

## Reducing Homeless Patient Utilization of Emergency Services for Non-Urgent Matters through Community Resource Navigation

Category of submission (select as many as apply):

Reducing Disparities

IOM Domains that this project addresses (select as many as apply)

Patient Centered

Effective

Equitable

Please share how you defined your project. Consider addressing the questions below. (Max 500 Words)

What was the identified Quality Gap? - What was the improvement target? - What was the timeline of the project? - Who were the stakeholders? - What was the stakeholders' input? - What was the method for collecting stakeholder input? - What was the potential for significant impact to the institution? - What was the potential for significant impact to society?

In the past few years, California has seen rising rates of homelessness in urban areas. In particular, Los Angeles is experiencing one of the most extensive housing crises and as of 2020, the city has more than 66,000 individuals experiencing home insecurity. The homeless population of Los Angeles has grown over 12% since 2019 despite city and state efforts that successfully sheltered more homeless individuals in 2020 than in any year before. This growing housing crisis has led many individuals experiencing homelessness to seek basic needs such as food, shelter, and primary care at emergency rooms. In response, the state of California introduced legislature in the form of SB 1152, establishing certain standards for hospitals discharging patients experiencing home insecurity. While these requirements have been essential to ensure that homeless patients receive proper treatment and support from hospital systems, visits for non-emergent needs are costly and can overburden emergency department (ED) resources.

Please describe how you measured the problem. Consider addressing the questions below. (Max 500 Words)

What data sources were used? - Was a numeric baseline OUTCOME measure obtained? - What defined the sample size? - What counterbalance measures were identified? - What numeric baseline COUNTERBALANCES were obtained? - Was the outcome measure clinically relevant? - Was the outcome measure a nationally recognized measure?

One method to reduce the use of emergency services for non-urgent matters while ensuring that homeless patients can access their basic needs involves triaging patients toward community-based resources through positions like Community Resource Coordinators (CRCs).

Cedars-Sinai Medical Center and Cedars-Sinai Marina del Rey Hospital have employed and implemented CRCs within their emergency departments since 2018 to attenuate non-urgent use of hospital resources and to provide more sustainable support for homeless patients.

To evaluate the effectiveness CRCs and providing resource navigation in decreasing the rates at which homeless patients utilize departments for nonurgent needs, a study was conducted over the course of 2020. 7,956 ED visits by 3,194 patients experiencing homelessness from February 1st, 2020

– January 31st, 2021 were examined. Data was collected at Cedars-Sinai Medical Center (CSMC) and Marina del Rey Hospital (CS MDRH) through completion of a “Homeless Discharge Checklist” by either an RN or a CRC, a position focused on connecting homeless patients to resources for housing and primary care.

Please describe how you analyzed the problem. Consider addressing the questions below. (Max 500 Words)

What was one factor contributing to the gap? - Were multiple factors contributing to the gap? - Was a structured root cause analysis undertaken? - What was the appropriate QI method or tool used for root cause analysis? - Was a root cause analysis performed prior to identifying potential solutions? - What was the rationale for selecting intervention(s)? - Did the project use a QI method or tool for selecting intervention(s)?

ED visits by homeless patients in which a CRC was involved in patient care were compared to visits in which a CRC was not involved. A patient’s return period (T), defined as the time elapsed between a patient’s visits, served as the dependent variable and was correlated to CRC involvement. Average return periods after visits in which patients were seen by a CRC were compared to average return periods following visits in which a CRC was not involved. Data was only examined for patients who were discharged and not admitted for inpatient care. Number of ED revisits by patients were examined to elucidate long-tail effects of CRC interventions on ED utilization. Average number of ED revisits for patients who were seen by a CRC were compared to the average number of ED revisits following a visit where CRC was uninvolved. Number of ED visits within 90-day and 180-day periods following initial encounter with CRC were examined. Homeless patients who had only one ED visit within the examined time frame were not considered, as more than one visit is required for analysis.

Please describe how you improved the problem. Consider addressing the questions below. (Max 500 Words)

What was the implementation of intervention(s) (date/time of go live)? - Was the target measure re-measured afterwards with comparison graph? - Was a structured plan for managing change used? - Was the project counterbalance re-measured with a comparison graph? - Was the counterbalance adversely affected? - Is the improvement in target outcome measure shown? - Was a statistical significance demonstrated in the outcome measure?

CRC Involvement is correlated to a 22.82% increase in a patient’s return period. A Welch two-sample t-test confers a t score of 3.2018 and a p-value of 0.0014. Results demonstrate a 95% confidence that CRC involvement during homeless patient care was associated with an increase of 2.6 to 10.9 days between visits to the same ED.

CRC Involvement was also correlated to a 35.38% reduction in revisit rate over the 90 days following a patient's index visit. Over 180 days, CRC Involvement correlated to a 35.38% reduction in revisit rate. Welch two-sample t-test confers a t score of -7.0932 and p-value of <0.0001 at 90 days and a t score of -6.7244 and p-value of <0.0001 at 180 days. Results demonstrate a 95% confidence that CRC involvement during homeless patient care was associated with a 0.8 to 1.4 reduction in number of revisits to the same ED 90 days following initial visit. Results demonstrate a 95% confidence that CRC involvement during homeless patient care was associated with a 1.1 to 2.1 reduction in number of revisits to the same ED 180 days following initial visit. Other aspects of patient visits such as cost of care and length of stay were also examined but did not demonstrate significant correlation (t-score: 1.6213, p-value: 0.1050; t-score: 1.6201, p-value: 0.1053, respectively) to CRC involvement.

Please describe the control phase of your project. Consider addressing the questions below.

What were the lessons learned from the project? - Was there communication to stakeholders of the summary of the project, and lessons learned? - Was a process owner identified? - Did the process owner acknowledge ownership of ongoing monitoring? - What control measures were identified? - What was the reaction plan for deficiencies identified in the control measure? - Was there at least one year of sustained monitoring demonstrated? - Was the project successfully diffused in scholarly form (i.e. poster, manuscript, etc)?

CRC Involvement in care for ED patients experiencing homelessness is correlated to a statistically significant increase in time elapsed before a patient returns as well as a reduction in a patient's number of revisits, suggesting that triaging patients toward community resources can reduce non-urgent utilization of emergency services.

The lack of a statistically significant correlation between a CRC's presence to cost of care or length of stay suggests that these aspects of care are more correlated with provider orders and are beyond the scope of a CRC. Thus, these variables are not an indicator of the impact of resource navigation on homeless patient re-visits.

Since this study only examined data from CS MDRH and CSMC, it is noteworthy to engage in a broader examination of various local hospitals that often share the same patient population.

Attachments

[CRC Poster](#)