Coronavirus (COVID-19) update

NSW status and response

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1 April 2020

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Coronavirus (COVID-19) webinar presented to NSW non-government alcohol and other drug service providers

The coronavirus (COVID-19) pandemic is rapidly changing; stay up to date with current information on the NSW Health web pages:

General coronavirus web pages

https://www.health.nsw.gov.au/Infectious/diseases/Pages/coronavirus.aspx

Guidance for AOD services about COVID-19

https://www.health.nsw.gov.au/aod/Pages/covid19-aod-services-response.aspx

Note: Data and guidance included in this presentation is current as at 1 April 2020.

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What do we know about coronavirus disease (COVID-19)?

- Everyone is at potential risk:
  → population expected to have **no immunity** as a new virus
  → **no vaccine**; at least 12-18 months until vaccine available

- What is the treatment? supportive care
  → **no effective treatment** yet
  → existing antiviral medications are being trialed, likely reserved for sickest
  → severe cases can require intensive care
  → supportive treatment in hospital and intensive care can be life saving

What do we know about COVID-19?

- Cases may be infectious just before symptoms appear, or with minimal symptoms – mild/minimal illness in children and most young adults
- Mild illness may be unrecognised in many people

- Most cases have mild-moderate disease (80%) – could be managed at home
- Some develop severe disease (20%) – requires hospital admission
- Severe cases may require intensive care admission (~25% of admissions)

- Deaths generally among older people (>60 years), or those with underlying health conditions, but some younger people develop severe illness

- Reports of severe disease in children are rare

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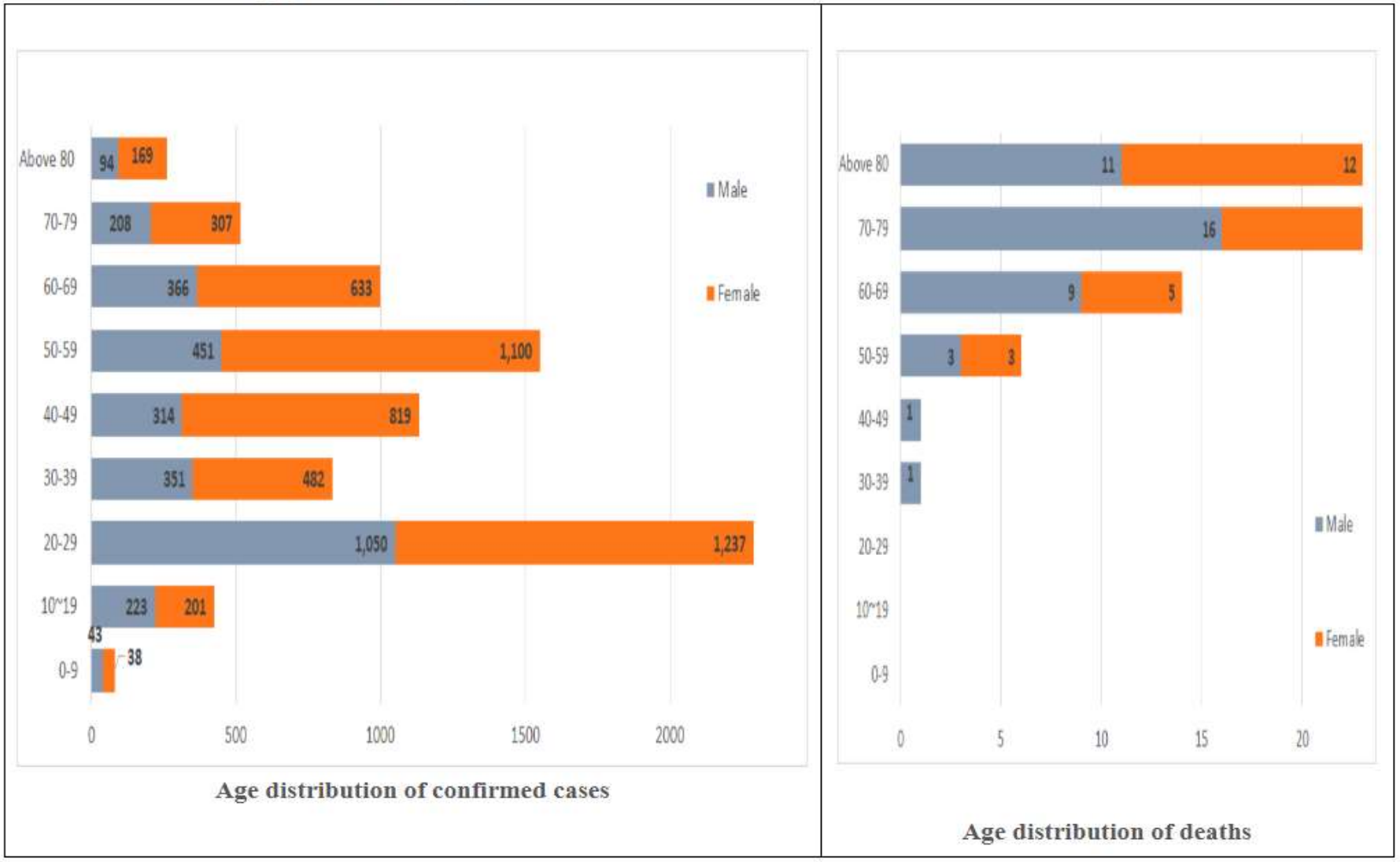
Republic of Korea, COVID-19 case summary as of 14 March 2020

