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The Health Care Continuum

A panel of experts discussed the use of telehealth technologies by a variety of health care providers and in a variety of settings of care across the health care continuum. This included consideration for the use of telehealth for health promotion and disease prevention, for acute care, and for chronic disease management. The following sections reflect the individual speaker's comments and reflections.

PROMOTING HEALTH, PREVENTING DISEASE, AND PROMPTING POPULATION PROGRESS

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Population health management has three parts. First is disease and care management for individuals in the population at risk who are actively receiving health care services. This is usually the group that gets most of the attention. Second is lifestyle and health behavior management for individuals in the population who are at risk, but not currently sick. Finally, there is health maintenance and promotion for the population with no known risk factors.

Salutogenesis (the optimization of health) is the opposite of pathogenesis in that it focuses on the building and establishment of health, rather than the costly approach of addressing disease. What prevents the transformation from pathogenesis to salutogenesis? First, the current health care system is primarily oriented to acute disease and diagnosing chronic conditions, and does very little to mitigate the progression of disease. Second is the misappropriation of education—that is, patients need to be activated to change their behaviors rather than to merely be given information. Lastly, there is an overreliance on coming to the health care provider for chronic disease management. Instead of waiting for patients to present with exacerbated symptoms, health care providers need to approach chronic disease proactively.

The Cost of Chronic Disease

Chronic disease accounts for the vast majority of health care spending. However, chronically ill patients only receive a little more than half of all clinically recommended health care, and there is a lag between the establishment of evidence and the adoption of a new care pattern. Half of the people on Medicare right now only cost $550 per year or less, which means that the other half is very expensive. For example, in 2007 the annual average expenditure for Medicare beneficiaries with heart failure was about $25,000; it was about $20,000 for beneficiaries with chronic obstructive pulmonary disease, and about $13,000 for beneficiaries with diabetes. ED visits and hospitalizations account for 83 percent of the cost of chronic care in the Medicare population. Chronic care management interventions can dramatically reduce costs and improve health by keeping individuals out of EDs and hospitals.

Telehome Care Models

A large health system asked the Iowa Chronic Care Consortium (ICCC) to design a heart failure program for their Medicaid population. At the start of the project, the 266 Medicaid heart failure patients had an annual cost of $24,000 each. The ICCC used daily contact and care management, all by phone. The program led to a net savings in excess of $3 million in the study cohort, primarily due to avoided hospitalizations (see Figure 6-1). This was demonstrated through a matched cohort study design, wherein the matched cohort had an increase in costs of $2 million during the same time period.

Similarly, the ICCC's Medicaid Diabetes Telehomecare Project led to a 54 percent reduction in inpatient visits, a 13 percent reduction in outpatient visits, and a 6 percent reduction in office visits among the study cohort as compared to the match cohort (see Figure 6-2). This resulted in an overall reduction in costs of about 20 percent. Sometimes these interventions led to an increase in the number of office visits, but they are so much less costly than a hospitalization that costs are still greatly reduced.

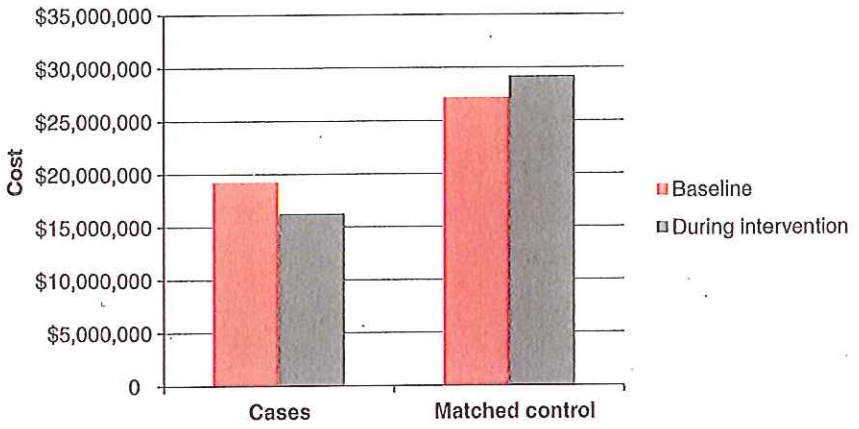

FIGURE 6-1 Total cost of health care service use (Medicaid Heart Failure Program).
SOURCE: Reprinted with permission from William K. Appelgate (2012).

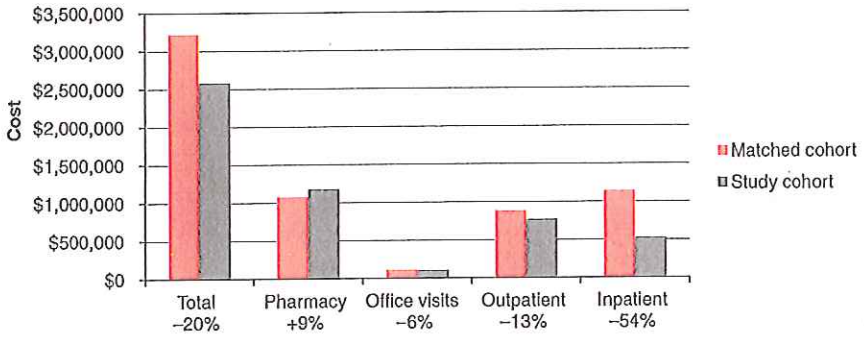

FIGURE 6-2 Medicaid diabetes telehomecare project, preliminary cost data 2010-2012.
SOURCE: Reprinted with permission from William K. Appelgate (2012).

ICCC is in the process of evaluating a current project on health and wellness behavior change in the pre-Medicare population (farmers between the ages of 58 and 63). This intervention included health risk assessments; patient education; diet and exercise incentives; and coaching. The intervention resulted in reduced risk, improved health status, and zero trending.

Many lessons can be learned from experiences with these telehome care models. First, most health care takes place within the home; therefore, to dramatically change health care, the home is the ideal point of delivery. Second, engaging individuals in the self-management of their health is a priority. Finally, simple approaches can show the value of care management. For example, most of the ICCC's intervention models are designed just for the use of a telephone.

Evidence-Based Health Coaching

Behavioral patterns and lifestyle choices have some of the largest impacts on health and premature death. In addition, most health care is self-care, and the individual patient is the biggest untapped resource in health care. However, the current system does not activate individuals to change their behaviors. ICCC developed evidence-based health coaching, which involves two elements: transforming the conversation (e.g., between provider and individual) and transforming the care process.

Potential Next Steps

Appelgate stated that telehealth projects and demonstrations with high-quality evaluations should be supported. Matched control groups and other powerful designs can show clinical improvement, reduced costs, patient satisfaction, and improvement in patient functionality. To do this, he said, technical assistance should be provided for the design and evaluation of new projects. Collaboration is needed with CMS to test the best demonstrations in Medicare and Medicaid. More projects that leverage work on costly chronic conditions are especially needed. Finally, remembering that most care is a function of self-management, the value of health coaching should be evaluated.