

Improving Provider Communication to Improve Transitions in Patient Care



When a patient's care shifts from one setting to another, such as from a hospital to home, there is risk for adverse health events and hospital readmissions. Adverse events occur in approximately one in five adult patients within 3 weeks of discharge.¹ The federal government is focusing on these risky transitions in care: the Centers for Medicare & Medicaid now holds hospitals accountable for their 30-day readmissions for select conditions by adjusting payments to hospitals in 2013 based on avoidable readmissions.

One of the major barriers to coordinated and effective care transitions is poor communication between providers which is often exacerbated in rural areas. Primary care providers (PCPs) often receive little or no information about their patients' hospitalizations and post-discharge care instructions. Improving provider-to-provider communication can improve care transitions and reduce readmissions. Health information technology (IT), such as electronic health record (EHR) systems, can facilitate transitions in patient care by improving provider communication.

Dr. Elizabeth Ciemins and her project team at Billings Clinic in Billings, Montana, set out to improve how hospital discharge information is communicated to PCPs in rural areas by developing and evaluating a care transition information transfer (CTIT) system, also known as the *Depart Process*. The *Depart Process* system standardized the Billings Clinic hospital discharge process to improve care management of

patients as they transition from a hospital to a primary care setting.

Building on the Billings Clinic's EHR system, the team developed the *Depart Process* system to include an electronic discharge checklist and automated notification process that were implemented throughout the hospital. The discharge checklist collates patient information, providing a summary of the patient's recent hospitalization and discharge information, which is then sent by automated fax to the patient's PCP. Providers whose EHR systems are integrated with the Billings Clinic EHR system also receive an email notification through the EHR.

The *Depart Process* system demonstrates how health IT can help integrate a health system, facilitate the exchange of patient information among providers and across care settings, and better coordinate patient care.

- The *Depart Process* system increased patient followup with a health care provider after hospital discharge.
- Over time, more patients received education from their hospital providers on their medications after being hospitalized, including information on the reason for taking the medication, possible side effects, and special instructions.
- Physicians gave the *Depart Process* system positive reviews, saying that it is reliable, efficient, and a facilitator of quality patient care.



A video highlighting the development and implementation of the *Depart Process* system is available at <http://healthit.ahrq.gov/AHRQHealthITSuccessStoriesCieminsVideo>.

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Final Report: <http://healthit.ahrq.gov/R18HS017864CieminsFinalReport>

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Using Health IT to Connect Providers and Coordinate Patient Care

Patients living in rural areas often face barriers, such as limited availability of health care facilities, providers, and health IT, to receiving quality health care. Recognizing that these barriers exist within rural Montana, Billings Clinic previously implemented an integrated EHR system connecting its hospital and four rurally-located primary care clinics. A Web-based provider portal was established to offer other primary care clinics in the region access to patient information from the Billings Clinic EHR system.

The project team enhanced the Billings Clinic EHR system by standardizing the hospital discharge process and facilitating patient information exchange and coordinated care transitions. Enhancements to the EHR system included: 1) an electronic discharge checklist summarizing a patient's hospitalization and discharge, including information such as admission and discharge date, reason for hospital stay, recommended post-hospital care, medication list, scheduled followup appointments, and select diagnostic test results and 2) an automated fax mechanism to notify PCPs of their patient's recent hospitalization and discharge.

Improvements in Patient Care Transitions

A 4-year prospective controlled study of the Depart Process system was conducted at Billings Clinic Hospital. This study included 1,197 patients from rural health centers residing in the hospital's 121,000 square-mile, 40-county service area. The Depart Process system was assessed for its impact on: 1) health care utilization, including patient followup appointments and hospital readmission rates, and 2) medication education, including patient receipt of education about their medications.

- **Health Care Utilization:** The Depart Process system increased patient followup visits with a health care provider within 14 and 30 days post-hospital discharge ($p < 0.01$); Figure 1. The Depart Process System did not significantly reduce the 30-day readmission and emergent care visit rates. However,

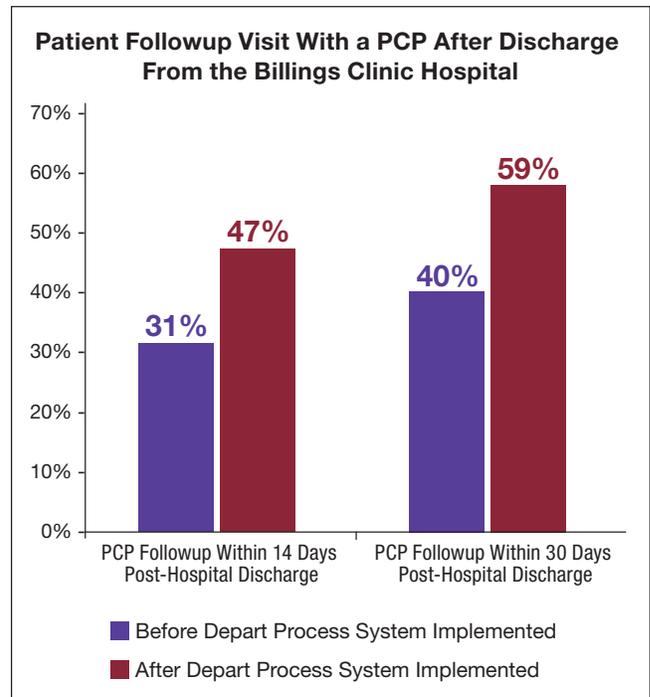


Figure 1. 14- and 30-day patient followup PCP visit rate before and after the Depart Process System implementation.

patients who received a medical followup visit were 44 percent less likely to be readmitted to the hospital and 75 percent less likely to have an emergent care visit.

- **Medication Education:** After implementation, patients were more likely to receive education on their medications by phone post-discharge ($p < 0.01$).
- **Provider satisfaction:** Post-intervention, 63 percent of providers found the discharge process to be reliable and efficient compared with 38 percent at baseline.
- **Implications of the Depart Process System:** Improved communication between providers during care transition can lead to better coordinated care and health care management of patients, more timely followup, and potentially a reduction in hospital readmissions. The Depart Process system is a model for other hospitals working to improve transitions in patient care.

1 Forster AJ, Clark HD, Menard A, et al. Adverse events among medical patients after discharge from hospital. CMAJ 2004 Feb 3; 170(3):345-9.

