

Effects of a Community Health Paramedic Program on 911 Calls by Frequent System Users

Sean Burton EMT-P, John Elder EMT-P, Jeff Beeson DO, FACEP
MedStar EMS, Emergency Physicians Advisory Board of Fort Worth



Introduction

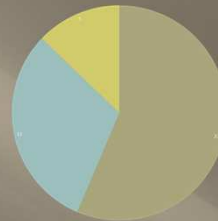
Most Emergency Medical Systems have a small group of users that account for a substantial number of responses. Hansagi et al revealed that frequent EMS users are also high users of other health care services.¹ Lee et al showed a case management intervention could decrease ED visits by frequent users.² Weiss et al was unsuccessful in showing a social service intervention would decrease 911 use among repeat users.³ MedStar began a Community Health Program in 2009 using specially trained paramedics to proactively visit frequent users of the 911 system in an attempt to reduce the frequency of calls. The objective is to determine the effects of this program on 911 use by those frequent users.

Methods

A retrospective review of the electronic health records of patients who were enrolled in MedStar's CHP. Data on pre-enrollment and post-enrollment frequency of 911 use was analyzed. Parameters used were frequency of 911 use for the 12 month period prior to program enrollment, the immediate 12 month period post enrollment, and the most recent 12 months. Only patients with 12 months of data were included. Statistical analysis was performed utilizing paired t-test.

Results

Living Situation

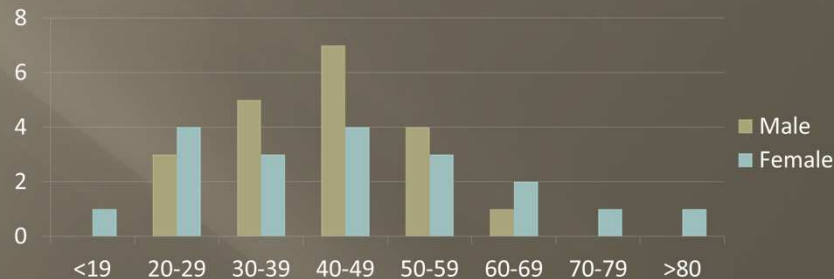


■ Primary ■ Homeless ■ Secondary

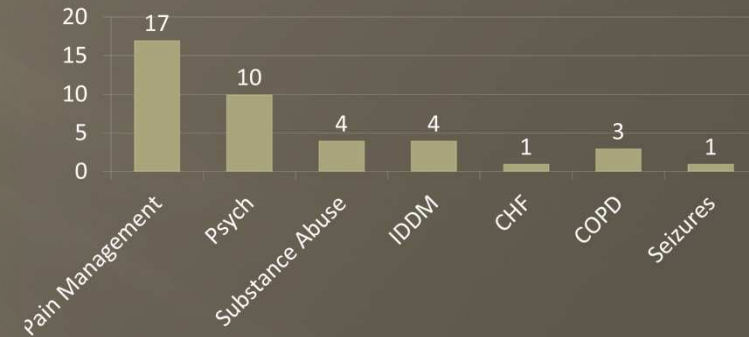
12 Month Totals

Data	Total	Min	Max	Mean
Pre	1216	6	70	31.2
Post	877	1	68	22.5
Sustained	593	0	50	15.2

Age & Gender Comparisons



Most Frequent Medical Complaint



Conclusions

The 39 patients who met inclusion criteria accounted for 1.4% of total 911 responses. The majority of patients suffered from Pain Management and Psychiatric problems. The CHP program decreased 911 calls in the initial twelve months after enrollment by 28% ($p=0.003$) with a sustained decrease of 51% ($p<0.001$). In conclusion, MedStar's CHP program was successful in decreasing the 911 use by frequent callers in this population.

References

- Hansagi, H. Frequent Use of the Hospital Emergency Department is Indicative of High Use of Other Health Care Services. AEM. June 2001: 561-567
- Lee, K. Can Case management Interventions Reduce the Number of ED Visits by Frequent Users? The Health Care Manager. Vol 25, Number 2, pp. 155-159
- Weiss, S. Effects of a social services intervention among 911 repeat users. AJEM (2005)23, 492-496