**Appendix B. Sensitivity analysis of predictors of SARS-CoV-2 transmission among residents of congregate living settings (CLS) based on multivariable generalized estimating equation model adjusting for correlation within facilities. First in category is reference.**

1. Cycle threshold (CT) value

Variable dichotomized to <28 and ≥28 based on published literature showing increased rates of viral culture for PCR results <28 [1].

|  |  |  |
| --- | --- | --- |
| Predictor± | Odd’s Ratio (OR), 95% Confidence Interval | p-value |
| CT value<28  CT value ≥28 | OR=1.8, 95% CI 0.7-5.1 | p=.23 |

1. Duration of exposure

Variable dichotomized to <15 and ≥15 minutes to reflect frequently cited minimum exposure duration used to determine increased risk of SARS-CoV-2 transmission [2].

|  |  |  |
| --- | --- | --- |
| Predictor± | Odd’s Ratio (OR), 95% Confidence Interval | p-value |
| <15 minutes  ≥15 minutes | OR=2.9, 95% CI, 1.0-8.8 | p=.05 |

1. Type of source

Variable re-grouped to include only 3 categories: resident, staff and visitor/caregiver.

|  |  |  |
| --- | --- | --- |
| Predictor± | Odd’s Ratio (OR), 95% Confidence Interval | p-value |
| Resident  Healthcare worker  Visitor/caregiver | OR=0.8, 95% CI 0.2-3.3  OR=0.5, 95% CI 0.06-2.2 | p=.81 |

1. Type of room

Variable re-grouped to include only 4 categories: dining room, private room, shared room or shared toilet (Jack and Jill room) and common area.

|  |  |  |
| --- | --- | --- |
| Predictor± | Odd’s Ratio (OR), 95% Confidence Interval | p-value |
| Private room  Dining room  Shared room or toilet  Common area | OR=0.02, 95% CI 0.006-0.10  OR=0.9, 95% CI 0.6-1.3  OR=0.3, 95% CI 0.07-1.5 | p<.0001 |

1. Ventilation

Variable dichotomized to rooms meeting or not meeting national ventilation standards [3]. These are defined as a minimum of 6 total air changes per hour in dining room and a minimum of 4 total air changes per hour in resident room.

|  |  |  |
| --- | --- | --- |
| Predictor± | Odd’s Ratio (OR), 95% Confidence Interval | p-value |
| Ventilation below standards  Ventilation above standards | OR=0.5, 95% CI 0.2-1.3 | p=.15 |

**References**

1. Trunfio M, Venuti F, Alladio F, et al. Diagnostic SARS-CoV-2 Cycle Threshold Value Predicts Disease Severity, Survival, and Six-Month Sequelae in COVID-19 Symptomatic Patients. Viruses, 2021 Feb; 13(2): 281.

Centers for Disease Control and Prevention. Understanding Exposure Risks. Updated August 11, 2022. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/risks-exposure.html> (accessed 30 October, 2023)

1. CSA Group. CSA Z317.2:19: Special requirements for heating, ventilation, and air-conditioning (HVAC) systems in health care facilities. Toronto, ON, Canada: CSA Group; 2019. Available at: https://www.csagroup. org/store/product/CSA%20Z317.2:19/ (accessed 30 October, 2023)