

Health Info Exchange Can Improve Patient Care

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Article Outline

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CHICAGO — The cooperative pooling and exchange of data on underinsured and uninsured patients has enabled a local alliance of health care providers to identify and stratify frequent users of emergency department (ED) services and create interventions targeted to the needs of subpopulations and individuals.

The group's longitudinal study using a master index of 750,000 patients called the I-Care database offers an example of how health information exchange at the grassroots level can be successfully used to pinpoint problems, devise solutions, and reduce overutilization, according to Anjum Khurshid, Ph.D., director of clinical research and evaluation for the nonprofit Integrated Care Collaboration (ICC), an Austin-based safety net consortium.

The ICC includes 24 major providers in central Texas, and a total of 70 sites, including hospitals, clinics, academic institutions, jail health services, mental health agencies, and public health departments.

According to Dr. Khurshid, "Our data analysis is immediately picked up by people who are decision makers who want to translate that research into action. We are making decisions based on data, and at the same time, we have a mechanism by which we can collaborate and do something at the community level."

An analysis of I-Care data for May 2006 to June 2008 on frequent ED users, defined as patients who made six or more ED visits in a quarter, showed these patients to be a heterogeneous and dynamic group, Dr. Khurshid reported in a session on developments in health information exchange at the annual research meeting of AcademyHealth.

The consortium has used the findings as a basis for efforts to improve the delivery of care, he said. "Once we've identified patients, we're not just starting programs blindly, but are focusing on subpopulations so that we get the maximum effect."

The study calculated changes in patient lists from one quarter to the next. Only 20%–26% of frequent users in one quarter were frequent users in another quarter, and 2% of patients were frequent users in all eight quarters. In all, 1,348 unduplicated patients were frequent users during the 2-year period. The number of frequent users in a quarter ranged from 178 to 251 (mean 215).

The pooling of information among providers in the I-Care database allowed the identification of many more frequent ED users than would have been possible had individual providers or hospital systems conducted independent analyses, because many frequent users visited more than one location.

For May-July 2008, for example, 205 frequent users were identified in the I-Care database, but the number of frequent users identified at individual sites reached a combined total of only 128 (range 2–55).

An analysis of visits by patients who were frequent users every quarter revealed a staggering number of ED visits among a very small group, Dr. Khurshid said.

The study identified nine individuals who, on further investigation, were found to have made a total of 2,678 ED visits between 2003 and 2009. One patient had made more than 100 ED visits per year over a 4-year span.

“There is a small number of [patients] whose frequent use of the system takes up a disproportionate amount of resources,” said Diana Resnik, senior vice president of community care at the Seton Family of Hospitals, Austin, an ICC member. “It stood out pretty quickly that if we focused on those patients we were going to have an impact.”

The data analysis identified three primary subpopulations of frequent users: patients with chronic medical needs who did not have access to primary care, individuals with behavioral health and/or chemical dependence diagnoses, and homeless individuals. The analysis offered the numbers needed for consortium members to develop plans to address these patients' needs.

The patient who had been visiting the ED 100 times yearly, for example, was found to have a diagnosis of Asperger's syndrome. Intervention included helping this individual find an appropriate group home where she would receive social support. After entering the group home in late 2008, the patient made only two unnecessary ED visits during 2009.

Similarly, a diabetic patient who had made multiple visits to the ED and had been hospitalized was connected for the first time with a primary care clinic and provided with glucose testing strips and a glucose meter for home use.

In an initiative known as High Alert, the consortium flags frequent ED users and posts their care plans to a shared site. The information sharing among members facilitates continuity of care and reduces duplication of efforts.

The ICC is also developing parameters to identify frequent users proactively “before they've been through the system 50 times” and to generate daily reports from the I-Care database, Ms. Resnik said.

Added Steve Conti, director of disease management at Seton, “the challenge we often face in the ER is that patients with complex chronic diseases don't always present with the same diagnosis. A diabetic may come in one day with a glucose issue, but then another day with foot pain, so we may not recognize the same person coming in.” High Alert prompts providers that the patient has an ongoing medical condition so that “we can recognize and deal with that rather than work through this as a whole new case,” he said.

For more information about the Integrated Care Collaboration, go to www.icc-centex.org.

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