

COVID-19 Long Term Care Outbreak: Data Report

University of Victoria
HINF 381: Epidemiology, Population Health and Public Health

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of Victoria**

1 | SUMMARY

Two COVID-19 outbreaks occurred during March and April, and older residents (80-100) were particularly vulnerable. Slightly more cases occurred in female demographics, but this correlates with known age-expectancy differences between men and women; gender differences are not considered significant. Hospitals appeared to be overwhelmed by the influx of new cases as correlations were found between delays in reporting-time and cases per day. Unable to provide assistance for even their own staff, 9 healthcare professionals died during the first wave.

Recommendations:

- Establish a stockpile of emergency PPE for senior care centers.
- Perform an analysis of hospital flexibility—staffing, beds, resources—in response to surge outbreaks.

2 | DATA INTERPRETATION

Most of the COVID-19 cases in this outbreak occurred in March, with a smaller second surge in April, **Figure 1**.

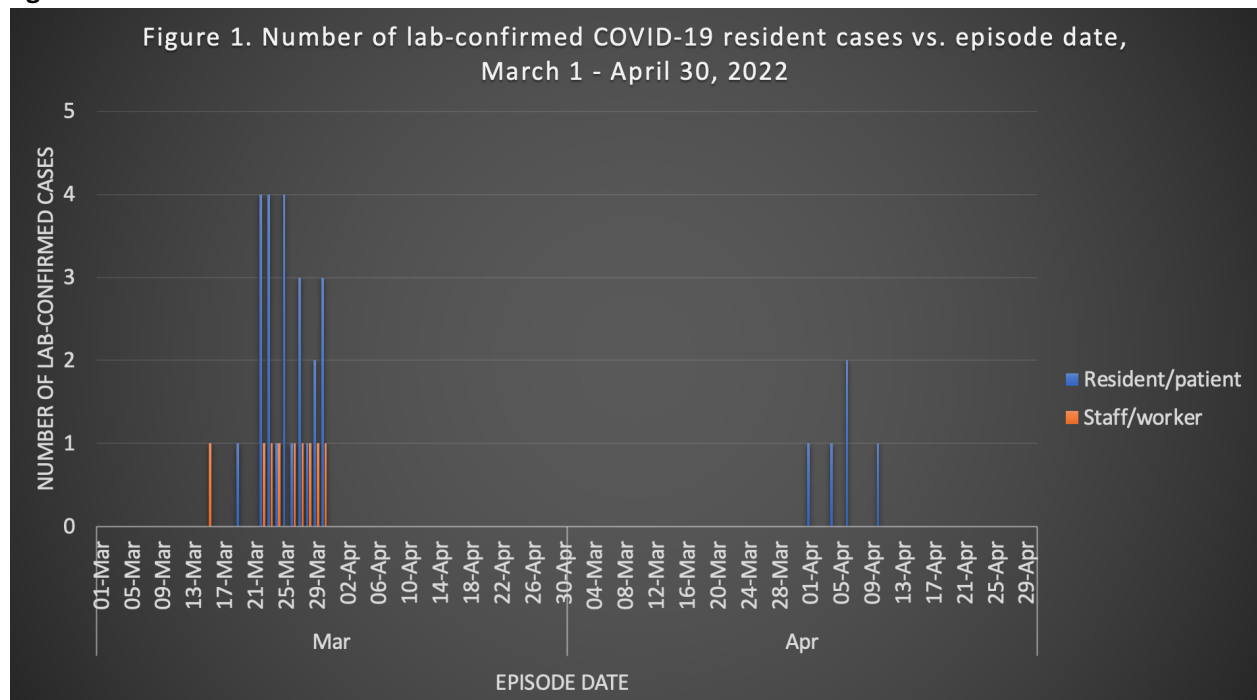


Figure 1: Number of lab-confirmed COVID-19 resident vs. episode date, by cluster role.

The majority of cases were amongst residents, **Figure Set 2**, with slightly more cases amongst women, **Figure Set 2**.

