

Street Medicine Detroit: A Potential Approach to Reducing Emergency Department Reliance Among Homeless Individuals



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BACKGROUND

Significance of Issue:

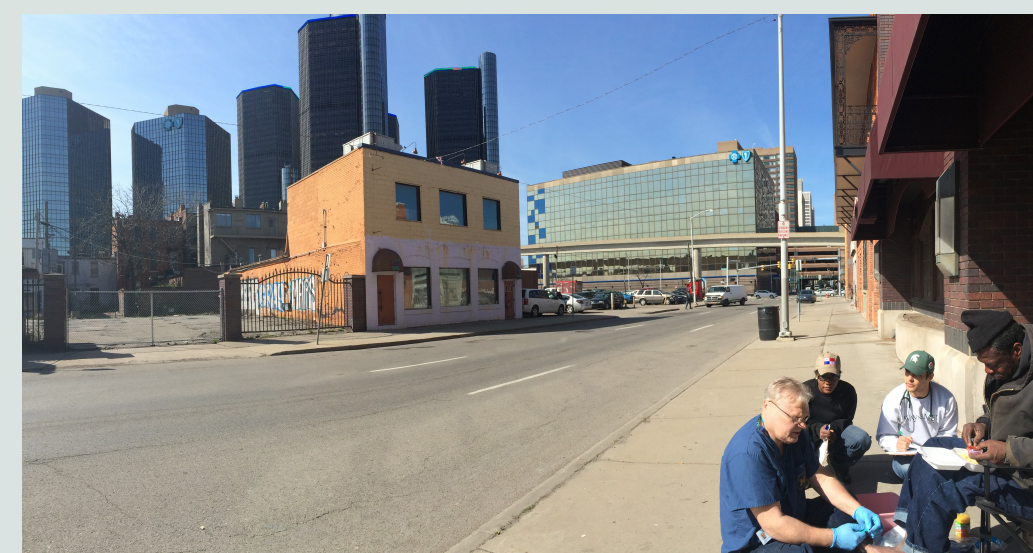
Annually, homeless individuals make 550,000 Emergency Department (ED) visits [1]. People who experience homelessness are three times more likely to utilize ED services inappropriately, compared to a similar housed cohort [4]. Homeless individuals often lack access to a primary care provider, whether it be due to lack of transportation, mistrust in the system, or not having insurance, to name a few [3]. They therefore rely on ED visits to meet healthcare needs. Use of urban ED services has been studied on local and national levels. Large cities, such as San Francisco, have reported that homeless patients can comprise as much as 30% of an ED's yearly adult census [2].

Street Medicine Detroit Model of Care:

Street Medicine Detroit (SMD) is a student-run mobile medical service founded at WSUSOM in 2012. Student volunteers work in interdisciplinary teams with MDs, DOs, NPs, social workers, and other health professionals, to provide shelter- and street-based primary care for some of Detroit's most service-resistant and vulnerable people.

Goals of SMD:

- Break down barriers to medical care
- Provide a service for people who are homeless
- Foster a unique learning environment for students
- Positively impact the attitudes of medical students by breaking down the stigma toward the homeless through experiential education

