Published in final edited form as:

Sex Transm Dis. 2020 January ; 47(1): e5–e7. doi:10.1097/OLQ.0000000000001064.

A co-located continuity clinic model to address healthcare needs of women living unhoused with opioid use disorder, who engage in transactional sex in north Seattle.

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Abstract

This is a review of the first 50 patients attending a co-located continuity clinic with harm reduction services to women experiencing homelessness in north Seattle. Among those tested, patients had high rates of curable STIs (44%), injection opioid use (36%), transactional sex (69%), unintended pregnancy (10%), and HIV infections (10%).

Summary:

A novel community partnership clinic model and review of the first 50 patients who have high rates of homelessness, transactional sex, curable STIs, injection drug use, HIV infections, and pregnancy.

Brief Report:

In 2018, the health department in King County, WA identified a cluster of 14 new HIV diagnoses among people experiencing homelessness in north Seattle. Of these 14 persons, 12 used injection drugs and 8 of 11 women in this cluster reported exchanging sex for money or nonmonetary items.¹ The outbreak was part of a larger trend of increasing new HIV diagnoses among heterosexual persons who inject drugs (PWID) in King County, WA. Historically, HIV among heterosexual PWID in King County has been rare and new HIV diagnoses have been declining for more than a decade.² This sudden change in the epidemiology of HIV highlights the need to develop new clinical infrastructure to address the needs of a socially marginalized population, who frequently report being stigmatized by healthcare providers.³ We describe a subset of this population at risk of HIV acquisition due to transactional sex and injection drug use and a new co-located continuity clinic model.

The large number of people experiencing unstable housing (homelessness or concern for imminent homelessness in the next 3 months) in north Seattle have limited access to clinical and public health services (e.g., homeless shelters, walk-in medical clinics, syringe service programs, opiate-agonist therapy), which are largely located 10 miles away in downtown

Seattle. Aurora Commons (a local, nonprofit, drop-in center established in 2011) serves the community in north Seattle, by providing space for day use with accessible food, laundry, hygiene, and clothing. In 2018, 287 women accessed the community center, greater than 90% of whom exchanged sex in the area.⁴

Prior to identification of the HIV outbreak, Aurora Commons, Harborview Medical Center (HMC), and Puget Sound Christian Clinic (PSCC) partnered to form the SHE (Safe. Healthy. Empowered.) Clinic. This clinic model is best described as a co-located continuity clinic model as it refers to a mobile clinic which is parked at the Aurora Commons one day each week. Medical staff at each SHE Clinic session include an infectious diseases physician, a nurse, and a medical social worker. The full-time medical social worker is present on-site during each clinic session and on non-clinic days for care coordination. Additional staff that work with the SHE Clinic include Aurora Commons staff (director of health and women's initiatives, community advocates, and hosts). The co-location of this clinic at a drop-in center is a unique and crucial component of this care delivery model; the intent is to bring low-barrier care to a convenient and trusted site with existing support infrastructure for a socially marginalized, difficult to reach population of women.

The clinic began operations in July 2018 (11am to 2pm one day per week), providing primary medical care and harm reduction interventions for substance use, including low barrier buprenorphine-naloxone, family planning, testing and treatment of sexually transmitted infections (STI), HIV pre-exposure prophylaxis (PrEP), and HIV medical care on a walk-in basis. Here we describe the SHE clinic's operations, costs, and retrospective abstraction of electronic medical record (EMR) data for the first 50 women (Table 1) enrolled for care at the SHE Clinic (July 2018 – October 2018). All reported tests were completed due to clinical indication and not all 50 women received the same medical care or laboratory tests. To describe the patient population, data from 50 patients' initial clinic visit were abstracted; however, more than 70 visits (including follow-up visits for returning patients) were provided during the 10-week study period and the descriptive cost data reflect all appointments and operations.

During the study period, providers saw an average of four new patients and three return patients per half day of clinic. The primary stated reasons (i.e. chief complaints) for seeking care were skin and soft tissue infections (SSTIs), STI and HIV screening, and urinary tract infections (UTIs). All patients without prior health insurance coverage were enrolled in Medicaid at their first visit and cost of individual services is covered by medical insurance reimbursements. We calculated operational costs based on the costs of personnel and equipment/supply costs needed for each clinic session. These operational costs do not include the costs of the drop-in center. The total average cost of clinic operations, including mobile van usage (not initial purchase), medical and clinic staff, and supplies was \$215,171 annually, or \$4138 per clinic day and approximately \$591 per patient visit, with nearly half of these costs attributed to full time social work support needed for health insurance enrollment and patient engagement.

