

NOVEMBER 2021

Victorian Department of Treasury
and Finance

Drivers of COVID-19 fiscal impacts

The health and industry assessments don't capture COVID-19 impacts

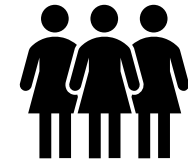
Current disability factors aren't related to COVID-19 health needs

- The health assessment weights towards remote, indigenous populations
- Measures of COVID-19 show greater health impacts for inner cities



Other factors are related to COVID-19 health impacts

- Cultural and linguistic diversity appears related to COVID-19 health impacts
- Certain occupations are linked as well



The need to support workers, businesses and communities isn't evenly distributed

- The current business development assessment is on an equal per capita basis
- Economic impacts of COVID-19 were unevenly distributed between States



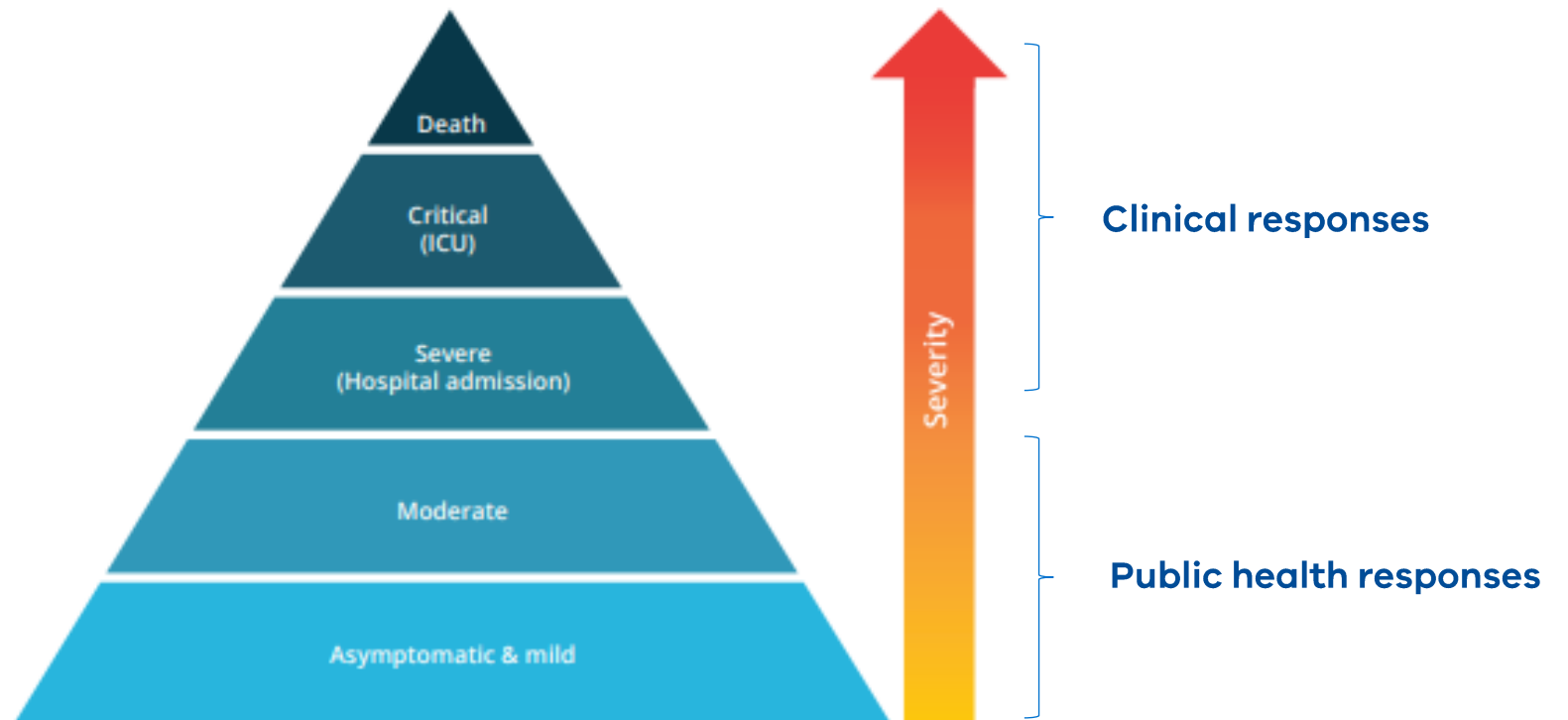
COVID cases approximate health service activity

- Case numbers directly relate to State **public health responses** by showing the demographics of users of:
 - Testing services
 - Contact tracing and suppression activity
- Case numbers also provide an indication of need for **clinical health responses**:
 - A subset of COVID cases require clinical services including through hospitals
 - However, cases are an imperfect indicator of clinical need, as there may be factors within the infected cohort that influence need for responses i.e. age



