For years, healthcare analysts have pointed to poor care transitions as a major contributor to adverse health events and high Medicare spending. In particular, older people with chronic illnesses and functional limitations frequently do not receive adequate care during and after these transitions, which can span community, acute, post-acute, and long-term care (LTC) settings. As a result, this population accounts for a disproportionate share of Medicare expenditures. Policymakers and healthcare payers are exploring services and programs to identify and provide support to people who are most at risk of adverse events, with the goal of improving healthcare delivery, patient outcomes, and bending the cost trend. Several models for improving care transitions and coordination have been developed, but publically available research on the cost-effectiveness of these models is very limited. Avalere Health conducted a return on investment (ROI) analysis to identify the types of services that are cost-effective for Medicare beneficiaries whose Fee-for-Service (FFS) spending is in the top 20 percent of total Medicare spending. Six widely adopted care transition/care coordination models were selected for the ROI analysis: *Care Transitions Intervention; Care Transitions Intervention (Group Visit); Geriatric Resources for Assessment and Care of Elders (GRACE); Project RED (Re-Engineered Discharge); Project BOOST and Transitional Care Model.*[1]

ROI CALCULATOR: ROI is a standard measure used in both the public and private sector to gain a concise under-standing of an investment's net benefit. The simplicity of the equation below allows for versatile use across all types of investment.

$$ROI = \frac{\text{(Benefit from Investment – Cost of Investment)}}{\text{(Cost of Investment)}}$$

Based on 16 studies on the implementation of coordinated care models[2] and Medicare data for year 2012,[3] an ROI calculator was built to provide an estimate of the financial returns associated with implementing each of the selected care models. The algorithm for this calculator is shown below.
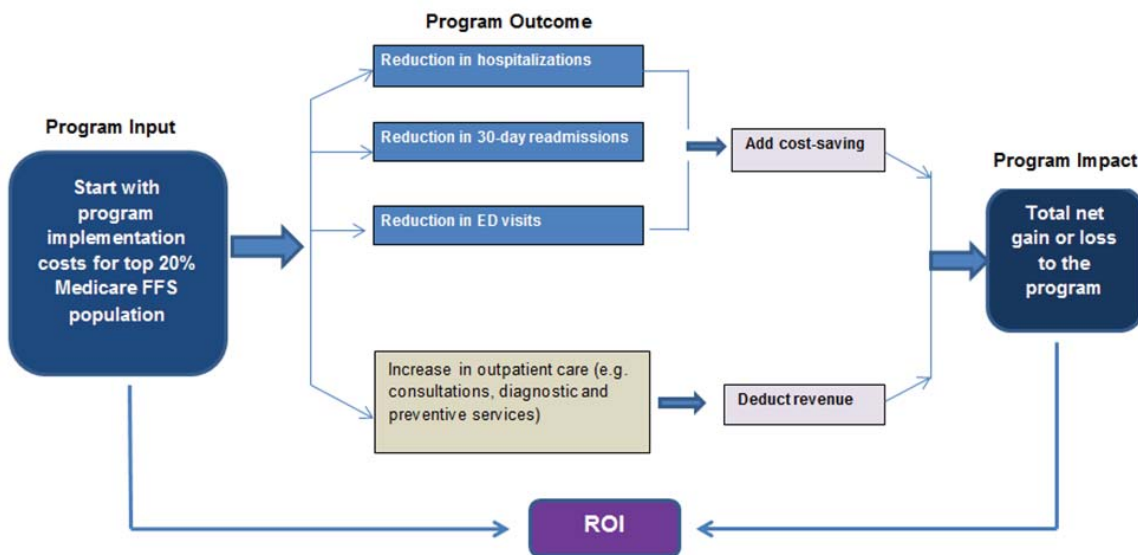
[1] *Project BOOST* was also reviewed as part of the ROI analysis, but results of the ROI analysis on the program were not included because of the limitations of the evidence.
[2] Average program cost and effect for implementing each care model were estimated based on the relevant information provided in the studies.
[3] Five percent Medicare Standard Analytical Files (SAFs) for year 2012 which contain detailed medical claims information about health care services rendered to Medicare FFS beneficiaries.

KEY FINDINGS: Five coordinated care models serving high-risk Medicare beneficiaries result in an ROI.

Program Model	Annual Cost Per Enrollee	Annual Savings Per Enrollee	ROI Per Year	PMPM Savings
Care Transition Intervention (Group Visit)	$678	$4,795	607.02%	$343.06
Transitional Care Model	$1,492	$5,334	257.48%	$320.14
Care Transition Intervention	$999	$2,311	131.3%	$109.34
GRACE	$2,201	$4,291	94.96%	$174.17
Project RED	$373	$493	32.37%	$10.05

Avalere found that effective models emphasize close coordination amongst care providers, such as nurses, physicians, social workers, and pharmacists, during care delivery and through the transition to the patient's next care setting (or home). The common components of these models include standard discharge protocols, discharge planning and implementation, patient education, and transition counselors performing regular follow-up. Further, a comprehensive approach that integrates key care transition processes with LTC management can be highly effective in reducing high-cost utilization. For example, the programs that adopted Care Transition Intervention (Group Visit) or GRACE model were implemented over two years and they not only engaged a wide variety of health care providers in the care transition process, but also provided appropriate care management through continuous patient education as well as health assessment, monitoring, and counseling. These efforts resulted in substantial reductions in emergency department (ED) visits and hospitalizations.

It is important to note that these models cannot be compared solely based on the ROI results due to limited data available. The results suggest that these care transition/ coordination models are cost-effective and can reduce overall health care costs when deployed with the right population. To do so, plans need to implement the following two strategies first.

Identify the right risk factors—Avalere's modeling shows that non-medical factors are as powerful as medical factors in determining health care utilization. Plans must develop risk profiles using a variety of data sources beyond traditional claims or financial data. These can include health risk assessments (HRAs), medical records, and clinical input.

Improve data collection through existing tools—Through the HRA process, plans have an opportunity to collect member information that builds upon administrative data to strengthen risk stratification.

After plans understand the full range of individual factors that contribute to high health care utilization and identify members at highest risk through existing tools, they can select appropriate care coordination programs that address the needs of the target members. This research shows that implementing targeted care coordination program can not only improve the health outcomes for the target members, but also yield a positive ROI for the plans.

The information in this fact sheet was developed from "Effective Management of High-Risk Medicare Populations" and supported by a grant from The SCAN Foundation.

Key Takeaways

♦ The ROI of implementing these five coordinated care models ranges from 32.37 % to 607.02% and the PMPM ranges from $10.05 to $343.06.

♦ Program models that integrate care transition and long-term care management are cost-effective in reducing high-cost utilizations.

♦ Evidence-based care transition and coordination programs can result in positive ROI for MA plans looking to better manage their high-risk members.

♦ Higher program investments are not necessarily associated with better results.

ABOUT THE SCAN FOUNDATION: The SCAN Foundation's mission is to advance a coordinated and easily navigated system of high-quality services for older adults that preserve dignity and independence. See more at: www.thescanfoundation.org.

ABOUT AVALERE: Avalere is dedicated to solving the challenges of the healthcare system and improving care delivery through better data, insights and strategies. See more at: www.avalere.com.