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# Medicaid managed care: Costs, access, and quality of care

See companion Policy Brief available at [www.policysynthesis.org](http://www.policysynthesis.org)

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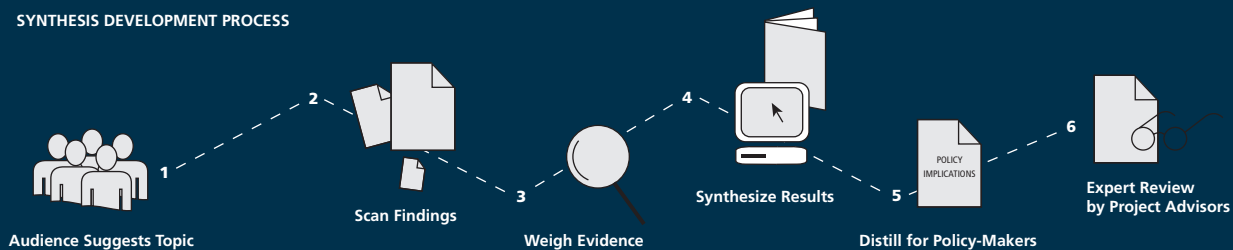
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**THE SYNTHESIS PROJECT** (Synthesis) is an initiative of the Robert Wood Johnson Foundation to produce relevant, concise, and thought-provoking briefs and reports on today's important health policy issues. By synthesizing what is known, while weighing the strength of findings and exposing gaps in knowledge, Synthesis products give decision-makers reliable information and new insights to inform complex policy decisions. For more information about the Synthesis Project, visit the Synthesis Project's Web site at [www.policysynthesis.org](http://www.policysynthesis.org). For additional copies of Synthesis products, please go to the Project's Web site or send an e-mail request to [pubsrequest@rwjf.org](mailto:pubsrequest@rwjf.org).

### SYNTHESIS DEVELOPMENT PROCESS



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## Introduction

For more than 20 years, state and federal policy-makers have promoted Medicaid managed care as a way to improve access to good quality care for the Medicaid beneficiary, while at the same time containing (or at least stabilizing) costs. Capitated health plans would reduce reliance on expensive care provided in hospital emergency rooms. The health plans would provide beneficiaries with office-based medical homes. The improved delivery system would emphasize primary care, educate beneficiaries on the benefits of healthy lifestyles, and implement a host of care management initiatives.

By 2010, nearly 70 percent of the nation's 60 million Medicaid beneficiaries were enrolled in some form of managed care, though there was wide variation in the type and scope of managed care programs across the states. Interestingly, however, the percentage of the Medicaid dollar spent on managed care remains relatively low (around 20 percent), largely because most states focus their programs on families and children, leaving the more expensive beneficiaries (the chronically ill, the aged and the disabled) and the most expensive services (long-term care) in the traditional fee-for-service programs.

It is nearly certain that Medicaid managed care programs will grow over the next several years, adding millions of newly eligible beneficiaries, while also focusing far more on the aged, the disabled, and the chronically ill.

There are several reasons why such growth seems inevitable. First is the vast expansion of the Medicaid program more generally, as a result of the Patient Protection and Affordable Care Act (ACA), which encourages states to cover otherwise eligible persons with incomes at or below 133 percent of the federal poverty level. This option, which takes effect in 2014, could result in 16 million to 18 million new Medicaid enrollees, mainly adults between the ages of 21–65. By all accounts, these new beneficiaries generally will be encouraged or required to enroll in managed care.

At the same time, states increasingly are looking to expand their Medicaid managed care programs to cover more of their existing high-cost populations and services, in particular those beneficiaries with one or more chronic illnesses. In California, for example, the state is implementing a new initiative under which more than one million aged and disabled beneficiaries will be required to enroll in Medicaid managed care. New York State too is only now phasing in mandatory managed care for SSI beneficiaries. Texas, Florida, Illinois and Louisiana also are engaged in major initiatives to expand the populations and services covered by their Medicaid managed care initiatives. Even New Hampshire—now one of just three states without managed care in Medicaid—is changing course and planning to shift its beneficiaries from fee-for-service to managed care. In each case, the guiding policy assumption is that the managed care expansion provides the best way for cash-strapped states to control (or at least stabilize) their rising Medicaid costs.

