

COVID-19: Going Forward

- Prepared for BC Ministry of Health
- July 20, 2020



Stay Informed Via These Resources:

gov.bc.ca/Covid-19 | bccdc.ca | 1-888-COVID19

Symptom Self-Assessment:

covid19.thrive.health



BRITISH
COLUMBIA

Epidemiology

*How and Where the Virus Has
Affected People in BC*

Weekly Profile of COVID-19 Cases



3,028 Total Cases

72 New Last Week



52 % Female Sex

50 Median Age



528 Ever Hospitalized

2 New Last Week



17 % Cases Hospitalized

69 Median Age



186 Deaths

7 New Last Week



6 % Cases Died

85 Median Age



2,667 Removed From Isolation

59 New Last Week

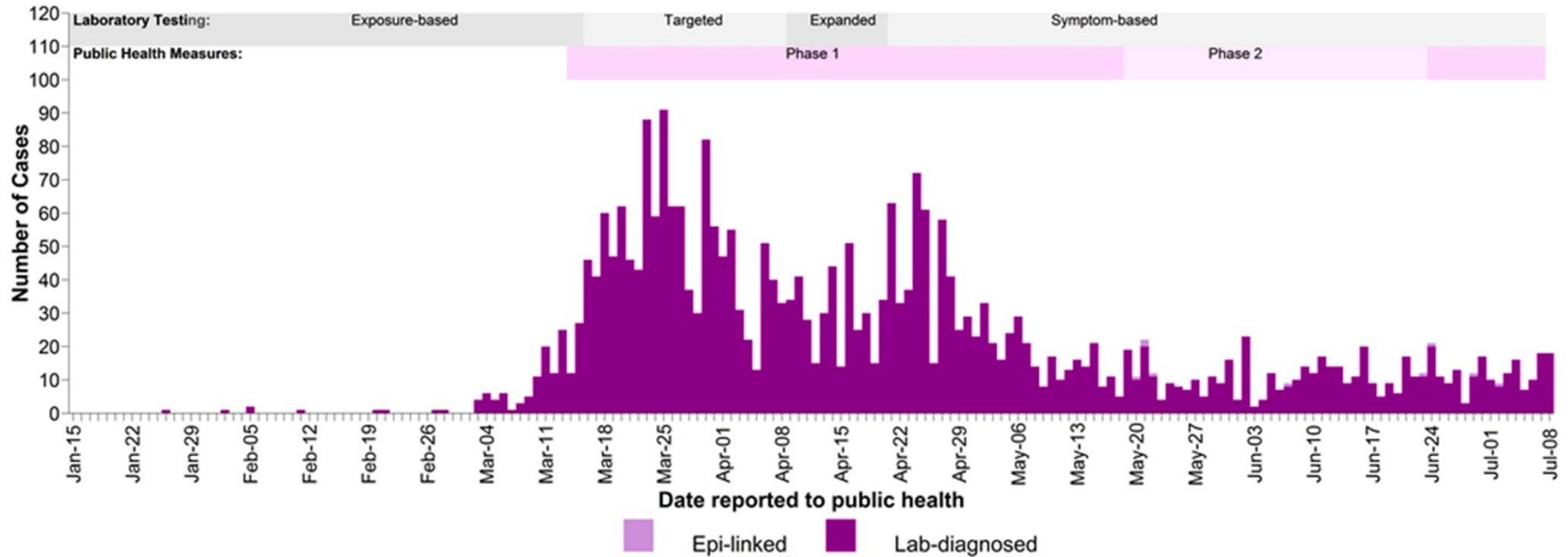


88 % Cases Removed

49 Median Age

Note: Weekly comparison represents provincial data from July 5-9, 2020 compared to June 28-July 2, 2020.

