Involving Residents in Shelter-Based Clinic Design: A Quality Improvement Project

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Abstract

The number of people experiencing homelessness (PEH) in the United States is rising. PEH experience early morbidity in mortality compared to the general population due to higher rates of disease and less access to health services compounded by chronic stress and the nature of being unhoused. To help mitigate some of these health impacts, a federally qualified health center (FQHC) in Portland, Oregon, opened a clinic within a local shelter that serves 120 adults experiencing homelessness. This project used a community-engaged research approach to conduct semi-structured interviews with shelter residents to elicit health needs, facilitators and barriers of healthcare engagement, previous experiences seeking health care, and ideas for improving the service design of the shelter-based clinic. A Doctor of Nursing Practice student and nurse practitioner from the FQHC hosted three sessions of interviews with 23 shelter residents. The data collected was recorded, transcribed, and analyzed using qualitative analysis software and subsequently used to inform recommendations to tailor the service design of the new shelter-based clinic. Recommendations included improving clinic consistency and visibility, offering health promoting and health education activities outside the clinic, and offering a shelter-intake health assessment.

Introduction

Problem Description

On a single night in January of 2022, 582,462 people experienced homelessness in the United States (US Department of Housing and Urban Development [HUD], 2022). Rates of homelessness are among the highest in Oregon, where nearly 18,000 people are homeless (HUD, 2022). A 2022 point-in-time count in Multnomah County, the largest county in Oregon's largest city, Portland, revealed that 5,228 people were experiencing homelessness, and 2,171 people were living in shelters (Joint Office of Homeless Services [JOHS], 2022). They further estimate that 6,000 people in Multnomah County were served in shelters over the course of one year (JOHS, 2022). People experiencing homelessness (PEH) are far from a homogenous group but collectively experience poorer health outcomes translating to a life expectancy of only 52 years (Omerov et al., 2020).

Premature mortality of PEH compared to the general population is due to higher rates and more complications of acute and chronic disease, violence, trauma, psychiatric illness, malnutrition, and substance use disorders (SUD) (Gordon et al., 2019; National Health Care for the Homeless Council [NHCHC], 2019). In Multnomah County, 80.2% of PEH self-report having at least one disabling condition (JOHS, 2022). Nearly 15% of PEH report tri-morbidity, defined as a concurrent mental health disorder, SUD, and a physical disability or chronic health condition (JOHS, 2019), which infers a critical need for health services and complicates the service design for health interventions (Omerov et al., 2020). Unresolved health issues impede the transition to permanent housing, further exacerbating poor health status (NHCHC, 2023). Despite the high need, PEH receive less preventative care and are more likely not to have a usual source of health care, delay seeking care, seek care in emergency departments (EDs), or be hospitalized for ambulatory-care sensitive conditions (Jego et al., 2018; White & Newman, 2015). To increase access and mitigate the health impacts of being unhoused, a federally qualified health center (FQHC) in Multnomah County expanded its services into a new shelter-based clinic. This project evaluated patient perspectives regarding health needs, previous care-seeking experiences, and ideas for

improvement of shelter-based clinic services to provide the shelter-based clinic with recommendations to better meet the needs of PEH in the Portland area.

Available Knowledge

Search Strategy. A literature review was conducted from April 19 to May 24, 2022. Electronic searches were employed using PubMed and SCOPUS, published between 2010 and the present. Filters used in PubMed included "full text" "English Language" and "best match." Keywords and MeSH terms included homeless persons, unhoused, houseless, health services accessibility, primary care treatment, needs assessment, homeless shelter, shelter-based, shelter clinic, clinic, qualitative, and perspective. Additional studies were identified by searching through citations of principal articles. A total of 15 journal articles were reviewed for this paper.

Health Needs. Data regarding the health needs and services sought by PEH is not aptly captured by the literature, leaving a paucity of literature to inform the service design of shelter-based clinics. While 40% of PEH are thought to have at least one chronic condition (Gordon et al., 2019), comprehensive information on healthcare utilization for PEH is limited to data available within insurance databases and reliance on self-reports or ED visits and does not reflect a population-based sample of this heterogenous group (AHRQ, 2010; Fazel et al., 2014). PEH are often designated as high users of EDs for both medical (injury, illness, pain, mental health) and social reasons (safety, food, shelter). However, a small subset of frequent users may overstate these care-seeking behaviors, and this information is not transferrable to PEH living in shelters, particularly shelters offering in-house healthcare. Shelter-based clinics vary widely in availability, capacity, and service models; thus, a gap in data exists about what health needs are, leaving clinics to provide local needs assessments. Many models rely on clinical guidelines published by the NHCHC (NHCHC, 2022).

A systematic review of health assessments of PEH identified higher levels of mental health disorders, substance use, infectious diseases (i.e., influenza, tuberculosis, HIV, hepatitis, and sexually transmitted infections), oral health problems, injuries, assaults, and skin conditions than the general

population (Gordon et al., 2019). NHCHC guidelines emphasize higher rates of physical and sexual abuse, physical and cognitive impairments, and complex medical issues exacerbated by chronic stress, environmental exposures, and delayed or interrupted care (NHCHC, 2022). Frequently identified medical needs include pre- and post-natal care, gynecological care, dermatological care, SUD treatment and access to harm reduction models, transitional care after hospitalization, oral health care, and the desire for more flexible services (Christiani et al., 2008; Omerov et al., 2020). A shelter-based primary care clinic can offer all these services.

