valued and respected by management



71%

of nurses feel they have a high level of stress as a result of their work

What causes your stress?

1st - Staff shortages

2nd - Being asked to work in other wards



50% of nurses are expecting to leave their current ICU in the next 3 years

Why?

- 1** Lack of recognition through pay awards (**47%**)
- 2** Being asked to work in other wards (**46%**)
- 3** Stressful and traumatic work experiences (**40%**)

Where?

Out of those expecting to leave **23%** are planning to leave the NHS

Would you recommend ICU Nursing as a career to other nurses?



74% said yes

NETWORK DATA

Data Collection and Reporting

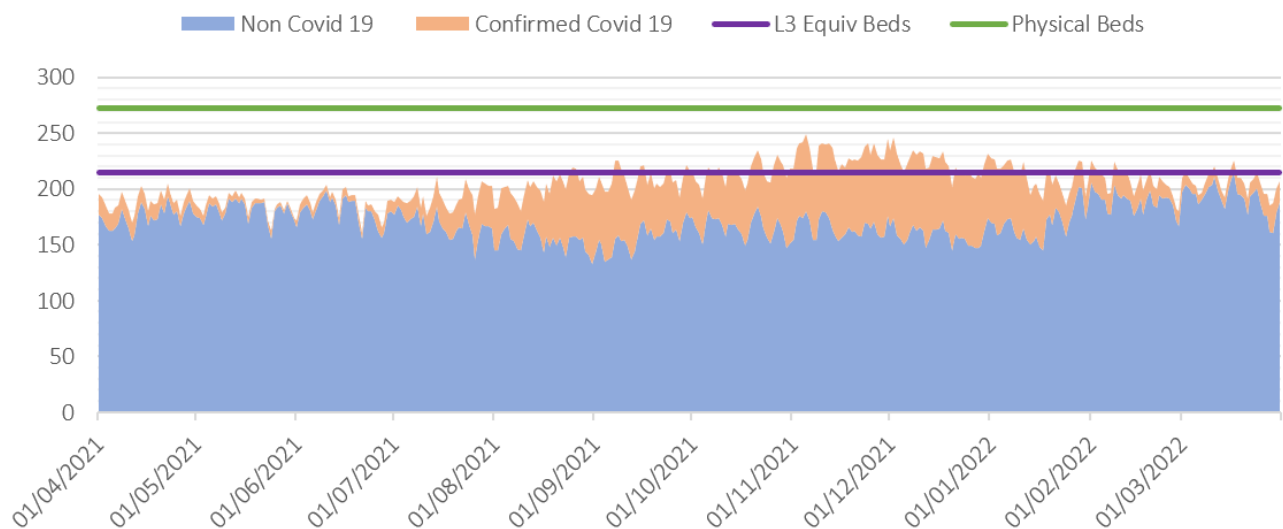
The network continued to utilise the Network Dashboard (using the data supplied by the units via the NHS Directory of Services) to monitor the day-to-day activity within the units. This continued even in times of lower Covid activity. This dashboard included Covid and non-Covid activity, bed capacity and staffing. It continued to ensure that this data was available to the units as needed (particularly in times of increased pressure) so that they could plan and act accordingly.

Network Data

The units within the Thames Valley and Wessex Adult Critical Care Network saw 14,651 admissions, very similar to the 14,670 in 20/21. With the busiest day being the 5th of November 2021 with 249 total patients in critical care (down from over 460 patients in a single day in 20/21 – this number was increased significantly due to the extent of the pandemic). Average physical occupancy was 77% with average level 3 equivalent occupancy at 95% for the year.

