

September 2021

# Intensive care capacity

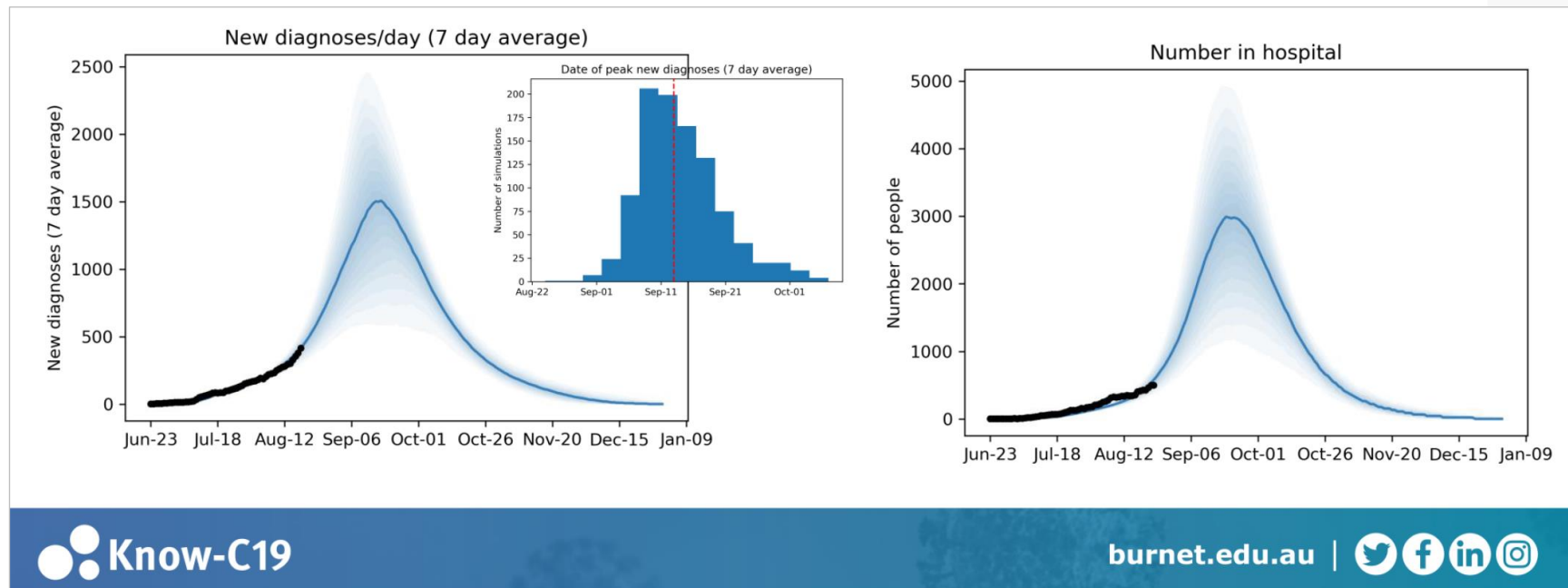


Health

# NSW Health Demand Modelling

## Overview

- ▶ Within the LGAs of concern, cases are expected to continue increasing until mid-September (range of 1,100 to 2,000 per day), when sufficient vaccine-acquired immunity kicks in (alongside maintained restrictions).
- ▶ A peak in hospital and ICU utilisation will follow. It is anticipated that between 2,200 and 3,900 people will require hospitalisation.
- ▶ Achieving uniform vaccination in the LGAs of concern is critical as vaccination rather than reduced infection numbers will be the intervention that leads to a fall in hospitalisations.