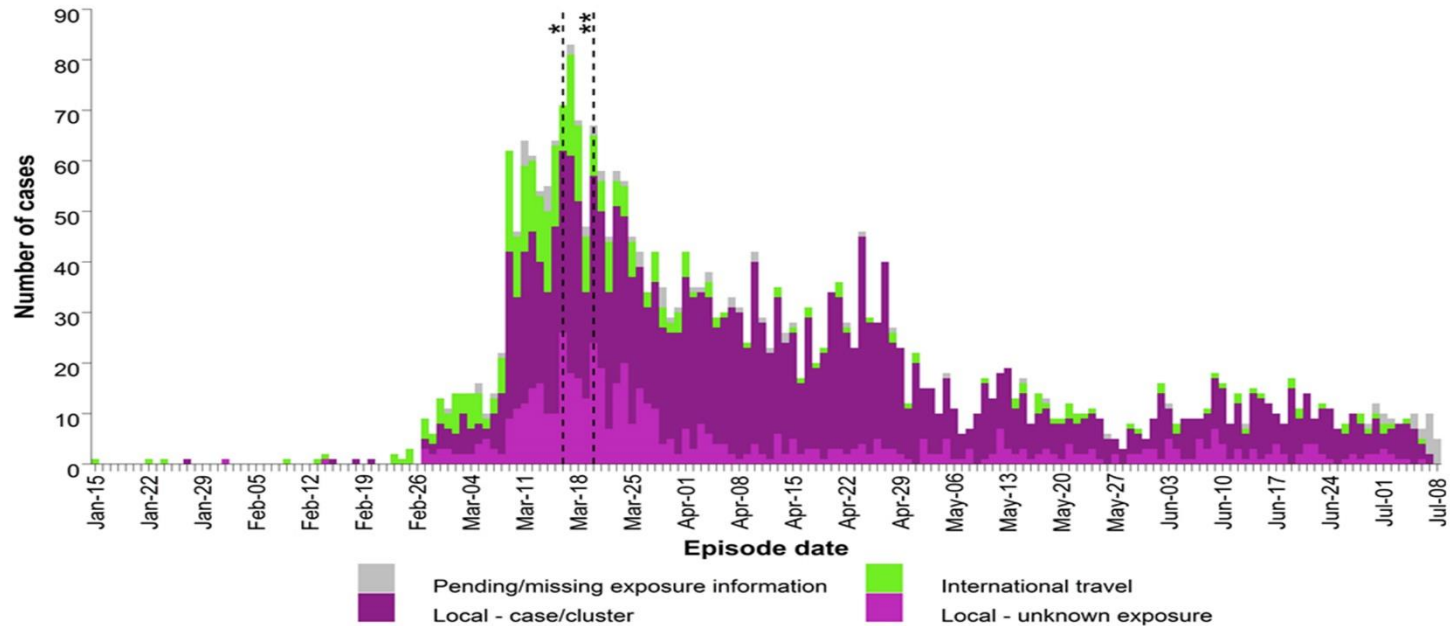
Epidemic Curve: COVID-19 Cases in BC by Reported Date January 15 – July 8, 2020. (N=3,028‡)¥



‡ The number of cases reported by day differs from that in Table 1 in previous reports as this figure reflects the date the case was lab-confirmed and reported to the Health Authority.

¥ On June 3, a change in the FHA reporting system led to changes in the reported date of some FHA cases and concurrent changes to the epidemic curve by reported date.

Likely Source of Infection for COVID-19 Cases in BC by Episode Date[§], January 15 – July 8, 2020. (N=3,028)



[§] Episode date is based on symptom onset date (n=2,813), if not available then date COVID-19 was reported to health authority (n=215).

* March 16: Entry of foreign nationals banned; symptomatic individuals banned from flights to Canada; international flights restricted to four national airports.

** March 20: US/Canada border closed to non-essential travel.

COVID-19 Case Fatality Rates by Setting in BC, 2020 (n=2,978)

Settings	Deaths	Cases	CFR
Overall	183	2,978	6.1%
Non-Outbreak	50	1,950	2.6%
Outbreak	133	1,028	12.9%
Long Term Care	109	539	20.2%
Acute Care	22	98	22.4%
Other	2	391	0.5%

*Long Term Care facility includes: Long Term Care Facilities, Assisted Living Facilities, Independent Living Facilities, Other Residential Facilities.
Other outbreaks include: Correctional Facilities, Workplaces, other.*