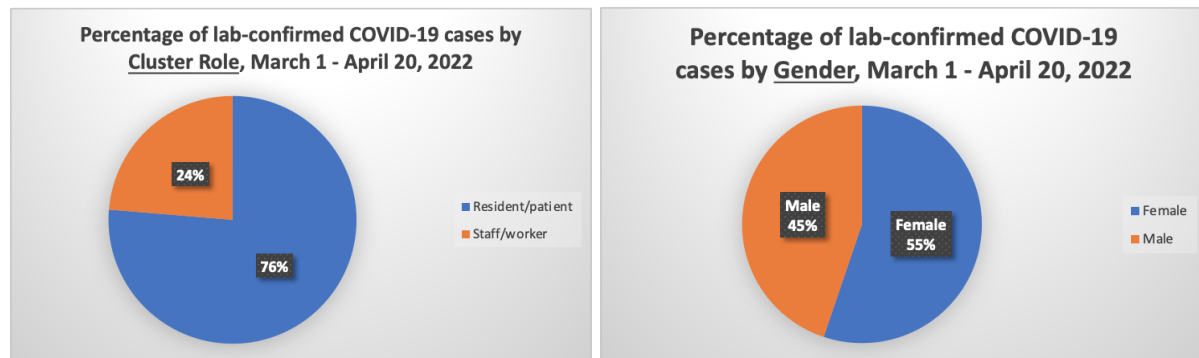


Figure Set 2: Percentages of lab-confirmed COVID-19 cases by Cluster Role and by Gender.

The largest proportion of cases, hospitalizations, and deaths occurred for patients between the ages of 80 and 100, **Figure Set 3**.

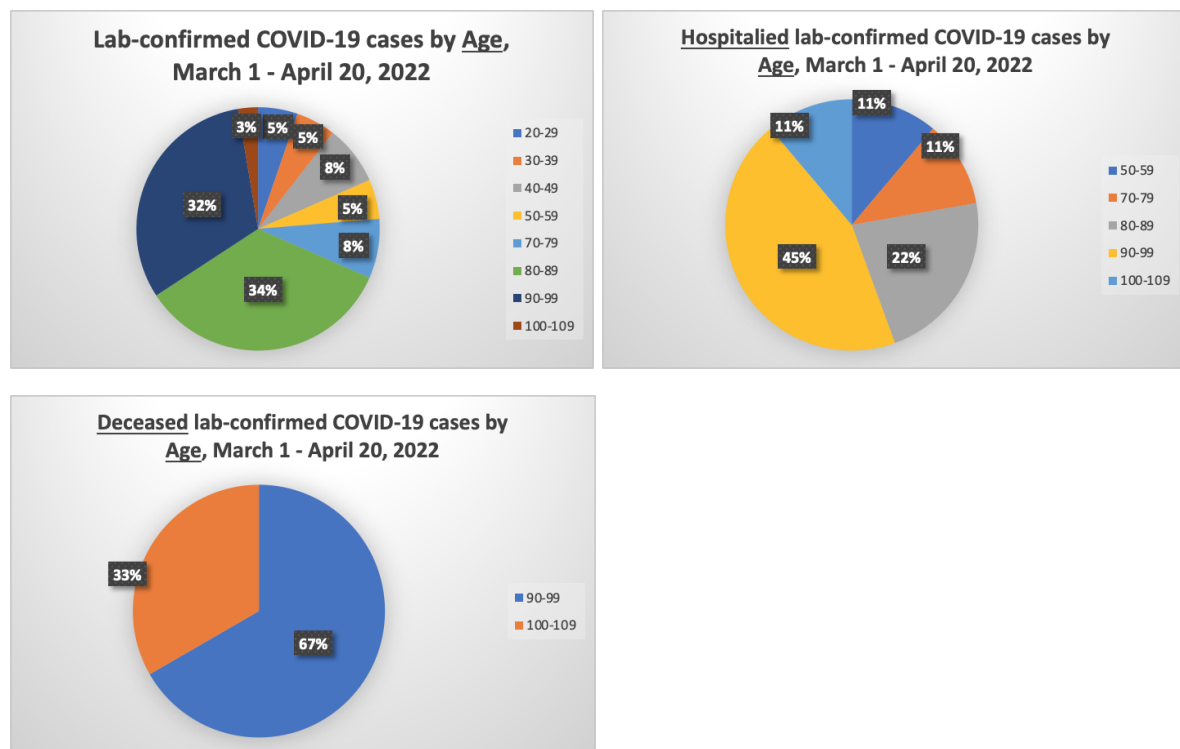


Figure Set 3: Breakdown of Ages by case count, hospitalizations, and deaths.