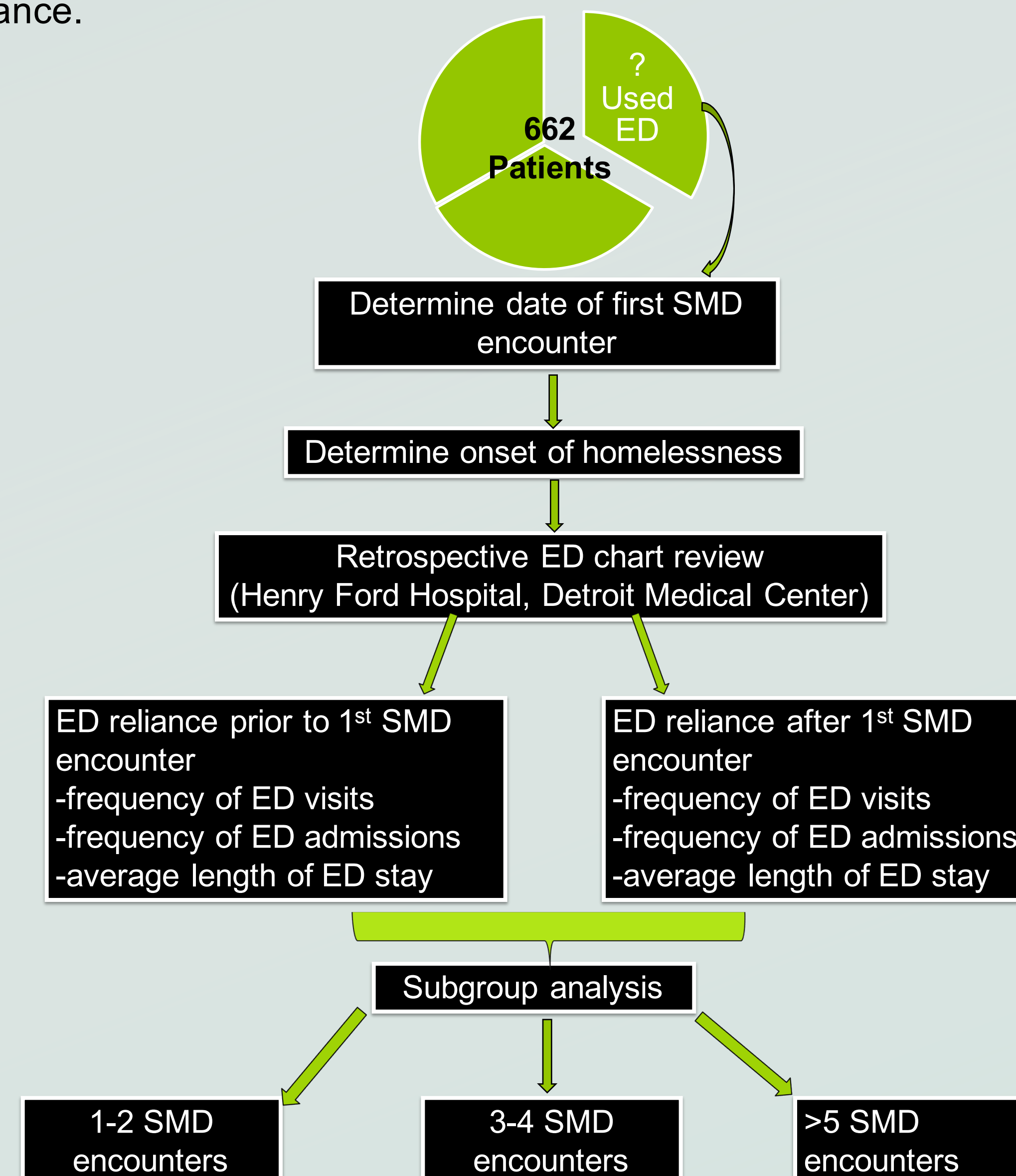


RESEARCH QUESTION

This study aims to determine whether receiving services from provisional primary care providers, like SMD, decreases ED reliance among Detroit's homeless population. ED reliance is defined by the frequency of and reasons for ED visits, admissions, and average length of hospital stay.

METHODS

A retrospective analysis will identify chronically homeless patients who have utilized SMD's services. ED reliance after patients' first encounter with SMD will be compared with baseline ED reliance before SMD intervention. SMD encounters will be analyzed to determine the correlational relationship between SMD intervention and ED reliance. Demographic information, chief complaint, diagnoses, and psychosocial disposition will be collected for association analysis to further distinguish high and low ED reliance. We will also attempt to determine whether there is a relationship between the number of SMD encounters and ED reliance.



CLINICAL CORRELATION

25 year old male encountered at local homeless shelter

- Complained of burning, tingling pelvic, leg and foot pain
- Had presented to ER 4 days prior
 - X-rays negative; was discharged without a diagnosis
- Physical exam by SMD staff revealed blistering under 3rd toe of right foot and pitting edema in left calf and right foot
- **Diagnosis:** Dependent edema due to sleeping in prone position
- **Treatment:** Motrin for pain, compression socks to reduce edema
- Was seen twice more by SMD in the next week for continued foot pain (edema was still present)
- Another physical exam revealed potential nerve damage in left foot, potentially due to frost bite; DM was ruled out
- **Treatment:** Given socks, advised to change frequently
- Referred to local podiatrist for follow-up
- Patient did not return to ER between visits to SMD

EXPECTED RESULTS

We believe SMD decreases the number of ED visits, ED admissions, and length of stay among homeless patients that frequent the organization's services. We also believe that an increase in SMD encounters results in a decrease in ED reliance. Results will quantify the efficacy of provisional primary care services like SMD and may hold implications for increased funding, increased awareness, and policy remediation.

REFERENCES

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