Variation in case management programs and their effectiveness in managing high-risk patients

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PCORI grant # HSD-1603-35039
Aim 2

Research Question - To what extent does case management prevent high-cost events for patients enrolled in Medicare ACOs?

Examine three case management programs in depth

Central Analysis

Local Analysis

EHR data
PCORNet
CDM v3

EHR + claims data
Aim 2 Approach

Baseline Measures
Age, gender, race/ethnicity, health habits, risk score, hospital events

Case Management Vs. Usual Care

Outcome Measures
- Inpatient admissions
- ED visits

Data from 1/1/2011 - 9/30/2015
CCM Patients: Sociodemographics

**Age**
- Wisconsin: 69%
- Iowa: 71%
- Boston: 73%

**Non-white (or missing)**
- Wisconsin: 8%
- Iowa: 13%
- Boston: 22%

**Female**
- Wisconsin: 61%
- Iowa: 56%
- Boston: 58%
CCM Patients: Mental Health

- **Depression**
  - Wisconsin: 53%
  - Iowa: 47%
  - Boston: 49%

- **Psychosis**
  - Wisconsin: 28%
  - Iowa: 29%
  - Boston: 32%

- **Other Neurological Disorders**
  - Wisconsin: 38%
  - Iowa: 35%
  - Boston: 37%
Wisconsin CCM Patients
Comparing CDM & Claims

Number of visits to the ED & Hospital

CDM: ED + IP Visits 1

Claims: ED + IP Visits 5

→ Claims are required for outcome analyses
Events Prevented by Case Management

Wisconsin 6 mo. 68
Iowa 6 mo. 30
Wisconsin 12 mo. 144

Total number of events prevented for a standard number of CCM patients (N=100) similar to those included in our analyses and followed for 6 and 12 months.
Can we proactively identify who has events prevented by case management?

Who is benefitting from case management vs. who is not?

Total number of events prevented for a standard number of CCM patients (N=100) similar to those included in our analyses and followed for 6 months.
Conclusions

• Patient characteristics vary among programs
  • CDM data can be used to compare patients across systems

• Case management programs are associated with lower event rates
  • Claims data are required for evaluation of outcomes

• A subset of patients can be identified that have lower event rates after enrollment in case management