



New England Healthcare Institute

Thinking Outside the Pillbox

A System-wide Approach to Improving Patient Medication Adherence for Chronic Disease

Study in Brief:

In 2007, the New England Healthcare Institute (NEHI) released a report, *Waste and Inefficiency in the Health Care System*, which estimated that a full third of the \$2.4 trillion spent on health care in the U.S. could be eliminated without reducing the quality of care. In its new research brief, "Thinking Outside the Pillbox," NEHI addresses the root causes of poor patient medication adherence - a significant contributor to overall health care waste - and offers promising solutions to improve adherence, particularly among chronic disease patients.

PROBLEM: A SOURCE OF HEALTH CARE INEFFICIENCY

Poor medication adherence – defined as any deviation from the prescribed course of medical treatment – is a significant source of waste in our health care system.

An estimated one third to one half of all patients in the U.S. do not take their medications as prescribed by their doctors. In addition to compromising care quality, NEHI now estimates the current cost of drug-related morbidity, including poor adherence, to be as much as \$290 billion annually – **or 13 percent of total health care expenditures.**

A VICIOUS CIRCLE: CHRONIC DISEASE & LOW ADHERENCE

The adherence problem fuels – and is fueled by – the rising tide of chronic disease.

In general, adherence rates are lower among patients with chronic conditions than among those with acute conditions. Likewise, medication persistence – the length of time a patient continues to take a prescribed drug - tends to be very low for those with chronic illness. Chronic disease patients who do not consistently take their medications often experience preventable worsening of disease, becoming vulnerable to serious medical risks. According to one study of diabetes and heart disease patients, mortality rates among patients who did not adhere to their medications were nearly double the rates of those who took their medications as prescribed.

CONSEQUENCES: POOR OUTCOMES & INCREASED COSTS

Among all patient groups, poor adherence poses an increased risk of hospitalizations due to poor health outcomes, resulting in significant excess costs. For example, among diabetes patients, **those with low levels of adherence have almost twice the total annual health care costs of those with high levels of adherence (\$16,498 versus \$8,886).** These increased costs affect all purchasers of health care services, including individuals, families and employers. For a typical mid-sized employer with \$10 million in claims, the \$290 billion national price tag of drug-related morbidity including poor adherence may mean an **additional \$1 million in avoidable health care spending** each year.

ADHERENCE AND HEALTH REFORM: COMPLEMENTARY SOLUTIONS

Since a full 75 percent of U.S. health care spending goes to the treatment of chronic disease, poor medication adherence presents a serious roadblock to efforts to improve health care efficiency and affordability. The debate in Washington over national health care reform provides an ideal opportunity for policymakers to assess the evidence for effective adherence promotion and to link appropriate strategies to the larger goals of health care reform. Several of the major objectives of health care reform are directly relevant to adherence promotion, including payment reform (especially a transition to outcomes-based payments), widespread adoption of health care information technology, primary care reform and care coordination.