Further encouraging the state initiatives is a Medicaid managed care industry that sees a growing Medicaid market as a key to expansion. Several of the largest companies in the Medicaid managed care market, for example, enroll only Medicaid (or CHIP) beneficiaries, and see the ACA, combined with the push to enroll the high-cost beneficiary, as a unique and perhaps time-limited business opportunity. In addition, health plans hoping to participate in newly created insurance exchanges may well see participation in Medicaid managed care as a pathway to inclusion.

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The Medicaid managed care movement, however, is not without its share of critics, especially in the provider community. In Illinois, for example, much of the traditional safety-net provider community is boycotting the state's current managed care initiative, arguing that the payment rates are too low and the bureaucratic micromanagement is too high. Consumer advocacy organizations in Illinois and elsewhere worry about inadequate provider networks, breaks in long-standing patient-provider relationships, and diminished quality, especially for the high-cost populations that have the most vulnerable health status.

In this context, it is useful to synthesize what we have learned about the impact of Medicaid managed care to date, and to summarize what those lessons suggest about the role of managed care in an evolving Medicaid market. The following questions are relatively straightforward and are addressed in this synthesis.

1. Have states saved money by implementing Medicaid managed care?
2. Do Medicaid managed care beneficiaries have better access to care?
3. Do Medicaid managed care beneficiaries receive higher-quality care?

We should note at the outset, however, that while the questions are straightforward, the academic literature that seeks to provide answers is rather thin. There are several reasons for the paucity of studies, summarized in some detail in the methodology section below. One reason that deserves special attention, however, is the apparent mismatch between the academics (who look for clean datasets, preferably comparing managed care beneficiaries with their fee-for-service counterparts) and the Medicaid directors (who typically are overburdened and understaffed and often unwilling to change their data collection efforts to meet the needs of outside academics). Bridging this gap to enable and encourage more and better research into the impact of Medicaid managed care is critical.

Before reviewing the literature that does exist, we first provide some context on the evolution of Medicaid managed care, and then review in additional depth some of the methodological challenges we referred to above.

### The evolution of Medicaid managed care

Shortly after Medicaid was enacted in 1965, a few states experimented with managed care initiatives, most prominently California's program in the early 1970s. California officials argued that mainstream care in California is managed care (far more so than in any other state) and that the state had the managed care infrastructure to accommodate the initiative. But the capitation rates were too low to attract mainstream plan participation, and a series of inexperienced entrepreneurs created dozens of new entities, which marketed door-to-door, signing up thousands of beneficiaries. Within months, there were allegations of illegal marketing, inadequate access, poor quality, and undercapitalized health plans. In the aftermath of the ensuing scandals, Congress in 1976 enacted a series of federal restrictions on state managed care initiatives: only federally qualified HMOs could receive full-risk Medicaid contracts, and no more than 50 percent of any HMO covered lives could be Medicaid or Medicare beneficiaries. Medicaid managed care enrollment in California immediately plummeted, and the number of health plans with Medicaid contracts declined by more than two-thirds.

During the early 1980s, however, a number of other states developed managed care initiatives, prompted in part by the newly elected President Ronald Reagan, who encouraged federal Medicaid officials to delegate more authority to the states, and states to experiment with Medicaid managed care. Early in the Reagan administration, for example, Congress reversed many of the restrictions enacted in the mid-1970s: non-federally qualified HMOs could receive Medicaid contracts, states could authorize six months guaranteed eligibility to beneficiaries enrolled in managed care, and the cap on Medicaid and Medicare enrollees was raised to 75 percent. Shortly thereafter, California officials were reviving and reorganizing their managed care initiative, New York was encouraging safety-net providers to form "prepaid health service plans," and other states were enacting similar incremental initiatives.

