use as indicators of care quality. We hypothesized that IBD care could be improved through a structured quality improvement (QI) program.

Methods: We utilized the Breakthrough Series Collaborative approach developed by the Institute for Healthcare Improvement to improve care for adults with IBD. We identified primary and secondary drivers of urgent care need for patients including those at high risk for ER use, and a multi-stakeholder panel developed 19 practice change ideas that could influence those drivers. Between January 2018 and May 2019, clinical sites participating in a QI collaborative across the United States tested and implemented various change ideas, shared ongoing results during coached monthly webinars, and participated in 3 in-person meetings to learn QI methods and share best practices. Patient-reported outcomes (PROs) were collected at clinical visits, including recent ER use and hospitalizations, use of steroids and narcotics, and measures of care utilization. Providers rated whether patients were at high risk for urgent care needs. Site performance on key measures were monitored using statistical control charts, with assessment for common cause (due to chance) variation and special cause (non-random) variation.

Results: We collected data prospectively from 20,382 discrete visits at twenty-six participating clinical practices (14 academic/university, 12 private/community). Disease type included Crohn’s disease (58%), ulcerative colitis (39%), and other (3%); 54% were female. During the 15-month project period, improvement with special cause variation was noted across multiple measures. Collaborative-wide decreases were seen in ER utilization (18% to 14%, relative reduction of 22%; Figure), hospitalization (14% to 11%, relative reduction of 21%), steroid use (14% to 10%, relative reduction of 29%), and narcotic utilization (8% to 4%, relative reduction of 50%). Successful change ideas tested by sites included proactive maintenance of a “high risk” patient list, reserved outpatient visits for urgent needs, “morning-after” contact with patients who went to the ER, patient education about how and when to get help, and proactively scheduling earlier follow-up for high risk patients.

Conclusions: Outcomes of IBD care were improved using a structured QI program that facilitates small changes in practice structure, sharing of best practices across sites, and ongoing feedback. Spread of successful change ideas may facilitate broad improvement in IBD care and significant cost savings when applied to a large population.

Changes in Key Measures Over Time

Statistical Process Control Chart Showing Monthly Proportion of Patients Reporting Recent ER Utilization

- **Clinical Remission:**
  - Baseline: 42%
  - Final: 45%
  - Relative Change: +0.07
  - Type of Variation Seen: Common Cause Variation

- **Perceived Need for Urgent Care within prior 1 month:**
  - Baseline: 0.26
  - Final: 0.21
  - Relative Change: -0.05
  - Type of Variation Seen: Special Cause Variation

- **ER Utilization (%):**
  - Baseline: 0.18
  - Final: 0.14
  - Relative Change: -0.04
  - Type of Variation Seen: Special Cause Variation

- **Hospitalization:**
  - Baseline: 0.14
  - Final: 0.11
  - Relative Change: -0.03
  - Type of Variation Seen: Special Cause Variation

- **Costs of Utilization:**
  - Baseline: 0.12
  - Final: 0.10
  - Relative Change: -0.02
  - Type of Variation Seen: Special Cause Variation

- ** Corticosteroid Use:**
  - Baseline: 0.14
  - Final: 0.10
  - Relative Change: -0.04
  - Type of Variation Seen: Special Cause Variation

- **Narcotic Use:**
  - Baseline: 0.08
  - Final: 0.04
  - Relative Change: -0.04
  - Type of Variation Seen: Special Cause Variation

- **Call to clinic within 1 month:**
  - Baseline: 0.11
  - Final: 0.10
  - Relative Change: -0.01
  - Type of Variation Seen: Common Cause Variation

- **Proportion of patients with “High Risk” status:**
  - Baseline: 0.14
  - Final: 0.06
  - Relative Change: -0.08
  - Type of Variation Seen: Special Cause Variation

* p < 0.05.

**P.22 SHIFTING COST-DRIVERS OF HEALTH CARE EXPENDITURES IN INFLAMMATORY BOWEL DISEASE**

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Background: Inflammatory bowel diseases (IBD) are costly, chronic illnesses. Key cost-drivers of IBD healthcare expenditures include pharmaceuticals and unplanned care, but evolving treatment approaches have shifted these factors. We aimed to assess changes in cost of care, determine shifts in IBD cost-drivers, and examine differences by socioeconomic and insurance status over time.

Methods: The Medical Expenditure Panel Survey (MEPS), a nationally representative database that collects data on healthcare utilization and expenditures from a nationally representative sample since 1998 was utilized. Adult subjects with IBD were identified by ICD-9 codes. In order to identify unique cost-drivers unique to IBD, a control population of rheumatoid arthritis (RA) subjects was generated and matched in 1:1 case to control. Total annual healthcare expenditures were obtained and categorized as outpatient, inpatient, emergency, or pharmacy related. Temporal costs from 1998 to 2015 were created to assess change over time. Per-patient expenditures were compared by disease state and temporal cohort using weighted generalized linear models.