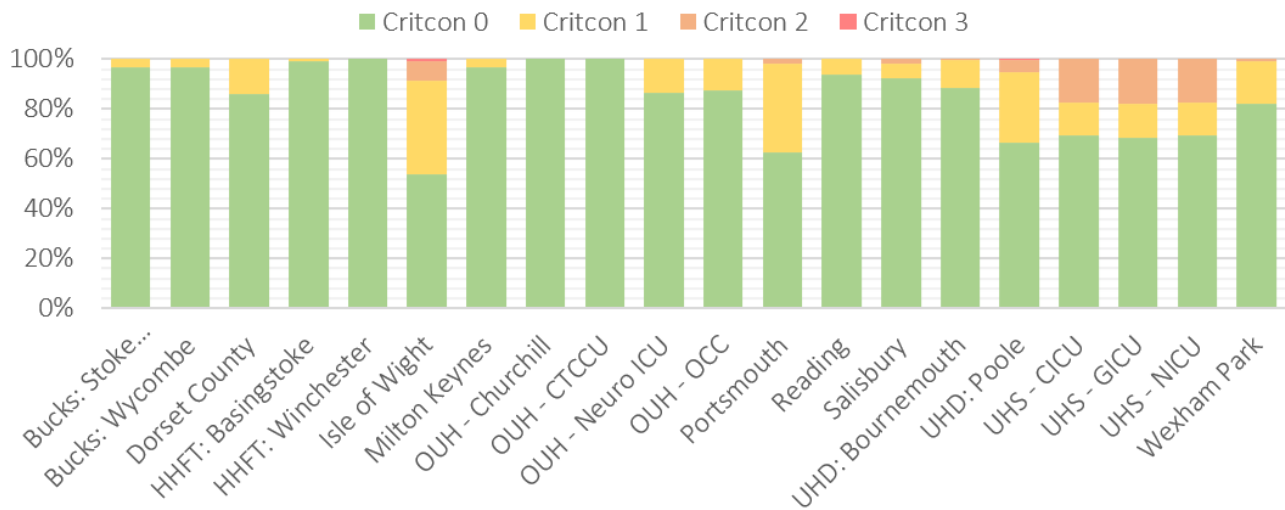
The chart below shows the trend of total number of patients over time, split by Covid status. As shown, this number begins to increase around August, with the height of this increase in the winter months as winter pressures impacted the number of admissions to critical care. Although the impact of Covid on critical care was reduced with the introduction of the vaccinations, the patient numbers continued to be monitored closely.

Total number of patients split by Covid Status



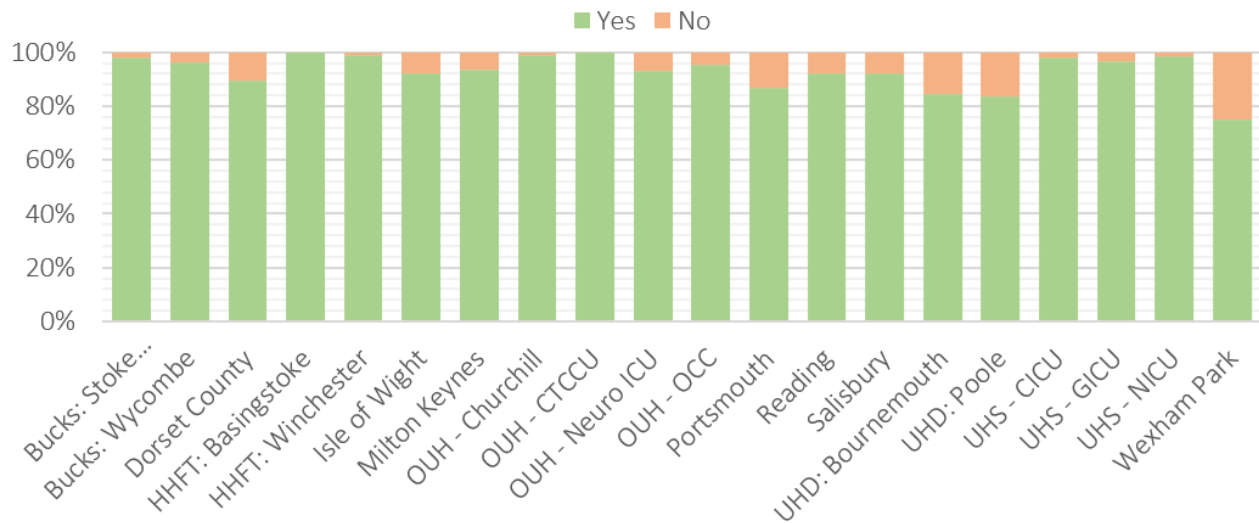
The Network analyses several different data points to understand the pressures that the units are under. A CRITCON score is a single number score between 0 and 4, designed to be an easy to collect, report and interpret tool to understand critical care capacity strain. A score of 0 suggests the unit is at a comfortable capacity with adequate staffing. The higher the score the greater the pressure on the unit. CRITCON score is collected daily as part of the DoS data. The graph below shows each unit's breakdown by percentage of their reported CRITCON score. This is useful for showing the pressure each individual unit felt over the year. When comparing the chart below to the same chart of the previous year, there has been a significant reduction in the number of Critcon 3's reported. This is almost certainly a direct reflection of the difference between the pandemic and post-pandemic situations within the critical care units.

