Reconnecting to Care: A Quality Improvement Project to Evaluate Baseline Healthcare Engagement in Patients Experiencing Homelessness

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Background

The growing number of people experiencing homelessness (PEH) presents a public health crisis and a unique challenge to the healthcare system. According to the Housing and Urban Development's 2024 Point in Time Report, the number of PEH increased by 18% from the year prior, for a total of nearly 770,000 people.[1], [2] While homelessness is an independent risk factor for increased mortality and morbidity[3] Patients of this population are often reluctant to interact with the healthcare system unless absolutely necessary, resulting in the costly utilization of the emergency department as their primary source of healthcare.[4] The reasons behind this behavior are multifactorial, including the inaccessible cost, lack of insurance, lack of health literacy generally, and perceived discrimination from healthcare professionals.[5] To reduce healthcare costs and improve health outcomes and health disparity in this patient population, it is important to develop strategies that reconnect and reintegrate PEH back into the healthcare system by utilizing more primary care services.

Knowledge Gap

Primary Healthcare Service Outreach (PHSO) organizations, like Doctors on the Street (DOTS), present a promising opportunity to reconnect PEH to primary care for their health management by engendering trust and connection within this patient population.[6] The recommendations provided by PHSOs need to be tailored to the unique challenges faced by this population and be evaluated stringently for their efficacy. As an initial first step in working towards this goal, we need to collect baseline data on how these patients currently interact with the healthcare system i.e. understanding the resources currently available to them, and the specific services they utilize. Currently, DOTS does not have such data and we are operating under a potentially erroneous assumption that our patients are uninsured. Therefore, data collection must be the first step in our efforts to connect PEH to primary healthcare services.

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[1] https://nlihc.org/resource/hud-releases-2024-annual-homeless-assessment-report#:~:text=The%202024%20Point%2Din%2DTime,of%20the%20population%20experiencing%20homelessness.

[2] https://www.huduser.gov/portal/sites/default/files/pdf/2024-AHAR-Part-1.pdf

[3] Morrison, D. S. (2009). Homelessness as an independent risk factor for mortality: results from a retrospective cohort study. International journal of epidemiology, 38(3), 877-883.

[4] Vohra, N., Paudyal, V., & Price, M. J. (2022). Homelessness and the use of Emergency Department as a source of healthcare: a systematic review. International journal of emergency medicine, 15(1), 32.

[5] Canham, S. L., Weldrick, R., Erisman, M., McNamara, A., Rose, J. N., Siantz, E., ... & McFarland, M. M. (2024). A scoping review of the experiences and outcomes of stigma and discrimination towards persons experiencing homelessness. Health & Social Care in the Community, 2024(1), 2060619.

[6] Kopanitsa, V., McWilliams, S., Leung, R., Schischa, B., Sarela, S., Perelmuter, S., ... & Rosenthal, D. M. (2023). A systematic scoping review of primary health care service outreach for homeless populations. Family Practice, 40(1), 138-151.

AIMS

We aim to collect baseline data regarding the DOTS patient population and their current engagement with the healthcare system specifically the resources that are available to them and the services they currently utilize to serve as a foundation for future QI projects guiding which processes of the DOTS system should be targeted for improvement during the 2025-2026 DOTS season.

Methods with Context

DOTS is a PHSO that has served PEH in Cleveland, Ohio for 14 years. The clinic's logistics are run entirely by students from Ohio University Heritage College of Medicine, Cleveland, who organize the necessary medical supplies, volunteers, and supervision of attending and resident physicians to facilitate nearly 200 documented patient encounters per year. DOTS operates out of a shelter run by its community partner, Metanoia. PEH interested in staying at Metanoia are asked to sign up for a bed at the beginning of the season and are guaranteed that bed throughout the duration of the season. This provides a unique opportunity to follow patients longitudinally and to follow up on whether or not they utilized the clinic's recommendations.

While there are several validated social determinants of health (SDOH) screens in existence, it was difficult to find an instrument that fits the context of this clinic. Operating out of the shelter directly allows DOTS to engage the patients where they are. However, it also means that DOTS - and this quality improvement projects- has to compete for the very limited time patients have to access the health services provided at this clinic, eat dinner, and get ready for bed before "lights out". Additionally, and as mentioned above, we aim to deepen our understanding of how this population currently utilizes the healthcare system, if they understand the role of primary care, and/or if they have ever engaged with primary care. It is also essential to use a tool that clarifies the health context and unique challenges faced by our patients as PEH. It does not take much time to administer to fit in with the unique context of DOTS to ensure the best possibility for implementing this proposed intervention strategy. We developed the following screening tool and methods to best fit this theory, which are described below.

