

# WORKING P A P E R

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## Measuring and Reporting the Performance of Disease Management Programs

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## **SUMMARY**

After a brief respite, health care costs in the United States are rising dramatically again, and are expected to continue growing faster than the overall economy. In the current year spending on medical care will amount to approximately \$1.77 trillion, an amount that represents 15.3% of GDP, a higher share than in any other country, and nearly double the share in 1980. By 2010 spending is expected to grow by 50% to \$2.64 trillion (CMS 2002). This trend has left policymakers and employers, as purchasers of care, actively searching for ways to contain medical cost.

Despite these high costs, the quality of care delivered by the health care system remains low. For example, a recent RAND study found that care for broad range of medical conditions was provided in accordance with current standards only about half of the time (McGlynn et al. 2003). Vulnerable patients with chronic conditions are especially affected by such problems and also consume the lion's share of the health care resources, rendering their care an obvious target for improving effectiveness and efficiency of care.

One promising approach to bridge the gaps in the health care system and improve management of patients with chronic conditions is a class of interventions known generally as disease management. Although the concept of disease management offers great promise, it has not yet been empirically demonstrated that these programs are able to reduce cost and improve care. There is also no industry-wide reporting standard for disease management vendors to measure and report their performance to clients and potential clients in a scientifically sound and comparable fashion. An initial step towards such a standard was recently made by American Healthways in collaboration with Johns Hopkins University.

In this report, we built upon this and other existing measurement systems to develop a comprehensive and scientifically sound Disease

Management Report Card. We start by introducing a conceptual framework for disease management and then assess which of the components of the framework are relevant enough for disease management clients to be covered in a report card. Next, we review existing measures for the selected components and determine which are valid and reliable enough to be used for disease management performance reporting. We address feasibility and other operational issues in the implementation of the proposed measures. The report also addresses two important analytical issues in constructing measures for a report card, which are methods to attribute observed changes to the intervention and sampling strategies to reduce potential bias.

This report presents the first comprehensive methodology for measuring and reporting the performance of disease management programs that is built on a conceptual framework covering the relevant components of the intervention, uses statistical techniques to attribute changes in the health, utilization, and behavior of the target population to the intervention and a sampling method that avoids common sources of bias. The methodology would allow a disease management vendor to fairly and credibly demonstrate its performance to current and future clients. Widespread adoption of standardized reporting would facilitate client choice and potentially stimulate ongoing improvements in the delivery of services under these programs.