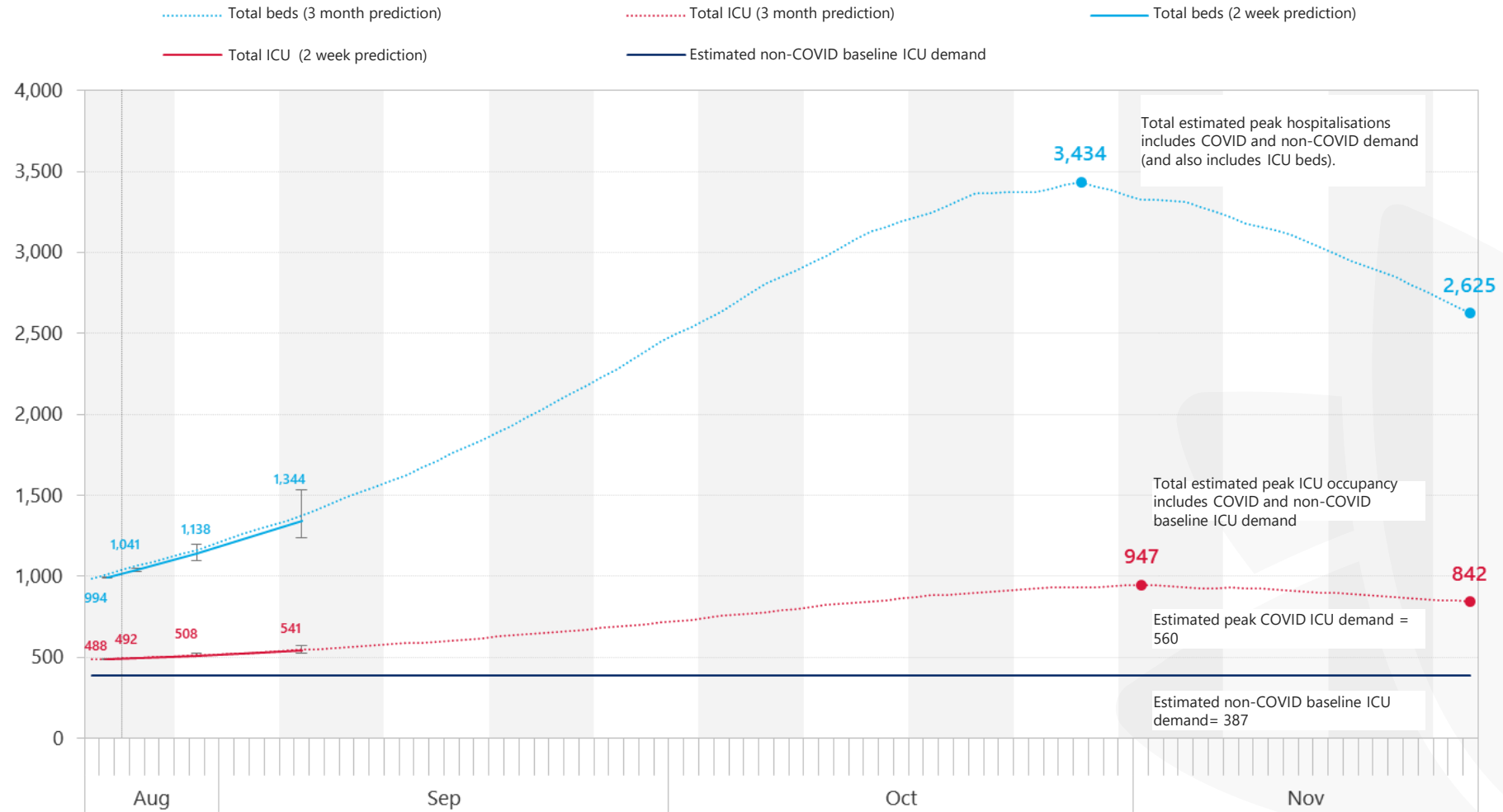
# ICU Demand and Capacity Modelling

Released on:

Wednesday 25<sup>th</sup> August, 8am

Data as at (unless otherwise stated):

Monday 23<sup>th</sup> August 4:00 pm



# Key components to the strategy

**Activity** is monitored in real-time through our **Ambulance Arrivals Board**, and **Patient Flow Portal** providing **visibility and coordination** across system