Qualitative Perspectives of PEH Seeking Health Care. The literature surrounding experiences of PEH seeking care in shelter-based clinics is sparse, but qualitative narratives abound regarding experiences of PEH seeking health care in general. Common themes include experiences of discrimination, judgment, dehumanization, exclusion, feeling unheard, perceiving lower care quality due to housing status, and distrust of health care providers (Christiani et al., 2008; Gilmer & Buccieri, 2020; King et al., 2020; Magwood et al., 2019). Many further describe a lack of cultural competence (Allen & Votero, 2020; Christiani et al., 2008). PEH report positive experiences seeking healthcare when clinical staff listen to and believe them, respect their time, and have agency in decisions about their care (Christiani et al., 2008; King et al., 2020; Voisard et al., 2021). PEH experienced increased satisfaction in healthcare encounters when clinics offered orientation, integrated social support into care, and tailored primary care organizations to fit their needs (Jego et al., 2018). PEH have expressed the need for more combined services such as social and health care or psychiatric and medical care with drop-in services available and the desire to feel their perspectives are being heard and included in the development and provision of health care (Omerov et al., 2020).

Rationale

Assuming the shelter-based clinic has finite resources, the team sought the perspectives of PEH in the local context to illuminate unmet care needs and guidance regarding service design to increase engagement within the shelter-based clinic. A systematic review by Gordon et al. (2019) revealed 11

needs assessment tools developed for or validated in PEH, but none were validated to assess health conditions. Further, services that are designed without primary stakeholder input risk being disconnected from their patient's needs (Voisard et al., 2021). Clinic staff also expressed concern regarding survey fatigue in this population; thus, community-engaged research (CeNR), a qualitative participatory research design, was selected (Key et al., 2019). Qualitative participatory methods highlight participants' voices and allow for in-depth accounts of personal experiences, thus have been identified as appropriate and valuable approaches to information collection in vulnerable populations (Voisard et al., 2021).

Specific Aims

1) Used listening sessions to facilitate trust between clinic staff and shelter residents and identify residents' primary health needs, facilitators and challenges to healthcare engagement, and ideas for improving shelter-based clinic offerings by September 1, 2022.
2) Translated resident input into recommendations for tailored service design.
3) Provided recommendations to the clinic regarding service design and delivery based on aims 1 and 2 via PowerPoint presentation on February 10, 2023.

Methods

Context

Outside In (OI) is an independent non-profit organization and FQHC in Portland, Oregon, that provides a comprehensive array of services, including primary health care, syringe exchange services, care management, behavioral health, substance use treatment, mobile clinic services, a transitional housing program for youth and is well versed in providing care for PEH. The Laurelwood Center is a low-barrier shelter operated by Transition Projects that offers space for 120 adults and people in couples. Shelter residents have access to Laurelwood 24 hours a day. Shelter services include meals, hygiene, storage, computer access, various social services, and, recently, a health clinic. A medical outreach coordinator, one medical assistant, and one nurse practitioner from OI operate the clinic within

Laurelwood as a part of OI's mobile clinic program expansion. Both organizations are in Multnomah County. At the start of the project, the service design and available offerings of the shelter-based clinic were still yet to be determined. It functioned on an interim basis as a primary care and urgent care hybrid, walk-in-only model. This project involved a needs assessment conducted primarily by a DNP student, an OI nurse practitioner, and an OI medical outreach coordinator with logistical support and input from key staff members at Laurelwood.

Interventions

To improve the team's knowledge of shelter resident health care experiences, care utilization, health needs and feedback, semi-structured interviews in the form of three listening sessions were conducted with current residents of the shelter using convenience sampling between August and September 2022. Recruitment posters were created and displayed within shelter common areas with the listening sessions' date, time, and purpose (appendix A). Shelter staff disseminated information about the sessions to residents via word-of-mouth and during shelter meetings. All current shelter residents interested in and verbally consented to participate were deemed eligible and signed up for sessions on a first come-first served basis facilitated by shelter staff. Given the lack of literature to guide needs assessment design in PEH, listening session questions were formulated in collaboration with stakeholders and focused on overall healthcare experience, sharing individual experiences with accessing healthcare, and ideas to help design clinic services to address the needs of shelter residents best (appendix B). Participants were compensated for their time with a Visa gift card and served breakfast or snacks depending on the timing of the session.

Study of the Interventions

The three listening sessions provided feedback to shelter-based clinic staff and shelter leadership. The sessions identified current facilitators and challenges and elicited resident input to increase care quality, access to health care, and engagement with the shelter-based clinic.

Measures

The process measures were the total number of shelter residents who attended and participated in the listening session. Outcome measures were qualitative findings regarding residents' health needs, facilitators and challenges to healthcare engagement, and ideas for service design, as well as this author's concluding recommendations for future action based on identified facilitators, barriers, needs, and themes uncovered in the sessions.

Analysis

After obtaining verbal consent from all participants individually, data collection began with listening session recording. Recorded data was then transcribed and uploaded into quality analysis software and reviewed with line-by-line coding analysis. To reduce bias, a computer-assisted qualitative analysis software, Atlas.Qi, was used to assist with coding and thematic analysis.

Ethical Considerations

This study operated through a trauma-informed lens, considering the history of medical trauma, discrimination, and mistrust between PEH and clinical persons. Sharing personal experiences regarding a topic such as healthcare can be sensitive. Participation in all aspects of this project was voluntary. The verbal consent process was transparent and informed the shelter residents that they could stop or leave the interview at any time or decline to answer any questions. The study was submitted to the OHSU Investigational Review Board (Study #00024615) and was deemed not to be human subjects research; thus, did not require further review.

