



Background

The cost of medical care is skyrocketing, largely due to expensive, reactive treatments instead of low-cost, preventive care. Despite universal awareness of this issue, healthcare systems and medical education curricula alike have inadequately prepared health practitioners for practicing cost-effective, coordinated and evidenced-based preventive medicine.

The innovative work of Dr. Jeffrey Brenner and the Camden Coalition of Healthcare Providers (CCHP) largely aims to address these issues. Dr. Brenner's work, known as "hotspotting," identifies the highest utilizers of healthcare and intervenes using a targeted, multidisciplinary care management team. His efforts have reduced hospital visits and cut expenditures in half – just by focusing on the top 5 percent of patients – and won him the MacArthur genius grant in 2013.

Duke Hotspotting Initiative (DHSI) integrates ongoing hotspotting efforts at Duke within the medical school curriculum. DHSI involves a 6-month commitment for teams of medical students to coordinate the care of a single, high-utilizing patient. DHSI partners with a care management program at the Duke Outpatient Clinic (DOC), a large primary care clinic in East Durham. Student teams work with the care manager and physicians at the DOC to help improve their patient's health, while reducing costs.

Intervention

- Phase I: pilot program to test feasibility (May-Jun 2015), n=8 students, n=8 patients
- Phase II: full-scale program (Oct-May 2016) as an opt-in alternative to a mandatory community engagement requirement in the first-year medical school curriculum, n=20 students, n=10 patients

Students helped patients identify self-care goals that were specific, measurable, actionable, realistic, and timely (SMART). Examples include smoking cessation, dietary changes, and appointment attendance. Students used motivational interviewing techniques to help patients progress in their goals. Students recorded their work in their patients' EMR and communicated weekly with the DOC nurse care manager via telephone or email. Students also participated in didactic and discussion sessions, specifically designed to enhance their experience in the program.

Results statement:

By April 2016, 5 of 10 patients will:

- Continue to meet their self-identified goal 6 months post-intervention; or
- Increase engagement in their own health care measured by an increase in PAM level 6 months post-intervention; or
- 25% decrease in ED and hospital utilization.



Outcomes

- Increase or no change in Patient Activation Measure (PAM) for all patients assessed (n=7)
- Average 60% decrease in patient ED utilization during the program v. 6 months prior to enrollment (n=9)
- Increase in student comfort with AAMC's Core Competencies, e.g. caring for patients with obesity, mental illness, chronic pain, diabetes, and heart failure
- Increase in student comfort with SMART goals, case presentations, EMRs, and community resources

Successes and Sustainability

- Presented our project at the plenary session of the Society for General Internal Medicine (SGIM) annual meeting with over 2,000 attendees, as the top rated Medical Education abstract
- Awarded almost \$15,000 total funds from 10 sources, including Duke's Chancellor's Office, Global Health Institute, School of Medicine, Department of Community and Family Medicine, and Division of General Internal Medicine; SGIM; Camden Coalition; Association of American Medical Colleges; Primary Care Progress; and the Schweitzer Foundation
- Received Schweitzer sustainability award with supplemental funds from the Duke Office of Curriculum
- Collaborated with Duke SOM and became integrated into the first-year doctoring course curriculum
- New leadership: Dr. Greg Brown (internist/psychiatrist at Duke Outpatient Clinic) and 4 student leaders (MS2-MS3)

How comfortable are you in obtaining a history, performing a physical exam, and communicating a treatment plan to...