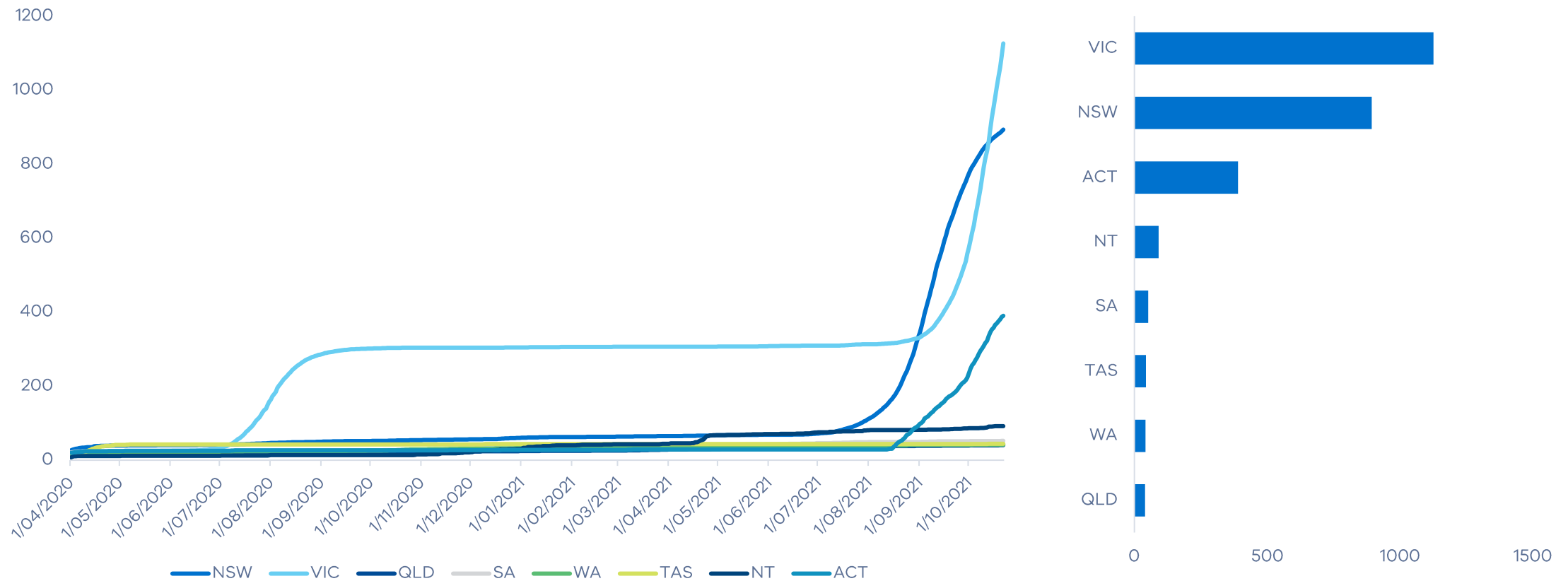
COVID cases approximate health service activity

AIHW severity pyramid for acute COVID-19



COVID cases were not distributed evenly by population between States

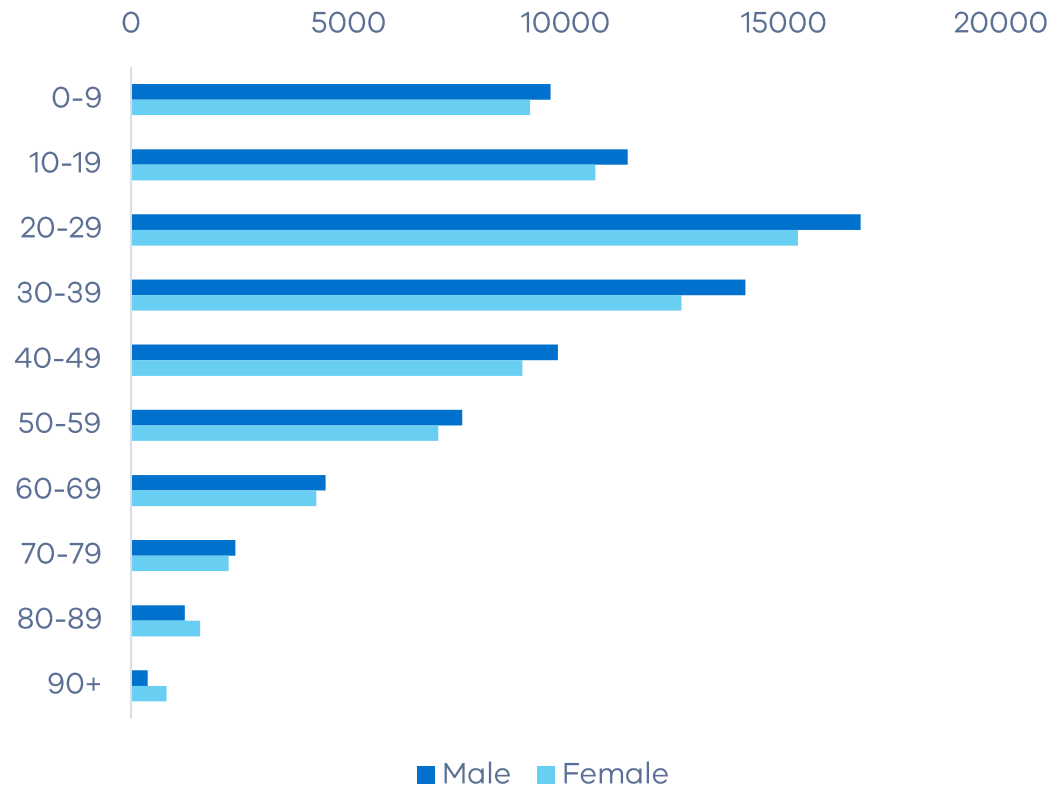
Cumulative total COVID cases per 100,000 population by state and territories to October 2021