Results

23 shelter residents participated in this study across three listening sessions. These 23 individuals represented 38% of current Laurelwood shelter residents at the time of the study. Prior to the session, two of the participants were established patients at OI and four of the participants had used the shelter-based

clinic. While demographic information was not collected to facilitate trust with participants, participants voluntarily self-identified as male, female, and non-binary and as young as their early 20s and up to age 65 throughout the three sessions. In Portland, 5% of sheltered PEH are aged 18-24, 52.2% are aged 25-54, and 25.6% are aged 55-69 (JOHS County, 2022). 1.9% of sheltered PEH identify as transgender, 2.2% as non-binary, 30.4% as female, and 65.2% as male (JOHS, 2022).

Health Needs

Health needs revealed through the listening sessions were broad. The participants described the need for a trusting relationship with a primary care provider (PCP), services traditionally accessible through a PCP, more specialized services typically referred out by a PCP, the desire for health education, and shorter wait times for care. Overall, residents communicated that the type of care was less important than feeling believed, supported, and able to access the provider delivering the care in the context of competing demands like finding employment, housing, food, and transportation. One participant described their current situation as "starting to put life back together again" and described their current health needs, like establishing with a PCP and learning how to prepare nutritious food, as an essential part of that process. The overwhelming priority for all participants, however, was finding housing.

Primary Care Services. Nearly all participants mentioned the need for at least one service typically offered within the primary care setting. Six participants identified finding a PCP as a current health priority or a way that OI could help them improve their health. Primary care needs mentioned most often were finding a PCP (n=6), health education (n=4), general check-ups (n=4), and cancer screening (n=2). Other pertinent primary care conditions mentioned throughout the sessions included chronic pain, diabetes, hypertension, various dermatological conditions, and substance use disorders. Multiple participants described the desire for an advocate within the healthcare system, particularly assistance with acting as a conduit to specialty care for conditions such as psychiatric (n=5), rheumatological (n=2), and gastrointestinal conditions (n=2) typically managed outside of primary care. Most participants were not currently established with a PCP in the Portland area. Many described their care as segmented among

various specialists within Portland and around Oregon. Many described the need for a consistent PCP, for example: “I just want to be able to talk to the same doctor and build that relationship with one person that’s kind of looking after my family” or “they switch me around providers a lot, which is frustrating because I want to stick with one person that knows me.”

Non-Primary Care Services. Needs most reported by participants outside of the realm of typical primary care include housing (n=9), dental care (n=6), mental health care (n=5) including psychiatry as well as talk therapy, assistance with mobility limitations (n=3) (i.e., wheelchair accessible spaces within the shelter, ambulation-assistive devices), and a range of other social services (n=8). Specific health-related social service needs include assistance with Oregon Health Plan (OHP) enrollment, information about community programming and resources that residents may qualify for (i.e., Supplemental Nutrition Access Program [SNAP] cards), and access to a social worker. There was much discussion about a general need for more awareness of what services, benefits, or programs are available to residents. Specialty services specifically mentioned in order of frequency mentioned include psychiatry, rheumatology, gastroenterology, cardiology, sleep medicine, dermatology, pain management, and optometry. Urgent care needs specifically mentioned include skin conditions (n=3), urinary tract infections (n=1), wound care (n=1), and sexually transmitted infection screening (n=1).

Health Education. Four residents specifically expressed interest and a need for access to health-related education and were met with much agreement from the larger groups. Topics specifically mentioned included personal hygiene, nutrition/cooking (i.e., preparing healthy food, food selection to support various disease states), the benefits of cancer screening, self-care strategies, exercise classes, yoga, tai chi, overdose prevention, and first aid/basic life support (BLS) training. Multiple participants recounted experiences of witnessing a medical emergency and not having the skills to respond. One participant commented, “we can help each other when no one else around can help.” They further commented on the timing of shelter living as an ideal time to learn such skills, “[while] people are going through this system, it seems like a really good opportunity to have classes like that.”

Barriers to Health Access

The two most frequent barriers to healthcare access identified by shelter residents were long wait times to see providers (n=13) and negative interactions with healthcare providers (n=13). Extended waiting periods included to establish care, to see specialists, and within emergency departments. Residents communicated frustration with waiting months for an appointment and then not getting the help they need during the visit, “sometimes you have multiple issues to deal with, and you’ve got to pick the worst one to deal with in ten minutes.” Negative interactions with healthcare providers include feeling stigmatized or shamed (n=7), rushed by providers (n=4), brushed off or unheard (n=4), the impression of inequitable care due to housing or insurance status (n=3), or feeling distrust of a healthcare provider (n=2). One participant stated, “I felt blown off, and it sucks because I put my pants on the same way you do. I breathe the same air you do.” Another said, “they automatically categorize you into something as soon as they learn you are homeless or have a drug history.”