% Critcon Score by Unit - April 21 - Mar 22



The General Provision of Intensive Care Services (GPICS) version 2, depicts the appropriate ratio of nurses to patients in adult critical care. Being unable to meet these ratios creates a lot of pressure on a unit. This data is collected within DoS, with the chart below highlighting the proportion of time (over the last year) where a unit was able or unable to meet nursing ratios.

Providing nurse ratios as per GPICs v2



ICNARC

The Intensive Care National Audit and Research Centre (ICNARC) run the ICNARC Case Mix Programme (CMP) in which 100% of all Adult General Critical Care Units participate. However, due to COVID-19 pandemic, ICNARC ceased producing the standard CMP Network Quality Reports (NQRs) and have since made the decision to no longer provide these. However, our Network does have access to some of the data available from the ICNARC CMP. The following data is some analysis on patients admitted to a critical care unit in 20/21.

The below table is a network breakdown of some of the key data collected by the ICNARC CMP:

Subgroup		Data	
Total Admissions		14651	
Sex	Female	5870	40%
	Male	8526	58%
Average of ICNARC Physiology Score		17	
Average of APACHE II Acute Physiology Score		11	
Basic respiratory support received		6862	47%
Advanced respiratory support received		7373	50%
Avg. Length of stay in unit		5	
Surgical Status	Elective	3592	25%
	Emergency	2553	18%
	Non-Surgical	8245	57%
Duration of Delay - Discharge	<=4 hours	4026	37%
	= >4 hours and <=24 hours	3476	32%
	= >24 hours	1285	12%
Discharged Direct to Home	Not Home	9763	68%
	Home	551	4%
Outcome	Discharged Alive	12383	85%
	Died	2013	14%

With this data it is possible to draw comparisons with previous years to understand the impact of change on services. For example, delayed discharges over 24 hours have increased to 12% from 7% in the previous year. However, the previous year was significantly impacted by Covid so may not be the best comparison. When reviewing pre-covid data the delayed discharges over 24 hours was higher at 15.7% in 18/19, so arguably delayed discharges are showing signs of returning to pre-pandemic levels.

Stocktake

In May 2021, a national stocktake of adult critical care services was undertaken. The stocktake intended to understand the situation and capacity within critical care units across the country, as well as understanding the regional and national picture and ensure that, where there are significant staff shortages, actions can be taken to improve this. The stocktake was completed by adult critical care units with support and coordination for the returns by the Network. The stocktake was submitted in two parts and collected a significant amount of data on staffing, capacity, and equipment.