The first 50 patients to attend the SHE clinic were all cis-gendered women with an average age of 37 (IQR 34, 40). Patients denied commercial sex work to the providers, but 31 (69%)

patients reported transactional sex for food, shelter, and drugs. Among 27 tested women, 12 (44%) tested positive for a bacterial STI or trichomonas at their initial visit. STI screening used nucleic acid amplification test (Hologic, San Diego, CA, USA) of endocervical swab samples transported to the associated hospital lab. Of the 35 women who discussed contraceptives with their provider, only 10 (29%) women reported condom use and 1 woman had an IUD. Though no women reported actively planning for pregnancy, 4 (10%) of 39 tested-women had unplanned pregnancies on presentation. The clinic tested 42 (84%) of all clinic attendees for HIV, of whom four women (10%) were HIV positive and of these, two were newly diagnosed with HIV infections. Clinicians prescribed HIV PrEP to 17 (45%) HIV-negative women. Thirty-two (64%) of 45 women, who discussed drug use with their provider, reported injection drug use, and opioid use was reported by, or detected in urine toxicology screens, of 31 (62%) women. Additionally, 13 (26%) women reported or were found to use methamphetamine. Nine (29%) of 31 opioid-using women underwent initiation of buprenorphine-naloxone at their initial clinic visit. An additional 3 (10%) women were already connected to a methadone treatment program. The population served by the SHE clinic has a prevalence of HIV infection (10%) which is much higher than the prevalence observed in cis-gendered women seeking care at the King County STD clinic (2%)² and similarly has a very high prevalence of STI (44%), particularly *Trichomonas vaginalis* (48%), among tested women, compared to women seeking care at the STD clinic (5%)(Table 1).

This retrospective review of clinical encounters was limited by the number of patients who received laboratory testing. Not all patients were amenable to laboratory testing on their initial visit and symptomatic women were much more likely to undergo testing. Although the data presented in this report are based on a retrospective analysis of the initial clinical visits of a small number of patients, we believe our experience is important. King County is in the midst of an outbreak of HIV among unhoused, heterosexual PWID,¹ a population that has not traditionally experienced high rates of HIV in our area. Similar outbreaks of HIV have occurred or are ongoing in Indiana, Massachusetts, Ohio and West Virginia.⁵⁻⁷ Meanwhile, California is in the midst of a large outbreak of syphilis among socially marginalized women who use methamphetamine, and syphilis rates among women – accompanied by rising rates of congenital syphilis – are climbing nationally.⁸ These new epidemics of HIV and STI challenge the healthcare system to care for people who often do not seek care in conventionally organized clinics and require the development of new clinical infrastructure. This co-located continuity clinic is an example of the sort of infrastructure we believe will be required to confront the increasing risk of HIV acquisition associated with the intersecting trifecta of substance use, homelessness, and transactional sex.

A number of aspects of our experience merit comment. First, this co-located continuity clinic model is dependent on the existence of an effective community-based organization and its established relationship with the affected community. Second, the SHE clinic model integrates medical care, reproductive health, prevention (e.g. PrEP), social services, and addiction medicine, which we believe is critical to serving a population with ongoing drug use, exchange sex, and unstable housing. Finally, the unit costs (i.e. per visit) of providing care to this population are higher than typical outpatient care and are largely driven by the

cost of hiring a full-time social worker. While expanding the clinic might decrease unit costs somewhat through economies of scale, we believe that providing care to socially marginalized populations is always likely to be expensive. If this model can decrease use of emergency room services for outpatient care needs, it is likely to be cost effective. To provide high quality care to patients with significant barriers to healthcare, including social stigmatization and mistrust of healthcare providers, public health agencies will need to accept novel clinical models and local partnerships, and plan for them in their budgets.

In summary, we report a collaborative and novel approach to provide care to a socially marginalized population of women in the midst of an HIV, STI, homelessness, and substance use syndemic. Our experience highlights both the need and feasibility of developing collaborative, new approaches to providing medical care to the populations in greatest need of medical and social services.

Acknowledgement:

We would like to acknowledge and thank the community at the Aurora Commons, their volunteers and staff, Monica Brown, and Sherice Arnold. The SHE clinic pilot program was supported through grants by the Pacific Hospital Preservation and Development Authority (PHPDA) (from April 1, 2018 to March 31, 2019) and City of Seattle Human Services Department, and utilized a mobile medical van owned and operated by Puget Sound Christian Clinic (PSCC). Dr. Stewart was supported by the National Institutes of Health training grant, T32AI007044–44, and Dr. Stadeli was supported by a National Institute of Health training grant, T32DK070555. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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Table 1:

Demographic characteristics, housing, HIV/STI risk behaviors and STI test positivity among 50 female patients in the SHE Clinic, 2018

Characteristics	Percent Asked About Characteristic or Tested (n)	% Positive (n)
Average age (IQR)	37 (34, 40)	
Racial identity	98.0 (49)	
White		69.4 (34)
Black		22.5 (11)
Native American/Alaskan		2.0 (1)
Asian		0
Other		6.1 (3)
Unstable housing	94.0 (47)	95.7 (45)
Injection drug use	90.0 (45)	80.0 (36)
Transactional sex	90.0 (45)	68.9 (31)
Pregnancy	78.0 (39)	10.3 (4)
Trichomoniasis	46.0 (23)	47.8 (11)
Chlamydia	56.0 (28)	17.9 (5)
Gonorrhea	54.0 (27)	18.5 (5)
Syphilis	26.0 (13)	0
HIV	84.0 (42)	8.5 (4)
HCV	76.0 (38)	39.5 (15)