Home Health Care for Patients Without Shelter
Sunil R. Dommaraju, Vanitha Raguveer, Clara Ryan, MS, Justin Ceh, MD, William L. Galanter, MD, PhD, and Evelyn Figueroa, MD

Abstract
Home health care (HHC) is a well-established model of caring for patients in their homes, which has not been robustly applied to benefit patients without regular access to shelter. This article describes Chicago Street Medicine, an organization that implements HHC to improve health outcomes and care continuity for patients experiencing homelessness.

Home Health Care
Home health care (HHC) delivers a wide range of services directly to patients in their homes, including nursing care, physical and occupational therapy, and social services.1 Historically, HHC allowed sick patients to receive routine care where they resided. In the 19th century, health service organizations began sending nurses to homes of patients experiencing poverty or chronic illness, ushering in new health insurance models.2 With the COVID-19 pandemic, HHC evolved again, integrating telehealth visits with patients in their homes. The Centers for Disease Control and Prevention reported a 154% increase in telehealth visits during the last week of March 2020 compared to that same week in 2019.3 Some organizations still de-emphasize the advantages of HHC,4 but caring for elders and patients recovering from acute illness or injury are common HHC practices in the United States today.5 HHC can reduce barriers to health care access and provide comprehensive, socially informed care to patients without shelter, some of whom consider the streets to be their homes.

Home Health for Patients Experiencing Homelessness
Context. The current US health care system prioritizes sickness over proactive health maintenance practices.6,7 But this approach offers no incentive to make care accessible to patients experiencing homelessness, whose barriers to care range from stigma to lack of insurance.8 Episodic emergency care neglects the social circumstances and basic needs of unsheltered patients,9 who have higher emergency department utilization than sheltered patients who are homeless and higher hospital admissions and readmissions than housed patients due to their lack of access to consistent primary care.10,11,12 Consequently, housing instability is a predictor of negative health outcomes, with patients experiencing homelessness nearly 10 times more likely than sheltered...
Medicaid patients to return to an emergency department 6 months after an initial visit, placing increased burden on the health care system overall.

**Benefits.** In a cross-sectional study of US hospitals, only 24% of patients experiencing homelessness reported regular screening for housing and food insecurity, demonstrating a devastating lack of holistic care. In HHC, however, clinicians, seeing unsheltered patients where they reside (e.g., a tent, mattress, or underpass), become acutely familiar with risks unsheltered patients face and observe their domestic and social relationships, enabling contextualization of their care plans. Contextualized care plans emphasize patients’ experiences. In one study evaluating the relation between favorable health outcomes and contextualized plans of care, 71% of patients had positive outcomes when their care plan was contextualized vs 46% when it was not. Finally, bringing care to the streets strengthens health care workers’ ability to engage in shared decision making (SDM) with patients experiencing homelessness, since patients may feel safer and more autonomous in their home environment. SDM, applied in venues like patient-centered medical homes, helps patients actively engage in their health decision making. In addition, trust between physicians and patients is found to be an independent predictor of successful SDM, and, unlike traditional models of care, HHC allows for true social bonding in a familiar environment. Especially in the setting of chronic illness and when intervention involves multiple encounters, SDM is an effective model to achieve treatment agreement and adherence.

**Barriers.** Despite the numerous advantages of the HHC model, it presents some limitations. Logistically, health practitioners would require further training on how to provide care in an unknown environment. Additionally, given that Medicaid reimbursements are already restrictive, the need to enroll many individuals experiencing homelessness in Medicaid might discourage clinicians from participating in the Medicaid program. Even if these problems could be overcome, continuity of care and integration of HHC into the larger health care system pose challenges for the HHC model. Follow-up care can be difficult, since individuals experiencing homelessness often migrate throughout the city and lack a permanent address. Integration requires coordinating HHC with care provided through health care systems using electronic health records and documentation. Finally, HHC models must make considerable effort to establish connections to social support programs, which are linked with successful health outcomes.

