

The Consequences of (Partial) Privatization of Social Insurance for Individuals with Disabilities: Evidence from Medicaid

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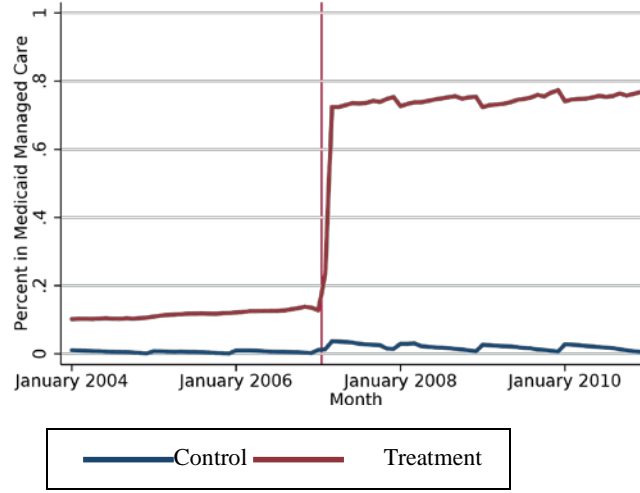
Introduction

In this paper, we study the consequences of the shift to private provision of public health insurance benefits in Medicaid, the program for providing health insurance coverage to low-income and disabled Americans. We focus on adults with disabilities who are enrolled in the Supplemental Security Income (SSI) program. Our focus on this population is motivated by its cost and complexity. In 2014, Medicaid spending for this group was almost \$187 billion. This amounts to 40% of total Medicaid spending, even though SSI beneficiaries make up only 13.5% of total Medicaid enrollment (Kaiser Family Foundation, 2014*a,b*). Medicaid spending for this population also dwarfs SSI cash payments (\$48.6 billion in 2014), making the consequences of Medicaid reforms highly relevant for the study of SSI. Additionally, because SSI beneficiaries are generally very sick, the consequences of changes to their health care are likely to be (1) more significant and (2) more readily observed in health care claims data compared to other populations. This allows us to characterize the consequences of privatization more effectively than previous work, which has focused on healthier, less-complex populations such as mothers, children, and babies (see Sparer, 2012, for a comprehensive review). Finally, SSI beneficiaries are currently the most policy relevant population with respect to the privatization decision: While most states have already shifted other Medicaid enrollees to private MMC plans, the transition of SSI beneficiaries to MMC is either recent, ongoing, or currently under consideration.

Methods

To study the consequences of privatization of Medicaid for individuals with disabilities, we leverage natural experiments in Texas and New York. In the mid-2000s, both states transitioned SSI beneficiaries and other Medicaid enrollees with disabilities into private MMC plans. This shifted these individuals from the public fee-for-service (FFS) program, where the state directly paid providers for each service they performed, to a new program where the state paid private firms a fixed per-person, per-month payment, and these private MMC insurers were the residual claimants on any healthcare spending incurred by their enrollees. The transition was mandatory, resulting in a rapid and dramatic increase in the portion of the disabled population enrolled in private MMC plans, with MMC enrollment in some cases going from around 10% to almost 80% of the disabled population overnight. Moreover, Texas and New York implemented this transition only in a subset of counties, providing a clean natural experiment that we exploit in a difference-in-differences design. We estimate how a variety of relevant outcomes changed differentially in counties where MMC was implemented relative to contiguous counties that maintained the publicly managed traditional fee-for-service (FFS) Medicaid program. While implementation of state MMC mandates had large effects on MMC enrollment in both states, changes in MMC enrollment were much sharper in Texas (see Figure 1) than in New York, leading us to rely most heavily on the Texas experiment, while using the New York experiment to buttress our Texas findings and also make inferences about the consequences of state-specific program features.

Figure 1: First stage



Note: Figure shows Medicaid Managed Care enrollment in treatment and control counties in Texas. The red vertical line between January and February 2007 corresponds to the date of the introduction of the STAR+Plus Medicaid Managed Care program in the treatment counties.

