



Changes in Health Care Financing & Organization (HCFO)

# findings brief

## Does Medicaid Managed Care Market Penetration Impact Provider Participation, Costs, Utilization, and Access?

### key findings

- An increase in commercial plan penetration increased the likelihood that a physician would accept new Medicaid patients, but this did not significantly impact enrollee costs.
- An increase in Medicaid-dominant HMO market penetration increased the probability that individuals reported using the ED as their primary source of care.

The Patient Protection and Affordable Care Act (PPACA) passed on March 23, 2010 will significantly expand the scope of the Medicaid program. By 2014, individuals with incomes less than 133 percent of the federal poverty level, most notably childless adults, will be eligible for standard Medicaid benefits. The Congressional Budget Office estimates that the new eligibility threshold will increase the number of individuals enrolled in Medicaid by approximately 15 million.<sup>1</sup> While the federal government will primarily fund this expansion, coverage for those who currently qualify for state Medicaid programs will continue to be financed through the current federal medical assistance percentage (FMAP).

PPACA also requires that states maintain their current levels of Medicaid coverage through 2019. In the wake of the economic recession and the resultant declines in state revenues, states are looking for strategies to contain Medicaid costs. One strategy that is becoming increasingly prevalent is

to enroll beneficiaries in Medicaid managed care plans.<sup>2</sup> Such plans allow states to pay a capitated rate per enrollee and to shift risk to the managed care organizations. Medicaid enrollees can be enrolled in two types of managed care plans: commercial managed care plans, which primarily serve the non-Medicaid population, and Medicaid-dominant HMOs, which primarily serve Medicaid enrollees. The Medicaid-dominant HMOs tend to have provider networks that serve a higher proportion of low-income individuals. In addition to cost control, another goal of Medicaid managed care is to improve quality of care by integrating Medicaid beneficiaries in private physician offices; this may be better achieved through commercial plans.

The positive trend in Medicaid managed care enrollment over time coupled with the imminent Medicaid expansions suggests that Medicaid managed care enrollment is likely to increase significantly in future years.



Robert Wood Johnson Foundation

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Given the expected increase in Medicaid managed care enrollment, it is important for policymakers to understand how managed care market penetration affects provider participation, access, costs, and utilization—and select the type of HMO accordingly. The existing evidence base suffers from some data and methodological weaknesses, such as a lack of market-level controls, and yields mixed results. To bolster the evidence base, Bradley Herring, Ph.D., assistant professor at Johns Hopkins University Bloomberg School of Public Health, and Kathleen Adams, Ph.D., professor at Emory University's Rollins School of Public Health, constructed market-level measures of Medicaid managed care market penetration to examine its impact on provider participation, total costs, utilization, and access to care over time. Herring states, “The objective of this study was to provide policymakers with a more up-to-date and comprehensive look at what Medicaid managed care ‘buys,’ which would be especially useful in the current climate of fiscal constraint and public program expansions.”

## Methodology

This study used two components of the Community Tracking Study—the Physician Survey and the Household Survey—to examine the impact of Medicaid managed care market penetration in 51 urban markets chosen to be representative of the United States.

### Physician Participation<sup>3</sup>

Herring and Adams used three periods of data (1996-1997; 1998-1999; 2000-2001) from the Community Tracking Study's Physician Survey to examine whether increases in Medicaid managed care market penetration increased physician's participation in the Medicaid program and whether this result varied based on the type of managed care plan. They also examined whether participation varied by physician characteristics and changes in Medicaid reimbursement rates.

To determine the number of physicians participating in Medicaid managed care, Herring and Adams used a simple logit model to examine the likelihood that a physician received Medicaid revenue. They also examined a cumulative logit equation to determine the extent to which physicians participated in Medicaid managed care—whether they accepted all, most, some, or no new Medicaid patients—and a simple logit equation to assess the probability of physicians accepting most/all new Medicaid patients. Their sample included almost 30,000 physicians, and their models controlled for several physician practice, demographic, market, and Medicaid variables.