The most ambitious of the new initiatives took place in Arizona, where state officials received special permission to administer their brand new Medicaid program completely through managed care delivery systems. After a somewhat rocky start, the Arizona program became a national model, and it remains today (with Tennessee) one of only two states that requires all services (including long-term care) be provided through managed care organizations. The state also attracted a host of researchers interested in examining the program's impact on the care provided to beneficiaries. Nelda McCall et al., for example, compared the care provided to Arizona beneficiaries with care provided to beneficiaries in nearby New Mexico, with its traditional fee-for-service program, and concluded that Arizona beneficiaries received more primary care services, fewer institutional and specialty care services, and better overall care (59). The General Accounting Office (now called the Government Accountability Office) was a bit more circumspect, though not critical, noting that Arizona's focus on limiting costs "appears not to have adversely affected the care provided to Arizona Medicaid beneficiaries" (79).

Despite the comprehensive Arizona pilot, and the incremental initiatives in several other states, overall Medicaid managed care enrollment remained quite modest throughout the 1980s, as most states continued to rely primarily on their fee-for-service Medicaid programs. As of 1992, for example, only 12 percent of Medicaid beneficiaries were enrolled in some form of managed care, and that percentage had remained relatively constant throughout the prior decade.

During the late 1980s, however, two developments prompted significant growth in state Medicaid managed care initiatives. First, there was extraordinary growth in the number of Medicaid enrollees and Medicaid costs, prompted in part by a series of new federal mandates on Medicaid

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eligibility. In 1989, for example, the federal government required states to cover pregnant women and children below age 6 in families with income below 133 percent of the federal poverty level. The following year, federal law required states to phase in coverage of all children up to age 18 in families with income below 100 percent of the poverty level. These eligibility mandates added millions to the Medicaid rolls, at the same time that federal law was requiring more generous benefit coverage for children and higher reimbursement to community health centers and many safety-net hospitals. Meanwhile, an economic recession meant states had far less tax revenue with which to finance the rapidly increasing Medicaid bill. State policy-makers began referring to Medicaid as the “Pac-Man” of state budgets, gobbling up nearly all available revenues.

In the midst of this economic and political crisis, state officials soon turned to Medicaid managed care, in the hope that it might provide a magic bullet (lower costs combined with better access and quality). In most states, this meant efforts to shift young adults and children into commercial HMOs, though in rural states the more common strategy was to implement “primary care case management” programs (PCCM), in which primary care physicians received supplemental fees to manage the care of their Medicaid patients. As the managed care initiatives grew, so too did the number and type of health plans, especially once Congress eliminated the “75/25” rule and permitted health plans to operate exclusively in the Medicaid market. This change permitted safety-net providers (including public and nonprofit hospitals, community health centers, and public health clinics) to form their own health plans. In addition, there were soon a number of for-profit health plans that operated only in the Medicaid market (and even those commercial plans that participated in Medicaid typically created separate divisions for the Medicaid enrollees).

By the early 2000s, managed care had become mainstream care in Medicaid, at least for children and young adults. At the same time, however, most aged, disabled and chronically ill beneficiaries remained in a traditional fee-for-service Medicaid program.

Medicaid directors around the country are again struggling to balance significant increases in overall enrollment with significant declines in state tax revenues. In an effort to respond to this difficult balancing act, state officials today are increasingly adopting a 2-pronged strategy: first, requiring the chronically ill, the aged, and the disabled to enroll in some form of managed care; and second, incorporating into their programs new management tools, such as provider profiles and report cards, pay-for-performance initiatives, and new care management strategies.

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The task of evaluating the success of Medicaid managed care initiatives is complicated by the fact that Medicaid is not a single national program, but instead is a diverse collection of state administered programs. Indeed, states are not required to incorporate managed care into their Medicaid programs (and three states currently do not), nor are those states that do have managed care initiatives required to follow any particular programmatic or organizational formula. The result is significant variation in how states define and administer Medicaid managed care programs (see Table 1).

Early on, for example, most states sought to persuade commercial health plans to enter the Medicaid market, providing generous capitation rates in exchange for full-risk contracts. As these state initiatives expanded, safety-net providers (public hospitals, community health centers, public health clinics) grew concerned that many of their best customers (the healthy Medicaid beneficiary) would no longer seek their services, leaving them with an increasing percentage of uninsured patients, along with the high-cost and hard-to-serve Medicaid enrollees. In response, the safety-net providers began to form their own health plans, which typically competed for market share by enrolling patients through the emergency room or clinic. Meanwhile, there also emerged several for-profit health plans that competed only in the Medicaid market (in contrast to the commercial plans whose main business remained with larger employer-based coverage).