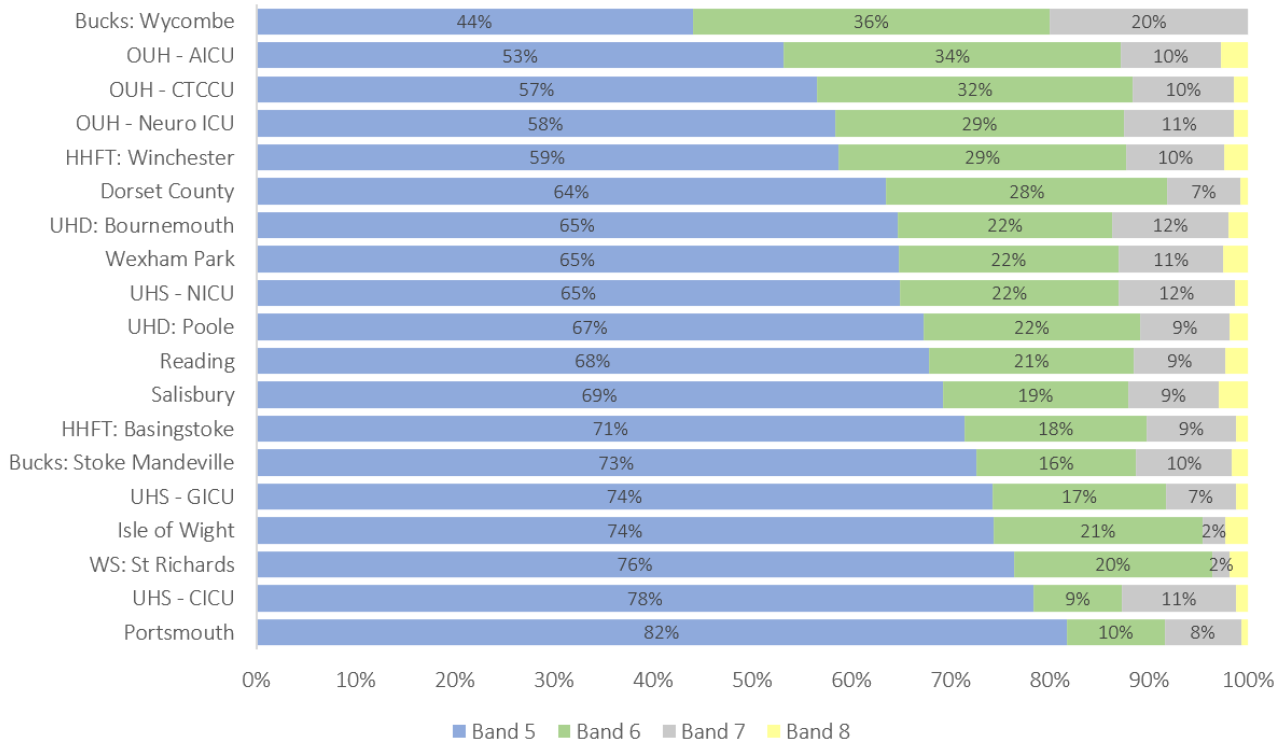
The data below details some of the nursing information returned from the stocktake, showing the variations across the network. The stocktake did also collect medical staffing information, however there is some concern around the validity of this data due to ambiguity with some of the definitions, resulting in inter-unit variation in the data collected.

Unit	Vacancy Rate - All	B5 - 7 RN	Sickness Rate	Annual % of staff turnover	Unit recruited from EU Country in last 12 months?	Unit recruited from non-EU Country in last 12 months?	No. Nurses per L3 bed
BUCKS - SMH	2%	1%	8%	12%	Yes	Yes	6.4
BUCKS - WYC	13%	10%	9%	12%	No	No	7.4
FPH - WEX	2%	1%	4%	20%	No	Yes	6.1
MKH	13%	16%	4%	12%	No	Yes	5.6
OUH - CTCCU	6%	7%	10%	10%	No	No	6.7
OUH - NICU	19%	19%	4%	5%	No	Yes	6.6
OUH - OCC	13%	16%	4%	10%	Yes	Yes	6.6
RBH	2%	5%	4%	10%	Yes	Yes	6.2
Thames Valley	10%	9%	6%	11%	3	6	5.6
DCH	+4%	+6%	4%	0%	No	Yes	6.6
HHFT - BAS	+8%	+9%	4%	8%	No	Yes	7.0
HHFT - WIN	0%	0%	4%	16%	No	Yes	7.1
IOW	0%	0%	8%	7%	No	Yes	7.3
QAH	+12%	+14%	4%	10%	No	Yes	7.1
SAL	11%	10%	5%	8%	No	Yes	7.3
UHD - BOU	12%	14%	5%	11%	No	Yes	7.5
UHD - Poole	+6%	+4%	5%	6%	No	No	6.7
UHS - CICU	5%	7%	5%	14%	Yes	Yes	6.2
UHS - ICU	17%	15%	5%	14%	No	No	7.0
UHS - NICU	+1%	10%	5%	14%	No	Yes	6.9
UHS - SHDU	22%	16%	5%	14%	No	No	6.3
Wessex	4%	3%	5%	10%	1	9	5.4
TVW Total	6%	6%	5%	11%	4	15	5.5

