



The Schroeder Center for Health Policy

College of William & Mary

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Medicare's OPPS and Hospital Outpatient Volume

What's in this brief?

An overview of Medicare's OPPS and its relevance to overall healthcare cost containment goals.

A review of current Schroeder Center research on OPPS and its effect on outpatient volume.

An explanation of how research on OPPS can inform health policy.

The Schroeder Center for Health Policy is made possible by a generous gift from Cliff and Lois Schroeder and was established to inform and educate decision makers on a wide array of health policy issues. The Schroeder Center is part of the Thomas Jefferson Program in Public Policy at the College of William & Mary.

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Due in part to concerns that existing payment methods provided little incentive for hospitals to lower Medicare costs, the Balanced Budget Act of 1997 and the Balanced Budget Reconciliation Act of 1999 established a prospective payment system for Medicare hospital outpatient department services. Effective August 1, 2000, the Outpatient Prospective Payment System (OPPS) greatly changed the way hospitals were reimbursed for outpatient services provided to Medicare beneficiaries. These reimbursement changes were intended to incentivize hospitals to use ambulatory services more efficiently in order to contain overall outpatient spending.¹ OPSS, which applies to most U.S. hospitals, affected the reimbursement of hospital outpatient department costs for most surgical and diagnostic procedures, as well as other services.

This brief summarizes new research on Medicare's OPSS by economists at the Schroeder Center for Health Policy and the Department of Economics at the College of William & Mary. In a new *Journal of Health Economics* study, Daifeng He and Jennifer M. Mellor examine the effect of OPSS-induced payment rate reductions on hospital outpatient volume. This research makes an important contribution to the literature on prospective payment systems by examining the effect of OPSS and by examining both Medicare hospital volume *and* private-payer volume. Determining how Medicare volume responded to OPSS is a key step in evaluating the effectiveness of the policy. In addition, the effects of OPSS on the private-payer volume of outpatient services are also important. If OPSS were to increase private payer volume, for example, Medicare fee-for-service-type payment reforms could be more limited in their ability to reduce societal costs.

Medicare payments for outpatient services have been rising sharply. In the 1980s and 1990s, Medicare payments to hospital outpatient departments rose by 12% a year.² From 2002 to 2007, Medicare outpatient spending per beneficiary grew 47% while inpatient spending grew only 18%,³ and outpatient services currently constitute more than 20% of Medicare's total payments to hospitals.⁴ Furthermore,

This research brief reports on the findings from:

He, Daifeng and Mellor, Jennifer M. 2012. "Hospital Volume Responses to Medicare's Outpatient Prospective Payment System: Evidence from Florida." *Journal of Health Economics*, 31(5): 730-743.

<http://www.sciencedirect.com/science/article/pii/S0167629612000732?v=s5>

changes in technology and medical practices over the past several decades have significantly increased the prevalence of outpatient as opposed to inpatient treatment.

Prior to He and Mellor's study, little was known about the impacts of OPPS on outpatient utilization, even though the use of prospective payment systems had been studied widely in inpatient and several other healthcare delivery settings. Policies and programmatic changes that affect outpatient utilization among Medicare and private payers are of significant interest to policy makers, particularly since outpatient spending continues to grow. ■

How Does Medicare's OPPS Work?

OPPS replaced a complex and disjointed reimbursement system that did little to contain the burgeoning costs of outpatient hospital services. Reimbursement rates under the old regime were largely cost-based and, as a result, left little incentive for hospitals to try to reduce the costs of outpatient services.

OPPS is essentially a fee schedule that is adjusted each year and used to determine Medicare payments to hospitals for outpatient services. Fees are set by the Centers for Medicare & Medicaid Services (CMS). CMS determines fees after first categorizing outpatient procedures and services into several hundred Ambulatory Payment Classification (APC) groups based on their clinical and cost similarity.⁵ Hospitals are reimbursed for most individual services separately; although payments for some ancillary services are packaged with the payment for the primary services, OPPS is not characterized by the same type of bundling used in other prospective payment systems in Medicare. Regardless of actual treatment cost, all services within a single APC are reimbursed at the same

predetermined payment rate, with adjustments for local labor costs, certain hospitals, and outlier cases.⁵

The Effect of OPPS on Payment Rates and Hospital Outpatient Volume

In "Hospital Volume Responses to Medicare's Outpatient Prospective Payment System: Evidence from Florida," economists Daifeng He and Jennifer Mellor use hospital outpatient discharge data over the period 1997 to 2008 to evaluate the effects of OPPS on hospital outpatient volume.⁶ The use of discharge data instead of Medicare claims data allows the authors to examine trends in both Medicare and private-payer fee-for-service hospital outpatient volume. By examining Medicare volume, He and Mellor's analysis can speak to the direct effects of the policy change on Medicare resource use. By examining private-payer volume, He and Mellor's work can shed light on potential spillover costs of the policy, and test for the possibility that OPPS affected societal healthcare costs.

First, He and Mellor show that Medicare payment rates for the ten most common surgical procedures fell by 22% on average during the five years before and after OPPS implementation (1999 – 2004). For example, payment rates for the most common hospital outpatient procedure, endoscopy of the upper gastrointestinal tract with biopsy, fell by an average of 15% across hospitals. These estimates provide evidence that OPPS caused a reduction in Medicare outpatient reimbursement rates.⁶

Next, He and Mellor address several important questions about the effects of OPPS-induced rate cuts on hospital outpatient volume:

- 1) What effect did OPPS-induced fee reductions have on surgical volume in hospital outpatient departments, both in terms of volume covered by Medicare and volume covered by private fee-for-service insurance plans?

