# Emergency Department Consistent Care Program

Coordinating Care or just Cutting Cost

**Introduction**:
The EDCCP began in 2015 in a effort to better serve frequent users of the resources of the Emergency Department in the Unity Point system in the Peoria area. The plan was to arrange follow up care with the frequent users' PCPs and to establish care programs for these patients when they sought care in the ED. The hope was that through these efforts the patients overall health would improve and the incurred cost burden of this population on Unity Point would also be decreased.

**Background Literature**
Studies had shown that the utilization of a social worker or appointed care coordinator in the ED had resulted in decreased costs per patient and had suggested that patients that participate in these programs also had lower admission rates and fewer visits to the ED in general.

ED-Based Care Coordination Reduces Costs for Frequent ED Users. American Journal of Managed Care Published December 2017

Cost-Effective: ED Care Coordination with a Regional Hospital Information System. The Journal of Emergency Medicine, Published February 2014

**Objective**
As previous studies have demonstrated the effectiveness of utilizing case management to reduce frequent use of the Emergency Department by specific high volume use groups, I sought to determine if a similar program, the EDCCP, could reduce the cost burden to a health care system, specifically Unity Point Methodist and Proctor, that is inherent in this high use population.

**Methods**
IRB approved retrospective analysis, which involved 229 patients.
Patients selected based on >10 ED visits in a calendar year from 2015-2018.
Patients were divided based on those that had been enrolled in the EDCCP (109) and those who had not (120) who would serve as our control group.

- Enrollment in EDCCP was done by case management in the ED and was reportedly based on "those patients with 12 visits to the UnityPoint – Methodist|Proctor Emergency Departments in the past 12 months or those showing a pattern of multiple ED visits in a shorter period of time."

**Demographics of those in the analysis**

GENDER &RACE

Male: 106
Female: 123
Black: 70
White: 157
American Indian: 1
Unknown: 1

INSURANCE

Medicare/Medicaid: 211
Private: 18

**Analysis**

Once divided into the separate groups the total costs billed by Unity Point Methodist were complied for each group an analyzed.
Using the Generalized Estimating Equation, after adjusting for year, the results were statistically significant (p value of 0.012) and indicated that the EDCCP group had less cost.
This general overview of the data indicates that the EDCCP is saving money and decreasing the costs of this patient population on Unity Point.

**Digging Deeper**

However, when the data is adjusted for age there is absolutely no difference between the two groups.
When data from both groups is combined and adjusted for year then divided based on patient's age (<65 and >65) as well as (45, 45-64, and >=65) these comparisons showed significant difference. It is apparent that older patients had higher costs.

Naturally, this lead to an analysis of the age distribution between the EDCCP group and the control group.

EDCCP: 7.34% were >=65, and 41.28% were 45-64, and 51.38% were <45.
Control: 30.83% were >=65, 35.83% were 45-64, and 33.33% were <45.

**Younger = less expense**

The EDCCP group had a significantly younger population.
The significant cost difference between the EDCCP and control groups was a result of age and not the interventions of the EDCCP.
Of note, when comparing patients >65 years old between the two groups, after adjusting for year, those patient's did have less total costs per person than the control group. (p=0.038). This can not be said of the two other ager groups(<45, >=45 and <65).

## Conclusion

Age was the determining factor in cost savings, not EDCCP interventions
Significant selection bias played a role in these results.
The Case management in the ED not available 24/7. One person, the case manager, was solely responsible for enrollment with limited work hours.
OSF not a part of this study. Patients visits to Unity Point Methodist and Proctor decreased after enrollment in the EDCCP with the assumption that they sought care at OSF facilities.

## Future recommendations

The EDCCP could have a real positive impact on patient's health if cooperation between case management and the patient was improved.
Very limited number of these patient's had a PCP and the communication between those patients enrolled in the EDCCP and their PCP, if they had one, was minimal at best.
Incentive program to obtain and follow up with PCP. Such as gift cards, cab vouchers, Etc.,for keeping PCP appointments, meeting goals and so forth.

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