Because take-up is incomplete, throughout the paper we present reduced form effects in both graphical and regression form, as well as instrumental variable (IV) local average treatment effects (LATEs) specific to the population of SSI recipients who complied with the managed care enrollment mandate, in regression form. For the annual reduced form results, we estimate event study difference-in-difference regressions of the following form:

$$Y_{it} = \beta_0 + \sum_{t=2004}^{2010} \beta_t Treat_{it} + \alpha_{st} + \gamma_i + \epsilon_{it} \quad (1)$$

where Y_{it} is the outcome of interest, $Treat_{it}$ is an indicator equal to one if person i is living in a treatment county in year t and zero otherwise, α_{st} represents the full set of service area grouping-by-year fixed effects, and ϵ_{it} represents a random error term. We also include a full set of individual fixed effects, γ_i to ensure that our estimates are not driven by differential changes in the composition of Medicaid enrollees over time in treatment vs. control counties.

Our IV specification uses the county-level mandates as an instrument for enrollment in a private plan. The first stage regression is:

$$Private_{it} = \delta_0 + \delta_1 Treat_{it} \times Post_t + \alpha_{st} + \gamma_i + \eta_{it} \quad (2)$$

where $Private_{it}$ is equal to the portion of year t that person i is enrolled in a private plan, $Post_t$ is an indicator equal to 1 for any year during the post period (2007-2010), and η is a random error term. Here, δ represents the portion of person-years spent in private plans during the post-mandate years in treatment counties relative to control counties. The IV regression specification is:

$$Y_{it} = \theta_0 + \theta_1 Private_{it} + \alpha_{st} + \gamma_i + \psi_{it} \quad (3)$$

where $Private_{d_{it}}$ represents the predicted values from Equation 2 and ψ_{it} is a random error term. Here, θ_1 represents the average difference in the outcome between public vs. private Medicaid for the group of Medicaid enrollees who comply with the MMC mandate.

Results

We find that shifting adults with disabilities from the public FFS program to private MMC plans had important consequences on their levels of healthcare spending: In Texas (where we observe actual payments from MMC plans to providers), the shift to MMC increased individual annual healthcare spending by 10-37%.¹ This increase in spending was not due to a change in the service-specific prices paid to providers: Indeed, we find that prices paid by MMC plans are comparable to FFS prices.

Instead, we find that the shift in spending is due to changes in quantities. The changes are complicated and differ greatly across types of services. Overall, however, we find that they are consistent with the goals of managed care. Specifically, we find large increases in the use of non-inpatient care (13-41%) and, especially, prescription drugs (21-44%). We also find that these increases are partially offset by large decreases in spending on inpatient care (9-19%). Figure 2 presents results for the main outcomes from estimating event study difference-in-difference regressions. These findings contrast with recent work studying privatization in the Medicare program where private managed care plans seem to reduce spending somewhat indiscriminately across *all* healthcare services (Curto et al., 2017).

Digging deeper into the shifts in utilization patterns, we find evidence suggesting that these shifts are consistent with treatments that are likely to improve beneficiary health. Specifically, we find that the increase in prescription drug spending appears to be driven by initiation of drug treatments used for managing chronic conditions that are common among SSI beneficiaries, particularly drugs for mental health conditions (which account for almost half of drug spending in this population) but also drugs for other chronic conditions such as diabetes, heart disease, asthma, and pain. These types of drug treatments are likely to improve quality of life and even potentially reduce mortality. Indeed, we find that the reduction in inpatient spending is driven largely by admissions related to mental illness and diabetes, admissions that are likely to be

¹ In New York, we do not observe payments from MMC plans to providers, so we cannot assess the effects of MMC on total realized healthcare spending.

preventable given appropriate treatment of these conditions. Additionally, we find suggestive evidence of (statistically insignificant) decreases in ED visits, another indicator of improved management of the complex conditions that are common in this population. However, a lack of data on actual health outcomes prevents us from making stronger conclusions regarding health effects of privatization in these settings.

Figure 2: Main outcomes



Note: Figure shows control-treatment differences in the main spending outcomes in Texas. These difference-in-differences coefficients are from estimating equation 1. We control for service area by year fixed effects and individual fixed effects. Standard errors are clustered at the county level.