Strong correlations were found between the number of cases in a day and the delay from onset to reporting, with an r value of 0.948, **Figure 4**.

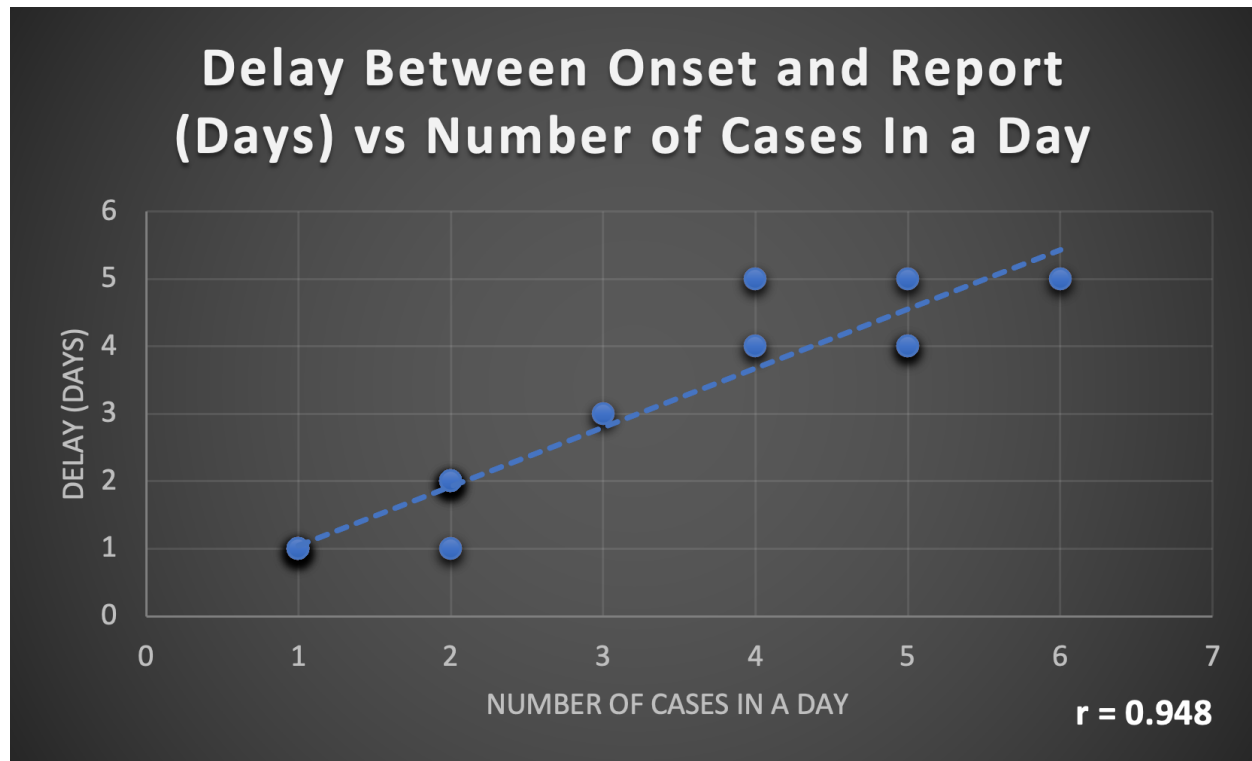


Figure 4: Correlation between Number of Cases in a Day vs. Delay of Reporting.

A summary table of demographic information (mean, min and max of age; sex) and severity (ever hospitalized; deceased) for staff and residents is as follows:

Summary Table

	Staff		Resident		Total	
	n	%	n	%	n	%
Total Lab-Con	9	24%	29	76%	38	100%
Age						
Mean	41	53%	89	114%	78	100%
Min	22	100%	74	336%	22	100%
Max	59	56%	105	100%	105	100%
Sex						
Male	3	33%	13	45%	16	42%
Female	6	67%	16	55%	22	58%
Severity						
Ever Hospitali	1	11%	8	28%	9	24%
Deceased	0	0%	3	10%	3	8%