Participants also described PCPs as inaccessible in times of need (n=9) and difficulty finding a PCP (n=8). Reported challenges to establishing with a PCP included difficulty finding a provider accepting new patients, finding a consistent provider to build a relationship with, and PCP turnover in the clinics the participants have access to. Examples of inaccessibility of PCPs as a barrier to obtaining health services include PCPs being unavailable by phone, patients without access to electronic messaging, irregular and inconsistent clinic hours, and uncertainty regarding if/when the shelter-based clinic or other clinics they access will be open. Participants who were aware of the shelter-based clinic within Laurelwood described the current state of daytime only, limited (i.e., delay in being able to provide care inside), inconsistent hours (i.e., the van being broken down, staffing shortages leading to delayed or canceled clinics) as a significant barrier to accessing the services and subsequently the lack of knowledge of when the care team would be available. Nine participants stated they were unaware that the clinic was open: “I had no idea that you all were open.” And “now that I know, I’ll come see you.” Other participants described a need for more awareness of other community care options available, such as a mobile dental van, OI’s mobile van clinic, and eligibility for state and federally funded programming like

SNAP and OHP benefits. Other barriers revealed include transportation to healthcare facilities (n=6), COVID-19-related delays (n=3), healthcare scattered throughout Oregon (n=3), too many phone calls (n=2), and medication expenses (n=2).

Facilitators to Health Access

Facilitators to accessing health care revealed in the listening sessions can be summarized into two main themes: accessibility and trust. Facilitators related to accessibility specifically mentioned include evening clinic hours (n=6) (i.e., having the option to access after work), more frequent clinic hours (n=4) (i.e., at least twice per week) the location of the clinic within the shelter eliminating the need for transportation (n=7), an accessible and reachable PCP (n=4) (i.e., by phone, electronic messaging, or drop-in), having same-day medications available (n=1) and prescriptions for over-the-counter medications (n=1), and longer appointment times to provide flexibility to address more than one health concern per visit (n=3). Other facilitators mentioned include having health insurance or assistance with OHP enrollment (n=3), knowing that the shelter-based clinic exists and what it offers (n=2), and having their substance use disorder in remission (n=2).

Regarding accessibility, multiple participants described preferring the clinic location within Laurelwood because they felt safer than using public transportation, and it eliminated the need to travel to appointments. Eight participants mentioned that trust in their health care provider facilitates using health care services. One participant described their experience receiving care from OI: “What I love is that you can go there for anything, and they will not judge you. They do not judge you. And that is, like, phenomenal. Terrifically phenomenal.”

Resident Ideas for Improvement

Shelter residents were eager to provide feedback and suggestions to increase engagement and tailor the design of the shelter-based clinic to fit their needs better. They provided five overarching ideas

for improvement: an intake health assessment, health education classes, a vetted referrals system, a nutrition access program, and clinic hours announcements.

Intake Health Assessment. One resident's idea was integrating a health assessment into the shelter intake process. Current practice does not include collecting health information or informing new residents about the shelter-based clinic. Participants communicated that many new residents who have been living outside arrive with neglected or exacerbated health issues and may not know how to ask for help. They further communicated that being asked about current health issues "would make you feel at least you're wanted more, not just like they are throwing you in a room." Suggestions included "a mental health and basic [health] evaluation" immediately upon arrival at the shelter. Further, "it should be like you get here, and we should find out about you a little bit, instead of like this is just our house rules. Make [health] assessments part of the intake."

Health Education Classes. Many residents communicated that their priorities while staying at Laurelwood were two-fold: finding permanent housing and building skills they can utilize in the future. The request for more health education arose in each listening session and was met with a group-wide agreement. Examples of health education are listed in the health needs section above. Residents discussed the benefit of simulation training, specifically "to help people get engaged into that part of the emotion, so that maybe if they are faced with that emotion again, they are more likely to act."

Vetted Referrals System. To mitigate barriers related to negative experiences with specialists, one resident suggested, "it would be nice if they could refer you to someone who you could also see them quickly who is also nice and empathetic."

Nutrition Access Program. To mitigate the theme of nutritious food access, one resident suggested the shelter provide "fresh fruit out for snacks and some salads" and access to refrigerators, while others suggested a farm-to-table program. Most participants generally commented on the poor food quality available within shelters and further linked their struggles with food access to their health status.

Many reported favorable outcomes with community-supported agriculture (CSA) programs available at one OI community location. Another resident suggested that OI provide prescriptions for nutritious food.

Clinic Hours Announcements. Participants' ideas to circumvent barriers surrounding residents needing to be more informed of clinic hours included notifying residents the day before clinic, a sign-up list for the scheduled clinic day, and a poster to remind people that the clinic exists and when it is open. One suggestion was for Laurelwood staff to announce and remind residents that the clinic would be open the following day during evening walk-throughs. Another included informing new residents about clinic availability and offerings during the shelter intake process. Part of the group preferred making appointments to plan around being seen in the clinic, while others preferred the walk-in-only policy.

Recommendations for Improvement

Keeping the literature review, best practices based on NHCHC guiding principles, current OI practice, and data collected through listening sessions in mind, the following recommendations were provided to OI.

Recommendation 1: Improve clinic consistency and visibility. Inconsistent clinic hours, canceled clinic days, and a lack of resident awareness are significant barriers to engagement with the shelter-based clinic and hamper efforts to develop resident knowledge of clinic existence and operations. Reliably arriving at the same time daily with consistent clinic hours each week is vital to building trust and facilitating resident engagement. Current OI practices such as having clinic staff members visible in common areas, arriving together each day to improve visibility, and mingling to form relationships with residents outside of clinic hours, including activities (such as game nights) that are not health-related are consistent with NHCHC guiding principles and should be continued (NHCHC, 2010). In addition to improving consistency, three main ways to improve clinic visibility are to partner with Laurelwood staff to make announcements before clinic days, provide printed information around the shelter with clinic hours included, and orient residents to the clinic as part of the intake process upon arrival to Laurelwood. Clinic orientations increase utilization (Jego et al., 2018) and were welcomed by listening session

participants. See appendix C for a sample orientation document, appendix D for the clinic brochure, and appendix E for a sample clinic poster. Key components of the clinic orientation should include an introduction to the clinic staff, detailed information about what the clinic offers, information about other non-shelter OI locations, and information for other local services such as dental emergency clinic, nutrition access, other local healthcare agencies providing relevant services that cannot feasibly be offered within OI's shelter-based clinic. Further, partnering with Laurelwood staff may increase engagement, given that the staff has more frequent interaction and trusting relationships with residents (Tornabene & Hugget, 2020).