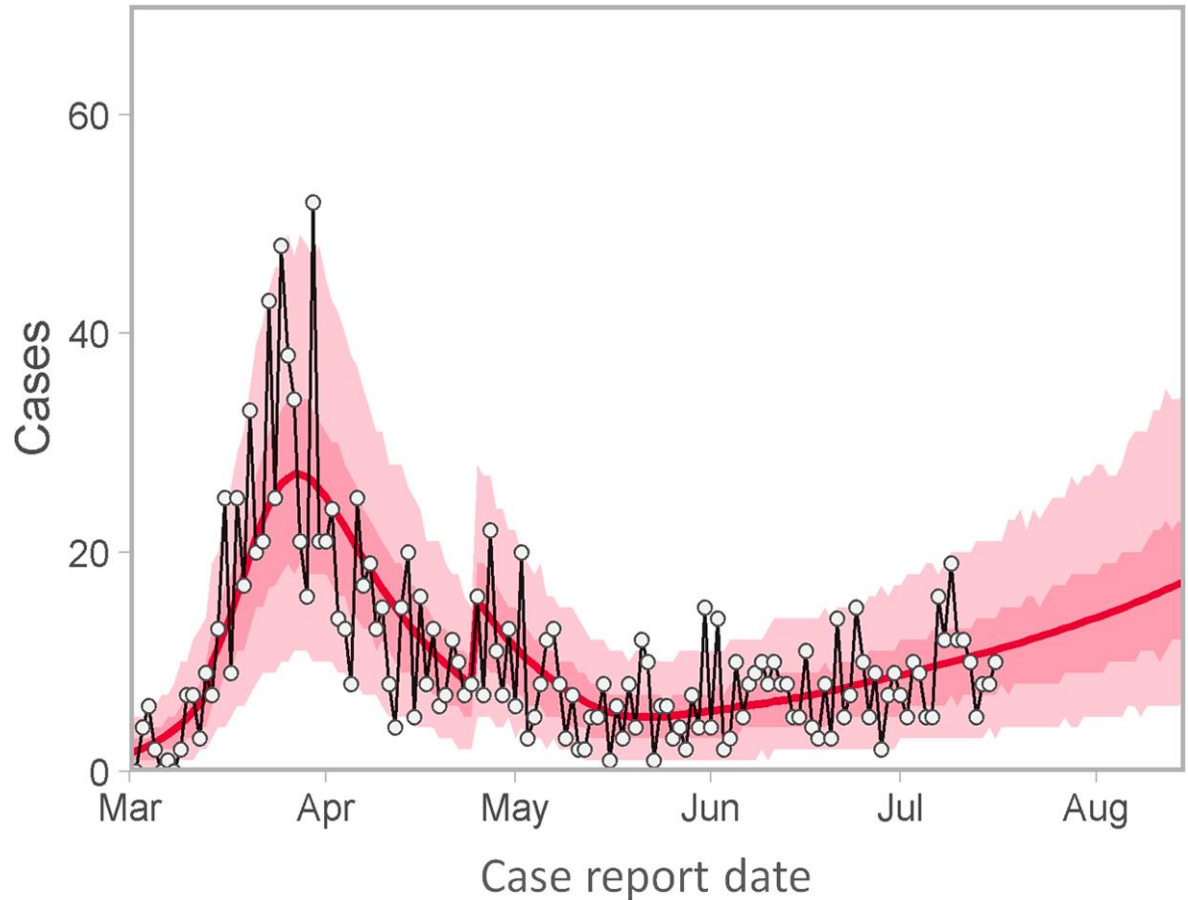
Acute care includes: units within hospitals where an outbreak was declared.

Synthesis of Modelling and Analyses to Date

Keeping the Curve Flat

Dynamic Compartmental Modelling: Projections

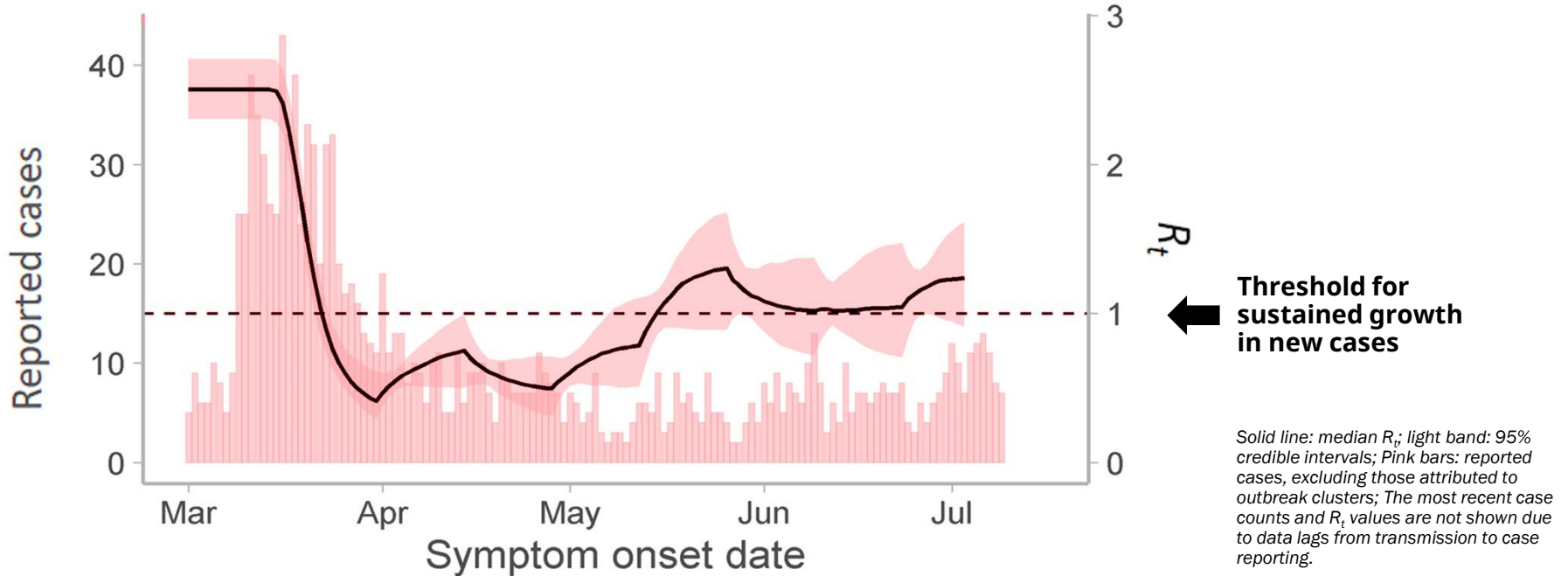
- Our model suggests that increasing numbers of new cases during the summer remain a possibility.
- Given the relatively small numbers of reported cases at this time, projections into the summer have large uncertainty.