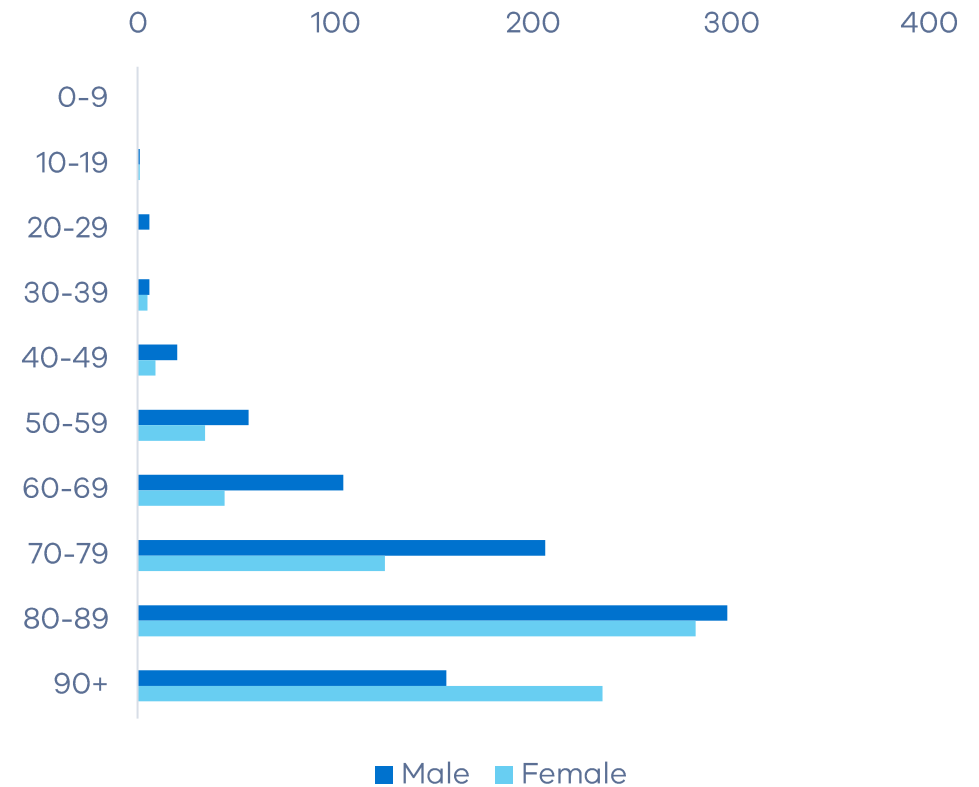
Source: Commonwealth Department of Health, see appendix for detail.

Cases were higher among younger people, however serious impacts greater among elderly

Total COVID cases by age and gender to October 2021



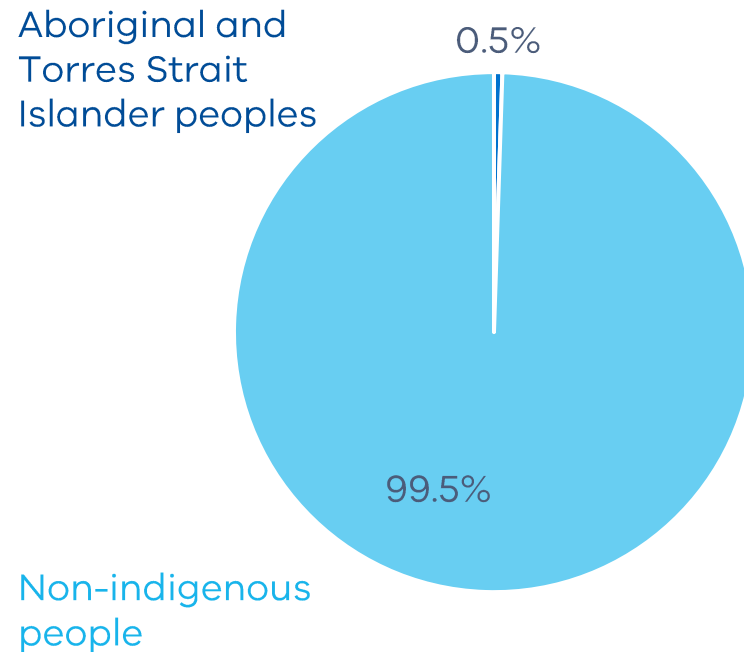
Total COVID related deaths by age and gender to October 2021



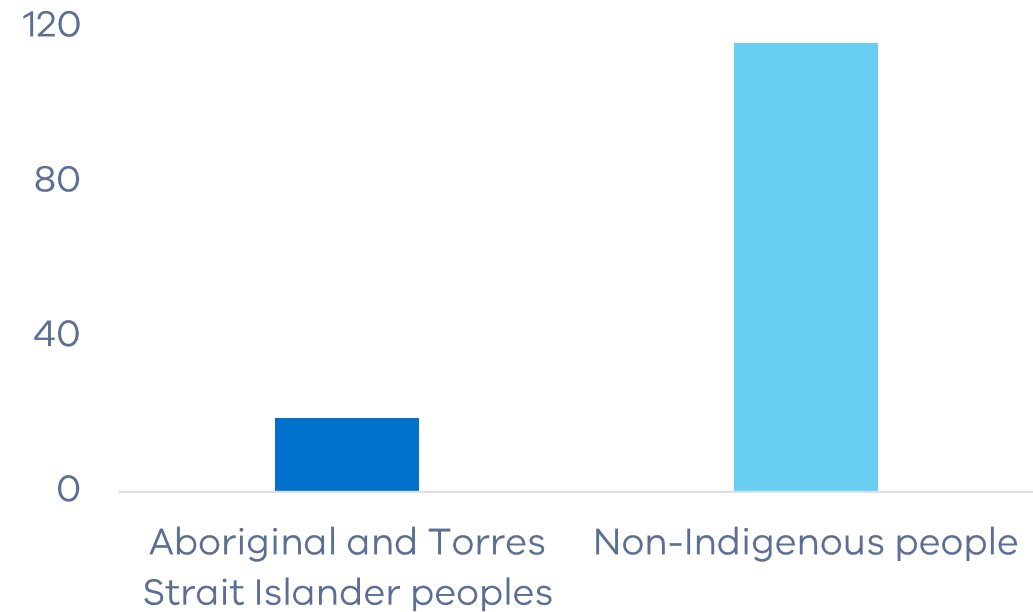
Source: Australian Government Department of Health