Recommendation 2: Offer health education and health-promoting activities. The desire for health education was a primary theme in qualitative data analysis. Offering health education opportunities supports community building, builds trust between residents and clinic staff, and helps residents develop life skills that may empower them to better protect and promote their health and well-being. Recommended health education classes based on resident feedback include nutrition, yoga, tai-chi, BLS, overdose prevention, and personal hygiene. Other avenues to increase access to and knowledge regarding nutrition, another theme in the listening sessions, may be bolstering OI programming, such as the Nutrition Education Program currently offered within the OI youth shelter.

Recommendation 3: Offer an intake appointment. Collecting a health history and individualized needs assessment upon arrival to Laurelwood will increase clinic engagement and visibility, make residents feel welcome and cared for upon arrival to Laurelwood, and help mitigate limitations from this project by collecting more targeted health data about residents that may inform future operational decisions. Including a health-intake form (see appendix F for suggested components) as part of the new resident intake to Laurelwood is one option to initiate care, guide a goal-setting conversation, and inform an establish care appointment. This document and conversation can highlight specific health needs to enable the care team to determine a care plan for residents during their stay at Laurelwood and serve as a jumping-off point to get residents engaged or re-engaged in primary care. The intake form should include elements of a health history and allow space for residents to share their health

goals. The establish care goal-setting appointment should be extended length to enable rapport building, goal setting, health history and comprehensive physical exam, and triaging of health needs.

Discussion

Summary

This project sought to identify the health needs, facilitators and barriers to healthcare engagement and ideas for shelter-based clinic design from residents living in a shelter in Portland, Oregon. Three sessions of semi-structured interviews with 23 shelter residents hosted by a DNP student and OI nurse practitioner served to facilitate trust between clinic staff and shelter residents, and the data collected from the sessions informed recommendations delivered to OI via PowerPoint presentation to tailor service design of a new clinic within Laurelwood shelter.

Interpretation

Listening session results focused on health needs were largely consistent with the literature review. More surprising were health-related needs outside the traditional service design of a primary or urgent care clinic, such as nutritional assistance programs, health education, CPR training, and a shelter intake assessment. There was notably less than expected focus on urgent care specific needs. One explanation for this noted by OI staff may be that fewer urgent care needs arise when living with consistent access to shelter and warm showers. OI was already implementing many of the suggestions and requests from residents, such as offering walk-in appointments, trauma-informed care, and support with insurance enrollment.

The qualitative perspectives of experiences seeking health care were consistent with the literature review. After participating in the listening sessions, shelter residents reported to the author feeling heard, appreciated being listened to, and felt their time was respected because they were compensated for the sessions with a gift card. They further communicated that the conversations helped foster trust between residents and with clinic staff, which validated the utility of the CeNR study design. They welcomed future opportunities to be involved with clinic operations and planning.

Limitations

Limitations of this project include a small sample size using convenience sampling. Recruiting was limited to current shelter residents available during study, which may elicit a point-in-time snapshot of some health needs and may not reflect health needs that are more relevant during different times of the year. Further, the small sample size and recruitment from a single shelter limit the generalizability of the data to other shelter locations. While a group setting and the decision not to collect demographic information helped build trust between the authors and the participants (a primary aim of the project), the lack of demographic information is a limitation, and the group setting complicates the ability to draw quantitative conclusions about specific themes, as all participants did not answer every question. Thus, some themes may be underrepresented in the analysis. Further, the broad nature of the questions made drawing conclusions about specific chronic conditions and health needs challenging to assess. Future studies may narrow the questions used and ask more targeted questions about care engagement and specific health conditions. Finally, human reviewers analyzed the data, leaving room for bias.

Conclusions

The next steps for this project will include developing working groups comprised of OI staff, Laurelwood staff, and shelter residents to facilitate making plans for implementing the three recommendations. Additionally, the data from this project will be presented at the NHCHC Healthcare for the Homeless Conference in Baltimore, Maryland, in May 2023.

Funding

Outside In provided financial incentives in the form of Visa gift cards. The software used in this analysis was accessed through Oregon Health & Sciences University library.

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Appendix A

Recruitment Poster

Appendix B

Listening Session Questions

1. Where does accessing health care rank in your priority list? What are your current priorities?
2. What kind of things would you like to see from a clinic?
    a. What is missing from clinics you have been to?
3. How can we help you improve your health?
    a. Did you know that all these things are a part of typical clinical services, and offered here?
4. Are you currently engaging in health care?
    a. If so, where? What has that experience been like?
5. What has your history with health care been?
6. Have you accessed the clinic here?
    a. Did you know there was a clinic here?
    b. If you knew about the clinic here, would you have accessed it?
        i. Why or why not?
7. Is there anything else you want us to know?