Solid line: mean; shaded bands: 50% and 90% credible intervals; Open circles: reported cases. Cases used for model fitting exclude those attributed to outbreak clusters.

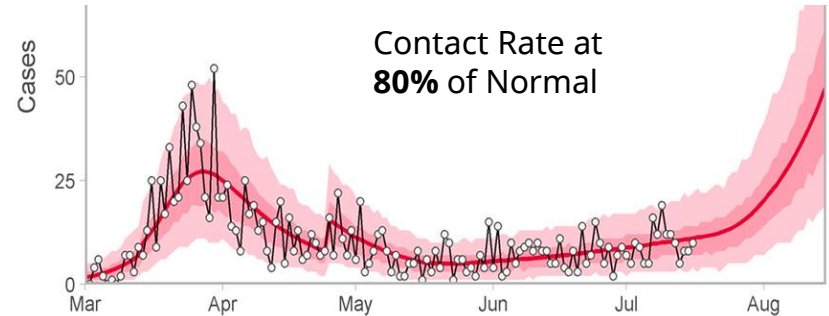
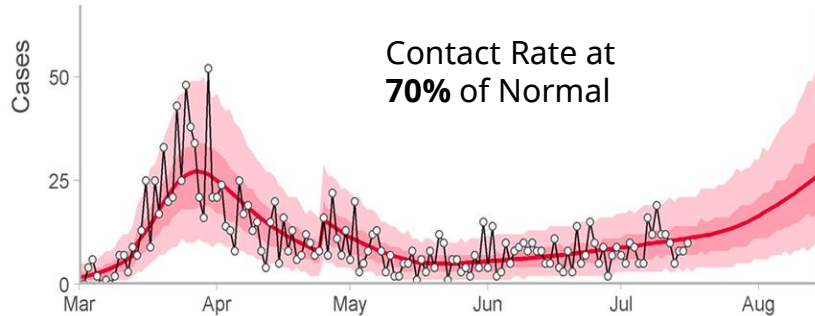
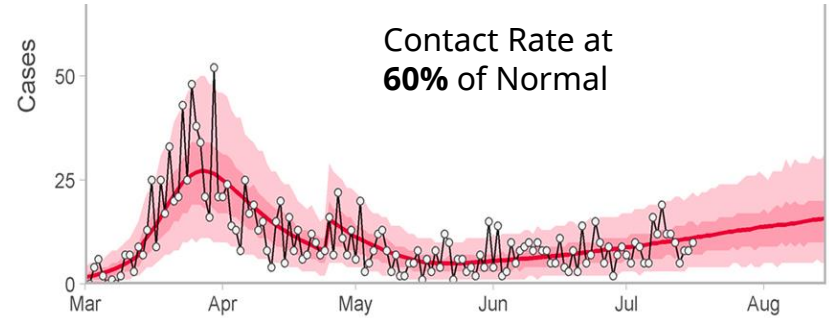
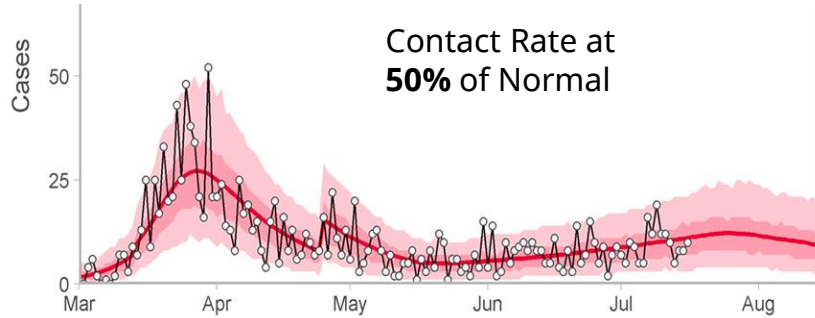
Dynamic Compartmental Modelling: Recent Trends

Our model-based estimate of R_t (average daily number of new infections generated per case) recently increased above 1.0.