The competition between these various organizational models continues today. According to a recent survey, 63 percent of the 26.7 million Medicaid health plan enrollees are in Medicaid-only plans (safety-net or for-profit), 53 percent are in for-profit plans (commercial or Medicaid-only) and 42 percent are in publicly traded health plans (47). Hidden within these national figures, however, are vast differences in how states structure the health plan competition. In some states (such as New York), there are more than two dozen health plans competing for the Medicaid business, most of which are either safety-net plans or Medicaid-only for-profit plans. Other states (such as Minnesota) limit the number of entries to about six; still others (such as California, which organizes managed care by county) by design have only one or two participating health plans in large segments of the state. There also is little consistency in how states reimburse participating health plans: most states rely on administrative pricing done by actuaries to set capitation rates for particular geographic areas, but just under a dozen negotiate annual or biannual rates with each plan; and still others rely on a system of competitive bidding (Table 1).

Unfortunately, however, the literature that seeks to correlate outcomes (cost, access or quality) to these organizational dynamics is extraordinarily thin. Indeed, in recent years, only McCue and Bailit have compared plan performance by sponsoring organization: their study finds that provider-sponsored plans do better on quality, access and beneficiary satisfaction, though the for-profit plans have lower medical costs (60).

The literature generally also does not take into account several other criteria on which the states and health plans vary. For example, states adopt very different strategies for the health plan marketing and enrollment process, with some states permitting health plans to market directly to enrollees, others prohibiting such marketing altogether (and requiring an independent enrollment broker or a government agency to handle the entire process), and still others crafting some combination of the two (such as New York, which allows direct marketing but requires an enrollment broker to monitor and verify).

Equally important, all states (except Tennessee) carve certain benefits out of their health plan benefit packages: for example, 25 states carve out dental care; 21 carve out behavioral health services; and 16 carve out prescription drug coverage (Table 1). Beneficiaries access carved-out

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Table 1: Variation in state managed care models

	Model		Carve outs			Rate setting method			
	MCO	PCCM	Dental	MH/SA	Drugs	Administrative (actuarial rates)	Negotiation	Competitive bid (within rate ranges)	Competitive bid
AL		•							
AR		•							
AZ	•			•		•		•	•
CA	•		•	•	•	•			
CO	•	•	•	•		•	•		
CT	•	•	•	•	•		•		•
DC	•					•	•		
DE	•	•	•	•	•	•	•	•	•
FL	•	•	•	•		•			
GA	•	•							
HI	•		•	•			•	•	
IA		•							
ID		•							
IL	•	•	•	•	•	•			
IN	•	•	•					•	
KS	•	•	•					•	
KY	•	•		•		•			
LA		•							
MA	•	•	•				•	•	
MD	•		•	•		•			
ME		•							
MI	•	•	•	•		•			
MN	•					•	•		
MO	•			•			•	•	•
MS	•			•		•			
NC		•							
ND		•							
NE	•		•	•	•	•			
NJ	•			•	•	•			
NM	•		•					•	
NV	•					•	•	•	•
NY	•	•	•	•	•	•			
OH	•			•	•	•			
OK		•							
OR	•	•	•		•	•			



# Methodology

Table 1: Variation in state managed care models (continued)

	Model		Carve outs			Rate setting method			
	MCO	PCCM	Dental	MH/SA	Drugs	Administrative (actuarial rates)	Negotiation	Competitive bid (within rate ranges)	Competitive bid
PA	•	•		•		•	•		
RI	•	•	•			•			
SC	•	•	•	•		•			
SD		•							
TN	•		•		•	•		•	
TX	•	•	•		•	•			
UT	•	•	•	•	•		•		
VA	•	•	•	•		•			
VT		•							
WA	•	•	•	•		•			
WI	•		•		•				
WV	•	•	•	•	•	•			
<b>Total</b>	<b>36</b>	<b>33</b>	<b>25</b>	<b>23</b>	<b>14</b>	<b>26</b>	<b>11</b>	<b>10</b>	<b>5</b>

Source: Adapted from Kaiser Commission on Medicaid and the Uninsured (47).

