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A tale of two cities? The heterogeneous impact of medicaid managed care

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ABSTRACT

Evaluating Accountable Care Organizations is difficult because there is a great deal of heterogeneity in terms of their reimbursement incentives and other programmatic features. We examine how variation in reimbursement incentives and administration among two Medicaid managed care plans impacts utilization and spending. We use a quasi-experimental approach exploiting the timing and county-specific implementation of Medicaid managed care mandates in two contiguous regions of Kentucky. We find large differences in the relative success of each plan in reducing utilization and spending that are likely driven by important differences in plan design. The plan that capitated primary care physicians and contracted out many administrative responsibilities to an experienced managed care organization achieved significant reductions in outpatient and professional utilization. The plan that opted for a fee-for-service reimbursement scheme with a group withhold and handled administration internally saw a much more modest reduction in outpatient utilization and an increase in professional utilization.

1. Introduction

Although the implementation of the key features of the Affordable Care Act (ACA) is well underway, policymakers continue to struggle with the best health care finance and delivery system to achieve the "Triple Aim" of improved quality of care, improved population health, and reduced cost (Berwick et al., 2008). This is especially true among state Medicaid programs, as many states have recently expanded their Medicaid programs in January 2014, despite concerns about the impact of the expansion on state budgets.[3]

One relatively new approach to this problem is to create what are known as Accountable Care Organizations (ACOs), which can be generally defined as coordinated networks of medical providers that assume the risk for the quality and total cost of care for their patients (Burns and Pauley, 2012). As discussed in Fisher et al. (2012), much like more traditional managed care organizations (MCOs), health maintenance organizations (HMOs), or integrated delivery networks, ACOs may differ both in terms of specific contract characteristics and the populations they serve, with current ACOs providing care through contracts for Medicaid, Medicare, private payers, and different combinations of these groups.

One challenge associated with evaluating the success of ACOs, MCOs, or integrated delivery networks, is the fact that there may be a great deal of heterogeneity across these networks/organizations/plans in terms of their reimbursement incentives and other key programmatic features (Gaynor et al.,

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[3] For a summary of state Medicaid expansion plans, see: http://kff.org/medicaid/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/.

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2004). For example, some plans may reimburse primary care providers via capitation while others may reimburse via fee-for-service (FFS). Research attempting to make blanket statements about the impact of ACOs or MCOs in improving quality and reducing costs seem to sweep this heterogeneity under the rug. This challenge, along with the concern about the non-random selection of participants, suggests that there is little convincing evidence on the impact of such plans on the utilization of health care services, health care costs, and health outcomes.

The purpose of our paper is to directly examine how reimbursement incentives and other key programmatic features among Medicaid accountable/managed care plans impact health care utilization and spending using a quasi-experimental approach that exploits the timing and county-specific implementation of Medicaid managed care mandates in Kentucky in the late 1990s.[4] The Medicaid program in Kentucky was changed from a FFS system to a managed care plan in two geographically distinct sub-sets of counties. We can compare recipients initially in each of the two sets of "treatment" counties before and after this reform with recipients initially in neighboring "control" counties that remained in a FFS system, in order to deal with any concerns about non-random selection into the plans.

Despite serving Medicaid recipients in the same state, and operating less than 100 miles apart, the two plans selected very different reimbursement mechanisms for physicians and diverged along other plan dimensions as well. These differences motivate our heterogeneous treatment effect approach of modeling the impact of each plan separately. The Louisville-centered plan (Passport) elected to reimburse physicians using a capitated payment scheme, while the Lexington-centered plan (Kentucky Health Select or KHS) opted for a modified FFS reimbursement scheme for physicians featuring a group withhold. Another important difference is that the Louisville-centered "capitated" plan contracted out administrative responsibilities, such as utilization review, to an experienced MCO while the Lexington-centered "withhold" plan decided to handle such responsibilities internally. These fundamental organizational differences between the two plans could have an impact upon their ability to improve quality, while at the same time reducing utilization and spending.