Appendix C

Orientation Document (front)

Outside In

What?	OI's Mobile Medical Outreach team has a **health clinic** for **Laurelwood residents**
When?	**Every Tuesday from 9:00 am- 12:00 and 1:30 pm to 3:30 pm** *every other Tuesday, opens late at 11:00 am
Who We Are: Care Team	**Ebony (she/her):** OHP Enrollment **Jimmy (he/him):** Facilities Coordinator **Mandi (she/her):** Nurse Practitioner **Marcia (she/her):** Medical Assistant & Vaccine Manager **Sara (she/her):** Clinic Coordinator **Seanie (they/them):** Medical Outreach Coordinator
What We Are: **Our Services**	Our clinic provides **primary care**, which is the first step in maintaining your health. Our services include but are not limited to: • HIV/STI testing and treatment • Wound care (burns, abscesses, splinters, infections, etc.) • Chronic disease support (for example, Diabetes management) • Reproductive health (like PAP smears and birth control) • On-site labs • General check-ups (lab checks, determine if you are due for cancer screening) • Preventative care • Urgent diagnosis and treatment of illness and injuries • Place referrals to specialists, help with OHP enrollment, refill your medications, prescribe Narcan **and more!** Come to us with any of your healthcare needs **Walk-In Only, no appointment necessary!**
Other Needs: Dental & Vision Care	**Mobile Dental Clinics:** Mobile Teams International provides free urgent dental care for patients who do not have dental insurance or means to pay and they set up at different locations around Oregon. Call **(503) 893-6550** for locations or to make an appointment **Mobile Vision Clinics:** the OHSU Casey Community Outreach program offers free vision screenings in an RV at different community locations. Eye exams are free, and community partners can help if you need help buying glasses. Call **(503) 418-1698** to make an appointment.
Establishing Care with Outside In	**When you "establish care" with our mobile team, you are established with our organization, Outside In.** Being established means we can help you find a *permanent* primary care provider while also helping you with *urgent* needs during your appointment at Laurelwood. **Outside In's other clinics:** Downtown Clinic & East Clinic **Downtown Clinic:** 1132 SW 13th Ave, Portland, OR 97205 **East Clinic:** 16144 E. Burnside Street, Portland, OR 97233 To schedule a same-day appointment at one of these clinics, call **(503) 535-3860** (the earlier, the better! Starting at 8:30 am 

Appendix C

Orientation Document (back)

Contact Us	For *non-urgent* messages for the mobile team, call **(503) 438-6445** Send Mandi Ruscher a message in the MyChart app
Locations & Schedule	The mobile clinic moves between different sites to see patients that stay nearby. Use this QR Code to see our current schedule online, or check out our business card. Our sites rotate, and the schedule may change. We want to make sure you always have access to care. The nature of a small mobile team means that if there is an issue with the RV or the staff, there is a possibility services will be canceled at the last minute. When that happens, you do have options for care. See the FAQ section below.
Frequently Asked Questions (FAQ)	**What documents do I need to become a new patient?** When signing up as a new patient, we *do not* need to see ID. Things that are helpful but *not required* are a current medication list (if you have one) and an insurance card (if you have something *other* than OHP/Medicaid) **What if I don't have insurance?** No problem! Insurance is not required. If you are interested in enrolling in OHP or learning more about other insurance options, we can connect you with a staff member who can help. **How do I make an appointment?** All of our appointments are same-day, first come, first served. Simply walk up to the clinic. If you know you want to be seen on a specific day, we recommend coming in the morning when we usually have more availability. **What if I need an appointment and the mobile team won't be here soon enough?** Outside In Downtown Clinic and East Clinic both offer same-day appointments. The same-day appointments do fill up quickly, so we recommend calling early. **What options do I have if services are canceled?** If you have been seen before, you can send your provider, Mandi Ruscher NP, a message through the MyChart app. Another option is to schedule at one of OI's other clinics for a same-day appointment. **What if I run out of my prescription?** Always call or visit your pharmacy first and ask them for a refill. If your medication is lost or stolen, they should still be able to guide you through next steps. You *do not* need an appointment to refill most medications, but we do like to see you at least yearly and more often for certain conditions that may need medication adjustments like diabetes and mental health. **If I already have a doctor somewhere else, can I still be seen at the Mobile Clinic?** If you already have a healthcare provider, we can sometimes see you for an urgent need (flu symptoms, infections, etc.) but it is safest to continue with your usual clinic, to have an ongoing relationship with a primary care provider (PCP) who will get to know your long-term health needs. **Where can I pick up my medications?** Any pharmacy you choose OR the Downtown Clinic (we do not turn people away for inability to pay)

Appendix D

Clinic Brochure

Welcome to Outside In!

Our team consists of many hands, but you'll most often have interactions with:

- Sara *(she/her)* clinic coordinator
- Marcia *(she/her)* medical assistant and vaccine manager
- Mandi *(she/her)* nurse practitioner
- Jimmy *(he/him)* facilities coordinator
- Seanie *(they/them)* team manager

Our Services

Our clinic provides primary care, which is the first step in maintaining your health. Our services include but are not limited to:

- HIV/STI testing, counseling and treatment
- Wound care (burns, abscesses, splinters, infections, etc.)
- Chronic disease support (for example: diabetes management)
- Reproductive health (such as pap smears)
- On-site labs
- General check ups
- Preventative care

Locations & Schedule

The mobile clinic moves between different sites to see patients that stay nearby. Use this QR code to see our current schedule online, or check out our business card.

Our sites rotate and the schedule may change. We want to make sure you always have access to care.

The nature of a small mobile team means that if there is an issue with the RV, or the staff, there is a possibility services will be cancelled last minute. When that happens, you do have options for care.

