



## Researchers Statistically Analyze Market Entry and Costs of New Medicare Prescription

Modeling decisions of Medicare health plans and determining if regional competitive bidding will work

### SUMMARY

The Medicare Prescription Drug Improvement and Modernization Act of 2003 created prescription drug coverage for Medicare beneficiaries (Medicare Part D) through regional stand-alone prescription drug plans and regional preferred provider organizations (PPOs).

In this 2004 to 2006 project, Steven D. Pizer, PhD, led a team of researchers in analyzing entry, enrollment and risk selection (the process by which health plans seek to enroll healthy, low-cost subscribers) of Medicare prescription drug plans. The researchers built statistical models and used them to simulate market entry and costs for the new plans.

This project was part of the Robert Wood Johnson Foundation (RWJF) national program *Changes in Health Care Financing and Organization* (HCFO) (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.

Two Findings Briefs on the project are available at the HCFO website, one on [regional PPOs in Medicare](#) and the other on [premium subsidies in Medicare prescription drug plans](#).

### Key Findings

The Findings Briefs report the following key findings:

- Regional PPOs entered the Medicare market unevenly and in small numbers.
- Regional PPOs enrolled less than 1 percent of the 22.5 million Medicare Part D beneficiaries in 2006. This compares with 22 percent enrollment for local health maintenance organizations and 72 percent for prescription drug plans.
- Prescription drug plans will attract significant enrollment from beneficiaries who previously did not have prescription drug coverage through retiree benefits or state Medicaid programs.

- All prescription drug plans experienced severely adverse selection (a tendency for use of health services to be higher than average in a population group) in drug spending.

## **Funding**

RWJF provided a \$356,372 grant for the project from 2004 to 2006.

## **THE PROJECT**

The Medicare Prescription Drug Improvement and Modernization Act of 2003 created outpatient prescription drug coverage for Medicare beneficiaries (Medicare Part D) through stand-alone regional prescription drug plans and regional preferred provider organizations (PPOs). (PPOs combine comprehensive coverage with affordable premiums by negotiating discounts from providers who participate in the plan's network.) Medicare Part D took effect in January 2006.

Policy-makers anticipated that regional PPOs could provide access to comprehensive coverage, including for prescription drugs, at affordable costs to all Medicare beneficiaries. However, they also expected that high-cost beneficiaries would enroll in the drug plans and threaten their financial stability. Congress mandated premium subsidies to support PPO drug plans.

The Centers for Medicare & Medicaid Services divided the country into 26 regions. The prescription drug plans and PPOs were required to do business by region.

A research team led by Steven D. Pizer, PhD, at Boston University analyzed entry, enrollment and risk selection (the process by which health plans seek to enroll healthy, low-cost subscribers) of Medicare regional stand-alone prescription drug plans and regional PPOs providing prescription drug coverage. Researchers explored:

- Adverse selection in prescription drug plans. Adverse selection occurs if only the ill people who need to take advantage of the covered benefits join the plan; the high number of resulting claims could cause the costs paid by the plan to soar and threaten it with financial collapse.
- The entrance of PPOs into regional markets in which health maintenance organizations (HMOs) already exist.
- The introduction of prescription drug plans and PPOs in markets in which HMOs did not have a presence.

To predict the viability of Medicare prescription drug coverage through stand-alone prescription drug plans and PPOs, the researchers built statistical models of market entry and enrollment for similar private products available to Medicare beneficiaries before the Medicare Prescription Drug Improvement and Modernization Act of 2003. The team used

these models to simulate market entry and costs for new plans in a variety of competitive situations.

In addition to HCFO's two Findings Briefs, the researchers also published two articles in *Health Affairs*; see the [Bibliography](#) for details.