○ Case distribution by gender and age:



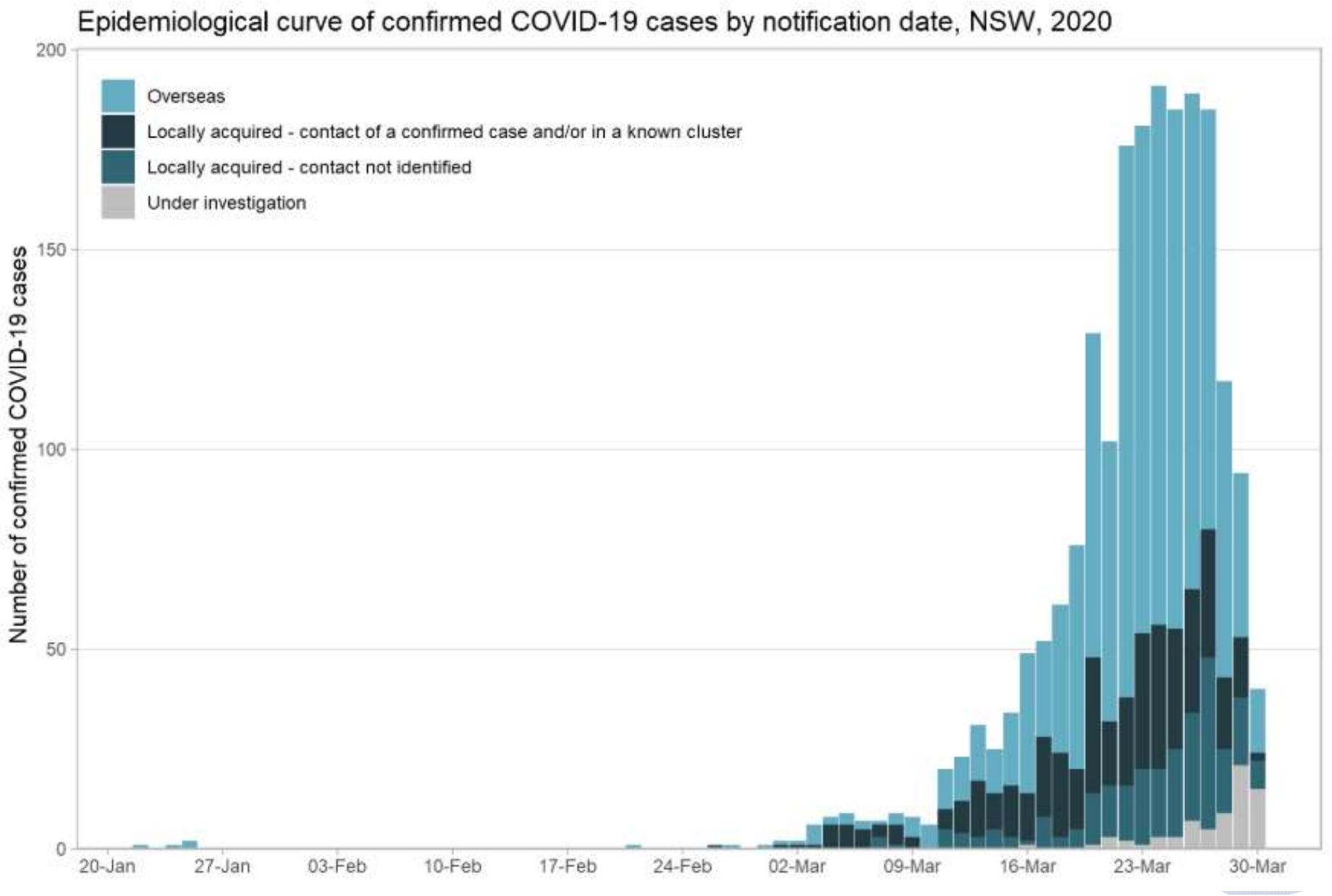
Source: Korea CDC. https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030
14 March 2020

