Complexity of Using Multiple DataSources for Population Management in Colorectal Cancer Screening: The Experience of SATIS-PHI/CRC

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Introduction

The Systems Approach to Tracking and Increasing Screening for Public Health Improvement of Colorectal Cancer (SATS-PH/CRC)

• a six-step, evidence-based, system-level redesign of the way in which colorectal cancer (CRC) screening and follow-up are conducted in a community-based network of primary care practices.

• intended to assist primary care practices to better provide guideline-based preventive health care to their age-appropriate patients, who are at average risk for CRC and who are not up to date in their screening for it.

• intervention is intended to be conducted by a central entity, such as a health care delivery system, accountable care organization, or insurer, affiliated with a network of primary care practices on behalf of and in conjunction with those practices.

• fund as CDC through AHRQ’s ACTION program and implemented by the CNA Health ACTION Partnership, which included Thomas Jefferson University and Lehigh Valley Health Network. The task order was carried out between Oct. 2007 and July 2010

Methods

The task was carried out in 15 practices of the Lehigh Valley Physician Hospital Organization (LVPHO), whose practices included:

• Hospital-owned practices.

• Hospital clinics.

• Independent private practices.

• Private practices in a large group association.

Eligible patients of each practice were invited to screen for colorectal cancer by colonoscopy or stool blood test (SBT) (in accordance with 2008 guidelines published by the American Cancer Society).

Results of being screened were tracked via the same databases used to determine initial eligibility, supplemented by lab reporting and chart review (both paper and electronic).

Research Question

What complexities arise when implementing a multi-practice population screening task with data from multiple sources?

Figure 1. Steps for conducting SATS-PH/CRC. Steps 3 through 5 involved coordination of practices and multiple support services.

Step 1. Recruit Practices

Obtain enrollment from all physicians to represent their practice and contact their patients.

Step 2. Conduct Academic Detailing

Bring physician knowledge and practice/practice behavior in line with 2008 ACS guidelines for colorectal cancer screening and follow-up.

Step 3. Identify Eligible Patients

Provide practice data to identify eligible patients by electronic record review and eligibility assessment.

Step 4. Mail Screening Materials

Provide practice screening results and audit charts to report completed screening tasks.

Step 5. Track Screening

Review electronic records review and audit charts to report completed screening tasks.

Figure 2. Data sources for identifying the patient population in SATS-PH/CRC.

Table 1. Sources for tracking results of screening, by number of practices using each source. Results in 32 practices with EMR and 5 practices with paper charts were confirmed by chart audit.

Discussion

• LVPHO is an open-model medical system involving multiple practices models, with each member or group using its own databases for managing patient care.

• Databases did not share a common operating system, common coding, or common data entry systems. Many practices still use paper charts for the medical record.

• This resulted in a need to manually aggregate and clear data population to make it useful for SATS-PH/CRC.

• The practice entities and multiple support systems each had their own internal timelines and priorities, changes in operating systems, and changes in personnel, delaying any in requests for electronic records review or preparing population mailings.

• Human factors at the practice level in entering billing and EMR data led to challenges in cleaning data or searching for data to determine patient eligibility and track results of CRC screening.

• These factors impacted the ability to access and extract data from the various sources and systems, resulting in a time delay from the time data was requested until it was prepared for implementation of the task. That delay was as long as six months for the development of the initial patient eligibility list.

Conclusions

Implementation of a population intervention in an open-model medical system can be a time-intensive and labor-intensive task due to the complex interaction of organizational, human, system, and factors. Awareness of these complexities, and the time and support required, may be keys to an organization’s ability to provide care population data as, in an Accountable Care Organization model.

References


Harris I, Brooks A, Barden B, Murphy R, Shih J, Johnson M, Grotz C, Cooper K, Kosinski St. Medicaid enrollees may refer to those who received care at the time of a visit. 2000. 7/14/11.


