

An Analysis of Non-Urgent Use of the Emergency Department among Youngstown Family Health Center Patients

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Introduction: Healthcare costs continue to be a major issue in U.S. Healthcare; emergency department visits and inpatient hospitalizations are associated with higher costs than primary care visits. Many patients often seek care at an emergency department for non-urgent conditions. Previous study of Ambulatory Care Sensitive Conditions (ACSC) found that after adjusting for demographics and co-morbid conditions, charges for ED visits were 2 times higher and payments 2.5 times higher relative to an ACSC condition managed in an outpatient hospital based clinic. ACSC prevalence has been estimated to range from 19.1% to 48.1% of all ED visits. The purpose of this study was to describe the rate of unnecessary ED care among patients of the Youngstown Family Health Center and Internal Medicine Ambulatory Care Clinic.

Methods: An observational clinical study with secondary health data of 19,807 level I and level II Emergency Department encounters from 2015-2018 at SEHC Youngstown was conducted. All level I and level II visits were analyzed and compared among Family Health Center patients, Internal Medicine Ambulatory Care Clinic patient's, community attending patients and unassigned patients. Variables included demographic characteristics, day of the week and time of day. To tabulate the rate, state Medicaid definitions for non-urgent ED care were used with an appropriate crosswalk for ICD9 and ICD10 codes.

Results: Overall, the rate of non-urgent care on ED level I and II visits were 26.7% (5,285/19,807). The rate of non-urgent care in the ED was similar for both the FHC and the ACC IM clinic, 28.1% and 26.1%; similar to patients without a PCP, 25.9%; and comparable to community attending patients, 26.8% ($\chi^2 = 1.985$, $p = 0.851$). The rate of non-urgent care was highest from 7 a.m. to 3 p.m., 49.4% and declined to 8.8% from 11 p.m. to 7a.m. ($\chi^2 = 25.013$, $p < 0.001$). No difference in non-urgent ED care was noted by day of the week, although non-urgent utilization declined over the time interval, from 2015 through 2018. The top 10 chief complaints in the text field were: dental pain (n=1,057); rash (834); back pain (809); toothache (776); abscess (370); sore throat (343); ear pain/ear ache (325); wound (225); allergic reaction (199); and tooth pain (185).

Conclusion: Residency programs had rates of non-urgent ED utilization which were similar to community attending rates and of unassigned patients without a PCP. Overall, the rate of non-urgent ED care among level I and II encounters which were not admitted was 26.7%, and similar to the literature. Younger patients and patients from Campbell, Niles, and Youngstown were more likely to non-urgently use the ED.