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.
As chronic diseases consume more and more of our health care spending, it is critical that we help patients manage their conditions by taking their medications appropriately.

-Valerie Fleishman
Executive Director
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**ADDRESSING ROOT CAUSES: REGIMENS, COST, BEHAVIOR**

NEHI and analysts from Avalere Health interviewed experts and examined a total of 34 adherence programs in the field. The interviews revealed that adherence can be improved via solutions that fall within three broad themes that address the underlying root causes of poor adherence, including confusing regimens, burdensome costs and forgetfulness or other patient behaviors.

**Figure 1. Three Pillars of Improved Adherence**

1. **Improve Drug Regimen**
   - Follow up
   - Make/Recommend changes; share information with MID
   - Conduct comprehensive medication review
   - Understand patient experiences and preferences
   - Create accurate medication use profile

2. **Reduce Cost Barriers**
   - VBID
   - Formulary compliance
   - Generics
   - Prescription Assistance Programs
   - Engage patients in the care process
   - Educate patients about their condition, how and why to take medications

3. **Address Patient Behavior**
   - Follow up
   - Address patient preferences, limitations and priorities

**THINKING OUTSIDE THE PILLOWS: SOLUTIONS**

NEHI has identified the four most promising solutions for public and private policymakers to pursue in addressing the issue of medication adherence as part of health reform efforts, including:

- **Creating Health Care Teams** – Although physicians play a key role in improving medication adherence, the complexity of the issue necessitates additional support through care teams incorporating nurses, pharmacists and other clinicians. These teams increase the number of checks on adherence as patients move through the health care system.

- **Patient Engagement and Education** – Counseling by primary care providers or pharmacists to ensure that patients understand the important role of their medication in improving their condition is critical to encouraging sustained adherence.

- **Payment Reform** – Realigning reimbursement incentives would encourage providers to invest in resources such as counseling services that would improve patient outcomes by increasing medication adherence.

- **Leveraging Health Information Technologies** – Secure, reliable and robust information flows via technologies such as electronic health records, e-prescribing and clinical decision support systems would give providers a full sense of a patient’s current medications, indicating whether a patient has filled or refilled a medication.