COVID cases are rare among indigenous Australians

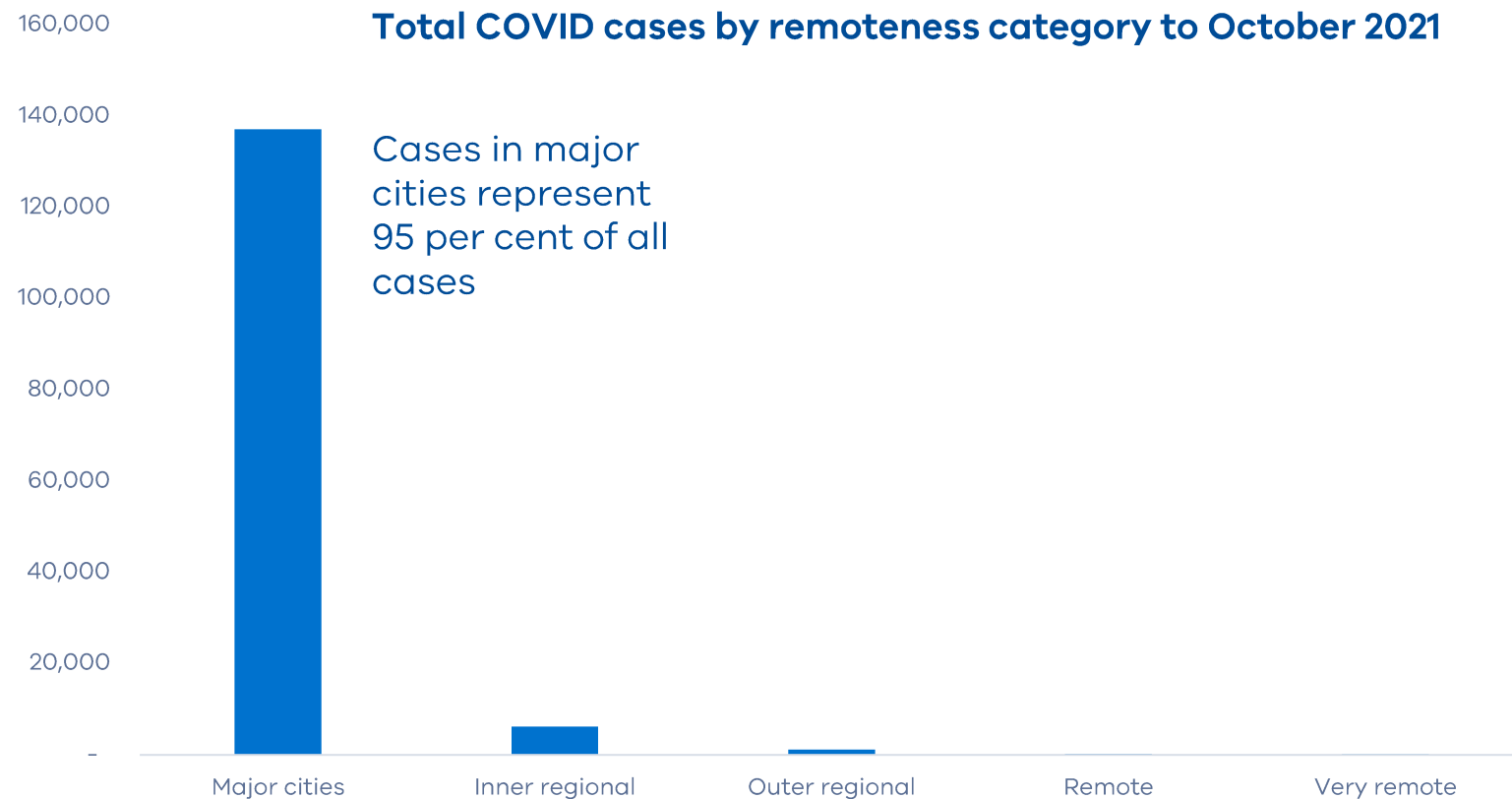
Share of total COVID cases by indigenous status, to February 2021



Rate of COVID cases per 100,000 population by indigenous status, to February 2021



