Implementing A Novel Electronic Medical Record (EMR) for Street Medicine in Denver

Sonaali Pandiri, MS4
Scott Harpin, PhD, MPH, RN
Lina Tat, MS3
Rebecca Mullins, MD
Kathryn Boyd-Trull, MD

Background: Street medicine is an intervention that fills an unmet gap in health services for people experiencing homelessness (PEH). This group's average lifespan is up to 30 years shorter than the general population, and they often cannot or choose not to access brick-and-mortar health systems.[1] As street medicine expands nationwide, it still faces challenges such as lack of standardized documentation and patient continuity.[2]

Objective: This project established the first electronic medical record (EMR) for CU Street Medicine, a student-run organization that provides medical outreach to the unhoused in the Denver Metro Area. Previously, we utilized paper records for patient documentation, limiting our ability to track patient outcomes and optimize outreach services based on the community's needs. The piloted EMR is helping to standardize patient data collection and assess the needs of patients geographically and longitudinally to better serve patients.

Methods: The EMR was built in a HIPAA-compliant database solely accessible by trained volunteers. In preliminary testing, the EMR was used during CU Street Medicine pop-up clinics (temporary medical sites held in public venues such as food banks and churches) and street outreach in Denver. Data collected in the EMR included demographics, medical history, vitals, provider assessments and plans, supplies distributed, and prescriptions written.

Results: Preliminary data captured 92 patients in the EMR system. Sixty-nine patients were enrolled in a public insurance program (i.e. Medicaid, Medicare, VA), and 12 were uninsured. Forty-five individuals experienced unsheltered homelessness, 20 were stably housed in owned or rented units, 14 in shelters, and 6 in transitional housing. The most common needs were routine check-ups (n=35), wound care (n=21) and over-the-counter medication distribution (n=17). There were 20 new referrals made to primary medical care and 19 prescriptions written.

Conclusion: Street medicine is a needed service in Denver. This EMR shows that primarily for unsheltered individuals, street medicine meets needs for primary care, wound care, and over-the-counter supplies. Our outreach should continue prioritizing these needs, and this EMR will help refine programming as we gather more patient data.

[1] Charvin-Fabre S, Stolte O, Lawrenson R. Amenable mortality within the New Zealand homeless population: we can do better! *N Z Med J.* 2020 Dec

[2] Tito E. Street Medicine: Barrier Considerations for Healthcare Providers in the U.S. *Cureus*. May 9, 2023 2023; 15. doi:10.7759/cureus.38761