

## 3) Identify and Intervene with Emergency Department Super-Users – FINALIST

Brigham and Women's Physicians Organization/Brigham and Women's Hospital

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### PROJECT DESCRIPTION

At our institution, a small group of challenging patients account for a disproportionate share of Emergency Department visits. Between March 2013 and February 2014, 50 patients accounted for 1,083 visits, or 1.7% of the total volume. We designated these patients "ED Super-Users." This level of ED overuse is associated with non-ideal care that is often targeted towards solving acute issues, and unsuccessful in addressing chronic care needs or social issues underpinning the frequent ED use. For the hospital, ED super-use increases costs and frustrates provider staff.

Our program utilized an ED-based community health worker, with ED attending physician oversight, to focus on this issue by

- 1) creating acute care plans in advance of ED visits in collaboration patients' outpatient treating physicians (PCP as well as any relevant specialists),
- 2) improving the coordination of care across the outpatient, ED and inpatient spectrum and between patients' multiple providers, and
- 3) performing outreach to patients outside of the Emergency Department, helping to address the medical and non-medical issues that led patients to frequently visit the Emergency Department.

Over the course of an initial 4-month pilot, 36 patients were identified for enrollment in the intervention, with 22 ultimately actively enrolled in the intervention (i.e. having had acute care plans developed and being followed on an ongoing basis by the CHW).

The program markedly decreased ED and Hospital utilization as compared to matched controls (see below), and succeeded in addressing concerns important to patients (e.g. food insecurity, financial issues) and providers (e.g. prior inability to improve health outcomes in this population, frequent no-shows to office visits, repeated ED visits). Both total medical expense and hospital costs were reduced.

The pilot has been extended for a full year, and is being considered for expansion.

Our project reduced the cost per visit, number of ED visits by super-users, and TME. It improved quality of care for these patients with complex medical and social needs.

### OUTCOMES ACHIEVED

- Reduced ED visits by 0.19 per patient per month
- Reduced hospital admissions by 0.44 per patient per month
- Reduced total medical expense by 59% (annualized savings of \$1.6M)
- Reduced hospital costs by 37% (annualized savings of \$352K)

### LESSONS LEARNED

- Low cost intervention (~\$50K/yr.) improved patient and provider satisfaction and quality of care
- Generated reduction in total medical expense (TME) and hospital cost savings
- Targeted intervention with high utilizing patients can generate impressive ROI.