Nearly all COVID cases occurred in major cities

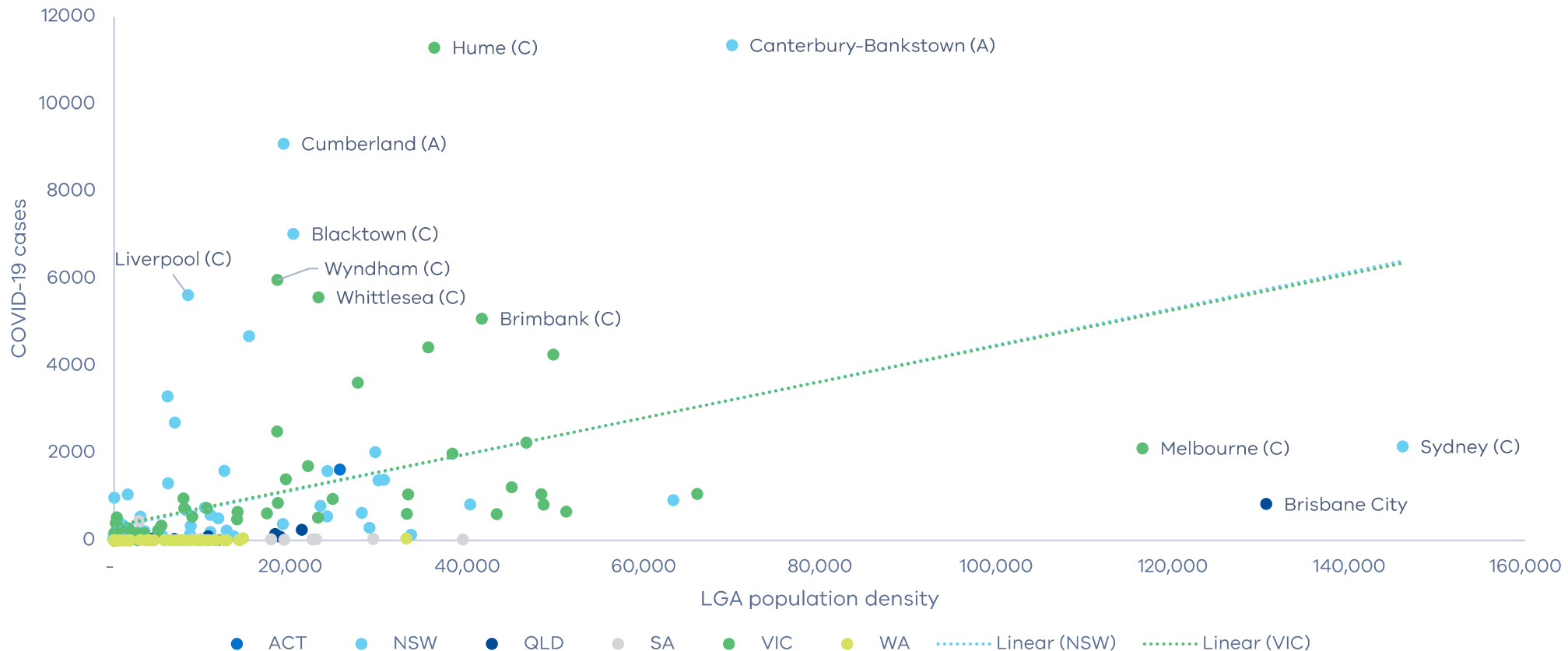


- COVID impacts are related to more concentrated populations in major cities
- However, many GST expenditure categories assess greater need for remote populations
- The need for spending to respond to COVID should be assessed as greater for populations in major cities or by population density

Source: COVID cases data set, see appendix for details

Case numbers were generally higher in LGAs with greater population density

COVID cases by State, local government area and population density to October 2021

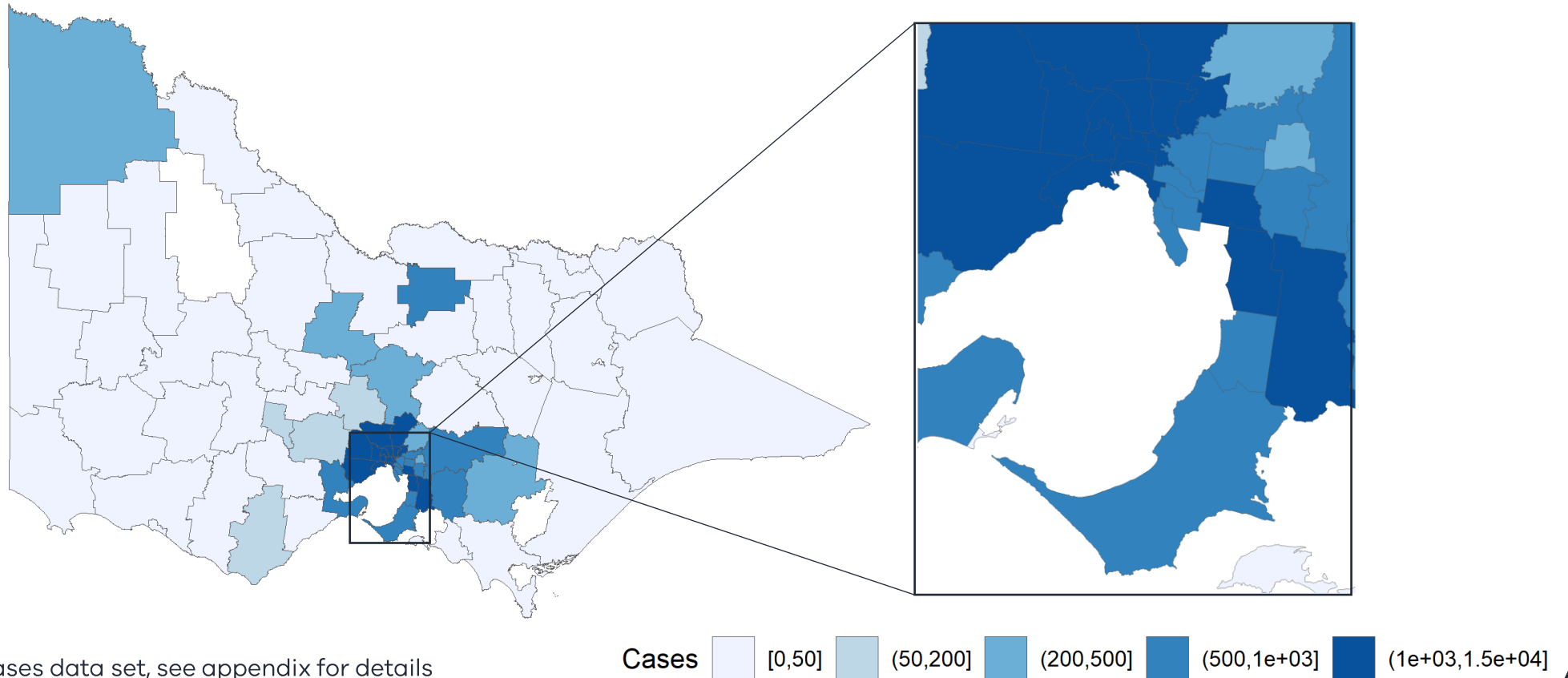


CBDs are outliers with very high population densities and lower propensity for cases given health controls on commuting