Notes: Alaska, New Hampshire and Wyoming reported no managed care enrollment as of 2010. Not all states responded to all questions and answers within categories were not exclusive.

services either through the traditional fee-for-service system, or, in some cases, through limited benefit plans (such as behavioral health plans). The most common explanation for benefit carve-outs is the view that health plans lack the delivery system to adequately provide a particular benefit. For example, many health plans are ill equipped to provide behavioral health services for Medicaid beneficiaries with mental illness (assuming, of course, that the state has included this group in its managed care initiative). Local mental health clinics may be far more experienced in treating this population, as are limited benefit behavioral health plans, and the state may go with either of those alternatives. At the same time, the most obvious disadvantage to carve-outs is that they make it less likely that beneficiaries will receive integrated care management, since there is no single health plan (or provider) that manages (or often is even aware of) the different services delivered to a particular beneficiary. Under either scenario, the decision to carve out (or carve in) is critical to the impact on enrollees. Here again, however, the literature on the impact of benefit carve-outs is thin.

There also are nearly 9 million Medicaid managed care beneficiaries in 31 states enrolled in PCCM programs, under which the state itself contracts with primary care providers, who receive a small additional fee to supply case management services to Medicaid beneficiaries. Rural states in particular utilize the PCCM route, largely because few health plans (if any) are willing or able to serve their communities. There are 19 states, however, that offer both PCCM and health plan options, and there is increased attention around the country to “enhanced” PCCM programs in which the state itself serves as the hub of a care management initiative. These enhanced PCCM programs are now in place in eight states, including North Carolina, which has ended its contracts with health plans, focusing instead on working with physicians and others to develop a robust

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set of regional care management initiatives. As the PCCM model evolves, it will be important to compare and contrast its outcomes with those generated in more traditional risk-based programs, something only a handful of researchers have so far tried to do.

Part of the reason so few researchers compare and contrast different Medicaid managed care models is that it is extremely difficult. Instead, most studies that examine the ways in which Medicaid managed care impacts costs, quality and access focus either on a single state (or even a single county or region within a state) or on a small subset of states (comparing outcomes among the different states). The assumption is that to do otherwise risks comparing “apples to oranges” with little explanatory power. These studies typically focus as well on a single population of beneficiaries, such as high-risk pregnant women or elderly beneficiaries in need of long-term care services, and often seek to compare outcomes (such as emergency room utilization, infant mortality rates or access to a usual source of care) for this group with similar beneficiaries still in Medicaid fee-for-service. The advantage of these studies is that they offer some depth in their analysis. The disadvantage, however, is that research that focuses on one group of beneficiaries or on programs within one state (or even region) arguably has limited generalizability.

There are, to be sure, a handful of researchers who rely on quantitative data on costs and access from all 50 states. The goal is to provide a more comprehensive overview and evaluation of the pros and cons of Medicaid managed care models. Here too, however, there are clear trade-offs: national data (such as federal data of Medicaid spending by county) permits generalizable conclusions, but it may not capture the programmatic variation that explains the raw figures.

Interestingly, there are very few research efforts that use a mixed model approach, combining quantitative national data and analyses with a narrower case study that builds off the national data. This is an important direction for future research to consider.

There also seems to be a disconnect between the criteria states themselves use to assess programmatic success, and the methodologies used by academics that publish evaluations in peer-reviewed journals.

Consider, for example, the question of whether Medicaid managed care beneficiaries receive higher-quality care than their fee-for-service counterparts. Presumably one place to look for answers would be the data that states collect in response to federal rules that require them to set forth their criteria for measuring the quality of care provided by Medicaid managed care organizations. Most states comply with this federal mandate by requiring participating health plans to submit data on a range of quality performance measures developed by the National Commission on Quality Assurance (NCQA). More than half of the states go even further, requiring participating health plans to be accredited by the NCQA, thereby imposing a quality assurance stamp of approval lacking in Medicaid fee-for-service programs. Other states have developed their own set of quality performance indicators and rank health plans based on the results. New York officials, for example, have created the Quality Assurance Reporting Requirements (QARR) initiative, and not only rank each participating plan based on its performance, but also provide a fiscal bonus to high-scoring plans. Other state strategies include beneficiary satisfaction surveys, provider network adequacy requirements, and contracts with External Quality Review Organizations, many of which conduct studies focused on particular clinical outcomes.