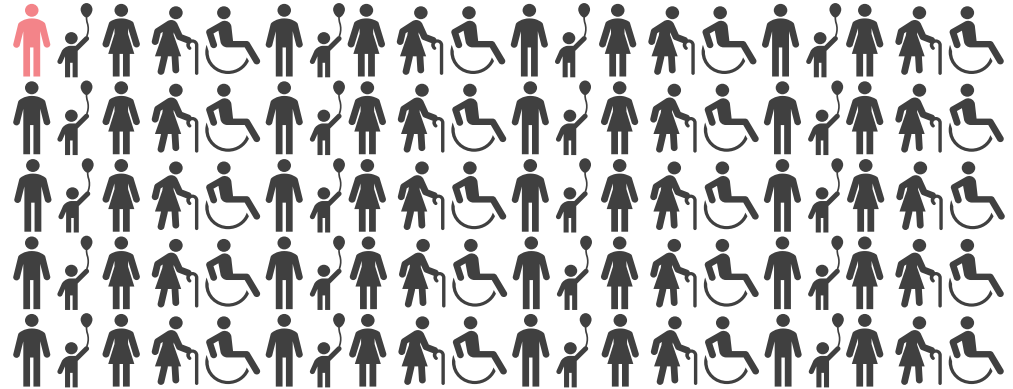
Dynamic Compartmental Modelling: Scenarios

Scenarios from our model illustrate the importance of reducing infectious contacts and of reducing risk by other means (e.g., masking, hand hygiene). Poorer compliance with this advice could lead to a rebound in new cases.



Community COVID-19 Infection Rates Have Stayed Below 1% in B.C.

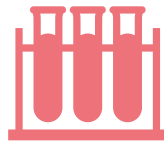
Fewer Than **1 in 100**
Residents Were Infected
as of May 2020



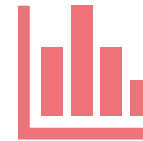
Most People in BC are Still
Susceptible to COVID-19



Tested all age groups
with several antibody tests:
March 870 tested; and
May 889 tested.



Very few considered
positive in:
March 0.28%; or
May 0.55%.



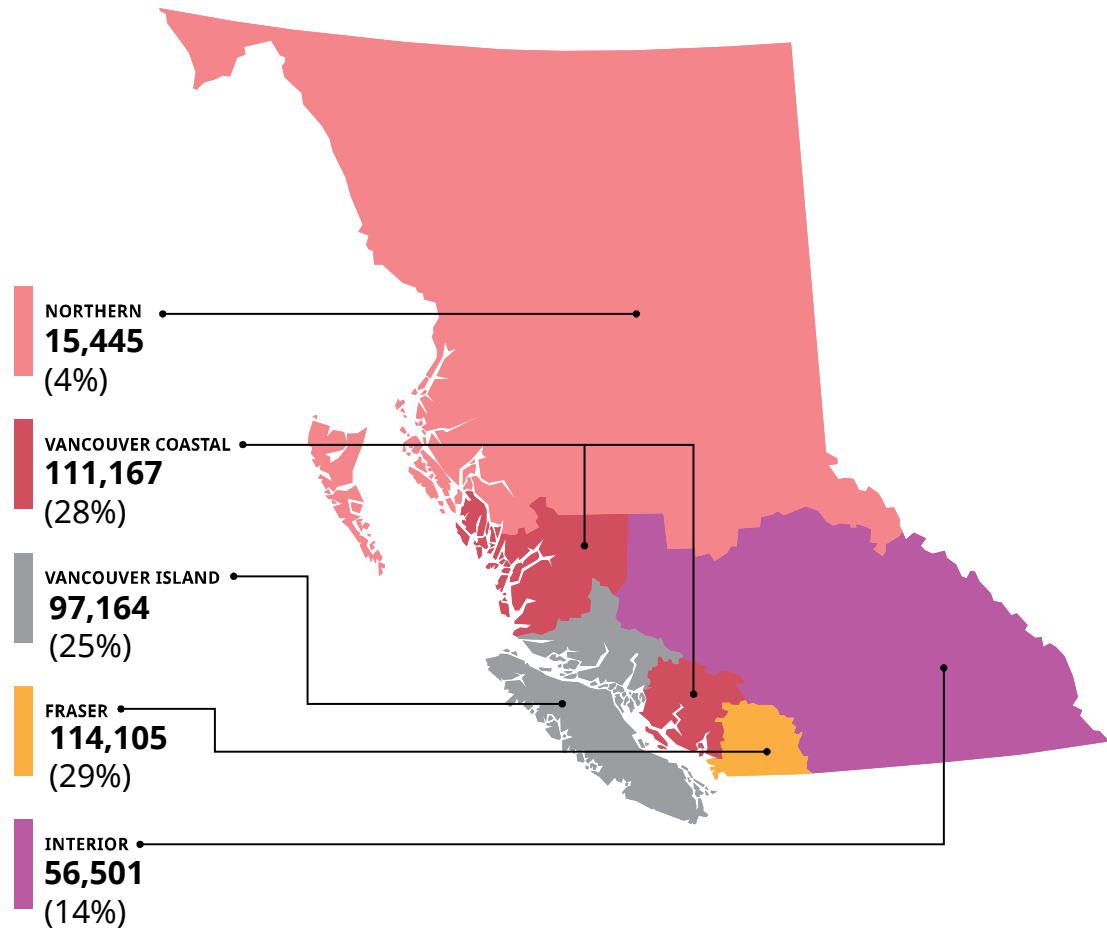
Like other regions,
estimated 8 x more
infections than
reported cases (~16,500).