Source: COVID cases data set, see appendix for details

Cases of COVID-19 in Victoria were concentrated in Melbourne

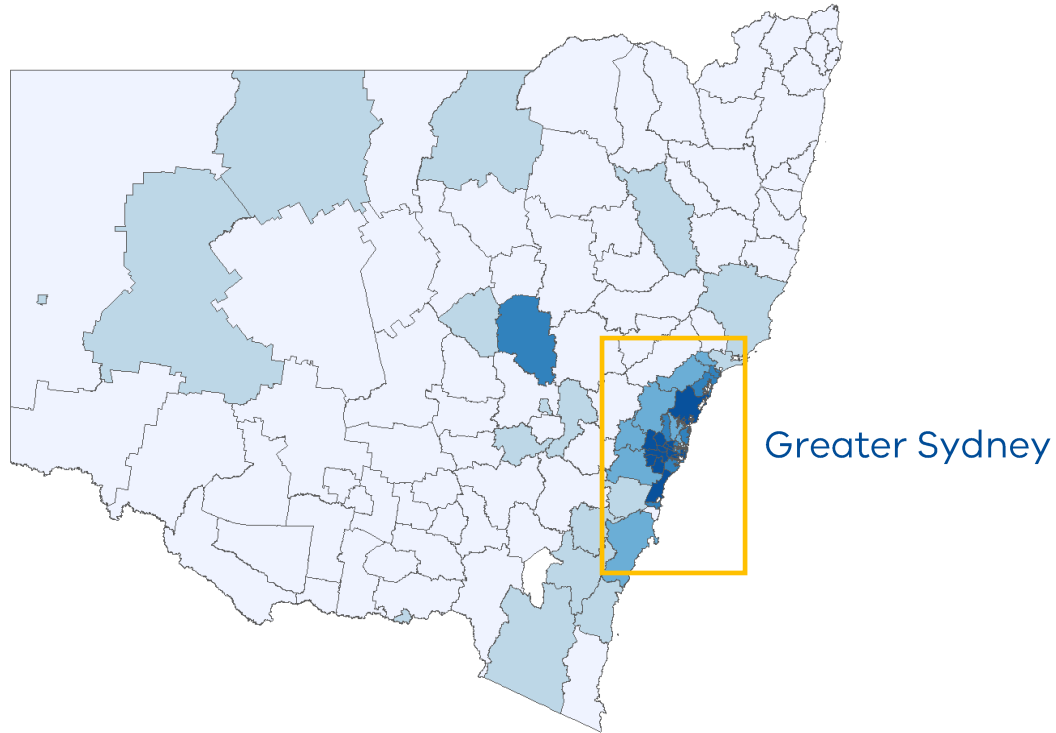
Total COVID cases in Victoria by local government area to October 2021



Source: COVID cases data set, see appendix for details

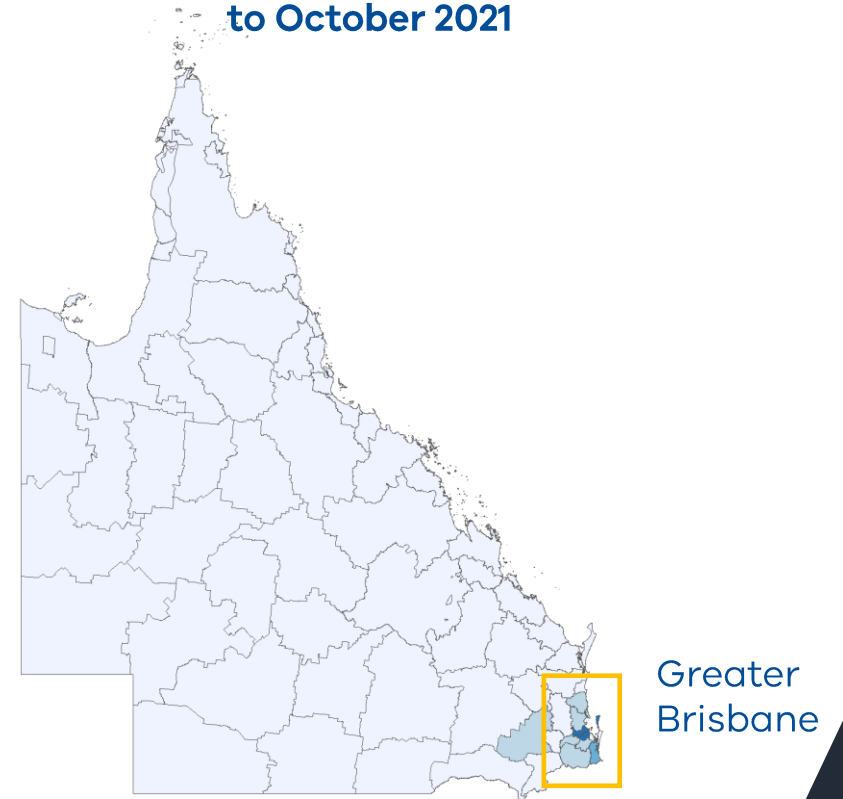
COVID cases in other states were concentrated in major cities

Total cases in NSW by local government area, to October 2021



Cases [0,50] (50,200] (200,500] (500,1e+03] (1e+03,1.5e+04]