Patients interested in participating will be asked to answer the following questions:
1. Do you have a doctor you can go to that is not in the emergency department?
2. Do you see this doctor for a physical each year?
3. Do you have insurance?

This data will be analyzed to inform future QI projects to tailor recommendations to the specific needs of this population and improve their utilization of primary care health services.

Timeline

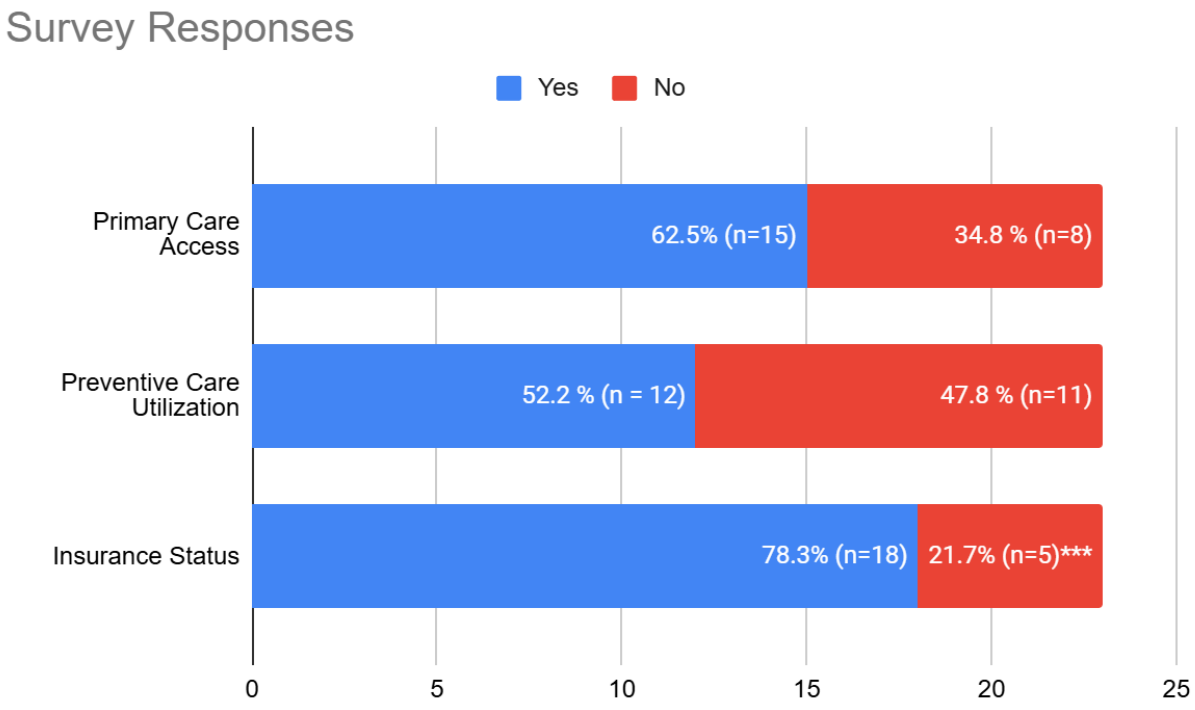
Data will be collected during the first two weeks of April 2025. Data analysis and write-up will happen shortly after, concluding at the end of April.

Risks

All participants will be consented prior to participation. We are not requesting any HIPAA pertinent information, nor will we be soliciting any personal information/maintaining any identifiers of participants.

Results

Institutional Review Board (IRB) approval was obtained on April 3, 2025, and data collection began on April 6, 2025, during the DOTS. A total of 28 patients were approached to participate in the survey. 23 (79.3%) agreed to participate, while 5 (17.2%) declined. Survey responses were tracked using patient initials and consisted of three primary questions aimed at evaluating access to primary care, preventive health behaviors, and insurance status.



Link to the raw data can be found here: [Data collection]

Primary Care Access: Patients were asked, "Do you have a doctor you can go to that is not in the emergency department?" Of the 23 respondents, 65.2% (n=15) indicated that they do have a physician they follow outside of the emergency department, many of whom reported an ongoing relationship with a primary care provider (PCP). The remaining 34.8 % (n=8) responded no.

Preventive Care Utilization: Despite the majority of patients reporting access to a PCP, fewer reported using that access for annual preventive visits. When asked, "Do you see this doctor for a physical each year?" only 52.2% (n=12) answered yes, while 47.8% (n=11) answered no.

