

SARS-CoV-2 Transmission Risk Factors among Patients from a Metropolitan Community Health Center, Puerto Rico, July 2020 to March 2022

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Abstract : On July 2020, a private non-profit community health center (HealthProMed) that serves people without a medical insurance plan or with limited resources in one of the most populated areas in San Juan, Puerto Rico, implemented a COVID-19 case investigation and contact-tracing surveillance system. Nursing personnel at the health center completed a computerized case investigation form that was translated, adapted, and modified from CDC's Patient Under Investigation (PUI) Form. Between July 13, 2020, and March 17, 2022, a total of 9,233 SARS-CoV-2 tests were conducted at the health center, 16.9% of which were classified as confirmed cases (positive molecular test) and 27.7% as probable cases (positive serologic test). Most of the confirmed cases were females (60.0%), under 20 years old (29.1%), and living in their homes (59.1%). In the 14 days before the onset of symptoms, 26.3% of confirmed cases reported going to the supermarket, 22.4% had contact with a known COVID-19 case, and 20.7% went to work. The symptoms most commonly reported were sore throat (33.4%), runny nose (33.3%), cough (24.9%), and headache (23.2%). The most common preexisting medical conditions among confirmed cases were hypertension (19.3%), chronic lung disease including asthma, emphysema, COPD (13.3%), and diabetes mellitus (12.8). Multiple logistic regression analysis revealed that patients who used alcohol frequently during the last two weeks (OR=1.43; 95%CI: 1.15-1.77), those who were in contact with a positive case (OR=1.58; 95%CI: 1.33-1.88) and those who were obese (OR=1.82; 95%CI: 1.24-2.69) were significantly more likely to be a confirmed case after controlling for sociodemographic variables. Implementing a case investigation and contact-tracing component at community health centers can be of great value in the prevention and control of COVID-19 at the community level and could be used in future outbreaks.

Keywords : community health center, Puerto Rico, risk factors, SARS-CoV-2

Conference Title : ICPH 2023 : International Conference on Public Health

Conference Location : Dubai, United Arab Emirates

Conference Dates : November 13-14, 2023