### Total Cost, Utilization, and Access<sup>4</sup>

To measure the impact of changes in Medicaid managed care market penetration on total costs, access, and utilization, Herring and Adams used four periods of data (1996-1997; 1998-1999; 2000-2001, and 2003) from the Community Tracking Study's Household Survey. They examined three sets of regression models: 1) total annual health care costs; 2) various utilization measures (e.g., number of physician visits, emergency department (ED) visits, etc.); and 3) various access measures (e.g., reporting a usual source of care). Their sample included more than 6,000 children and non-elderly adult Medicaid beneficiaries, and their models controlled for individual, state, and market-level factors that could have affected Medicaid managed care market penetration over time.

### Market Penetration

Using HMO plan-level data from the Centers for Medicaid & Medicare Services (CMS) and Interstudy, Herring and Adams first classified each managed care plan as either Medicaid-dominant (plans in which 75 to 100 percent of enrollees are Medicaid beneficiaries) or a commercial HMO (plans in which less than 75 percent of enrollees are Medicaid beneficiaries). They then constructed market-level measures of Medicaid HMO penetration by assessing the proportion of Medicaid managed care enrollees in

each plan for each of the 51 urban markets in the Community Tracking Study.

## Key Findings

### Medicaid Managed Care Market Penetration

The proportion of Medicaid enrollees in HMOs increased from about 25 percent in 1996 to about 40 percent in 2002. Herring and Adams found that Medicaid penetration of commercial plans in these 51 urban markets increased from 8.2 percent in 1996 to 14.1 percent in 1998 but then slightly declined to 12.2 percent in 2000. The penetration of Medicaid-dominant plans, on the other hand, increased from 15.4 percent in 1996 to 27.9 percent in 2002.

### Physician Participation

Descriptive analyses found that 85 percent of physicians reported serving some Medicaid patients during the year, approximately 50 percent reported that they accepted all new Medicaid patients, and approximately 60 percent reported accepting most or all new Medicaid patients. These findings support existing literature suggesting that physicians limit the number of Medicaid patients they serve. The multivariate results found no significant effect of Medicaid managed care penetration on whether physicians accepted any Medicaid patients. However, an increase in commercial plan penetration increased the likelihood that a physician would accept new Medicaid patients, and this effect was greater for physicians that already accepted any Medicaid patients and office-based primary care physicians (PCPs). Increases in Medicaid-dominant HMOs had no impact on the likelihood that providers would see new Medicaid patients.

They also found that various physician, practice, and market characteristics influenced provider participation rates. Younger, male, office-based, and foreign medical graduate physicians were more likely to accept Medicaid managed care beneficiaries, while board-certified physicians were less likely to accept Medicaid

managed care beneficiaries. Physicians practicing in larger practices and physicians who were salaried at a university, clinic, or hospital, were also more likely to accept Medicaid patients.

The competitiveness and composition of the market also influenced provider participation rates. For example, the greater the supply of physicians in the market, the more likely that physicians accepted Medicaid patients. Additionally, physicians practicing in markets with at least one federally qualified health center were less likely than those in markets without one to accept Medicaid managed care patients. Finally, an increase in Medicaid fees resulted in an increase in provider participation, especially for those physicians that already accepted Medicaid patients and for those in the office-based setting.

### Costs, Utilization, and Access to Care

Herring and Adams found that Medicaid managed care penetration for both commercial and Medicaid-dominant HMOs did not significantly impact the total costs of Medicaid beneficiaries' care. The utilization of select services, however, increased or decreased as a result of changes in Medicaid managed care penetration. The number of inpatient surgeries, for example, increased as commercial Medicaid managed care market penetration increased. Outpatient surgeries, on the other hand, decreased. Additionally, increased Medicaid-dominant HMO market penetration resulted in increased utilization of emergency departments and medical practitioners and decreased utilization of inpatient stays and surgeries.

