

About the SEER-Medicare Health Outcomes Survey (MHOS) Linked Database

Applied Research Program

Overview

The Surveillance, Epidemiology, and End Results-Medicare Health Outcomes Survey (SEER-MHOS) linked database is a research resource designed to improve our understanding of the quality of life of cancer patients and survivors enrolled in Medicare health plans. SEER-MHOS is sponsored by the National Cancer Institute (NCI) and the Centers for Medicare & Medicaid Services (CMS).

NCI and CMS' partnership in this initiative is modeled on the SEER-Medicare linked database. In both cases, CMS provides the Medicare beneficiary data and NCI provides the SEER data.

NCI manages the SEER-MHOS database, but both agencies work together to update and improve the database over time. Both agencies also collaborate in creating and carrying out the research plan that guides the initiative.

The SEER-MHOS linkage was completed in 2006 and the final database has data from 14 SEER registries. The database contains clinical, quality of life, socioeconomic, demographic, and other information that will enable investigators to systematically investigate health-related quality of life (HRQOL) issues in this Medicare population.

The two components

NCI's **SEER** program collects information about cancer site, stage, and histology for persons newly diagnosed with cancer who reside in one of the SEER geographic areas.

The **MHOS** was developed by the National Committee for Quality Assurance (NCQA) under contract to CMS. It measures the outcomes of care provided by Medicare+Choice health plans to their members.

The MHOS includes a 95-item core questionnaire administered to 1,000 randomly selected members of each managed care organization that participates in the program. In plans with fewer than 1,000 enrollees, all eligible members are surveyed. The survey was administered in May 1998 and again to the same group in the spring of 2000. A new cohort is selected each year for baseline measurement and a 2-year follow-up assessment.

The catalysts for the SEER-MHOS linked database

- In a 1996 report, the Institute of Medicine urged a stronger focus on "outputs" than "inputs" of care in measuring health care quality and called HRQOL a key outcome for older Americans.
- A recent NCI report called for more quality of life measurement in clinical trials and cancer survivorship research to achieve the 2015 goal of eliminating suffering due to cancer.
- HRQOL is a major reason for offering cancer treatment, yet the current national surveys that collect HRQOL data are not tailored to cancer patients. NCI recognized that other approaches were necessary to capture large samples of cancer patients and survivors.

What do the two surveys tell us about cancer patients enrolled in Medicare?

The MHOS collects considerable information about HRQOL through the Medical Outcomes Study Short Form-36 (SF-36), a 36-item, reliable self-report tool that is widely used, well-tested and that has been validated in numerous studies, including many pertaining to cancer care. The MHOS also gathers data on demographics, socioeconomic status, health problems, functional status, and symptoms.

The SEER registries provide complementary data on a number of variables that are likely to influence HRQOL among cancer patients and survivors. These variables include the cancer diagnosis for survivors, the nature of the initial treatment, and the timing of survey administration in relation to cancer diagnosis.

SEER-MHOS is a unique research resource. It can be used to...

- Explore variations in HRQOL by tumor site
- Examine differences in HRQOL by race and ethnicity
- Assess healthcare preferences of elderly cancer patients and survivors enrolled in managed care
- Study the impact of a cancer diagnosis and initial treatment on HRQOL in patients enrolled in health maintenance organizations

SEER-MHOS is a valuable quality improvement resource. It can be used by...

- Health plans who want information that is more “actionable” and linked to disease processes they understand and manage
- Health plans who want to monitor plan performance, facilitate health plan quality improvement, and assist consumers with plan selection
- Policymakers who want outcomes reports better tailored to Medicare beneficiaries subgroups

What are NCI's future plans for the SEER-MHOS?

- Expand SEER-MHOS linkage to include 2002-2005 data
- Building on the *Health Care Financing Review* special Summer 2008 issue that highlighted the SEER-MHOS, produce additional studies of the relationship between cancer and HRQOL
- Create a Fee-for-Service HRQOL sample and link to Medicare claims data
- Using the SEER Rapid Response Surveillance Studies (RRSS) mechanism, initiate studies related to HRQOL and patient experience

For more information

- SEER-Medicare Linked Database: <http://healthservices.cancer.gov/seermedicare>
- SEER: <http://seer.cancer.gov>
- *Health Care Financing Review* special Summer 2008 issue on quality of life of cancer patients: http://www.cms.hhs.gov/HealthCareFinancingReview/07_2008_Edition.asp#TopOfPage