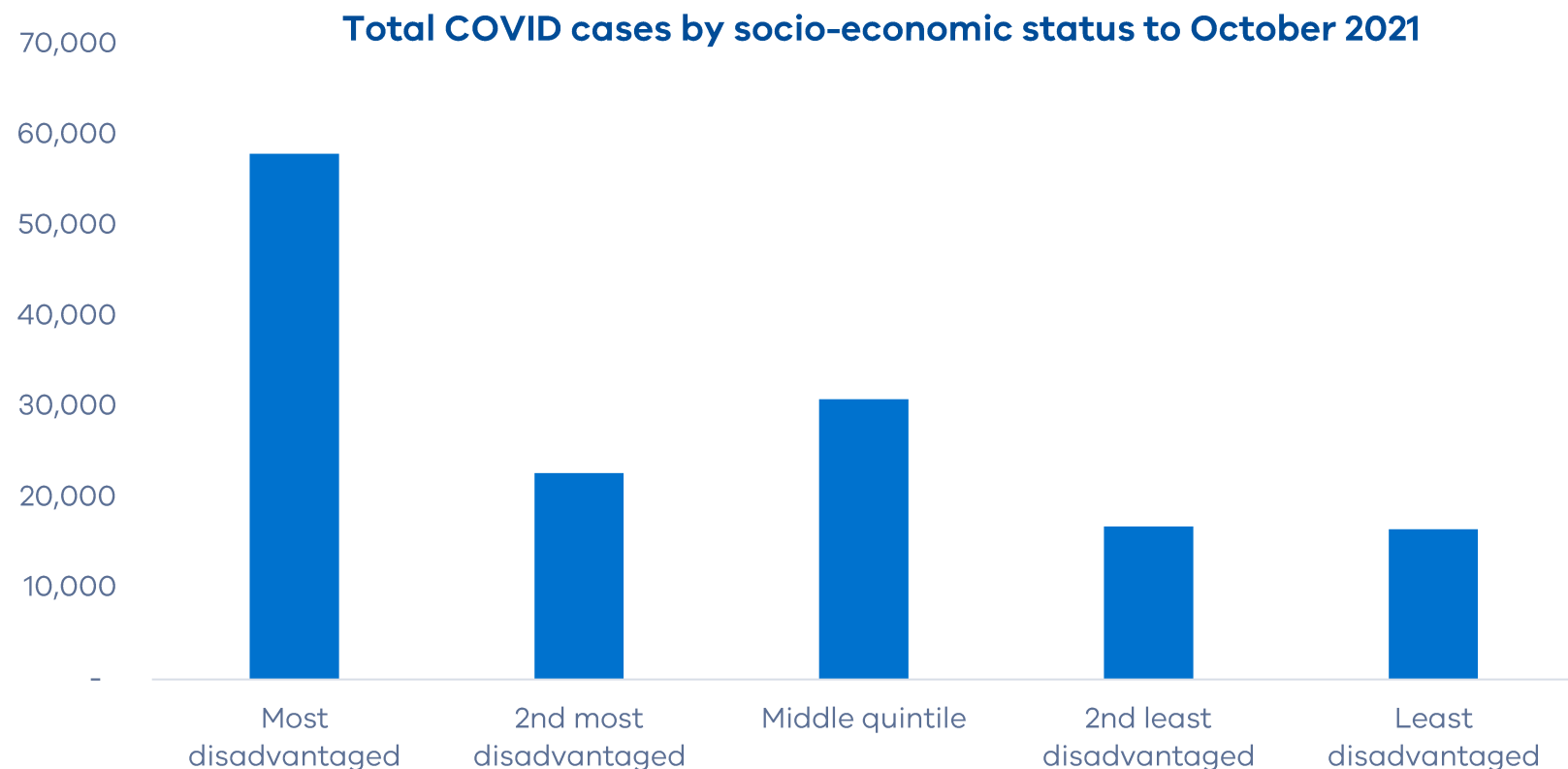
Total cases in Qld by local government area, to October 2021



Cases [0,50] (50,200] (200,500] (750,1e+03]

Source: COVID cases data set, see appendix for details

COVID cases were generally higher in low SES areas

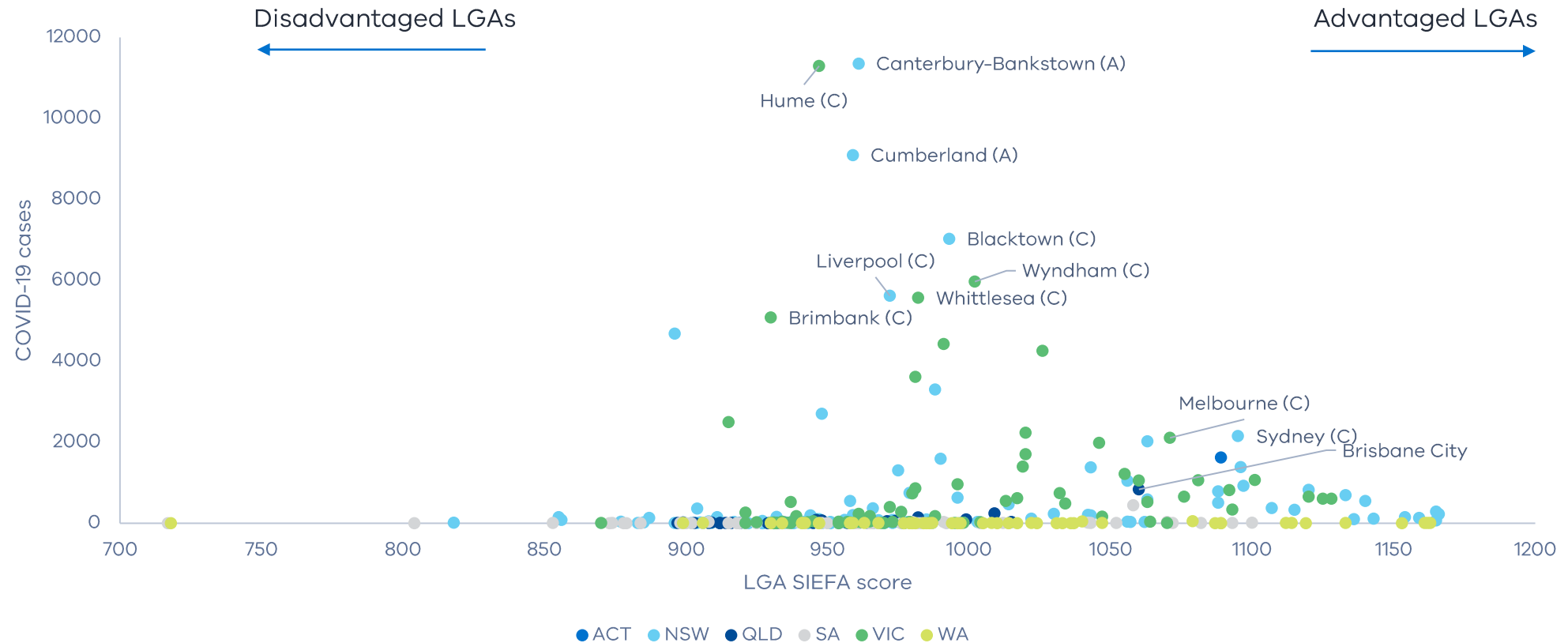


- COVID cases were generally evenly spread between areas of different SES, but slightly greater in low SES areas
- For most expenditure categories, GST is distributed for greater low-SES populations