**Chicago Street Medicine**

Chicago Street Medicine, a nonprofit, student-run organization based in Chicago, Illinois, provides a robust example of how HHC can be applied in the care of patients experiencing homelessness. According to the City of Chicago point-in-time count, in 2020, there were 5390 people experiencing homelessness in Chicago. Of these, 38.1% were female, 61.6% male, and 0.3% transgender. Black people composed 77% of this population and White people, 20.2%. Finally, 21% of the population were under the age of 18, and 10.2% were over the age of 60.

In tandem with the rise of street medicine programs across the United States, Chicago Street Medicine (CSM) was founded in 2017 by students and residents at the University of Illinois College of Medicine (UIC) to serve the unsheltered population. The organization has since grown into a multidisciplinary 501(c)(3) nongovernmental organization that operates through chapters at UIC, University of Chicago, Rush
University, and Northwestern University. CSM’s mission is to provide medical and social services to homeless communities in Chicago “on their terms, on their turf.” The mission emphasizes meeting patients experiencing homelessness where they are, both geographically and medically, and reinforcing their autonomy in decision making. CSM collaborates with numerous community partners, including clinics like Mile Square Health Center, a federally qualified health center (FQHC). FQHCs like Mile Square help reinforce continuity of care by reserving appointment times solely for CSM patient follow-ups.

The crux of CSM’s work is street runs conducted by CSM’s team of medical students, social workers, occupational therapists, dental students, medical residents, and attending physicians, who address the health care needs of and establish rapport with people living on the streets of Chicago. This team of street-run volunteers, usually 4 to 5 people at a time, triage and plan care, which often constitutes taking a basic medical history, prescribing medications, and making health care referrals. Volunteers also provide food, over-the-counter medications, hygiene products, and clothing. The food is supplied through local partnerships with pantries, and other supplies are donated or purchased. Street runs at the UIC chapter occur once a week on Thursdays from 6 pm to 9 pm and once a month on Sundays from 6 pm to 9 pm.

Most volunteers have a strong interest in trauma-informed care—that is, in sensitively and intentionally addressing the possibility of past trauma in patients in an equitable manner. Many volunteers have an established relationship with patients, making it easier to aptly listen to their concerns. Volunteers work to ensure that people feel safe in conversing about sensitive topics like drug use and sexual history that are crucial to health care. As the third author (CR) has remarked, “I can’t even count the number of times people went out of their way to stop, stare, and scoff at the members we worked with ... be kind...” By building trust through social bonds, patients become more willing to collaborate with medical practitioners.

While some might argue that HHC in the form of street medicine could become disconnected from traditional health care systems, CSM strives for continuity of care. Recently, CSM implemented an electronic medical record (EMR) system using athenahealth to track continuity of care. CSM also formally joined the Chicago Continuum of Care, a group of more than 100 organizations that systematically strategizes provision of services and housing for people experiencing homelessness. CSM does not currently have data on how many patients have continuity of care or robust data on the specific demographics its teams serve; however, the combination of an EMR system and coordination with other Chicago service organizations will improve efforts to document and track patients and to set monthly and yearly goals to measure success.

**Conclusion**

HHC, especially in the form of street medicine, focuses on patients’ experience, inviting caregivers to understand patients’ medical needs in their sociocultural context. Such insight is invaluable in strengthening community relationships and bridging cultural divides that bias patient care. The rise in telemedicine has revitalized the HHC model, encouraging insurers, clinicians, and patients to adapt traditional health care models, which often center service within the 4 walls of a clinic or hospital.
Adoption of the HHC model could fundamentally improve the health care system and uplift historically marginalized populations, such as patients experiencing homelessness. In practice, CSM’s innovative version of the HHC model has potential to deliver COVID vaccines to at-risk patients experiencing homelessness who may not have confidence in a traditional health care system. As the medical community works to envision a future of equitable access to health care, it is imperative that innovative, human-centered health care delivery models, such as street medicine programs, be enveloped within the broad spectrum of medicine.

