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## Equal Incidence of COVID-19 among Homeless and Non-Homeless Emergency Department Patients



Dear Editor,

We read with interest the article from Keller et al. [1] on Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) incidence among patients presenting to the emergency department of their university hospital. In the article, the authors retrospectively compared demographic characteristics of homeless and non-homeless patients positive at antigen or Polymerase Chain Reaction (PCR) nasopharyngeal swab for SARS-CoV-2, concluding that – based on their data – homelessness was not an independent risk factor for Coronavirus Disease 19 (COVID-19).

During the pandemic, the primary healthcare services of the Eleemosynaria Apostolica, Vatican City, offered a SARS-CoV-2 infection control service for persons experiencing homelessness through nasopharyngeal swab tests and prevention measures [2,3]. Tests were performed in all homeless patients presenting to these facilities seeking general medical care over a period of 16 months. As of October 2021, 2107 sheltered and unsheltered homeless persons have been tested for COVID-19, with a positivity rate at PCR test of 8.29%.

In this letter, we would like to focus on the main findings that the authors reported in their article, and briefly compare them with the experience of our primary healthcare facilities serving the homeless population in the Vatican City State, an enclave of the city of Rome, Italy. In fact, emergency departments and primary healthcare facilities have several common characteristics when assisting homeless people, as they often serve as medical and safety nets allowing access to free and rapid medical assistance.

**SARS-CoV-2 prevalence among homeless persons.** The authors reported a SARS-CoV-2 prevalence in homeless patients referring to their emergency department of 5.5%. Our data show an overall prevalence of 8.29%; however, this may be due to the tendency of asymptomatic homeless patients to refer to primary healthcare services rather than to emergency departments when seeking for general care. This, as correctly stated by the authors, may have led to an underestimation of the prevalence among the homeless in their study, that focused exclusively on patients presenting to the emergency department. Indeed, other studies available in the literature confirm a slightly higher – although variable – prevalence of COVID-19 among homeless persons, ranging from 2.9% reported by Self et al. [4] to 11.7% in a study by Karb et al. [5]. The positivity rate may also consistently increase in case of outbreaks, as described – among the others – by Bagget et al. [6] in Boston (36%), Tobolowsky et al. [7] in Seattle (18.5%) and Imbert et al. [8] in San Francisco (67%).

**Risk factors and infection control measures.** The authors correctly mentioned the numerous risk factors and peculiarities of homeless

persons, further worsened by the COVID-19 pandemic. They include difficulties in maintaining social distancing, hygiene, and self-quarantine, in addition to higher rates of comorbidities and of alcohol and tobacco use that could lead to more severe forms of COVID-19. Based on our experience, we remark the role of infection control measures that are often undervalued in congregate settings for people experiencing homelessness, and that may lead to outbreaks in shelters following physical proximity, elevate population density, and high resident turnover [9]. We certainly recommend the use of prevention measures to intercept new clusters of infection; they should include routine surveillance with antigen or PCR tests in guests and staff, strict hygiene rules inside and outside the shelter, adequate distancing protocols, frequent temperature checks, and health education programs [10]. In addition, we would like to remark the importance of education of homeless persons on methods and best practices to prevent infection spread, as well as on the individual and community benefits of accepting COVID-19 vaccination [11,12].

**Clinical symptoms.** The authors did not report the rate of symptomatic and asymptomatic patients in their sample, although they correctly stated that SARS-CoV-2 infection was searched in all patients presenting to their emergency department regardless of symptomatology. In our sample, nearly two thirds of the positive cases were asymptomatic [13], as also reported in other studies [10,14]. This confirms the crucial role of asymptomatic carriers in infection spread; herein, we remark the importance of early identification of asymptomatic patients especially among the sheltered homeless [15].

In conclusion, we considerably appreciated the study by Keller et al. as the impact of COVID-19 pandemic on fragile populations, such as the homeless, is often overlooked and the description of personal experiences on these populations is remarkably important to increase general and scientific awareness on the topic. In addition, we would like to stress that the intrinsic vulnerability of people experiencing homelessness and their living settings can make them more susceptible to SARS-CoV-2 contagion and to more severe forms of COVID-19. Priorities for this population should include routine screening with COVID-19 tests, prevention, education, and promotion of mass vaccination programs for the establishment of herd immunity.

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