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# Measuring and Improving Health Outcomes in Medicare: The Medicare HOS Program

Samuel C. (Chris) Haffer, Ph.D. and Sonya E. Bowen, M.S.W.

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*The Medicare Health Outcomes Survey (HOS) (originally called the Health of Seniors Survey) was developed as a longitudinal performance measure to assess the physical functioning and mental well being of Medicare beneficiaries over time. The survey was implemented nationally in Medicare managed care organizations (MCOs) as part of Medicare HEDIS®, 3.0/1998 and continues today. In 1998, a pilot test of the HOS in Medicare FFS was conducted; the pilot test concluded in 2001. This overview discusses the importance of functional status assessment, reviews the goals of the HOS, and explains how researchers and quality improvement professionals are using the data to explore functional status measurement issues, describe policy and programmatic implications for CMS, and identify opportunities to improve health care practice.*

For nearly a decade, the measurement and improvement of health outcomes in the elderly have been part of the national health care debate. The Institute of Medicine (IOM) (1996) convened a special committee whose purpose was "...to propose an agenda for health outcomes research focused on older people to provide the information to [enable them to] make those decisions [about important health care choices.]" The committee identified two types of outcome measures that had the potential to provide important information to health care consumers, pur-

chasers, providers, and researchers: health-related quality of life (including functional health status), and satisfaction with care.

The challenge to health services researchers was to develop and implement standardized measures that were valid, reliable, and practical. To assist the health care community in determining where to begin, the IOM (1996) indicated that, "...for most older individuals, health-related quality of life [HRQOL]—with its focus on an individual's perceptions and judgments about his or her life—is perhaps the most important outcome to consider."

Echoing similar themes, the Task Force on Aging, convened by the Agency for Healthcare Research and Quality in 1999, identified older adults as a research priority population and recommended that they (as well as all Federal aging-related agencies) "...focus [their programs and research] on gaps in areas that influence the ability of health care services to improve functioning and HRQOL—costs, financing, barriers to access, organization and delivery of care, and clinical practice—as well as how these factors interact with individual patient characteristics and preferences, family, and the community" (Bierman and Spector, 2001).

As the largest purchaser of health care for the elderly, CMS recognizes the importance of measuring and improving functional health outcomes in older people.

The goal of the HOS program has been to gather valid, reliable, and clinically meaningful data that are used by:

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- MCOs, providers, and quality improvement organizations to monitor and improve health care quality.
- CMS to assess the performance of MCOs and reward high performers.
- Medicare beneficiaries, their families, and advocates when making health care purchasing decisions.
- Health researchers to advance the state-of-the-science in functional health outcomes measurement, and quality improvement interventions and strategies.

A comprehensive overview of the HOS program is available at [www.cms.hhs.gov/surveys/hos/hospublications.asp#hoscontext](http://www.cms.hhs.gov/surveys/hos/hospublications.asp#hoscontext). This document reviews the history and policy context within which this innovative performance measure was conceived; provides insight into the political climate at CMS at the time HOS was developed and implemented; presents an overview of the instrument and protocol; and, assesses the impact of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 on the future of the HOS program.

This issue of the *Health Care Financing Review* presents a number of articles covering various aspects of the HOS program and uses of the data. It is organized conceptually into three sections: methodological issues, policy and programmatic implications, and applications of HOS data in health care practice.

Exploring some of the methodological challenges of the HOS, Gandek, Sinclair, Kosinski, and Ware analyzed data from the HOS Cohort I (1998) baseline ( $N=177,714$ ) to evaluate the data quality, scaling, and scoring assumptions necessary to appropriately use and interpret the SF-36 in the Medicare managed care population. McCall, Khatutsky, Smith, and Pope investigated the impact of non-response bias on results from the Medicare FFS HOS pilot study. Kazis, Lee, Spiro, Rogers, Ren,

Miller, Selima, Hamed, and Haffer analyzed the results of an overlap sample of 2,737 respondents participating in both the 1999 Large Health Survey of Veteran Enrollees sponsored by the Department of Veterans Affairs, and the HOS Cohort II (1999) baseline, to assess the convergent validity of the HOS, and measurement equivalence of two functional health outcomes assessment tools.

In attempting to answer the question, “So what do the HOS data tell us about our beneficiaries?” Lied and Haffer used data from HOS Cohort II (1999 baseline and 2001 remeasurement) to describe the 2-year functional health outcomes of 2,040 members of one of Medicare’s most vulnerable subgroups, the dually eligible (persons entitled to both Medicare and Medicaid). In an analysis of the longitudinal impact of chronic conditions on functional health status, Ellis, Shannon, Cox, Aiken, Richard, and Fowler examined the health status data from 48,665 respondents to the HOS Cohort I (1998 baseline and 2000 remeasurement) to identify the predictors of 2-year declines in physical and mental health, and implications for clinical practice.

To make the HOS data relevant and actionable to health care practitioners and quality improvement professionals, Bierman used data from the HOS Cohort I (1998) baseline survey to identify Medicare managed care enrollees with heart disease, highlight the impact of coexisting illness on their health status, and challenge the health care community to implement and evaluate models of care that not only treat the underlying heart disease, but address the coexisting conditions as well. McDonald, Ma, Dulabone, Davidson, and Vasey conclude with a descriptive article on how results of the HOS are used by a Medicare quality improvement organization to

engage their MCOs in a discussion about functional health outcomes measurement, the need to evaluate care programs in a scientific, standardized manner, and encourage them to think critically about how to improve health outcomes. They conclude by suggesting additional ways the HOS data may be linked with other CMS data and shared with their quality improvement partners.

## REFERENCES

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Reprint Requests: Samuel C. (Chris) Haffer, Ph.D. Centers for Medicare & Medicaid Services, 7500 Security Boulevard, C3-16-27, Baltimore, MD 21244-1850. E-mail: shaffer@cms.hhs.gov