References
1. Landers S, Madigan E, Leff B, et al. The future of home health care: a strategic framework for optimizing value. Home Health Care Manage Pract. 2016;28(4):262-278.
2. Abel EK. Med Hist. 2003;47(3):388-389. Review of: No Place Like Home: A History of Nursing and Home Care in the United States.
3. Koonin LM, Hoots B, Tsang CA, et al. Trends in the use of telehealth during the emergence of the COVID-19 pandemic—United States, January-March 2020. MMWR Morb Mortal Wkly Rep. 2020;69(43):1595-1599.
4. Jaffe S. Home health care providers struggle with state laws and Medicare rules as demand rises. Health Aff (Millwood). 2019;38(6):981-986.
5. Murkofsky RL, Alston K. The past, present, and future of skilled home health agency care. Clin Geriatr Med. 2009;25(1):1-17, v.
6. Dorsett M. Point of no return: COVID-19 and the US healthcare system: an emergency physician’s perspective. Sci Adv. 2020;6(26):eabc5354.
7. Millar M, Hsu DTS. Can healthcare workers reasonably question the duty to care whilst healthcare institutions take a reactive (rather than proactive) approach to infectious disease risks? Public Health Ethics. 2016;12(1):94-98.
8. Dickins KA, Buchholz SW, Ingram D, et al. Supporting primary care access and use among homeless persons. Soc Work Public Health. 2020;35(6):335-357.
9. Franco A, Meldrum J, Ngariuia C. Identifying homeless population needs in the emergency department using community-based participatory research. BMC Health Serv Res. 2021;21:428.
10. Petrovich JC, Hunt JJ, North CS, Pollio DE, Roark Murphy E. Comparing unsheltered and sheltered homeless: demographics, health services use and predictors of health services use. Community Ment Health J. 2020;56(2):271-279.
11. Khatana SAM, Wadhera RK, Choi E, et al. Association of homelessness with hospital readmissions—an analysis of three large states. J Gen Intern Med. 2020;35(9):2576-2583.
12. Salhi BA, White MH, Pitts SR, Wright DW. Homelessness and emergency medicine: a review of the literature. Acad Emerg Med. 2018;25(5):577-593.
13. Amato S, Nobay F, Amato DP, Abar B, Adler D. Sick and unsheltered: homelessness as a major risk factor for emergency care utilization. Am J Emerg Med. 2019;37(3):415-420.
14. Fraze TK, Brewster AL, Lewis VA, Beidler LB, Murray GF, Colla CH. Prevalence of screening for food insecurity, housing instability, utility needs, transportation needs, and interpersonal violence by us physician practices and hospitals. JAMA Netw Open. 2019;2(9):e1911514.
15. Weiner SJ. Contextualizing medical decisions to individualize care: lessons from the qualitative sciences. J Gen Intern Med. 2004;19(3):281-285.
16. Weiner SJ, Schwartz A, Sharma G, et al. Patient-centered decision making and health care outcomes: an observational study. *Ann Intern Med.* 2013;158(8):573-579.

17. Finney Rutten LJ, Hesse BW, St Sauver JL, et al. Health self-efficacy among populations with multiple chronic conditions: the value of patient-centered communication. *Adv Ther.* 2016;33(8):1440-1451.

18. Van den Berk-Clark C, Doucette E, Rottnek F, et al. Do patient-centered medical homes improve health behaviors, outcomes, and experiences of low-income patients? A systematic review and meta-analysis. *Health Serv Res.* 2018;53(3):1777-1798.

19. Barton JL, Trupin L, Tonner C, et al. English language proficiency, health literacy, and trust in physician are associated with shared decision making in rheumatoid arthritis. *J Rheumatol.* 2008;41(7):1290-1297.