Current NSW context

- Now entering autumn; we expect all respiratory viral infections to increase in winter
- Local community transmission becoming established
- Recent rapid influx of cases in overseas travelers, especially US, Europe and UK
- Recent clusters – church, wedding, aged care, night clubs, hospitals and cruise ship

- Testing intensity has been substantially ramped up. NSW testing rates are now comparable to countries such as South Korea and Germany which have highest reporting testing rates
- Case counts and epidemic curves in Australia are not comparable to other countries such as Italy, Spain and the US due to late recognition of community transmission there
- Severe impacts in Italy, Iran, Spain and France, with US rapidly escalating
- Many other countries may have substantial unrecognised epidemics due to low testing, immature surveillance systems, and/or low transparency in reporting
- Italy (popn 60m) just recorded 837 deaths in one day, and >4,000 people in intensive care
- If case numbers continue to increase rapidly in NSW, the peak intensity of epidemic would likely coincide with winter and with co-circulating influenza

Current state in NSW as of 30 March, 8pm



Current status in NSW – as of 8pm, 30 March 2020

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Cases	Count
Total confirmed cases [1]	2,032
Cases tested and excluded [2]	97,919
Total	99,951

Source	Count
Overseas acquired	1,293
Locally acquired – contact of a confirmed case and/or in a known cluster	418
Locally acquired – contact not identified	250
Under investigation	71
Total	2,032