The stocktake provided a wealth of valuable data which opened the door to a variety of different ways to analyse the data, to aid our understanding of the situation within the adult critical care units. The next charts are examples of some of the analysis the network is undertaking on this data.

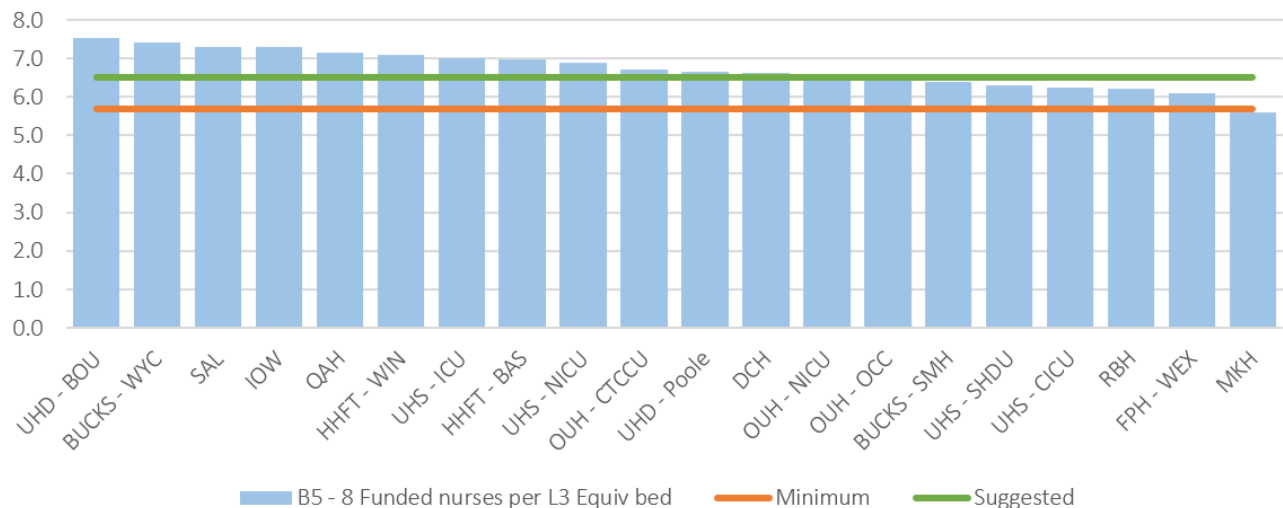
The chart below shows the differences in the number of in-post nurses of each band within each unit. There is clearly variability amongst the different units, particularly noticeable in the Band 5 nurses (ranging from 44% of a unit's nursing workforce to 82%).

% Band 5 - 8 WTE in post Nurses (excluding educators) by Unit



The chart below shows the number of funded band 5 - band 8 nurses on each unit, as a ratio of the number of level 3 equivalent beds. Although there is not set number of nurses to beds that must be met, there are some suggested numbers (5.7 as the minimum with a suggestion of 6.5). Looking at this chart it is possible again to see the variation amongst the units and where there may be a need to increase the number of funded nurses.

B5-8 Funded Nurses to L3 Equiv Beds



Website: www.southaccnetworks.nhs.uk/tvw

Email: england.tv-w-criticalcarenetwork@nhs.net

Twitter: [@TVWCritCareODN](https://twitter.com/TVWCritCareODN)

Thames Valley & Wessex
Critical Care Network