Because there were no significant differences in total costs of care, the savings achieved through lower inpatient utilization may have been offset by increased spending resulting from greater utilization of EDs and medical practitioners. They also found that an increase in Medicaid-dominant HMO market penetration was associated with an increased probability that individuals reported using the ED as their primary source of care.

### Discussion

The results indicate that an increase in commercial managed care market penetration increases the likelihood that office-based PCPs will accept new Medicaid enrollees. However, physicians that already accept Medicaid patients appear to comprise the majority of physicians who increase the number of Medicaid patients they treat. Therefore, an increase in Medicaid managed care penetration does not necessarily encourage physicians to enter the Medicaid network, but increases the Medicaid caseload of those already in the network. Moreover, the increase in the number of physicians providing care to Medicaid patients may comprise a greater number of non-board certified physicians, which raises some concern about the quality of care those patients receive.

Despite the increase in provider participation in Medicaid managed care, utilization of office visits and access, as reported by Medicaid beneficiaries, did not increase. Moreover, Medicaid managed care does not appear to reduce total health care costs. The insignificant results do not necessarily mean that there was no effect of Medicaid managed care market penetration on costs, as the lack of significant results could have been due to study limitations. They did not examine the impact of Medicaid managed care penetration on health outcomes; therefore, while it does not appear that Medicaid managed care is more efficient than fee-for-service for the measures studied, there could still be a potential welfare gain in terms of improved health status.

There are other potential limitations to these studies. Because the physician participation findings are based on survey data, physicians may not realize that some of their patients are actually enrolled in commercial Medicaid managed care plans and therefore under report the extent to which they accept Medicaid patients. Because the enrollee utilization findings are based on self-reported data, they may be imprecise.

In addition, while these surveys are designed to be nationally representative of urban markets, they are limited to just 51 urban markets. Finally, the study data is from the late 1990s and early 2000s, and recent changes to the Medicaid managed care market are not captured in the study period.

### Policy Implications

The underlying goals of state policymakers increasing the use of Medicaid HMOs in recent years are not well understood. They may have been trying to lower costs while holding access and quality constant, or they may have been trying to improve access and quality while holding costs constant. While Herring and Adams found an increase in the number of physicians accepting new Medicaid patients into their practices as the result of increased commercial HMO penetration, they did not find any significant changes in enrollee costs. To increase provider participation and diversity of physicians participating in the Medicaid network further, states may need to increase reimbursement, decrease the administrative costs of participating in the network or revise the contract terms, and include incentives that reduce the costs of serving low-income populations.

The number of people enrolled in Medicaid HMOs is likely to increase considerably when PPACA's major provisions are enacted in 2014. "About half of the uninsured gaining coverage under the new health care legislation are expected to be covered by the Medicaid program, likely presenting state policymakers with decisions about whether to contract with Medicaid HMOs for their care," says Herring. "Our research findings would suggest that contracting with commercial HMOs might increase enrollees' access to office-based primary care physicians, but states probably shouldn't expect any significant cost savings to accrue over time from using HMOs."

### For More Information

For more information about these studies, contact Bradley Herring, Ph.D., at [bherring@jhsph.edu](mailto:bherring@jhsph.edu).

### About the Author

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### Endnotes

- 1 Krauskopf, L. “Medicaid Growth Lies Ahead for HMOs – With Risks,” Reuters, April 1, 2010. Also see [www.reuters.com/article/idUSTRE62T4OQ20100401](http://www.reuters.com/article/idUSTRE62T4OQ20100401).
- 2 Ibid.
- 3 Adams, E.A. and B. Herring. “Medicaid HMO Penetration and Its Mix: Did Increased Penetration Affect Physician Participation in Urban Markets?” *Health Services Research*, Vol. 43, No. 1, Part II, February 2008.

- 4 Herring, B. and E.A. Adams. “Using HMOs to Serve the Medicaid Population: What Are the Effects on Utilization and Does the Type of HMO Matter?” *Health Economics*, 2010.