



HMOs in California Decrease Use of Inpatient Care by Medicare Enrollees

Study of the effect of risk-contracting on access and quality of care for Medicare beneficiaries

SUMMARY

The number of Medicare beneficiaries enrolling in managed care has increased since the passage of the Medicare Modernization Act (MMA) and the establishment of [Medicare Advantage Plans](#) (primarily HMO plans that provide hospital and medical insurance and prescription drug benefits) in 2003.

In this 2001 to 2005 project, Glenn A. Melnick, PhD, and other researchers from the University of Southern California examined the impact of Medicare managed care on access to and quality of care. The main part of the study focused on the impact of Medicare HMOs on use of inpatient hospital services from 1991 to 1995 in California—before the passage of MMA.

The project was part of the Robert Wood Johnson Foundation (RWJF) *Changes in Health Care Financing and Organization* (HCFO) national program (for more information see [Program Results](#)). HCFO supports policy analysis, research, evaluation and demonstration projects that provide public and private decision leaders with usable and timely information on health care policy and financing issues.

A [Findings Brief](#) on the project is available at the HCFO website.

Key Findings

The researchers reported the following in the Findings Brief:

- HMOs decrease inpatient utilization for Medicare enrollees. Medicare beneficiaries enrolled in HMOs spent fewer days in the hospital than did fee-for-service beneficiaries.
- Among Medicare HMO enrollees, those in group and staff HMOs (in which the doctors exclusively see patients from one HMO) had fewer inpatient hospital days than did those in independent practice association HMOs (in which a primary care physician acts as a gatekeeper to medical care).

Medicare beneficiaries in group and staff HMOs in California had 18 percent fewer inpatient hospital days per year than if they had continued in fee-for-service plans. Those in independent practice association HMOs had 11 percent fewer inpatient hospital days per year.

Funding

RWJF provided a \$652,866 grant for the project from 2001 to 2005.

THE PROJECT

The number of Medicare beneficiaries enrolling in managed care has increased since the passage of the Medicare Modernization Act and the establishment of Medicare Advantage Plans in 2003. [Medicare Advantage Plans](#), administered primarily by private HMOs, provide hospital and medical insurance and prescription drug benefits.

In this 2001 to 2005 project, Glenn A. Melnick, PhD, and other researchers from the University of Southern California examined the impact of Medicare managed care on access to and quality of care, particularly for vulnerable beneficiaries, in California.

In the main part of the study, the researchers examined the impact of Medicare HMOs on the use of inpatient hospital services in California from 1991 to 1995. They developed a database that linked enrollment data on Medicare beneficiaries from the federal Centers for Medicare & Medicaid Services to hospital discharge data from the California Office of Statewide Health Planning and Development.

With the database, the researchers compared:

- Medicare beneficiaries before and after they enrolled in an HMO
- Medicare HMO and fee-for-service beneficiaries
- Medicare beneficiaries who switched to HMOs in 1992 or 1993 and those who were enrolled in HMOs between 1991 and 1995.

Other Analyses

As part of the project, the researchers used the same database to analyze:

- The impact of Medicare HMOs on hospitalization rates for ambulatory care sensitive conditions (conditions such as dehydration and high blood pressure in which timely and appropriate outpatient care should lead to reduced hospitalizations).
- Hospitalizations for Medicare beneficiaries who disenrolled from an HMO and joined a fee-for-service plan (while in the HMO and while in fee-for-service) and hospitalizations for Medicare beneficiaries who were continuously enrolled in an HMO or fee-for-service plan.

- Differences in hospitalizations among dual eligibles enrolled in Medicare HMOs and fee-for-service beneficiaries. Dual eligibles are people who are eligible for Medicare because of age or disability and Medicaid because of low income.

Communications

In addition to the HCFO Findings Brief, the researchers published an article about the main part of the study in Health Services Research and four articles about the other analyses. See the [Bibliography](#) for details.

FINDINGS

The researchers reported the following in a [Findings Brief](#):

- **There was no difference in the probability of hospitalization between Medicare HMO enrollees and fee-for-service beneficiaries in California.**
- **HMOs decrease inpatient care utilization for Medicare beneficiaries in California. Medicare HMO enrollees spent fewer days in the hospital than did fee-for-service beneficiaries.**
- **Among Medicare HMO beneficiaries in California, those enrolled in group and staff HMOs (in which the doctors exclusively see patients from one HMO) had fewer inpatient hospital days than did those in independent practice association HMOs (in which a primary care physician acts as a gatekeeper to medical care).**

Medicare beneficiaries in group and staff HMOs had 18 percent fewer inpatient hospital days per year than if they had continued in fee-for-service. Those in independent practice association HMOs had 11 percent fewer inpatient hospital days per year.

Medicare beneficiaries enrolled in group and staff HMOs used 976 hospital days per 1,000 beneficiaries, while fee-for-service beneficiaries used 1,679 days per 1,000 beneficiaries:

- Approximately 30 percent of the difference between group and staff HMO and fee-for-service plan inpatient days resulted from the managed care effect and 70 percent was a result of healthier Medicare beneficiaries enrolling in HMOs while those who used more health care services remained in fee-for-service (favorable selection).

Medicare beneficiaries enrolled in independent practice association HMOs used 928 hospital days per 1,000 beneficiaries, while fee-for-service beneficiaries used 1,679 days per 1,000 beneficiaries:

- Approximately 15 percent of this difference (115 days) resulted from the managed care effect and 85 percent (636 days) was a result of favorable selection.

Conclusion

The researchers reported the following conclusion in the Findings Brief:

- These findings support earlier research indicating that healthier Medicare beneficiaries often select HMOs and require less inpatient care than those remaining in traditional Medicare fee-for-service plans. They also indicate, however, that HMOs decrease inpatient utilization for Medicare enrollees.

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Grant ID # 41289

Program area: Coverage

BIBLIOGRAPHY

(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

Articles

Dhanani N, O'Leary JF, Keeler E, Bamezai A and Melnick G. "The Effect of HMOs on the Inpatient Utilization of Medicare Beneficiaries." *Health Services Research*, 39(5): 1607–1628, 2004. Available [online](#).

O'Leary JF, Sloss EM and Melnick G. "Disabled Medicare Beneficiaries by Dual Eligible Status: California, 1996–2001." *Health Care Financing Review*, 28(4): 57–67, 2007. Available [online](#).

Sloss EM, Dhanani N, O'Leary JF, Lopez MS and Melnick G. "Inpatient Utilization by Dual Medicare-Medicaid Eligibles in Medicare Risk HMOs and Fee for Service, California, 1991–1996." *Managed Care Interface*, 17(20): 30–34, 41, 2004. Abstract available [online](#).

Zeng F, O'Leary JF, Sloss EM, Dhanani N and Melnick G. "Hospitalization Rates for Ambulatory Care-Sensitive Conditions in California Medicare HMOs." *Journal of Clinical Outcomes Management*, 12(11): 559–562, 566–568, 2005. Abstract available [online](#).

Zeng F, O'Leary JF, Sloss EM, Lopez MS, Dhanani N and Melnick G. "The Effect of Medicare Health Maintenance Organizations on Hospitalization Rates for Ambulatory Care-Sensitive Conditions." *Medical Care*, 44(10): 900–907, 2006. Abstract available [online](#).