

# COVID-19

CORONAVIRUS DISEASE 2019

“Seek and Destroy”

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**HNE Public Health Unit – 27 July 2020**



**Health**  
Hunter New England  
Local Health District

# NSW vs Victoria

- Cases per day since >10 cases per day (VIC - 15 June, NSW – 1 July)
- NSW last 24hrs – 17 new cases
  - 8 OS acquired
  - 7 locally-acquired (known contacts/cluster source)
  - 2 unknown source

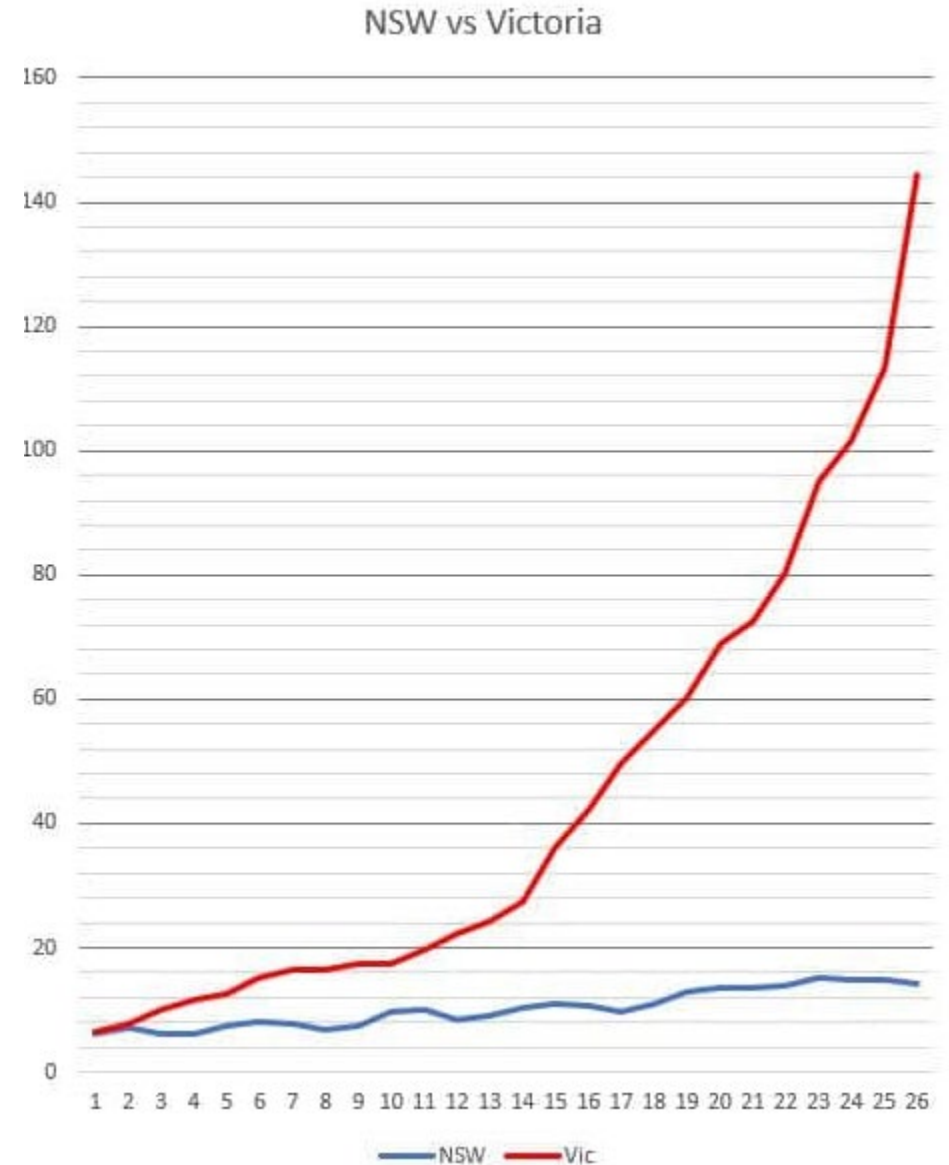
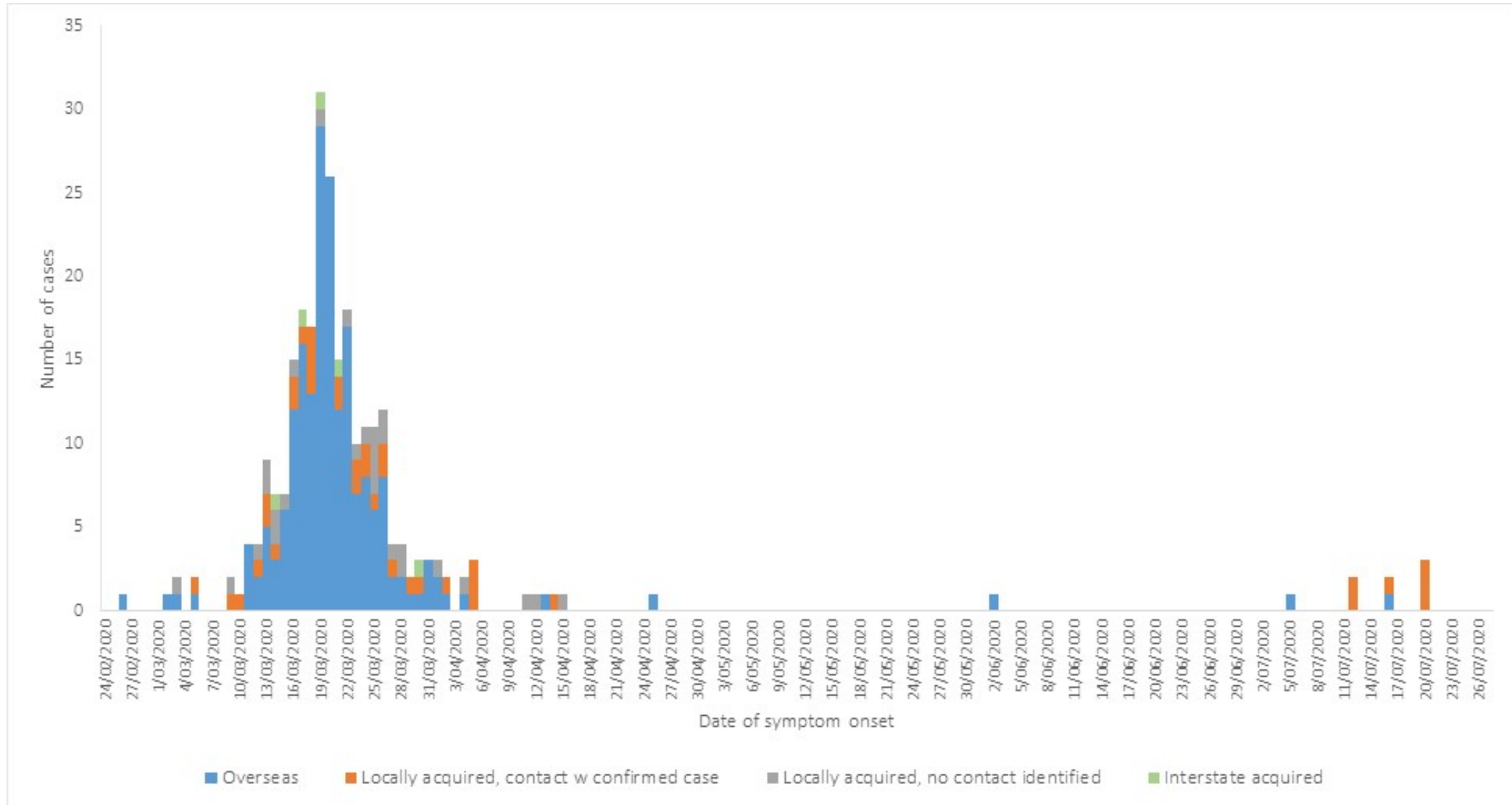