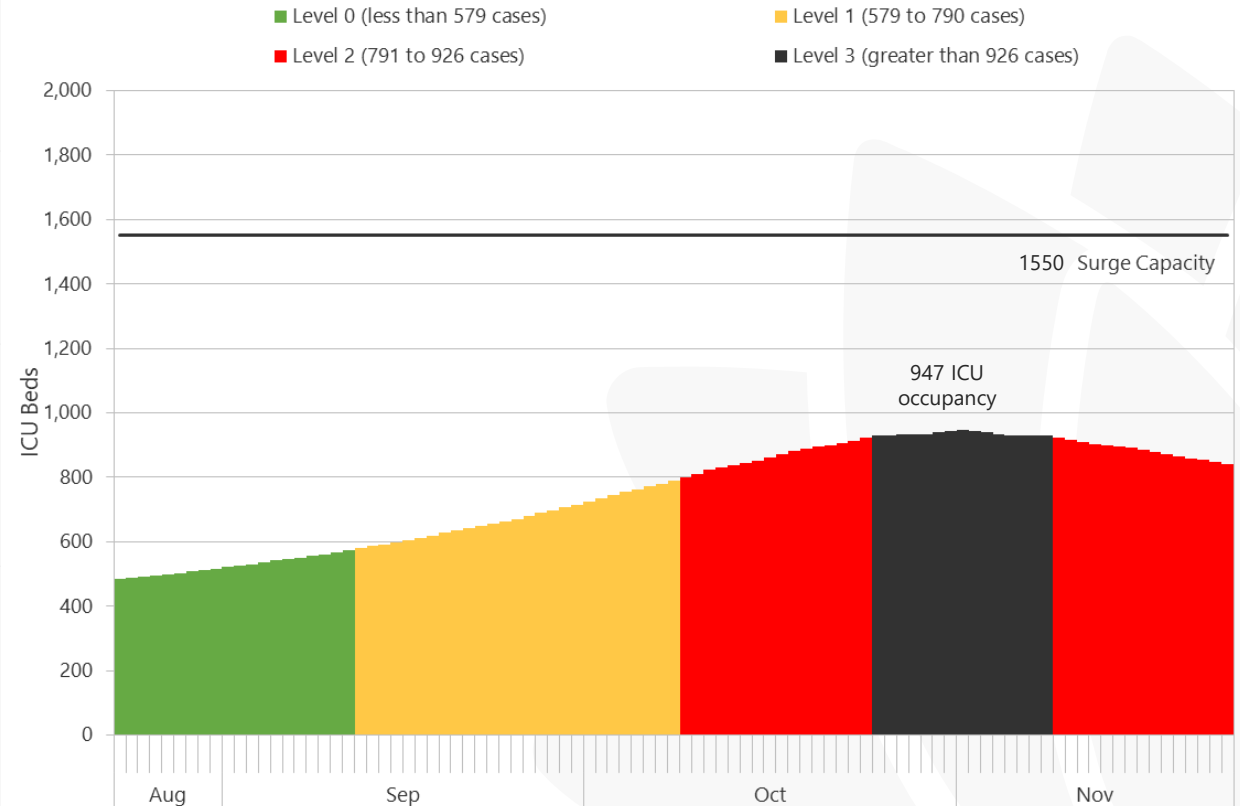
- ▶ Ambulance demand
- ▶ Transfer of Care
- ▶ Out of Hospital Care activity
- ▶ Community COVID-19 cases
- ▶ Emergency Department activity and Short Term Escalation Plan (STEP)
- ▶ Hospital Activity and STEP level
- ▶ ICU Activity and STEP level

**Intensive Care Unit (ICU)**

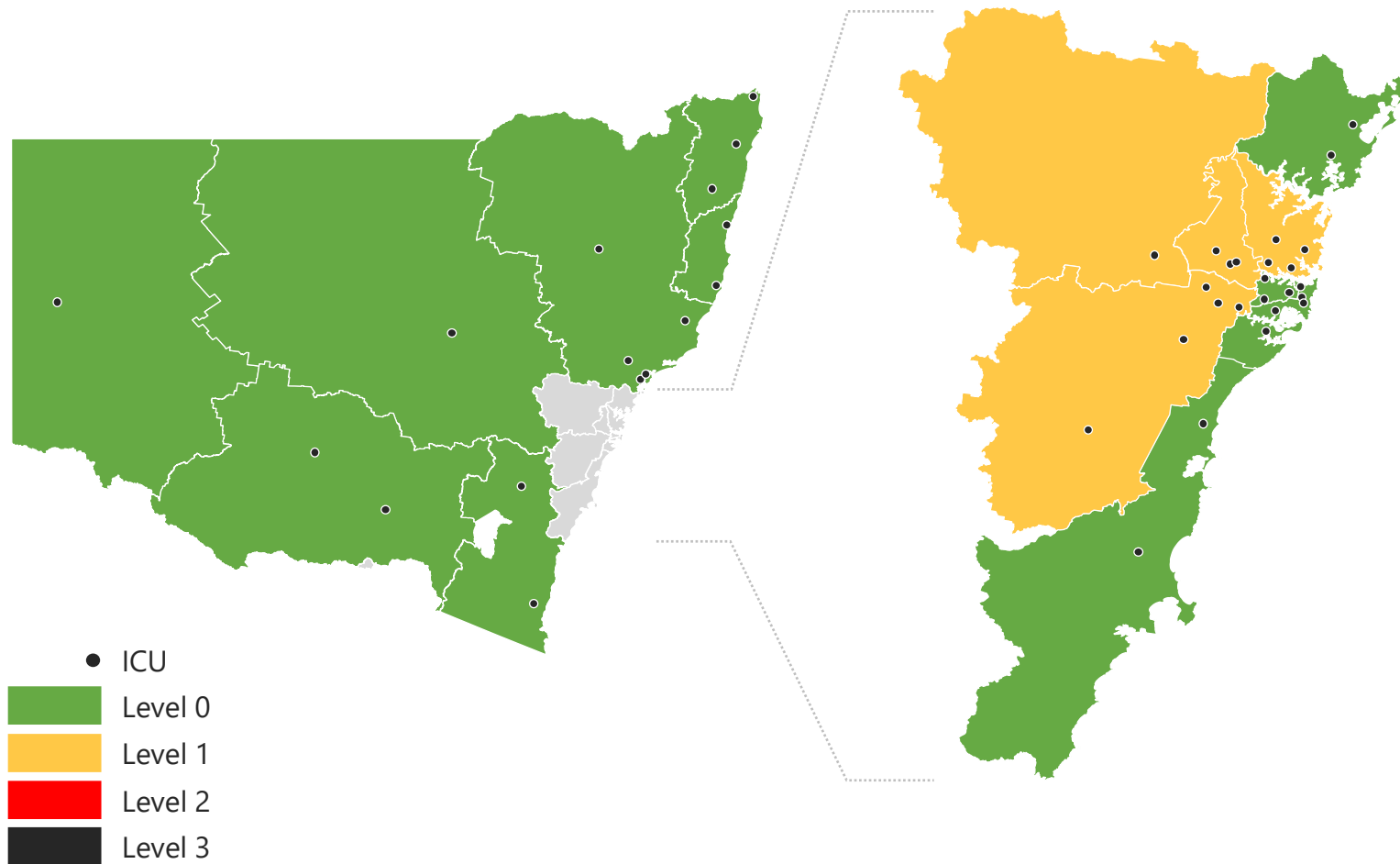
- ▶ Monitoring and coordination of ICU capacity and demand
- ▶ Ventilator management and distribution
- ▶ Equipment, consumables, pharmaceutical monitoring and distribution
- ▶ ICU staff deployment
- ▶ ICU Pandemic Short Term Escalation Plan
- ▶ Intensive Care Advisory Service (ICAS)- virtual support
- ▶ Temporary hospital solutions