Please see the FAQ inside for info about accessing care.

Contact Us

(503) 438-6445

*Please note: this phone number is for leaving **non-urgent** / general messages for the mobile team.*

FAQ

What documents do I need to become a new patient?

When signing up as a new patient, we **do not** need to see ID. Things that are helpful but not required:

- Current medication list (if you have one)
- Insurance card (if you have something OTHER than OHP/Medicaid)

What if I don't have insurance?

No problem! Insurance is not required. But if you're interested in enrolling in OHP or learning more about other insurance options, we can connect you with an Outside In staff member who can help.

How do I make an appointment?

All of our appointments are same-day, first come, first serve -- simply walk up to the Mobile Clinic. If you know you want to be seen on a specific day, we recommend coming during the morning when we usually have more availability.

What if I need an appointment and the Mobile Clinic won't be here soon enough?

Our Downtown Clinic and our East Clinic (see bottom right) both offer same-day appointments. The same-day appointments do fill up quickly, so we recommend calling early.

Another option for non-emergency conditions is an urgent care center.

What options do I have if services are canceled?

Your provider, Mandi Ruscher NP, can be sent a MyChart message through the app. Another option is to schedule at one of Outside In's other clinics (see bottom right) which offer limited same-day appointments.

What do I do if I run out of my prescription?

Always call/visit your pharmacy first and ask them for a refill. If your medication is lost or stolen, they should still be able to guide you through next steps.

You will not need an appointment to refill most medications, but we do like to see you at least yearly or more often for certain conditions that may require medication adjustments like diabetes, mental health, etc.

If I already have a doctor somewhere else, can I still be seen at the Mobile Clinic?

If you already have a healthcare provider, we can sometimes accommodate an urgent need (flu symptoms, infections, etc), but it is ultimately safest for you to continue with your usual clinic.

Staying with one clinic means you can have an ongoing relationship with a primary care provider (PCP) who will get to know your long-term health needs and will know when you need more advanced care, like a hospital procedure or a specialist.

What if I need dental or vision care?

Mobile Dental Clinics

Mobile Teams International provides free urgent dental care for patients who do not have dental insurance or means to pay and they set up at different locations around Oregon. Call **(503) 893-6550** for locations or to make an appointment.

Mobile Vision Clinics

The OHSU Casey Community Outreach Program offers free vision screenings in an RV at different community locations. Eye exams are free and community partners can help if you need assistance buying glasses. Call **(503) 418-1698** to make an appointment.

When you "establish care" with our mobile team, you are established with our organization, Outside In.

Outside In's other clinics

Downtown Clinic: 1132 SW 13th Ave
Portland, OR 97205

East Clinic: 16144 E. Burnside St
Portland, OR 97233

To schedule a same-day appointment at one of these clinics call **(503) 535-3860**, the earlier the better, starting at 8:30am.

Appendix E

Clinic Poster

Outside In

Medical Clinic

Tuesdays at Laurelwood

9:00am - 12:00 pm

&

1:30 - 3:30pm

*Every 2nd Tuesday opens late at 11:00am

Services we provide

- Primary care
- Check-ups and physical exams
- Diagnosis and treatment of illness and injury
- STI Testing
- Vaccinations
- Wound care
- Chronic disease support
- Reproductive health care
- Referrals
- Language interpretation services when needed

No appointment necessary
Walk-Ins Only!

Appendix F

Intake Form (front)

OUTSIDE IN MOBILE MEDICAL CLINIC INTAKE FORM

NAME: **PRONOUNS**: **AGE**: **DATE OF BIRTH**:

SEX ASSIGNED AT BIRTH: **GENDER:**

What do you most need help with today?

HEALTH HISTORY

Do you currently have a primary care provider (PCP)? YES/NO

- If YES, please write in name and location:

Do you currently follow up with any specialist? YES/NO

- please circle all that apply: cardiology, neurology, urology, endocrinology, psychiatry, nephrology, therapy, orthopedics, ENT
- other:

Do you currently have health insurance? YES/NO

- If YES, please list it here:
- If NO, do you need help getting health insurance? YES/NO

Physical Health: Have you been diagnosed with the following? *(currently or in the past)* **check all that apply**

___ Abdominal Pain	___ GERD	___ Prostate Disease
___ Abnormal Vaginal Bleeding	___ GI Bleed	___ Rash
___ Anemia	___ Gout	___ Rheumatic Fever
___ Arthritis	___ Headaches, Chronic	___ Rubella
___ Asthma	___ Heart Disease	___ Scarlet Fever
___ Autism Spectrum Disorder	___ Heart Murmur	___ Seasonal Allergies
___ Back Pain	___ Heart Palpations	___ Sexually Transmitted Disease
___ Cancer	___ Hemorrhoids	___ Seizure
___ Colitis, Ulcerative	___ Hepatitis	___ Sinusitis
___ COPD	___ High Blood Pressure	___ Sleep Disorder
___ Crohn's	___ Incontinence	___ Somnolence
___ DVT/Blood Clot	___ Irritable Bowel	___ Stroke
___ Dementia	___ Kidney Stone(s)	___ Substance Use Disorder
___ Diabetes	___ Migraines	___ Thyroid Disorder
___ Diverticulitis	___ Mumps or Measles	___ Tuberculosis
___ ED (erectile dysfunction)	___ MRSA Infection	___ Ulcer
___Guillain Barre Syndrome	___ Osteoporosis	___ Urinary Disorder

