PERSPECTIVE

The Case for Mobile "Street Medicine" for Patients Experiencing Homelessness

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More than half a million people experience homelessness in the USA on a given night. This epidemic has triggered calls to bolster housing and social services for persons experiencing homelessness (PEH), with less attention to the complex medical needs of these patients. Yet poor health is both a cause of homelessness and an effect, and the healthcare system is poorly suited for PEH. Traditional medical office settings are often unwelcoming and difficult for PEH to navigate due to social, logistical, and health-related barriers. On the provider side, clinicians report that PEH are among the most challenging to care for given their interwoven health and social needs. Consequently, PEH commonly fail to receive basic primary healthcare services, leading to avoidable downstream emergency department (ED) and hospital utilization costing billions of dollars per year.[1] This article describes how "street medicine" can more effectively meet the needs of PEH, articulates value-based payment strategies that could sustain such programs, and provides recommendations to further evaluate their cost-effectiveness.

STREET MEDICINE'S SCALABILITY CHALLENGE

The term "street medicine" (SM) describes a mobile approach for delivering medical outreach to PEH where they reside, often in encampments in the streets, as well as in shelters and interim housing units.[2] Rather than expecting PEH to come to a traditional medical office—or even community-based clinics—SM brings care to patients where they are. SM services typically emphasize behavioral healthcare, addiction treatment, social services, and immediate physical health needs to a greater extent than primary care in standard medical offices, though programmatic structure may vary considerably across SM settings. While at first blush such an approach might seem impractical, SM providers report enhanced engagement of PEH, likely by reducing barriers to care and SM's person-first approach in prioritizing patients' self-identified needs, experiences, readiness, and well-being.[2]

Though limited and informal, existing literature on mobile SM suggests it is a high-value service. SM teams have reported successful placement of PEH in transitional and supportive housing, sustained buprenorphine use for opioid use disorder, improved insurance enrollment, and decreased ED visits (75%) and hospitalizations (66%).[3,4] SM clinicians often attribute these successes to the focus on building trust with historically marginalized patients, a common challenge in standard healthcare settings.[2,5]

Nevertheless, SM programs have struggled to spread, presumably due to inadequate primary care reimbursement to support high-intensity SM services. An informal poll of mobile SM programs in Southern California, including a program called Healthcare in Action, recently launched by two of the authors (MH and SJ), found SM team panel sizes range from 70 to 200, with an estimated annual per patient cost of $3000–$9000 per year. Since standard payment mechanisms are inadequate to support such costs, most SM programs rely heavily on charitable funding.

THE BUSINESS CASE FOR STREET MEDICINE

While SM programs are costly to sustain, the high rates of acute care utilization for PEH may offer a path for sustainability. Existing research, albeit descriptive and observational, indicates SM programs hold potential to reduce ED and hospital utilization.[2–5] To estimate the potential for cost savings of an SM program, we conducted an internal analysis of 40 SCAN health plan patients who were dually eligible Medicare/Medicaid beneficiaries and were experiencing homelessness in Southern California. In this cohort, the mean annual cost of care was approximately $69,000 per person,

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with 87% of costs attributable to emergency department (ED), hospital, and skilled nursing facility (SNF) visits. Based on these numbers, a theoretical 15% reduction in ED, hospital, and SNF costs could generate greater than $9000 in savings per patient per year—more than enough to offset program costs.

Other programs that aim to improve care and lower downstream acute care utilization for high-needs, high-cost patients—such as Landmark Health and Aspire—have utilized shared-savings payment models, whereby providers receive a portion of the healthcare savings they generate, to support programmatic costs. Similar contracts could be structured for SM groups willing to enter into shared-savings arrangements with a third-party payer. At the end of a contracting period, each payer could compare actual versus projected costs, providing the SM group with a portion of the savings, as a bonus. If payers collaborate, this reconciliation could be performed in aggregate—rather than for each program individually—simplifying the process and creating economies of scale for SM teams. These shared-savings models are being developed across the nation, including by our Healthcare in Action program and the Boston Health Care for the Homeless Program.

In the future, third-party payers might further extend value-based payment models for populations experiencing homeless by structuring global capitation arrangements, whereby providers are reimbursed a fixed population-based payment for all healthcare services delivered in a set timeframe.[6] Standard health plan capitation rates, even with risk adjustment for medical comorbidities, are inadequate to support the actual healthcare costs of homeless populations. With some adjustments, however, we believe global payment models could be structured to adequately sustain SM programs, while incentivizing key outcomes of importance for PEHs, including enhanced patient experience, improved health outcomes, and successful placement in housing. Several groups, including ours, have already begun to consider the nuances of global capitation for PEH, such as risk adjustment and program scope. Table 1 outlines proposed criteria for such a model.

THE NEED FOR BETTER DATA

For a shared-savings or global risk model to be sustainable, an SM program needs to deliver high-value care by improving health outcomes, while preventing avoidable downstream acute care utilization. While SM programs might achieve these goals, rigorous analyses of other high utilizer care models have not consistently demonstrated favorable financial or clinical results.[7]

To date, existing SM studies have lacked methodological rigor—particularly, the absence of a matched control group—limiting the reliability of encouraging findings described above. With homelessness on the rise, there is an urgent need for rigorous evaluation involving a matched control of PEH receiving usual care to assess SM's impact on health, cost, and social (e.g., housing attainment) outcomes. If the encouraging results from the preliminary research described in this article could be confirmed in larger controlled assessments, it could provide the impetus for scaling SM, perhaps through a Centers for Medicare and Medicaid Innovation demonstration. Even if SM programs do not save money, such rigorous assessments could quantify the health and social benefits to guide the development of creative strategies that ensure PEH receive the care they need.

CONCLUSION

The homelessness crisis demands bold approaches for addressing the needs of PEH. Street medicine represents a

Table 1 Proposed Criteria for a Global Risk Model for Persons Experiencing Homelessness

Inclusion criteria	Homelessness, confirmed by a local housing services provider agency
Payment modifier	An actuarially determined multiplier to adjust capitation rates for the increased costs of caring for PEH, beyond what is captured by the standard HCC risk adjustment model and RAF score
Funding flexibility	Greater flexibility for the use of healthcare funds for health-related social services, such as: • Food and nutrition support • Transportation • Hygiene support (e.g., showers and clothing assistance) • Housing-related services (e.g., housing specialists, housing transition services, moving expenses, security deposits, assistance with utilities, and environmental modifications) • Recuperative care
Performance metrics	Tailored performance metrics for PEH such as: • Patient experience • Risk-adjusted acute care utilization rates • Total cost of care • Behavioral health outcomes (e.g., antipsychotic adherence, suicide risk assessment, and pharmacotherapy for opioid use disorder) • Housing placement and retention
Administrative policy flexibility	Changes to enrollment, grievances, and appeals procedures to account for the unique needs of PEH
Potential graduation criteria	12 months housed consecutively in transitional housing or 3 months or longer in permanent housing with warm hand-off to necessary providers upon discharge

Abbreviations: PEH, persons experiencing homelessness; HCC, hierarchical condition category; RAF, risk adjustment factor

promising strategy for providing comprehensive services when and where PEH need them. To support SM, third-party payers should explore innovative payment models—such as shared-savings and enhanced global capitation—to support the resource investment required to sustain SM. Importantly, SM should be rigorously evaluated using performance metrics including health and housing outcomes, patient experience, and total cost of care. Coupled with improved social policies, SM has the potential to make a dent in one of our country's greatest health and social challenges.

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