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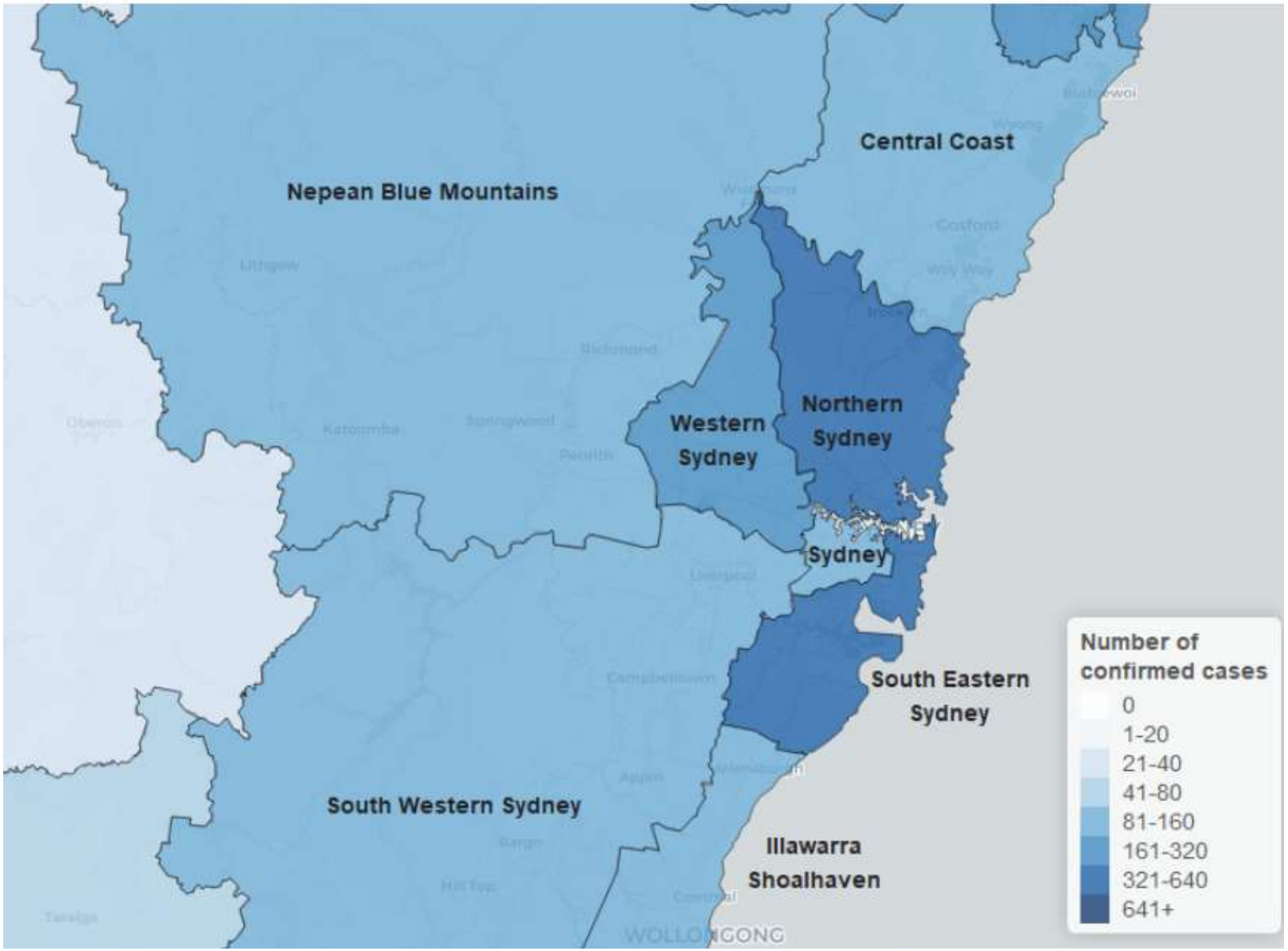
For updates: See https://www.health.nsw.gov.au/Infectious/diseases/Pages/covid-19-latest.aspx#statistics

