Improving Unanticipated Care Access and Utilization in the Residential Care Home (RCH) at Leeway Inc.* in New Haven, CT

A Continuum of Care Facility for People Living with HIV/AIDS (PLWHA) or Chronic Conditions often co-occurring in PLWHA

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Background

Individuals living with HIV/AIDS are at greater risk for developing chronic conditions, such as diabetes, cardiovascular diseases, hypertension, and cognitive impairment[1]. Of the reported 1,326 people living with HIV in the city of New Haven, more than 64% are over the age of 50[2], indicating that on top of managing their HIV, these individuals must also navigate the increased risk for developing chronic diseases that accompany the aging process[1]. In addition to the challenges that they experience related to managing chronic care needs, individuals living with HIV/AIDS are more likely to present with complex social and mental health needs such as unstable housing, lack of transportation, unemployment, substance abuse, depression, anxiety, and other psychiatric disorders[3]. Some of these factors contribute to greater use of Emergency Department (ED) services for HIV/AIDS patients' non-urgent needs. Leeway Inc. is Connecticut's first and only skilled nursing and residential care housing center dedicated to caring and assisting individuals living with HIV/AIDS. Leeway is interested in characterizing the demographics of residents in their Residential Care Home (RCH) unit and identifying the underlying reasons that contribute to high ED utilization amongst RCH residents.

Objectives

1) Conduct a landscape analysis to understand different chronic care models adaptable to residential care settings and identify strategies to reduce ED utilization within Leeway.
2) Analyze the demographics of residents in RCH unit to identify common socioeconomic determinants of health and underlying factors to characterize the population of individuals who have elevated ER utilization rates.

Methods

Qualitative Data:

- We first conducted a landscape analysis consisting of approximately 60 articles spread over categories pertaining to the infrastructure of chronic care models and care delivery. These are organized and further subdivided into the following categories, where 26 articles were identified as central to Leeway's project aims:
    - Patient healthcare usage
        - Strategies to reduce avoidable hospitalizations
        - Improving retention in HIV care
    - Patient needs and healthcare barriers
        - Comprehensive care planning
    - Organization Planning
        - Tools and resources for healthcare administrators and staff
    - Community/Health Systems
        - Primary and integrated care models
        - Strategic plans and care models of other local organizations and/or organizations with a similar care structure to Leeway
- We conducted 18 semi-structured interviews (12 RCH residents, 6 RCH staff members) to explore individual- and systems-level factors that contribute to low patient utilization of routine care pathways.
    - The residents interviewed were sampled in consideration of emergency care visit frequency and demographics, as determined by a medical chart review. Five out of six staff members were Medical Technicians who worked closely with residents.
    - Questions for residents focused on residents' experience with patient care pathways, service utilization and patient experience, barriers to care, and ED usage.
    - Questions for staff focused on staff's experience with coordinating patient care, unscheduled medical incidents/emergency care, perceived patient barriers to utilization of routine care, and ED transfer process.
    - Interviews were transcribed using Trint and analyzed by two team members using rapid qualitative analysis.

Quantitative Data:

- We conducted a demographic analysis of all RCH residents and rates of ED utilization
  - Extracted demographic and medical data from medical records of all 28 RCH patients (henceforth referred to as "RCH Population")
    - Demographic variables analyzed: Age, sex, race/ethnicity, has/does not have a primary care provider, ever diagnosed with a mental health condition, has a history of tobacco/alcohol/substance use.
    - Other variables informative of ED usage: frequency of ED visits within the past 3 years (May 2018-May 2021, inclusive), interval between ED visits, most frequently documented medical conditions/diagnoses.

Results

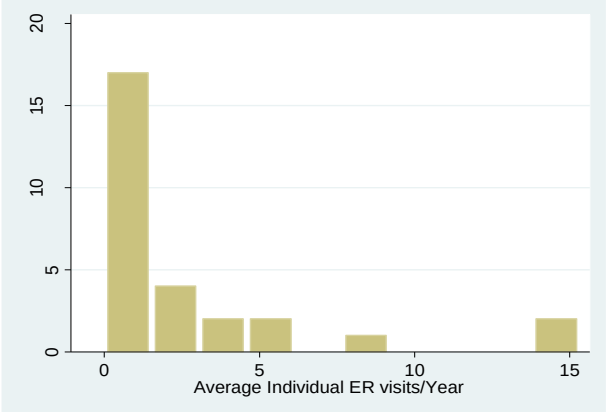
Quantitative

- The average age of RCH patients is 61.7 years (standard deviation 9.4). The RCH population was evenly distributed between males (53.5%) and females (46.4%). Nearly all of RCH residents (96.4%) had documentation of a primary care provider. In terms of race/ethnicity, 21.4% of residents identified as Non-Hispanic White, 50% identified as Non-Hispanic Black, 17.9% identified as Hispanic or Latino, and 10.7% identified as other race/ethnicities.
- 89.3% of residents had at least one diagnosed mental health condition and 64.3% of residents had a history of substance use. The most common comorbidities among residents were neurological disorders (82.1%), lung complications (64.3%), and cardiovascular disease (60.7%). The most common mental health conditions were depression (46.4%), suicide (32.1%), and schizophrenia/schizoaffective disorder (28.6%).
- The highest number of average annual ER visits among RCH residents was 15.3 (see Figure), with five (out of 28) residents averaging ≥5 visits, twelve averaging 1-4 visits, and the remaining eleven averaging less than one visit/yr. The most common ER diagnoses were 'other,' pain, and lung issues.