The physician demand inducement model provides an initial theoretical framework to explain provider responses to a rate cut by one payer.^{7, 8} He and Mellor contribute to the literature on demand inducement by using a modified version of the physician model that fits the hospital setting. In their model, the physician acts as an agent to both her patients and to the hospital, and treats patients covered by two payers (Medicare and a private payer). The model suggests that in response to OPPS-induced Medicare fee reductions, hospitals will increase the volume of outpatient services covered by private fee-for-service payers in part to recover lost revenue. The model predicts that hospitals may either increase or decrease volume covered by Medicare, depending on the circumstances facing the hospital.

- 2) Did hospitals with a greater share of Medicare patients, that is, a higher level of exposure to changes in Medicare payments, respond differently to OPPS-induced fee reductions than less exposed hospitals?

According to He and Mellor's model, rate cuts will lead to larger increases in non-Medicare volume in hospitals where Medicare patients constitute a larger share of total outpatient patients (so-called "high share hospitals") compared to low-share hospitals. In addition, rate cuts will lead to smaller decreases, or even increases, in Medicare volume at high-share hospitals compared to low-share hospitals. This follows because high-

share hospitals will experience larger reductions in revenue from the rate cuts.

- 3) Did hospitals with strategic alliances with physicians (vertically integrated hospitals) respond differently to OPPS-induced fee reductions than non-integrated hospitals?

Vertically integrated hospitals could respond to OPPS-induced rate cuts differently than non-integrated hospitals because strategic alliances between hospitals and physicians could increase hospitals' influence over physicians' behavior and thus increase the relative weight that physicians place on hospital revenue. Strategic alliances between physicians and hospitals allow for collaboration, joint contracting, and shared risks and costs across healthcare provision at a particular hospital or health system.⁹ He and Mellor posit that this type of vertical integration will place physician interests more in-line with their hospital's overall financial interests. Accordingly, integrated hospitals could have a greater potential for volume increases in response to OPPS rate reductions because physicians at these hospitals will respond more acutely to their hospital's loss of revenue than physicians at non-integrated hospitals.

To answer these questions, He and Mellor use multivariate regression analyses that controls for other variables that might affect hospital volume, such as county-level demographic and economic conditions and hospital characteristics. The study's main findings are described below.

How did OPPS-induced rate cuts affect outpatient volume? He and Mellor find that, on average, hospitals increased private fee-for-service volume in response

On average, hospitals increased private fee-for-service volume in response to OPPS-induced rate cuts.

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to OPPS-induced rate cuts. On average, hospitals reduced outpatient volume among Medicare patients, but in some cases Medicare volume increased. These results are consistent with He and Mellor's modified model of demand inducement.

Did volume effects vary by the hospital's exposure to the Medicare program? He and Mellor find that hospitals with more exposure to Medicare program changes (those that treat a larger share of Medicare patients) responded to payment cuts with larger increases in private fee-for-service volume than less-exposed hospitals. Hospitals with high proportions of Medicare patients responded to OPPS-induced fee reductions with smaller decreases in Medicare-covered outpatient volume compared to less-exposed hospitals. Hospitals with a sufficiently high Medicare share actually *increased* Medicare outpatient volume when payment rates fell. These findings also are consistent with He and Mellor's modified model of demand inducement.

Did volume effects vary by the presence of vertical integration? He and Mellor find suggestive evidence that vertically integrated hospitals responded with larger increases in private-payer outpatient volume and smaller decreases in Medicare volume than non-integrated hospitals. This is what would be expected if physicians in integrated hospitals place relatively more emphasis on hospital revenue than physicians at non-integrated hospitals. More research is needed to explore this finding more carefully. ■

Policy Implications

The rising cost of healthcare, specifically the rising cost and use of outpatient services relative to inpatient services, makes Medicare's OPPS an important area of study. Further, understanding the effects of OPPS can help to inform other

healthcare policies meant to contain costs. He and Mellor's study contributes to the literature on the effects of prospective payment systems because it is the first study to examine the effects of the OPPS on hospital outpatient volume and it examines both Medicare and private-payer volume.

The central policy implication of this study is that Medicare payment reforms that retain a fee-for-service approach (like OPPS and some other reforms) are unlikely to be effective in containing Medicare costs. This is because such reforms can create the incentive for certain hospitals to increase the volume of services provided to Medicare patients. Consistent with a model of demand inducement, He and Mellor show that some hospitals with high shares of Medicare patients respond to rate cuts by increasing Medicare outpatient volume. This finding highlights the serious challenges of containing healthcare costs under fee-for-service payment arrangements. Even more worrisome, reductions in fee-for-service payments can create incentives for hospitals to increase the provision of services to non-Medicare patients. By affecting private payers as well, Medicare fee-for-service-type payment reforms are also limited in their ability to reduce *societal* healthcare costs.

This study's results support the movement away from payment reforms focused on fee-for-service reimbursement and toward other payment arrangements. Various initiatives by the CMS and several provisions of the Affordable Care Act of 2010 support the development of alternatives to fee-for-service payment, such as bundled payments and medical home payment models. These alternative payment forms are less likely to result in demand inducement by providers. ■

About the Study's Authors

Daifeng He is an Assistant Professor of Economics and a faculty affiliate of the Thomas Jefferson Program in Public Policy and the Schroeder Center for Health Policy at the College of William & Mary. Professor He holds a Ph.D. in Economics from Washington University in St. Louis. Her current research focuses on health policy evaluation and long-term care and life insurance markets.

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Notes

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⁶He, Daifeng and Mellor, Jennifer M. 2012. "Hospital Volume Responses to Medicare's Outpatient Prospective Payment System: Evidence from Florida." *Journal of Health Economics*, 31(5): 730-743.

⁷McGuire, Thomas G. and Pauly, Mark V. 1991. "Physician Response to Fee Changes With Multiple Payers." *Journal of Health Economics*, 10 (4), 1991: 385-410.

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