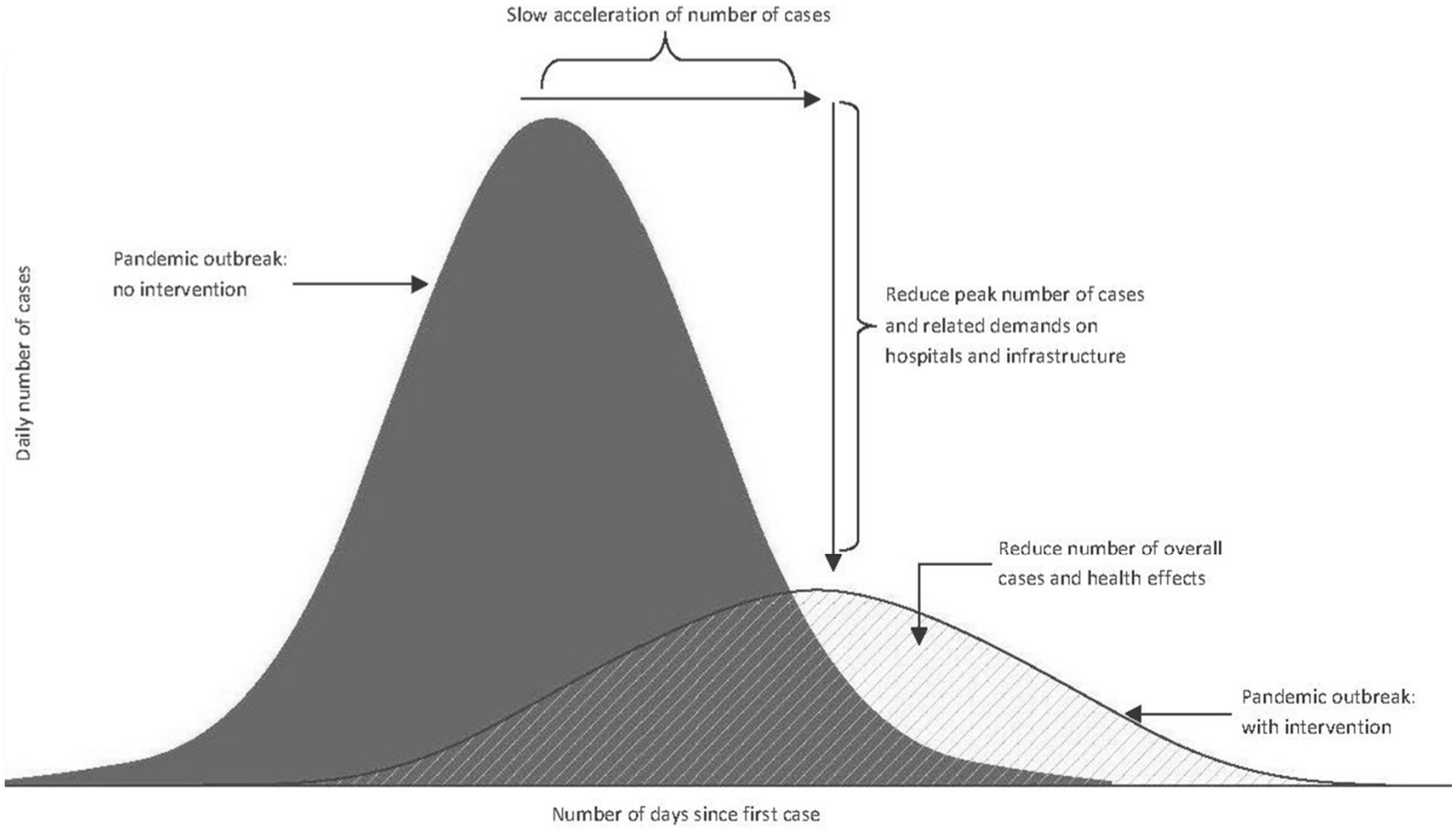
Confirmed COVID-19 cases by LHD, as of 8pm 21 March

Across Sydney metropolitan region, by local health district



Pandemic mitigation strategy

1. Delay outbreak peak – buy time to prepare
2. Reduce peak burden on services / systems
3. Diminish overall cases and health impacts



Strategic options – social interventions to control spread

1. **Mitigation** – “flatten the curve”

   Accepting that the health system may still be overwhelmed to some extent, especially if mitigation occurs too late or is not intense enough