Antibody screening study from Danuta Skowronski, Mel Krajden, Bonnie Henry and team at the BC Centre for Disease Control. Funded by the Michael Smith Foundation for Health Research.

BC COVID-19 Population Health Survey: Your Story, Our Future

1 in 10 adult British
Columbians completed
the survey (n = 394,382).

This survey was funded by the BCCDC Foundation for Public Health.



Differences Between Survey Respondents and the BC Population are Accounted for by Weighting

	Who responded (%) <i>Unweighted sample</i>	Analytic Sample (%) <i>Weighted</i>	2016 Census (%) <i>Population</i>
Female	70.2	51.5	51.5
Male	29.8	48.5	48.5
Age (years)			
18-34	20.0	27.9	26.9
35-54	37.7	33.7	33.7
55-74	36.2	30.2	31.0
≥ 75	6.1	8.2	8.4
Visible Minority			
Not a visible minority	81.3	79.7	65.8
Chinese	4.5	4.5	11.2
South Asian	2.5	2.8	7.5
Aboriginal	2.7	3.4	5.0
Not listed	9.0	9.6	10.5

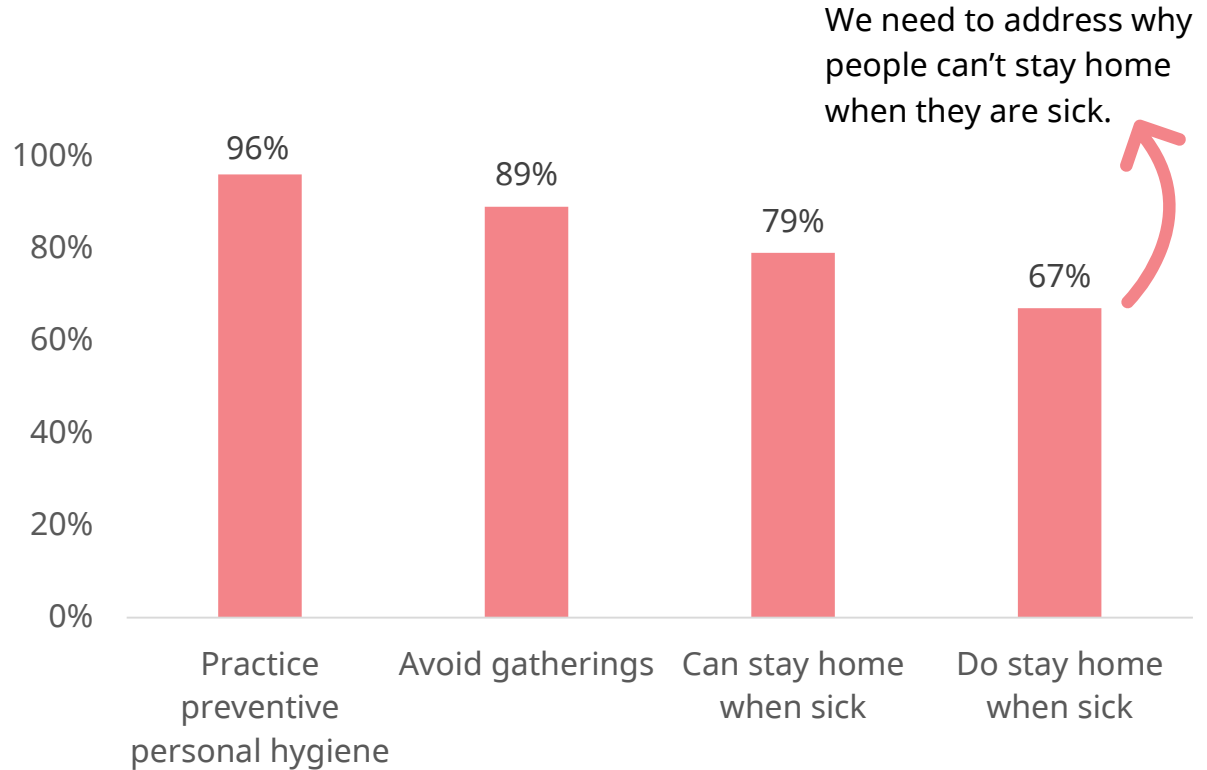
Differences Between Survey Respondents and the BC Population are Accounted for by Weighting