Source: COVID cases data set, see appendix for details. The measure of SES used is the Socio-Economic Indexes for Areas (SEIFA) by the ABS, which ranks areas according to relative socio-economic advantage.

LGAs with the highest case numbers had relatively lower socio-economic status

COVID cases by State, local government area and socio-economic disadvantage to October 2021



Source: COVID cases data set, see appendix for details

Econometric results suggest current relationships do not hold

- Results suggest remoteness is a significant factor related to COVID-19 cases
 - Cities on average had 100 more cases than remote areas
- Socio-economic status of an area impacts the number of COVID-19 cases it experienced
 - The most disadvantaged areas on average had 136 more cases than the most advantaged

Source: COVID cases data set, see appendix for details

a. Reference remoteness category: Major cities

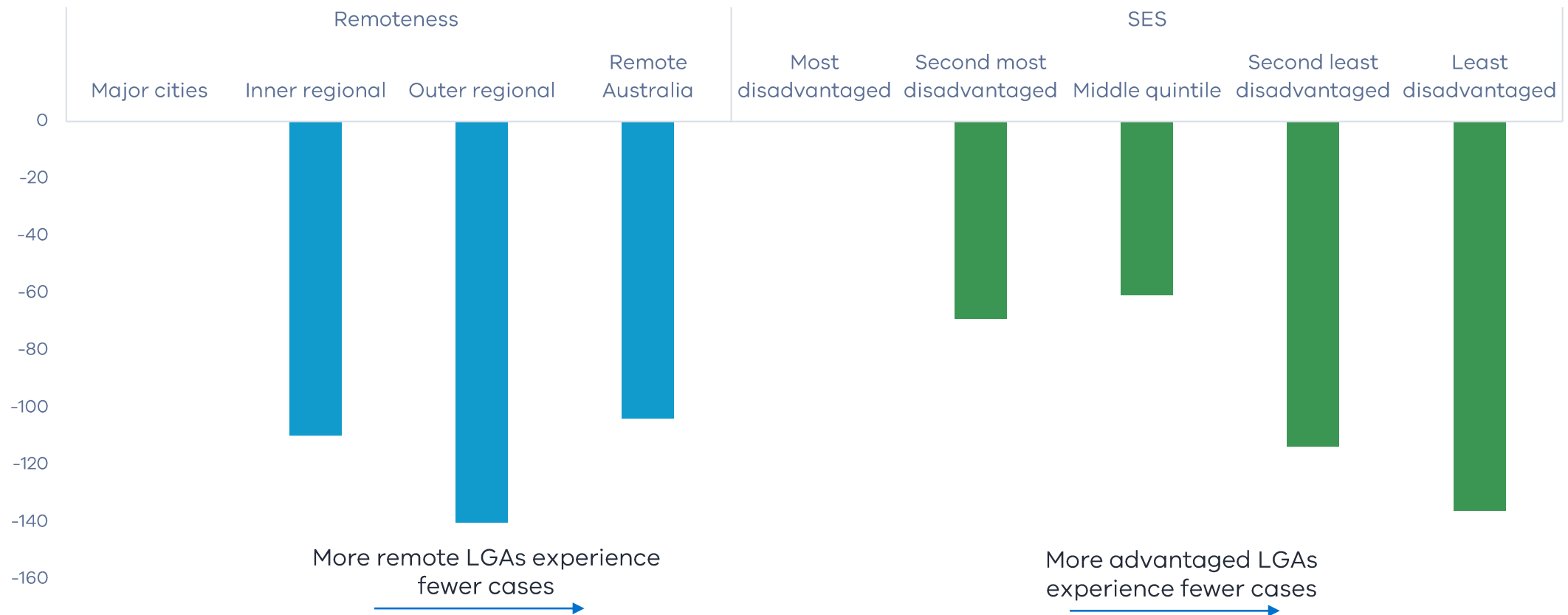
b. Reference SEIFA category: Most disadvantaged area

Table 1: Econometric analysis of factors relating to COVID cases

Variables	
Dependent variable: COVID cases by postal area	
Remoteness ^(a)	
Inner regional	-109.793***
Outer regional	-140.143***
Remote	-103.959*
SEIFA^(b)	
2 nd most disadvantaged	-69.107***
Mid quintile	-60.782***
2 nd most disadvantaged	-113.64***
Most advantaged	-136.079***
Constant	184.657***
Observations	2,395
F Statistic	26.022***

More remote and higher SES locations are related to lower cases of COVID-19

Graphical presentation of econometric results



Source: COVID cases data set, see appendix for details

Appendix: COVID cases data set

Data	Source	Date accurate to
National COVID cases	Publicly available from Commonwealth Department of Health	7 September 2021
State COVID cases		
Victoria	Data Vic	19 October
NSW	Data NSW	19 October
Queensland	Data Qld	20 October
Western Australia	WA Department of Health	24 June
ACT	ACT Government – COVID-19	20 October
Tasmania	Data unavailable by location	N/A
NT	Data unavailable by location	N/A
Measures of remoteness and SES	Provided by the CGC	

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