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Hepatitis A outbreak among homeless population in California: Addressing the root cause

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On October 13, 2017, Governor Jerry Brown of California declared a state of emergency in response to a Hepatitis A outbreak, which began among the homeless community in San Diego. In the past year, over 633 people throughout California have been infected, 416 hospitalized and 21 have died, making this the largest outbreak in the United States in the past 20 years.<sup>1</sup> The vast majority affected have been homeless. The environmental conditions of homelessness facilitate infectious disease transmission due to overcrowding, exposure to the elements, and limited access to hygiene, food preparation, or food storage facilities. Homeless individuals' poor underlying health, high prevalence of risky health related behaviors and poor access to non-emergent healthcare increase their susceptibility to infectious disease, worsen its severity, and complicate disease control. In response to the recent outbreak, there has been a campaign to vaccinate and educate those at risk, and bleach and provide portable hygiene facilities in areas where homeless individuals congregate. These responses, while laudable and likely to contain the outbreak, will not alter its underlying causes.

Infectious diseases are only one of many health threats experienced by homeless individuals. Poorly controlled chronic diseases, complications of substance use disorders and smoking, and high rates of unintentional injuries and violence, are prevalent, difficult to manage, and highly morbid among homeless adults. While in the 1980s, HIV was the major cause of death in this population, in recent years, substance use related deaths replaced HIV as the most common cause of death among homeless adults younger than 45; for those over 45, cancer and heart disease are the most common.<sup>2</sup> Homeless adults, faced with poor health, high prevalence of behavioral health conditions, and environmental threats experience increased rates of Emergency Department use, hospitalization, and hospital re-admission.<sup>3</sup> Demographic changes

resulting in the aging of the population of homeless adults, have led to high numbers of chronically ill, frail older adults experiencing homelessness.

The poor health outcomes, high rates of acute care use, and attendant high costs associated with homelessness has brought attention to housing's role as a key social determinant of health. Much of the policy focus has been on those with severe mental health and substance use who are frequent users of acute healthcare and other public systems. Chronically homeless individuals, or those with more than a year of homelessness and disabling (typically behavioral) conditions, are responsible for high public costs and have poor health outcomes. The recognition of these poor outcomes led to the adoption of permanent supportive housing (i.e. subsidized housing with on-site or closely linked supportive services), with a housing first strategy, as the key federal response to chronic homelessness. Housing first, which doesn't require individuals to be sober or accept mental health treatment prior to housing, has been integral to supportive housing's success. While the impact of supportive housing on health and health service outcomes is not clear, permanent supportive housing has proved highly effective at its primary goal: helping chronically homeless individuals with disabling behavioral conditions regain and retain permanent housing. Its widespread adoption has resulted in sustained progress on decreasing chronic homelessness amongst those with the highest needs.

However, the success of permanent supportive housing has been overshadowed by increased entries into homelessness, which outpace efforts to address chronic homelessness. This has led to stable or increasing numbers of people experiencing homelessness, despite substantial and successful investment in permanent supportive housing. Without "closing the front door" to homelessness, efforts to end it will fall short. Homelessness, in any form, is damaging to health. The focus on those with the most severe behavioral conditions, while

understandable, has led to the decoupling of the homelessness crisis from its root cause: an extreme shortage of affordable housing.

Severe housing cost burden (i.e. spending over half of one's household income in housing costs), places one at high risk of homelessness, and displaces the ability to afford other essential costs, including food and medicine. In the United States, 11 million low-income households face severe cost burdens, a 20% increase since 2007. In part, this increase is attributable to decreases in federal spending on affordable housing. These decreases have led, for example, to California's loss of 1.7 billion dollars in affordable housing funds since 2008, while it gained nearly 900,000 renter households, setting the stage for large increase in homelessness.<sup>4</sup> Many of these newly homeless do not have the extreme behavioral risk factors best addressed by permanent supportive housing. In our study of homeless adults 50 and older in Oakland, 44% had never experienced homelessness prior to age 50; one-third had their first episode in the prior year. These individuals had fewer behavioral risk factors for homelessness than those with earlier onset of homelessness. However, once homeless, most remained homeless for extended periods, during which time their health deteriorated and they met criteria for chronic homelessness. High quality evidence supports the effectiveness of providing sustainable housing assistance in the form of housing vouchers for homeless families.<sup>5</sup> Adults who don't have significant behavioral disabilities would likely also benefit from housing subsidies, without needing the intensity of services included in permanent supportive housing. However, only one in four households that qualify for housing assistance receive it.

Increases in homelessness have led to calls by some for sanctioned tent encampments and expansions of emergency shelters. While these short-term measures may be necessary to prevent immediate harm from exposure and reduce the risk of infectious disease outbreaks, focusing on

short-term solutions at the expense of treating the underlying cause would be a mistake. New efforts to focus on the long-term causes are gaining traction in heavily impacted regions, including local and state bond measures for affordable housing. While these are promising, only sustained efforts to fix the housing affordability crisis, while addressing the needs of specific high risk populations, are likely to be effective.

Healthcare providers understand that solving health problems involves not only treating symptoms, but understanding and addressing root causes. The same is needed to end homelessness. Because healthcare providers are faced with managing the enormous toll of homelessness on health, they have a role to play in bringing an end to the homelessness crisis. First, in clinical contexts, healthcare providers should screen for and document those at risk of or experiencing homelessness, in order to refer to existing resources. In addition to improving patient care, this will have the effect of increasing our ability to quantify the effects of homelessness on health. Second, by understanding and speaking out about the effects of homelessness on health and the high costs (in poor health outcomes as well as healthcare spending), healthcare providers can help the public understand the human and monetary costs of homelessness. Third, by voicing support for permanent supportive housing as an evidenced-based effective solution for chronic homelessness, they can advocate for resources to end chronic homelessness amongst the most vulnerable. And fourth, by understanding the role that the affordable housing crisis plays in creating and sustaining homelessness, healthcare providers can help shape the public dialogue. The dramatic negative health effects of homelessness require that healthcare providers speak out regarding the need to end homelessness. The current outbreak of Hepatitis A may be able to be controlled, but without addressing its underlying cause, the devastating effects of homelessness on health are likely to continue.

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