# STEP plan for the current trend model - ICU

Level	Impact on ICU Operations	Recommended strategies
0	<b>Minimal</b> impact on daily operations of ICU	<ul style="list-style-type: none"> <li>ICU surge plans (bed spaces, equipment) developed and recorded in PFP</li> <li>Critical care networking arrangements confirmed</li> <li>ICU workforce surge plan developed to identify additional workforce for surge levels 1-3</li> </ul>
1	<b>Moderate</b> impact on daily operations of ICU ICU approaching maximal operational capacity	<ul style="list-style-type: none"> <li>Care delivery for ICU2 patients in other areas</li> <li>Escalate additional resource needs</li> <li>Transfer of critically ill patients to other facilities as appropriate</li> <li>Activate Level 1 ICU workforce strategies</li> </ul>
2	<b>Severe</b> impact on daily operations of ICU Overall demand for critical care exceeding ICU operational capacity	<ul style="list-style-type: none"> <li>Care delivery for ICU1 and ICU2 patients in additional areas</li> <li>Escalate additional resource needs</li> <li>Transfer of critically ill patients to other facilities as appropriate</li> <li>Activate Level 2 ICU workforce strategies e.g. higher number of patients per staff member, team nursing</li> </ul>
3	<b>Overwhelming</b> impact on usual daily operations of ICU Demand for critical care services significantly exceeds organisation-wide capacity	<ul style="list-style-type: none"> <li>Activate NSW Pandemic Resource-based decision making</li> <li>Care delivery for ICU1 and ICU2 patients in alternative areas such as operating theatres</li> <li>Escalate additional resource needs</li> <li>Activate Level 3 ICU workforce strategies</li> </ul> <p>Includes use of private hospitals and alternative workforce models e.g. higher number of patients per staff member</p>



# Pandemic ICU STEP levels by Local Health District



COVID Patients in ICU		
Sydney	23	Level 0
South Western Sydney	35	Level 1
South Eastern Sydney	29	Level 0
Illawarra Shoalhaven	6	Level 0
Western Sydney	40	Level 1
Nepean Blue Mountains	14	Level 1
Northern Sydney	15	Level 1
Central Coast	1	Level 0
Hunter New England	0	Level 0
Northern NSW	0	Level 0
Mid North Coast	0	Level 0
Southern NSW	0	Level 0
Murrumbidgee	0	Level 0
Western NSW	3	Level 0
Far West	0	Level 0
Sydney Children's Hospital Network	3	Level 0
St Vincent's	8	Level 0