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#### **Title**

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The COVID-19 Pandemic and Homelessness: Applying Lessons Learned from H1N1

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## Introduction

As of February 8th, 2021, there were a total of 26,761,047 cases of Coronavirus Disease 2019 (COVID-19) in the United States, with over 460,582 deaths. One population with increased susceptibility and high risk for serious illness is that of people experiencing homelessness. In order to effectively implement pandemic responses to COVID-19 within this community, lessons can be derived from the prior H1N1 pandemic (influenza A virus subtype H1N1).

# Methods

This narrative review evaluated the efforts of the homeless sector during the prior H1N1 pandemic in order to identify key pandemic responses that can be implemented within homeless communities during the COVID-19 pandemic. The rationale for selection of H1N1 as the subject of this review is that it shares many important similarities with SARS-CoV-2.

- Both viruses are transmitted by contact, droplets, and fomites
- Both SARS-CoV-2 and H1N1 affect the respiratory system with severity varying from asymptomatic to severe pneumonia
- In the lungs, SARS-CoV-2 and H1N1 have similar replication competence
- A notable difference is the estimated contagiousness, as the R0 for SARS-CoV-2 is estimated to be 5.7 (95% CI 3.8-8.9) while H1N1 R0 is 1.4-1.6.

Main Finding: Analysis of the homeless service sector's response during H1N1 can inform guidelines for mitigating the risk of COVID-19 in homeless communities that can be operationalized through coordinated outreach efforts.

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# Results

Below depicts the main takeaways from the homeless sectors response to H1N1:



## Discussion

Those experiencing homelessness constitute a high-risk population during the COVID-19 pandemic. Through evaluating lessons learned from H1N1, specific recommendations can be applied to the current pandemic. Mobile clinics, as part of coordinated outreach efforts, have the potential to facilitate the operationalizing of these guidelines to mitigate the impact of COVID-19 in homeless populations.