We find that both organizations/plans decreased the probability of any monthly outpatient utilization among the children in our sample, though the Louisville-centered "capitated" plan was able to do so to a greater degree (a 61 percent reduction versus a 17 percent reduction). In addition, both plans appear to have had a minimal impact on the probability of any monthly inpatient utilization for children, which may be explained by low baseline inpatient utilization rates. Our most striking finding is that the Louisville-centered "capitated" plan reduced the monthly probability of any professional (physician) utilization by 44 percent among children, while in the Lexington-centered "withhold" plan professional (physician) utilization actually increased by 6 percent. If we instead measure utilization along the intensive margin (using the number of monthly visits or monthly expenditures), we still find that the Louisville-centered "capitated" plan led to significant reductions in professional and outpatient utilization not matched by the Lexington-centered "withhold" plan.

Both plans increased the probability of having any monthly well child visits, though the Louisville-centered "capitated" plan did so to a greater degree. Therefore, the heterogeneous treatments generated by differences in plan design between the two regions led to different outcomes with respect to utilization. Finally, we find suggestive evidence that the reductions in utilization observed in the Louisville-centered "capitated" plan did not lead to adverse health outcomes for asthmatic children, as measured by inpatient hospitalizations. These results are robust to a variety of specification checks.

The rest of the paper is organized as follows: Section 2 provides a description of the policy change in Kentucky Medicaid. Section 3 reviews the relevant literature on physician reimbursement and Medicaid managed care and describes how our approach contributes to this literature. Our methodological approach and identification strategy is described in Section 4 and our data in Section 5. Sections 6 and 7 present our results and specification checks. Section 8 concludes with a discussion of policy implications.

2. The introduction of managed care in Kentucky Medicaid

2.1. Brief history

In October 1995, the Commonwealth of Kentucky received Centers for Medicare and Medicaid (CMS) approval to initiate a major restructuring of the Kentucky Medicaid program by dividing the state into eight regional managed care networks. Within each region public and private providers were expected to collaborate to form managed care partnerships to oversee the provision of Medicaid services, rather than contracting these services out to commercial managed care providers. The goals of this restructuring were to improve access and quality of care, stabilize cost growth, and emphasize primary care and prevention.

In November 1997, Medicaid managed care enrollment began in the two regions that contain the state's two major urban areas, region 3 (anchored by Louisville) and region 5 (anchored by Lexington).[5] These, along with the other regions, are labeled in Fig. 1. The managed care organization/plan covering region 3 was named the *Passport Health Plan* (Passport) and the managed care organization/plan covering region 5 was named the *Kentucky Health Select Plan* (KHS). Ultimately, the other six regions were not able to successfully create managed care partnerships. Passport, designed around the University of Louisville network, was charged with providing Medicaid managed care coverage to all Medicaid recipients in Jefferson County (containing Louisville) and 15 surrounding counties. Similarly, the KHS plan was designed around the University of Kentucky network and was charged with providing Medicaid managed care to all Medicaid recipients in Fayette County (containing Lexington) and 20 surrounding counties.[6]

Both organizations also agreed to continue reporting encounter data to the state as they had under Medicaid FFS reimbursement rules. Because the organizations were made up of local providers that were already accustomed to reporting claims to the state for billing purposes, this did not represent a change in reporting practice.[7] The region 5 partnership dissolved within two and a half years of its introduction. Today Medicaid recipients in region 3 are

[4] According to the Kaiser Family Foundation (2012), over sixty five percent of all Medicaid beneficiaries were enrolled in some form of a managed care plan by 2010.

[5] Currie and Fahr (2005) cite reports from the Health Care Financing Administration that classify the Medicaid managed care penetration rate in Kentucky as over 50 percent in 1992, 1993, and 1994. This is likely due to Kentucky Medicaid's primary care case management program (KENPAC) where recipients are assigned a specific primary care provider. Although a primary care "gatekeeper" physician is one part of most managed care programs, we do not consider this feature alone to be enough to characterize a plan as being managed care.

[6] There are some Medicaid recipients in these counties that are excluded from managed care. They include those in nursing facilities or psychiatric facilities for an extended stay, those served under home and community-based waivers, and those who must spend down to meet eligibility income criteria.

[7] This model of having a single community-organized health system (COHS) manage care in a given region without accepting commercial bids was one of several models used in California to implement Medicaid managed care.