	Who responded (%) <i>Unweighted sample</i>	Analytic Sample (%) <i>Weighted</i>	2016 Census (%) <i>Population</i>
Income (\$)			
< 40,000	19.7	23.9	33.6
40,000-99,999	62.1	59.5	36.8
≥ 100,000	18.2	16.6	29.7
Education			
Below Highschool	2.0	12.6	12.5
Highschool	15.1	30.3	30.2
Certificate or Diploma	34.1	31.6	31.6
University Degree	48.7	25.6	25.6

Most British Columbians are Following COVID-19 Public Health Advice

4 in 5
Approve of
BC's
Response

Fewer young adults
(18-29 years) feel the
public health response
is appropriate.



COVID-19 is Creating Challenges for British Columbians



47% Mental health worsening



33% Difficulty accessing healthcare



15% Worried about becoming food insecure



5% Likely have to move due to affordability



15% Not working due to COVID-19



69% Work impaired due to COVID-19



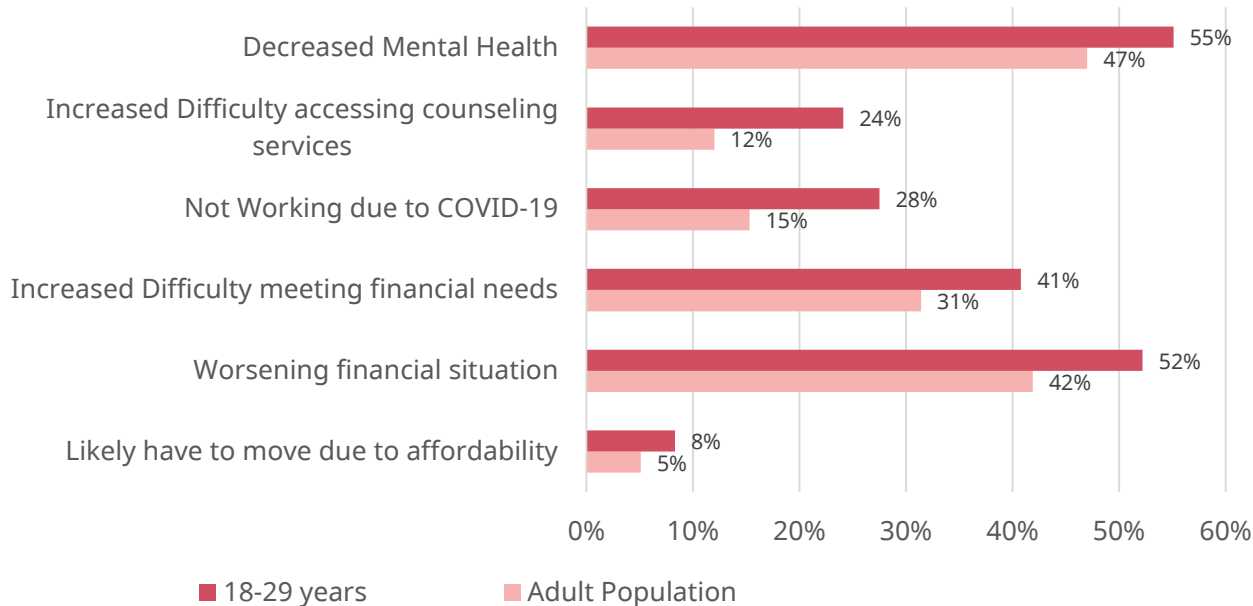
62% Concerned for vulnerable family member health



31% Increased difficulty meeting financial needs

British Columbians Aged 18-29 Years Report Greater Mental Health and Economic Burden Than the General Population

This may be because the pandemic has impacted more of the occupations they work in.