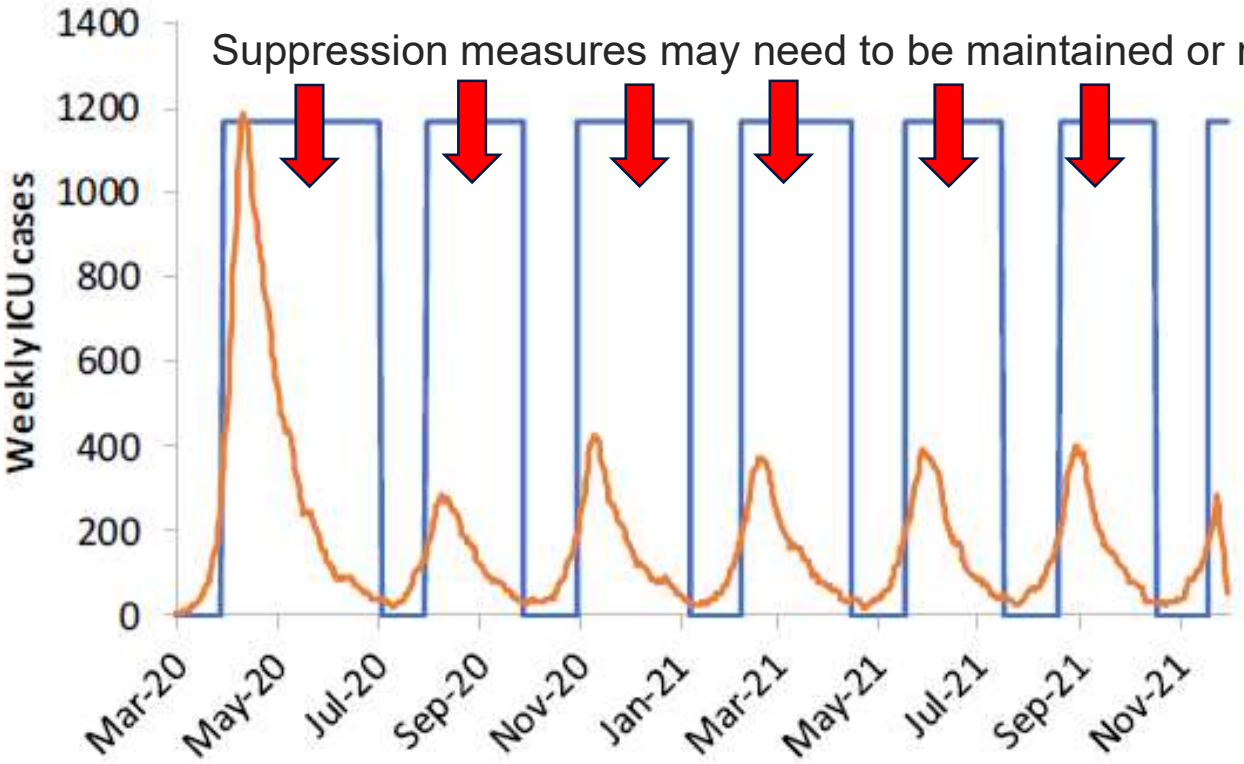
   - Difficult to control given exponential growth and uncertain effectiveness of existing mitigation measures
   - Expect lag in impact of measures of at least 10-15 days

- Testing, rapid case finding and home isolation, contact tracing and quarantine
  - Evidence-based, maintain throughout
- Individual behavioural interventions
  - Hand hygiene, cough etiquette, all sick people stay at home until well
- Social distancing
  - Many levels of intervention are possible

Strategic options – social interventions to control spread

2. Suppression – implement measures that allow a return to very low level of cases

- **But**, due to no immunity, may require sustained measures or only intermittent relaxation of measures for 1-2 years, until population develops immunity or vaccine available at scale



Indicates on and off trigger for interventions, employed using a threshold measure

– in this example weekly ICU cases

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Pandemic comparisons – the numbers

Name	Infection fatality rate	Proportion infected	Age range
Normal seasonal flu	0.035%-0.1%	7%	Very young Very elderly
Influenza H1N1 2009	0.1%	~10%	Elderly spared due to immunity
SARS 2003	10% (CFR)	low	
COVID-19	0.9% (est)	~20% (could reach 40-60%)	Children spared Elderly severe Middle aged also affected

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Summary

- COVID-19 epidemic will require extended surge, substantial workforce impacts
- Lack of immunity requires mitigation for 12-18 months
- Need to factor in substantial uncertainty re timing, severity, impacts
- Plan for critical care surge at least 200%, and effective mitigation still required
- Attack rate could be higher than modelled, and mitigation followed by relaxation could result in multiple waves of illness
- Carefully consider vulnerable/at-risk groups and high-risk settings
- Plan for most impacts coinciding with winter
- Health system preparedness and surge, while continuing to provide care for all
- Working in collaboration with primary care, aged care, pharmacies to reduce demand on health systems, and employing tele/digital health services

Questions

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