



IMPROVED TRANSITIONS OF PATIENT CARE YIELD TANGIBLE SAVINGS

Systemic Costs of Poor Transitions

The U.S. health care system often fails to meet the needs of patients transitioning from one care setting to another (i.e., hospital, home or a long-term care facility). Care is frequently rushed, responsibility is fragmented, and there is often little communication between care settings and multiple providers. The ensuing confusion regarding a patient's condition or needs, can cause inconsistent patient monitoring, duplicative tests, medication errors, delays in diagnosis, and lack of follow through on referrals.

The problems resulting from poor transitions can lead to significant financial burdens for patients, payers and the U.S. health care system as a whole. For example, unnecessary hospital stays often result from errors and poor communication made in transitioning patients, particularly after being released from a previous hospital stay. **Hospital re-admissions for the 19.6 percent of Medicare patients, who must be readmitted within 30 days of their original release, cost the U.S. health care system approximately \$15 billion a year.** The Medicare Payment Advisory Commission recently concluded that a large proportion of re-hospitalizations could be prevented with an improved discharged planning process and coordinated care after discharge.ⁱ Furthermore, **medication errors harm an estimated 1.5 million people each year in the U.S., costing the nation at least \$3.5 billion annually.**ⁱⁱ An estimated 66 percent of medication errors occur during transitions: upon admission, transfer or discharge of a patient.ⁱⁱⁱ

Additional systemic costs occur as a result of duplicative visits to physicians, medication for preventable ailments and repetition of laboratory or other tests that occur when communications fail between caregivers and health care providers during care transitions. Finally, inefficient transitions can result in prolonged absences from the workplace, putting a further financial strain on patients and family caregivers and draining business productivity. **In 2009, the cost of employee sick leave for U.S. industry was about \$30 billion.**^{iv}

The Economic Value of Improved Transitions of Care

Improving care transitions is not only an important component of ensuring the delivery of high quality care, it is also a way to reduce the cost of healthcare for patients, payers, and the system as a whole. A recent study by the Agency for Health Care Research and Quality (AHRQ) found that the cost savings associated with **patients who had a clear understanding of their hospital discharge instructions was, on average \$412 lower per patient than for patients who did not.**^v

The National Transitions of Care Coalition (NTOCC) has developed a number of tools and resources for professionals to ensure safe transitions of care, including increasing communication between patients, caregivers and providers, as well as guides for implementing and evaluating effective transitions of care plans. There are a number of emerging models that aim to enhance patient safety, care and coordination during transitions. These models have demonstrated that effective and coordinated care transitions lead to improvements in overall health care quality, and **result in savings to patients and the U.S. health care system.**

Care Transition Models Yield Key Savings

The Care Transitions Intervention (CTI), developed by Dr. Eric Coleman, is a program that gives patients with complex care needs and family caregivers specific tools, and allows them to work with a “Transitions Coach” to learn transition-specific self-management skills. This investment in self-care pays dividends downstream as the reduction in readmissions was sustained for at least six months. **The anticipated cost savings of one “Transitions Coach” (responsible for 350 chronically ill adults), after an initial hospitalization, over a period of twelve months, is \$330,000.**^{vi} The total annual intervention costs averages \$196 per patient. The CTI has been adopted by over 470 organizations in 37 states nationwide including hospitals, health plans, home health care agencies, Area Agencies on Aging, Accountable Care Organizations, Parish nurse programs, and large physician practices. The California HealthCare Foundation sponsored implementation of CTI, and saw that intervention patients experienced lower re-hospitalization rates at 30 days and also at 90 days when compared to the control group.^{vii} In Rhode Island, the CTI reduced hospital readmission rate from 20.0% to 12.8%^{viii}.