Appendix F

Intake Form (back)

OUTSIDE IN MOBILE MEDICAL CLINIC INTAKE FORM

Mental Health: Have you been diagnosed with the following? *(currently or in the past)* **check all that apply**

___ Alcohol Use Disorder	___ Eating Disorder	___ Schizophrenia
___ Anxiety	___ Homicidal Ideation	___ Suicidal Ideation
___ Bipolar Disorder	___ Insomnia	___ Stress
___ Depression	___Memory Loss	___ Post-Traumatic Stress Disorder (PTSD)

Other Conditions not listed above *(please describe)*:

Surgeries: *(please list)*

Allergies: *(please list)*

- Medications:
- Foods:
- Other:

MEDICATIONS

- Medications I am taking:
- Supplements I am taking:
- Which pharmacy do you get your medications from?
- Do you have a place to store medications? YES/NO

SUBSTANCE USE

- Do you drink alcohol? YES/NO How many drinks/day? ____ How many days/week? ____
- Do you use tobacco? YES/NO How much per day? ____ For how many years? ____
- Do you use other drugs? YES/NO
    - *If yes, please list:*

LIVING CIRCUMSTANCES *(circle one option)*

- Is this your first time being homeless? YES/NO
    - If NO, when is the first time you were homeless?
    - How long have you been homeless this time?
- Where did you stay last night? INSIDE/OUTSIDE
    - *please describe:*
- Do you have access to food? YES/NO Water? YES/NO
    - Do you need assistance with food resources? YES/NO

SAFETY

- Do you have a history of physical abuse? YES/NO Sexual abuse? YES/NO Emotional abuse? YES/NO
- Do you need help with crisis resources? YES/NO

OCCUPATIONAL

- Do you currently have a job? YES/NO
    - *If yes, what is your job?*
        - *how long have you had this job?*
    - *If no, when is the last time you had a job?*
    - *Are you a veteran?* YES/NO

Appendix G

Project Timeline

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec-Mar
Finalize project design and approach (703A)	X							
Complete IRB determination or approval (703A)		X						
Study Site Visit		X						
Meet with shelter staff, finalize study questions, computer & recording software training			X	X				
Host Listening Sessions				X	X			
Thematic Analysis					X	X		
Write final paper							X	
Prepare for project dissemination								X

Appendix H

IRB Determination

Notification of Not Human Research Determination

To:	Carolyn Hall
Link:	STUDY00024615
P.I.:	Rebecca Martinez
Title:	Shelter-Based Clinic Needs Assessment
Description:	The committee reviewed this submission and assigned a determination of Not Human Research. For additional details, click on the link above to access the project workspace.

Oregon Health & Science University
Research Integrity Office
3181 SW Sam Jackson Park Road - L106RI
Portland, Oregon 97239-3098
(503)494-7887 irb@ohsu.edu

VA Portland Health Care System
Research and Development Service
3710 SW U.S. Veterans Hospital Road - R&D
Portland, Oregon 97239-2999
(503)273-5125 pvamc-irb@va.gov

Appendix I

Clinical Letter of Support

Letter of Support from Clinical Agency

Date: *06/07/2022*

Dear *Carolyn Hall,*

This letter confirms that I, *Mandi Ruscher,* allow *Carolyn Hall* (OHSU Doctor of Nursing Practice Student) access to complete his/her DNP Final Project at our clinical site The project will take place from approximately *July 2022* to *September 2022.*

This letter summarizes the core elements of the project proposal, already reviewed by the DNP Project Preceptor and clinical liaison (if applicable):

- **Project Site(s)**: Shelter-Based Clinic (operated by Outside In) located within Laurelwood Shelter (operated by Transition Projects)
    - Site Address: *6130 SE Foster Rd, Portland, OR 97206*
- **Project Plan: Use the following guidance to describe your project in a brief paragraph.**
    - Identified Clinical Problem: *people experiencing homelessness experience poorer health outcomes and premature mortality as a result of their lived experience.*
    - Rationale: *Outside In and Laurelwood Shelter are working together to provide clinical services in a shelter-based clinic, and this project hopes to utilize a patient perspective to help guide service design and delivery by identifying health experiences, challenges, facilitators and needs.*
    - Specific Aims: *Identify health needs and current facilitators and challenges to accessing health services.*
    - Methods/Interventions/Measures: *Process measures are the total number of participants and demographics to be collected and clinic utilization before intervention. Outcome measures will be qualitative findings regarding facilitators, challenges, health care needs and health care utilization.*
    - Data Management: *Convenience sampling and de-identification of study participants will be performed by Carolyn Hall. Qualitative analysis with recording and use of computer-assisted qualitative analysis software will generate codes and thematic analysis.*
    - Site(s) Support: *Posting recruitment flyer, advertising listening sessions in clinic, providing space in shelter for listening session, co-creating semi-structured interview questions, attending listening sessions.*
    - Other: *Carolyn Hall will present results to Outside In shelter-based clinic and Laurelwood Shelter staff.*

During the project implementation and evaluation, *Carolyn Hall* will provide regular updates and communicate any necessary changes to the DNP Project Preceptor

Our organization looks forward to working with this student to complete their DNP project If we have any concerns related to this project, we will contact *Carolyn Hall* and *Rebecca Martinez* (student's DNP Project Chairperson)

Regards,

DNP Project Preceptor
Mandi Ruscher, FNP
email: mandir@outsidein org
phone: (503) 422-1378

Signature Date Signed 06/07/2022