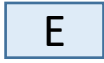




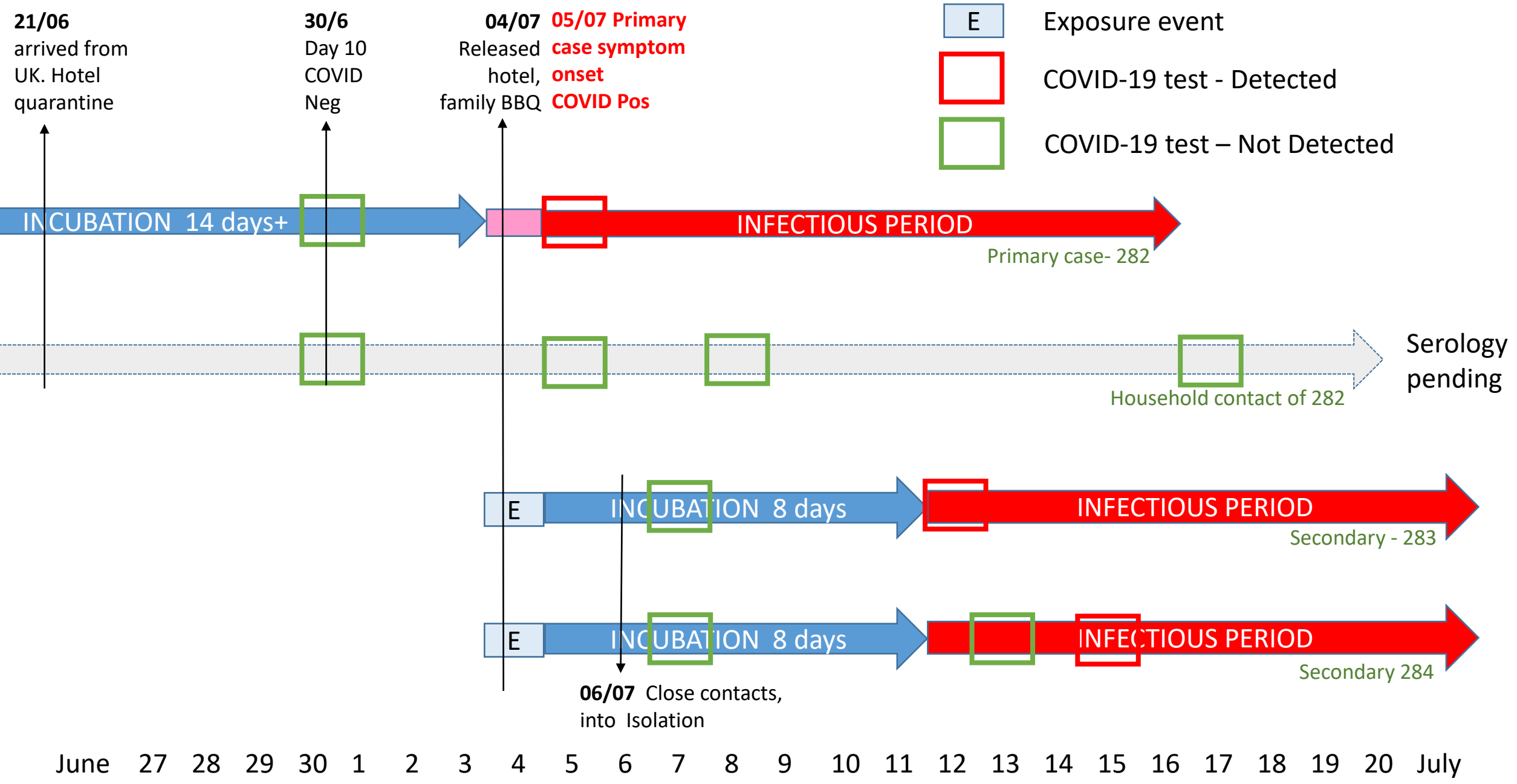
Image courtesy B. Shakibaei, 26/7/2020

# HNE Epidemic curve

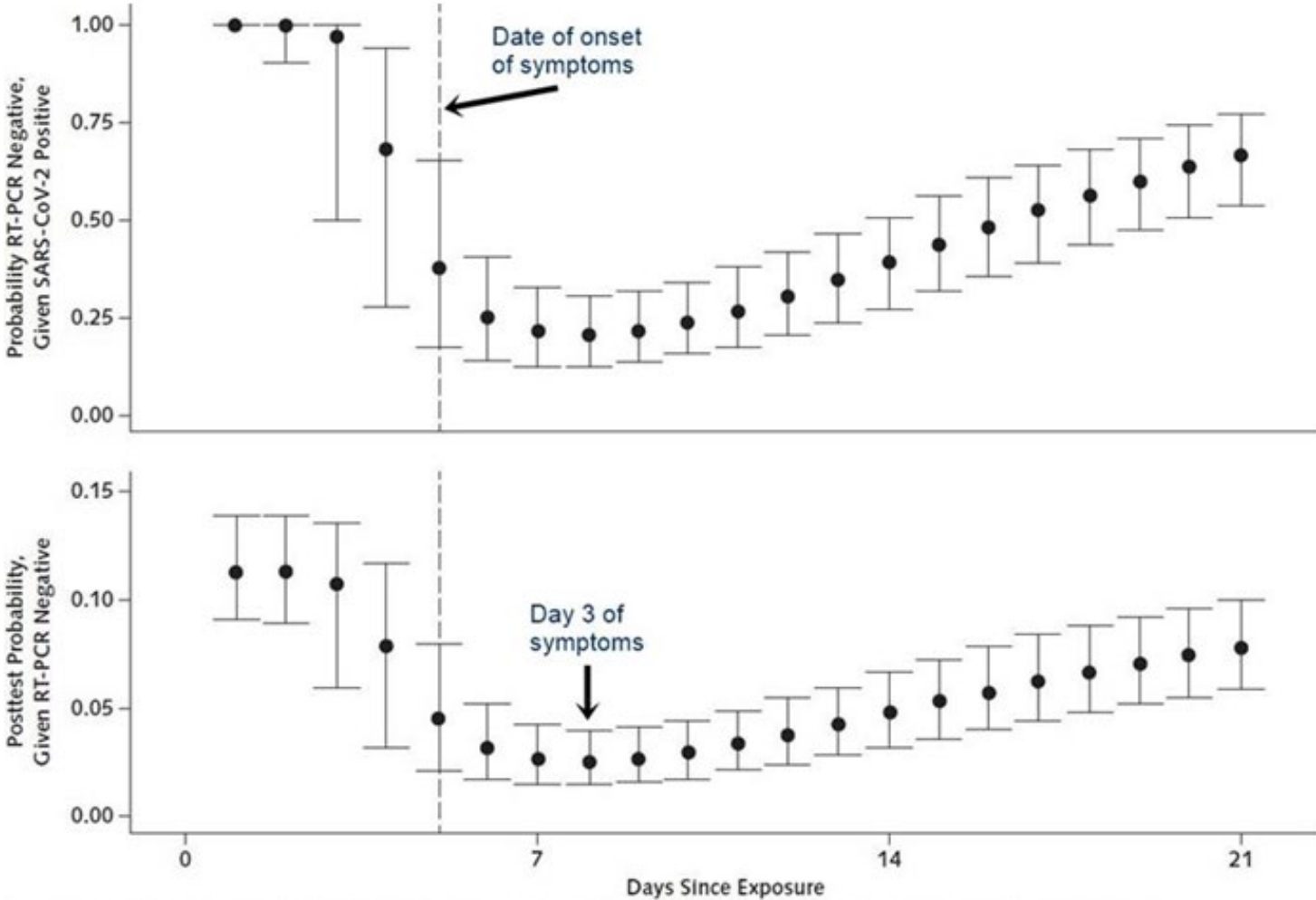


# HNE- Transmission event

-  Pre-symptomatic
-  Exposure event
-  COVID-19 test - Detected
-  COVID-19 test – Not Detected



# PCR performance – sensitivity (false negatives)



**20% false negative rate at best (Day 3 of symptoms)**

Figure 2. Probability of having a negative RT-PCR test result given SARS-CoV-2 infection (top) and of being infected with SARS-CoV-2 after a negative RT-PCR test result (bottom), by days since exposure. Ann Int Med 13/5/20 Kucirka et al <https://www.acpjournals.org/doi/10.7326/M20-1495#f2-M201495>

Annals of Internal Medicine

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Original Research | 13 May 2020

**Variation in False-Negative Rate of Reverse Transcriptase Polymerase Chain Reaction-Based SARS-CoV-2 Tests by Time Since Exposure** FREE

Lauren M. Kucirka, MD, PhD, Stephen A. Lauer, PhD, Oliver Laeyendecker, PhD, MBA, ... [View all authors](#)

# Key learnings

- Incubation period can be up to 14 days
- Infectious when asymptomatic / pre-symptomatic
- Early negative COVID PCR tests not predictive of future illness
- False negative PCRs. If COVID is highly suspected – maintain isolation and repeat test

# Port Stephens cluster

- Index case – Sydney-acquired, visited Port Stephens on 13/7/20, Sx onset 14/7
