



Current UK hospital bed capacity

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Summary

A limited number of nurses and doctors have the expertise to care for ICU patients in the UK, and temporary units such as the Nightingales will help only if they are adequately staffed.

Recent analysis (1 October) suggests critical care units are at around 65% capacity, and acute beds at 88%. These metrics are likely to be higher now (with revised figures emerging soon).

We are nearing physical capacity limits, and staffing constraints for ICU treatment make those limits relatively inflexible in the short term.

Introduction

In April this year, we highlighted the key challenges in relation to the ability of health systems to cope during times of increased demand. This is contingent on existing capacity and ability to respond to a surge in demand.

In this short note, we present a summary of intensive care and acute bed capacity and associated staffing levels. It is not enough just to create extra beds, such as field-hospital type intensive care units (for example Nightingale hospitals). Without sufficient staff (with appropriate experience and training), these facilities are of little use

Definitions of Bed/Care Levels¹

Level	Description
0	Patients whose needs can be met through normal ward care in an acute hospital
1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the intensive care team
2	Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care (high dependency)
3	Patients requiring advanced respiratory support alone or monitoring and support for two or more organ systems.

Patients requiring level 2 or 3 care will be admitted to an Intensive Care Unit ('ICU'); not all units can offer level 3 care. The majority (73%) of ICUs are configured to use a mix of level-2 and level-3 beds flexibly, with a minority of units configured specifically for only level-2 beds or only level-3 beds².

¹ https://datadictionary.nhs.uk/attributes/critical_care_level.html

² <https://www.kingsfund.org.uk/publications/critical-care-services-nhs>

Number of Available Acute Beds

There are around 93,000 general and acute NHS beds (around 2.5/100,000 population) in England³. In general, since around 2012, NHS acute bed occupancy has been running at over 90%, a rate considered to be a risk to patient safety⁴. In the autumn and winter months, occupancy is higher than this, and in the spring and summer it is lower.

The following table displays the total available beds, acute beds and current occupancy for all admissions in England to NHS and private hospitals as at 1 October indicating 88% occupancy⁵⁶.

NHS General & Acute	NHS Total	Private Total	Occupied
92,596	118,451	8,482	113,575

The seven Nightingale units, if fully operational, would provide a further 13,660 beds.

Intensive Care Staffing

Caring for an ICU patient requires additional training and experience that cannot be learnt in a matter of days. For nurses, it requires the standard three-year training followed by additional qualifications and experience. For doctors, even longer. This means that staff from other specialties are not able to be reassigned to ICU without the correct qualifications and experience⁷.

Generally, a nursing ratio of 1:1 is required for level 3 patients, and 1:2 for level 2 patients. There is already a staffing crisis in the NHS; 1,453 registered nursing vacancies have been reported in intensive care areas, representing 8.9% of the nursing workforce⁸. In addition, around 68,500 staff are reporting absent from work through sickness or isolation across NHS and private hospitals⁹.

Whilst more beds have been created through the temporary deployment of up to 7 NHS Nightingale hospitals, these were not widely used in the first wave and therefore remain largely unproven.

Intensive care Bed Occupation

There are around 4,100 adult intensive care beds in the NHS in England (6.6/100,000 population). In addition, according to anecdotal information, the private sector has approximately 500 intensive care beds. Intensive care occupancy in the NHS has been around 83%, the limit of what is considered safe.

Clinicians in some regions report that intensive care units are already reaching capacity ([link](#)). NHS analysis shows that in England, as at 1 October, 2,702 mechanical ventilation beds were occupied¹⁰. This suggests a 65% occupancy rate one month ago; we know more admissions have been recorded since then. The next release of these statistics is scheduled for 12 November.

5 November 2020

³ <https://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/bed-data-overnight/>

⁴ Following the increased demand on the NHS in the first wave of the pandemic, hospital trusts were asked to urgently discharge patients considered fit in order to free beds for those requiring admission with COVID. Thus, occupancy rates for Q1 2020/21 (April to June 2020), the latest occupancy data, show a decline in occupancy for acute and general beds to around 63% (58,000 beds). The next quarterly report is expected this month.

⁵ <https://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/bed-data-overnight/>

⁶ <https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/>

⁷ <https://www.youtube.com/watch?reload=9&v=6P7zkVLbxWc>

⁸ <https://www.cc3n.org.uk/guidelines--reports.html>

⁹ <https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/>

¹⁰ <https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/>