Finally, we investigate the fiscal consequences of privatization for this population. We find that the shift to MMC increases Medicaid spending by about 9% or \$1,344 per person, per year in Texas, with two-thirds of the increase coming from payments to MMC plans set significantly higher than counterfactual spending in the public FFS program and the other one-third coming from increased spending on carved-out services paid directly by the public FFS program. We see similar fiscal consequences in New York. Importantly, however, we find that the bulk (80%) of the Texas spending increase was passed through to providers and beneficiaries in the form of higher realized healthcare benefits, rather than captured by the MMC plans.

Previous work has shown that the effects of privatization on other populations may depend on the design of the managed care program (Van Parys, 2015; Geruso, Layton and Wallace, 2017). We explore this possibility in the Texas and New York settings as well, with a focus on incomplete contracting. Specifically, we look at long-term care, which was included in the MMC

contracts in Texas but not in New York (i.e., long-term care was “carved-out” and thus it continued to be covered by the public FFS plan post-privatization in New York. Consistent with private plans responding to the financial incentives provided to them, we find that privatization led to significant decreases in long-term care days in Texas but no change in New York. More interesting, however, is the increase in use of prescription drugs. Both states carved-out prescription drugs from their MMC contracts, but we observe much larger increases in drug use in Texas. We show that for drugs, a key institutional difference between the *public* programs in Texas and New York is responsible for the divergent findings: The Texas public FFS plan strictly rations access to drugs by means of a three-drug prescription limit. The limit is lifted when beneficiaries are shifted to MMC. Although not widely known, strict rationing of prescription drugs using *ad hoc* quantity controls is a common feature of public FFS Medicaid programs (Council of State Governments Midwest, 2013), motivating us to examine their effects. To our knowledge, we provide the first empirical evidence that these rules are binding for some populations, and we find that the marginal drugs rationed by these policies are largely high-value therapies that are critical for managing chronic health conditions.

Discussion

Our findings provide a picture of the privatization of Medicaid that is more nuanced than the conventional wisdom that managed care does not typically reduce government spending (Duggan and Hayford, 2013) and potentially leads to worse health outcomes than the public fee-for-service programs (Aizer, Currie and Moretti, 2007). Instead, we find robust evidence that for adults with disabilities, privatization significantly *increases* both program and healthcare spending, and shifts spending patterns in ways that are consistent with both marginal and inframarginal dollars being spent *more* efficiently under managed care. This evidence is consistent with other recent evidence that managed care significantly reduces utilization of inpatient care (Van Parys, 2015; Vabson, 2017), but goes beyond prior work by connecting the decreases in inpatient use to significant increases in take-up of drug treatments that can potentially keep chronically ill patients out of the hospital. Our evidence is also consistent with reports by Medicaid agency officials who describe the roll-out of managed care as a complex political economy problem where politicians are not willing to increase spending by weakening rationing in public fee-for-service programs even when spending levels are inefficiently low (i.e., Texas’ 3-prescription limit) but are willing to allow Medicaid spending to increase if the provision of services is outsourced to private organizations, which are perceived as better able efficiently ration access to healthcare services.

Our work connects to the broader literature comparing public and private health insurance coverage, particularly research on the Medicare program. Our results show similarities as well as differences in privatization’s effects across Medicaid and Medicare. First, the reduction in inpatient utilization and the corresponding increase in utilization of drugs used to treat chronic conditions are consistent with findings on the effects of the Medicare Advantage program (Curto et al., 2017; Duggan, Gruber and Vabson, 2017; Starc and Town, 2015), although the inpatient reduction appears less pronounced under Medicaid while the drug utilization increase appears larger. Meanwhile, the increase in office visits and outpatient utilization under MMC contrasts

with what has been observed in Medicare Advantage, with research characterizing Medicare Advantage as a "blunt tool" that decreases utilization of all types of services (Curto et al., 2017). These differences in privatization's effects across Medicaid and Medicare may be driven by underlying differences in beneficiary populations but they could also be due to differences in program structure. Specifically, fee-for-service Medicaid rations access to healthcare much more aggressively than fee-for-service Medicare, using relatively low payment rates to physicians and arbitrary quantity limits on drugs, whereas fee-for-service Medicare is seen as providing effectively unlimited access to almost any healthcare service. These important differences between the public fee-for-service sides of the Medicare and Medicaid programs suggest that privatization would have different consequences in these settings, motivating separate examination of these programs.

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