



Milner Staub

M.P.H. Candidate, Epidemiology Track

milner.staub@Vanderbilt.Edu

Practicum Site:

VA Medical Center
Tennessee Valley Health Care System
Nashville, TN

Practicum Site Supervisor:

Todd Hulgán, M.D., M.P.H.

Low COVID-19 Rates in a Veterans Affairs Long-term Care Facility in the Setting of High Employee Infection Prevention Adherence

Introduction: COVID-19 has disproportionately affected long-term care facilities (LTCFs). No studies have described LTCF employee adherence to infection prevention measures during the COVID-19 pandemic or whether it is associated with asymptomatic employee COVID-19 infection rates. To address these questions, COVID-19 point prevalence testing was performed, and employees were surveyed at the Tennessee Valley Healthcare System Veterans Affairs LTCF from April 20-29 and June 22-23, 2020.

Methods: 412 VA LTCF employees were asked to participate. Nasopharyngeal real-time polymerase chain reaction SARS-CoV-2 testing was paired with a 13-question survey assessing infection prevention adherence at work and outside of work. Asymptomatic COVID-19 point prevalence was calculated for each time period. Changes in reported exposures and infection prevention measures between the testing periods among matched surveys were compared using McNemar's test.

Results: In April 2020, 407/412 (98.8%) employees underwent asymptomatic COVID-19 testing and 367/412 (89.1%) employees underwent repeat testing in June. Initially, 244/407 (60.0%) employees responded to the survey and 173/244 (70.1%) of initial responders completed the survey again in June. No LTCF resident cases were identified from April through June. The point prevalence of asymptomatic SARS-CoV-2 in LTCF employees was 3/407 (0.7%) in April and 0/367 (0.0%) in June. Employees reporting mask usage > 50% time at work increased from 64.2% to 94.4% (difference 30.2%; 95% Confidence Interval (CI) 22.4% to 38.1%). Reported mask usage >50% in public outings (non-work related) also increased from 35.2% to 65.2% (difference 27.2%; 95% CI 18.7% to 35.6%).

Conclusions: The point prevalence of asymptomatic COVID-19 was unexpectedly low in both April and June given rising numbers of COVID-19 infection in Tennessee throughout late May and June. This persistently low point prevalence may be due in part to high rates of employee infection prevention adherence, especially use of masks at work and in public.