KEY FINDINGS

- Residents generally reported that Leeway met their basic medical needs.
- Residents and staff both reported underdeveloped mental and social health resources.

FIGURE 1. Distribution of # of annual ER visits by Leeway residents



Qualitative

- Our key findings from the landscape analysis of other organizations included thematic motifs around the importance of leveraging and/or restructuring existing community partners/organizations, staff, and resident assets; developing (or adapting) and implementing care models that focused on resident empowerment; patient education; and the need to address potential distrust and dissatisfaction with primary care providers.
  - Many documented interventions developed new or reformed existing systems for referrals and patient tracking.
  - Resources such as the Institute for Healthcare Improvement clearly delineate steps an organization can take for effective leadership and leveraging of existing resources to help redirect an organization's approach towards meeting a special population's health needs. (ex. Persons with multiple chronic conditions or HIV/AIDS)
- Six major themes emerged from qualitative interviews:
  - Appreciation for staff support,
  - Transportation challenges for health care needs,
  - Importance of substance use treatment and management for many residents,
  - Limited sense of community and social networks of residents,
  - Need for opportunities to build resident self-efficacy, and
  - Challenges in navigating mental health and social needs of residents.

STAFF

- **Transportation Challenges:** “with VEYO transportation, their medical cab, you need at least 48 business hours to book that.... A lot of times the cabs won't show up no matter ... how many notes I put in the system ... make sure you go to this building and this entrance.” (Participant 40601)
- **Navigating Mental Health and Social Needs:** "So I think like someone to help be that middle person, to get them to where they need to be will be like the big thing, because a lot of them give up. But some who can't read can't write, some although they can live on their own, just like small things that they can't do.” (40602)
- **Substance Use Management:** “I understand ... someone with a substance abuse problem or that has had a substance abuse problem, they fight every single day to stay clean.” (Participant 40605)

RESIDENTS

- **Appreciation for Staff Support:** “[t]heir [Leeway’s] strength is that they always have - everyone here always comes in with a good attitude, which I respect a lot.” (Participant 9)
- **Community and Social Networks:** "Yeah, I have one friend that I kind of hang out with because, you know, a lot of people use drugs and stuff, so I try to stay away from that. So here, my friends are kind of small.” (Participant 19)
- **Building Self-Efficacy:** “I don't have nobody to help me find an apartment. And I'm capable of taking care of myself. I bath, I shower, and I can - I dress myself.... “So I’m OK, but I just want to get my own place. I want my own apartment. I really do. I’m capable of taking care of myself. So will you tell them that?” (Participant 10)

Recommendations

- Incorporate programs that focus on resident empowerment and health and social service navigation, such as community building activities/exercises and investment in community health workers (CHWs).
- Expand RCH staff skills to address residents’ psychosocial and emotional needs in addition to medical needs, such as found in a CHW or peer support specialist model.
- Conduct community asset and complex care mapping to identify under-utilized health and social services resources, such as potential community partners, that could benefit RCH residents. Asset and complex care mapping could also identify pathways that help characterize factors influencing emergency care usage.
- Additional research may be necessary to fully understand the needs of persons with concurrent multiple chronic diseases and HIV/AIDs, especially in observing the likelihood for increased morbidity and mortality occurring at a relatively younger age compared to the normative population of older adults in residential care.

Limitations

- Data collection took place during the COVID-19 pandemic, which severely limited on-site group activities, social services, mental health services, recreational activities and interns. While some programs continued virtually, the support systems available to residents during this project were more limited than prior to the pandemic.
- Quantitative data analysis may be limited by the small sample size of RCH patients, making it difficult to determine the validity of additional statistical tests beyond descriptive statistics.
- Information from the electronic medical records (EMRs) was inclusive only of Yale emergency department and clinic visits, so data on medical visits to hospitals and clinics not affiliated with Yale is not included. Some medical information may not have been available due to incomplete chart documentation.
- Due to time and resource constraints, team members opted to use purposive sampling to recruit participants for the qualitative interviews. As only a subset of residents was interviewed, their perspectives may not reflect the views and opinions of all residents at this care facility.

Acknowledgments

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REFERENCES

1. Yang, HY., Beymer, M.R. & Suen, Sc. Chronic Disease Onset Among People Living with HIV and AIDS in a Large Private Insurance Claims Dataset. Sci Rep 9, 18514 (2019). https://doi.org/10.1038/s41598-019-54969-3

2. Connecticut Department of Public Health (2019) https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/AIDS--Chronic-Diseases/Surveillance/city_county/city_New-Haven_plwhivaids_table_cur.pdf
3. Pecoraro, A., Royer-Malvestuto, C., Rosenwasser, B., Moore, K., Howell, A., Ma, M., & Woody, G. E. (2013). Factors contributing to dropping out from and returning to HIV treatment in an inner city primary care HIV clinic in the United States. AIDS care, 25(11), 1399–1406. https://doi.org/10.1080/09540121.2013.772273