Age 18-29 years and not working due to COVID-19



1 in 2
Arts and entertainment



1 in 2
Accommodation and food services

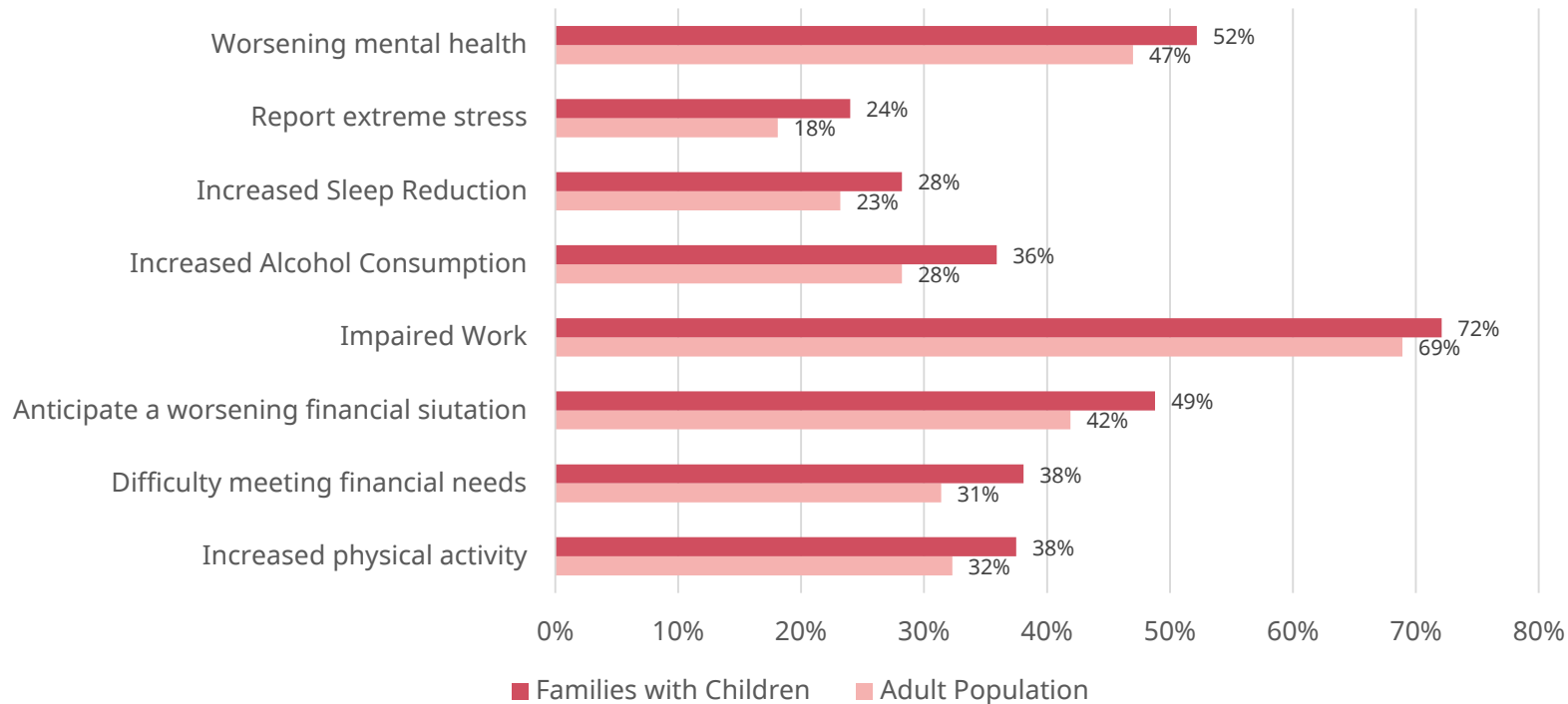


1 in 3
Retail



1 in 4
Report a health condition associated with risk for severe COVID-19 illness

British Columbian Families With Children Report Greater Mental Health and Economic Burden Than the General Population



Conclusion

British Columbians have flattened the COVID-19 curve so far, but our success has come with significant challenges.

This survey can help guide us as we work together on approaches that balance the need to control COVID-19, with the need to work, learn, and connect with our loved ones to stay healthy.

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