## FINDINGS

Researchers reported the following findings in the [Findings Brief \*Regional PPOs in Medicare: What Are the Prospects?\*](#) (February 2007):

- Regional PPOs entered the Medicare market unevenly and in small numbers in 2006:
  - Five of the 26 regions defined by the Centers for Medicare & Medicaid Services had no regional PPOs.
  - Four regions had one regional PPO.
  - Five regions had two regional PPOs.
  - Less than half of the regions (12) had three or more regional PPOs.
- All regions had at least 27 prescription drug plans in 2006.
- Regional PPOs enrolled less than 1 percent of the 22.5 million Medicare Part D beneficiaries in 2006. Local HMOs enrolled 22 percent, and prescription drug plans enrolled 72 percent of the beneficiaries.
- On average, PPOs charged \$67 per month for comprehensive coverage in 2006; this was 34 percent more than the average premium charged by local HMOs.

The researchers concluded that:

- "This new plan type did not play a large role in Medicare. Dramatic changes would seem to be required before prospects for regional PPOs could improve."

Researchers reported the following findings in the [Findings Brief \*A Sustainable Future?: The Role of Premium Subsidies in Medicare Prescription Drug Plans\*](#) (January 2007):

- Prescription drug plans will attract significant enrollment from beneficiaries who did not previously have prescription drug coverage through retiree benefits or state Medicaid programs.
  - When choosing between plan options, beneficiaries are more likely to select plans that have lower premiums and lower out-of-pocket expenses.
  - Beneficiaries with chronic illnesses, such as Alzheimer's disease, cancer, diabetes, emphysema, heart disease and high blood pressure, are more likely than healthy

beneficiaries to enroll in prescription drug plans, as are beneficiaries with relatively high incomes.

- Beneficiaries who are white, veterans or dependent on others for at least one activity of daily living are less likely than other beneficiaries to enroll in prescription drug plans.
- The close correlation between high cost and enrollment in prescription drug plans supports the theory that prescription drug plans are likely to experience adverse selection.
- Modest differences in benefits will not dramatically affect the division of market share among plan types. The simulation showed similar market shares when prescription drug plans had limited and generous benefits.
- All prescription drug plans experienced severely adverse selection in drug spending. Enrollment was relatively stable after adjusting the simulation model by increasing premiums for a low-benefit plan, although market share for prescription drug plans fell slightly and selection became slightly more adverse. The simulation for the high-benefit prescription drug plan resulted in slightly lower market share, but selection was significantly more adverse.

### **Significance of the Project**

According to the national program director, Pizer has briefed congressional staff and federal agency representatives on his early assessment of the new Part D plans, including his findings that uneven application of regional bidding requirements will place new PPOs at a competitive disadvantage relative to established HMOs.

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**Prepared by: Barbara Matacera Barr**

Reviewed by: Lori De Milto and Molly McKaughan

Program Officer: Nancy L. Barrand

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### Reports

*Regional PPOs in Medicare: What Are the Prospects?* Brief. Changes in Health Care Financing and Organization, February 2007. Available [online](#).

*A Sustainable Future?: The Role of Premium Subsidies in Medicare Prescription Drug Plans.* Findings Brief. Changes in Health Care Financing and Organization, X(2), January 2007. Available [online](#).

### Presentations and Testimony

"Nothing for Something: Paying Twice for Prescription Drug Benefits in Medicare," Steven D. Pizer, Austin B. Frakt and Roger Feldman. Oral Presentation, AcademyHealth Annual Research Meeting, Orlando, FL, June 4, 2007. [Presentation slides](#) and a [PDF handout](#) available online.

"Stormclouds on the Horizon: Expected Adverse Selection in Medicare Prescription Drug Plans," Steven D. Pizer, Austin B. Frakt and Roger Feldman. Oral Presentation, AcademyHealth Annual Research Meeting, Seattle, June 26, 2006. Abstract available [online](#).

"A First Look at the New Medicare Prescription Drug Plans," Austin B. Frakt and Steven D. Pizer. Oral Presentation, AcademyHealth Annual Research Meeting, Seattle, June 26, 2006.

"Comments on Prospects for PPOs Under Medicare." Oral Presentation, AcademyHealth Annual Research Meeting, Boston, June 27, 2005.