The Transitional Care Model (TCM), developed at the University of Pennsylvania, and spearheaded by Mary Naylor, PhD, RN, establishes a multidisciplinary team, led by a master’s prepared transitional care nurse (TCN), to treat chronically ill high-risk older patients before, during, and after discharge from the hospital. Significant reductions in total healthcare costs (i.e., hospital, home health, physicians) after accounting for the additional costs of the intervention have been demonstrated in a number of multi-site, NIH funded randomized clinical trials (RCTs). In one study that tested the TCM with Medicare beneficiaries hospitalized with common medical and surgical conditions, **total health care savings for intervention vs. control patients at 24 weeks were \$3000 per patient (\$3,630 vs. \$6,661).**^{ix} In a second study targeting older adults hospitalized with heart failure, **the mean savings at 52 weeks for intervention vs. control patients was \$5,000 per patient (\$7,636 vs. \$12,481) program.**^x The improvements in quality demonstrated in these studies coupled with health care savings contributed to the selection of the TCM as a “top-tiered” evidence-based approach by the Coalition for Evidence-Based Policy.^{xi}

The Guided Care Model, developed at Johns Hopkins University, is driven by a highly skilled Guided Care Nurse (GCN) who coordinates care for chronically ill patients. After one year into a randomized controlled trial, Guided Care patients experienced, on average, 24% fewer days in hospital, 37% fewer skilled nursing facility days, 15% fewer emergency department visits, and 29% fewer home health care episodes, as well as 9% more specialist visits.^{xii} Although these reductions were not statistically significant, they are consistent with an **annual net savings of \$75,000 per nurse or \$1,364 per patient.**^{xiii} After the second year of the trial, home health care episodes were significantly reduced (by 30%), but other differences were not statistically significant.^{xiv}

Project Re-Engineered Discharge (RED), developed and launched by Boston University Medical Center and Dr. Brian Jack, Project RED focuses on a standardized discharge process to ensure patients are prepared when leaving the hospital. In 2008, a randomized controlled trial study found that patients who utilized Project RED experienced a 30% lower rate of hospital utilization 30 days post discharge and that readmission or emergency department visit was prevented for every 7.3 subjects receiving the intervention. Additionally, patients who received intervention had a **33.9% lower cost than those who did not receive intervention, translating into a savings of \$412 per person.**^{xv}

Home Based Primary Care (HBPC), a national program managed by the U.S. Department of Veterans Affairs, provides primary care and care coordination in the home for patients with complex, chronic and progressive diseases. In 2002, veterans enrolled in HBPC experienced a **63% decrease in hospital spending**, and in 2008, there was a nearly 24% reduction in 30-day readmission rates. Additionally, newly enrolled veterans had 68% fewer inpatient bed days of care, including 44% fewer hospital bed days of care.^{xvi}

Geriatric Resources for Assessment and Care of Elders (GRACE), a program piloted by Indiana University, is a physician/practice-based care coordination model conducted over the long-term that requires a nurse practitioner and social worker to offer in-home assessment and care management. A randomized study of GRACE indicated the total annual intervention costs for high-risk patients to be \$315,040 (\$1,432 per patient).^{xvii} The study concluded the intervention to be **cost-neutral for high-risk patients due to reductions in hospital costs.**^{xviii}

Rush University Medical Center's Enhanced Discharge Planning Program (EDPP) provides telephonic short-term post-discharge social work services that assess and intervene from a biopsychosocial perspective for at-risk older adults returning home after an inpatient hospitalization. In 2010, a randomized controlled trial at Rush University Medical Center showed readmission decreases at 30, 60, 90, 120, 150 and 180 days. Additionally, mortality rates in the intervention group were 2.2% vs. 5.3% in the control group. Cost analysis within Rush's fee-for-service environment showed a **\$1,293 savings per patient.**^{xix}

Project BOOST (Better Outcomes for Older adults through Safe Transitions), developed by the Society of Hospital Medicine, provides hospitals with project management tools and expert mentoring to improve the discharge transition process and decrease readmissions. Entities that have implemented the BOOST program have seen significant decreases in patient readmission rates. For example, a hospital in St. Louis, Missouri decreased its 30-day readmission rates by nearly 42% after implementing BOOST.^{xx} Implementation of Project BOOST at a hospital in Atlanta, Georgia lead to lower rates of mortality and 30-day readmissions rates dropped from 25.5% to 8.5% for those under age 70.^{xxi}

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