Insurance Status: When asked, "Do you have insurance?" 78.3% (n=18) reported being insured, while 21.7% (n=5) reported no current insurance coverage. Notably, two of the five uninsured patients had recently moved to the state and were in the process of getting coverage. Thus, only three patients (12.5% of total respondents) were truly uninsured at the time of data collection.

Discussion

This data reveals important insights into the healthcare access of DOTS patients. Contrary to our initial assumptions, the majority of patients have health insurance, and a significant portion already has a primary care physician (PCP). However, a large number of patients do not engage in preventive healthcare, particularly in terms of annual physical exams. This suggests that barriers to healthcare in this population may not be primarily related to insurance coverage but more likely due to social determinants of health, such as lack of stable housing, transportation, and the time constraints that accompany their daily lives. These findings align with existing literature on healthcare access, which highlights competing priorities and logistical challenges as major barriers to healthcare utilization among patients with experiences of homelessness.

The unique context of the DOTS program which provides shelter and meals, in essence, addressing immediate health needs offers an opportunity to address these broader social determinants of health in tandem with clinical care. However, the challenge remains in integrating health-related interventions, such as our survey and social determinants of health assessments, into a limited timeframe during DOTS sessions. Patients already have little time to access resources during DOTS, limiting the feasibility of collecting comprehensive data or offering extended consultations during this period.

This work helped one recognize that while access to healthcare is an issue, competing demands on patients' time can make engagement with preventive healthcare services less of a priority. This underscores the need for innovative approaches to integrate healthcare into existing systems like DOTS and building a referral process that is easy for these patients to navigate, which is likely to increase the likelihood of engaging patients with primary care.

Several limitations within our work must be acknowledged. First, the small sample size of 24 patients may not be representative of the broader population of individuals with experience of homelessness. Additionally, data were collected at a single time point limiting our ability to explore changes or improvements in healthcare access or behaviors after implementing changes for improvement.

Future work can focus on obtaining IRB approval to ask for more patient specific information allowing for more comprehensive data to be collected. This will enable further exploration of barriers to healthcare access and identification of potential interventions. Additionally, future work should also look into how to integrate steps such as administering the social determinants of health surveys and questionnaires within the constraints of the DOTS schedule. Finally, future recommendations may include coordinating with Federally Qualified Health Centers (FQHCs) that offer walk-in hours, potentially providing an accessible easy to navigate option for these patients to engage with the healthcare system.

Conclusion

This study examined healthcare access among patients in the DOTS program, revealing that while most patients have health insurance and many already have a primary care physician, a significant portion still does not engage with primary care or in preventative care, such as annual physicals. These findings suggest that barriers to healthcare access are less about insurance coverage and more likely related to social determinants of health, including unstable housing and transportation challenges, along with competing priorities in patients' daily lives. The limited time available during DOTS was a significant barrier for this work. Nevertheless, this research highlights the opportunity to tackle both immediate needs and broader social determinants of health within this unique context. Future efforts will focus on refining the DOTS referral process and integrating social determinants of health questionnaires into the DOTS process aiming to improve patient engagement with primary and preventive care.

QI project sections

Manuscript Section	Elements	Common Pitfalls
Introduction	• Importance and relevance of QI problem beyond authors' site • Gap between what we currently know and what we need to know to achieve desired QI outcomes • Project aims	• Too long • Too much on review of importance and too little on evidence gap • Specific project aim not clearly articulated
Methods	• Context of the project • Theory connecting QI problem, context, and proposed intervention strategy • Multiple, iterative, intervention steps • Use of a family of measures, ideally including outcome, process (fidelity), and balancing (unintended consequences) measures	• Superficial description of, or general lack of attention to, context • No theory supporting intervention reported • Many intervention steps reduced to single intervention • Single measure used to track project impact
Results	• Data presented over time, with use of run or control charts • May include contemporaneous control group or unit to account for secular trends and co-interventions	• Data aggregated as simple before-after design
Discussion	• One short paragraph summarizing most important findings • Place study in context of others' work • Reflect on implications of results • Lessons learned, especially the influence of context on results • Discussion of how limitations may have affected findings • Future steps, in brief	• Discussion limited to implications for local institution or setting • Results repeated without analysis or deeper reflection • Reflections omitted • Lessons and context effects omitted • Listing of limitations, as if all of equal importance without thoughtful consideration of potential effects
Conclusion	• Brief summary of key study findings	• Suggest "further research is needed" • Overgeneralize from study site to all settings

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[7] Wong, B. M., & Sullivan, G. M. (2016). How to write up your quality improvement initiatives for publication. Journal of graduate medical education, 8(2), 128-133.