20. Joosten EAG, DeFuentes-Merillas L, de Weert GH, Sensky T, van der Staak CP, de Jong CA. Systematic review of the effects of shared decision-making on patient satisfaction, treatment adherence and health status. *Psychother Psychosom.* 2008;77(4):219-226.

21. Fryling LR, Mazanec P, Rodriguez RM. Barriers to homeless persons acquiring health insurance through the affordable care act. *J Emerg Med.* 2015;49(5):755-62.e2.

22. Grant R, Greene D. The health care home model: primary health care meeting public health goals. *Am J Public Health.* 2012;102(6):1096-1103.

23. Hwang SW, Kirst MJ, Chiu S, et al. Multidimensional social support and the health of homeless individuals. *J Urban Health.* 2009;86(5):791-803.

24. Nathalie P. Voorhees Center for Neighborhood and Community Improvement. City of Chicago 2020 homeless point-in-time count and survey report. City of Chicago Department of Family and Support Services; October 2020. Accessed September 16, 2021. https://allchicago.org/wp-content/uploads/2020/10/2020-PIT-Report_vFinal.pdf

25. History. Chicago Street Medicine. Accessed July 30, 2021. https://www.chicagostreetmedicine.org/history.html

26. Mission, vision, and values. Chicago Street Medicine. Accessed May 25, 2021. https://www.chicagostreetmedicine.org/mission-vision-and-values.html

27. Thom DH, Hall MA, Pawlson LG. Measuring patients’ trust in physicians when assessing quality of care. *Health Aff (Millwood).* 2004;23(4):124-132.

28. Leff B, Burton JR. The future history of home care and physician house calls in the United States. *J Gerontol A Biol Sci Med Sci.* 2001;56(10):M603-M608.

29. Baggett TP, O’Connell JJ, Singer DE, Rigotti NA. The unmet health care needs of homeless adults: a national study. *Am J Public Health.* 2010;100(7):1326-1333.

Sunil R. Dommaraju is a third-year medical student at the University of Illinois College of Medicine, Chicago campus. He earned a BS in bioengineering at the University of Illinois Chicago (UIC). His primary professional interests include medical innovation, health disparities research, nonprofit work, and serving as the treasurer and a core volunteer for the UIC chapter of Chicago Street Medicine.

Vanitha Raguveer is a third-year medical student at the University of Illinois College of Medicine, Chicago campus. She earned a BS in biomedical engineering at Case Western Reserve University. Her professional interests include health care advocacy, medical innovation, and global health. She is also a core volunteer with the University of Illinois Chicago chapter of Chicago Street Medicine.
Clara Ryan, MS was a third-year medical student at the University of Illinois College of Medicine, Chicago campus. She earned a BS in neuroscience at University of Illinois Chicago and an MS in biotechnology at Rush Medical Center. Her professional interests included fostering positive patient experiences and restructuring the approach to medical care through technology and holistic care.

Justin Ceh, MD serves as the research chair and coordinator for Chicago Street Medicine. He received a BS in biological sciences from the University of Notre Dame and an MD from the University of Illinois College of Medicine. His professional interests include researching gastroenterology, investigating social determinants of health, and facilitating support groups for the Crohn’s and Colitis Foundation.

William L. Galanter, MD, PhD is an associate professor in the Department of Medicine at the University of Illinois Chicago. He earned a BS and an MS in physics at the University of Illinois Urbana-Champaign and an MD and PhD in physiology and biophysics at the University of Illinois Chicago. He studies the safe and effective use of medications through clinician education, medication error mining, and error reduction methods.

Evelyn Figueroa, MD is a professor of clinical family and community medicine at the University of Illinois Chicago. She is also the executive director of the Pilsen Social Health Initiative and the Figueroa Wu Family Foundation. Her professional interests include social determinants of health, food insecurity, homelessness, substance use disorders, and LGBTQ health.

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