- Port Stephens case 1 – Onset of symptoms 16/7, swab +ve 20/7,
- Port Stephens case 2 – Onset ~19/7, swab +ve 22/7
- Port Stephens cases 3 and 4 – Onsets 20/7
- Complex settings:
  - Woolworths
  - Primary school
  - Childcare centre
  - Junior AFL team
- Total 155 close contacts!

# Key messages

- Potential for large numbers of contacts under eased restrictions
- Who to test:
  - “outbreak investigation” (quarantine and test) vs
  - “place of interest” (monitor for symptoms)
- Who to isolate:
  - Contacts of known cases/clusters (14 day quarantine)
  - Anybody with symptoms, no matter how mild
    - Contacts: remain isolated for 14 days after last exposure, irrespective of negative test results\*
    - Non-contacts: until negative COVID19 result obtained, AND symptoms resolve

\*Contacts who become cases may complete isolation requirements earlier



# Australian Health Protection Principal Committee (AHPPC) statement on strategic direction

The AHPPC recommends that the goal for Australia is to have no community transmission of COVID-19, strengthening the current suppression strategy and updating metrics.

**Date published:** 24 July 2020

**Media type:** Statement

**Audience:** General public

**AHPPC recommends that the goal for Australia is to have no community transmission of COVID-19, strengthening the current suppression strategy and updating metrics.**

Recent outbreaks show us that if the disease is able to enter the community unseen, it will spread quickly.