State officials consistently point to these data to illustrate the purported benefits of managed care. Interestingly, however, the literature which examines whether Medicaid beneficiaries do

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better in managed care than in traditional fee-for-service generally ignores these state-based quality assurance programs and the data they generate (though McCue and Bailit (60) provide an important exception to this trend). Part of the explanation could be doubts about the quality of the data, because beneficiaries regularly churn on and off the Medicaid rolls, and also because plan performance arguably can reflect data collection strategies as much as actual quality outcomes. Another obstacle is the proprietary nature of much of the data. Yet another barrier is that these data focus on process measures while academic researchers focus more on health outcomes.

Similarly, academic researchers generally ignore quality improvement frameworks and toolkits generated by organizations such as the Center for Health Care Strategies that provide technical assistance to state Medicaid agencies, presumably for the same reasons they ignore the state-generated quality data. Nonetheless, it is important for future researchers to develop strategies to evaluate the adequacy of these data and toolkits, and also to use the data in comparative research projects.

### Evaluating the early research efforts

In most states, Medicaid managed care began with efforts to enroll children and their parents. There were health plans (and/or primary care case managers) willing to enroll these populations, and the goal of integrating such beneficiaries into the mainstream health delivery system seemed reasonable and feasible. Policy-makers also assumed that the effort would save money, expand access and improve quality. The optimism was due in part to the perceived success of managed care in the commercial market, where analysts reported 5 percent to 10 percent savings, primarily due to reduced prices paid to health care providers (20). More generally, however, managed care models presumably would achieve even better results in the Medicaid market given the generally dismal performance of most fee-for-service Medicaid programs. Even modest reductions in emergency room use, avoidable hospitalizations and specialty care would lead to cost savings, and with effective disease and care management programs, the savings could be more significant.

The experience in Arizona provided support for the optimistic projections. After a series of administrative snafus (72), Arizona by the mid-1980s seemed to be running an effective managed care initiative. The reports by McCall et al. suggested that Arizona's Medicaid beneficiaries were receiving better and more affordable care than their New Mexico fee-for-service counterparts (59). If it worked in Arizona, it would likely be even more successful in a state like California or New Jersey, where the traditional fee-for-service program provided inadequate access to an overwhelmed and underfinanced safety-net delivery system.

Unexpectedly, however, the first in-depth analyses of these early Medicaid managed care initiatives offered a more modest and more mixed assessment. Deborah Freund et al. examined Medicaid managed care programs in four states (California, Missouri, Minnesota and New Jersey) between 1983 and 1989. The researchers compared claims data for beneficiaries in the managed care programs with those still in the fee-for-service programs and concluded that managed care enrollees utilized fewer health services than their fee-for-service counterparts, as both emergency room utilization and physician utilization declined. At the same time, however, the managed care beneficiaries were less satisfied with their overall care (perhaps because of their reduced access), and, more surprisingly, there were few (if any) cost savings (partly because inpatient costs remained high, but also because of high administrative costs and problems with the capitation rate-setting methodology) (27).

Freund et al. subsequently conducted a meta-analysis of other studies conducted during that same period, and found significant consistency with their earlier results: While both ER use and physician utilization declined in 75 percent of the studies, overall cost savings remained unexpectedly modest (39). The researchers also evaluated the impact of Medicaid managed care on the quality of care provided to infants and young children, and found no differences in either birthweight or immunization rates.

Freund and a colleague later summarized their conclusions by noting:

“Though the evidence suggests that managed care is here to stay, there is disagreement about what, if any, impact managed care has had on health care and costs. Moreover, little of the deluge of propaganda and research on the effects of managed care has focused in a rigorous empirical and scientific manner on whether managed care is good for children and pregnant women. Our research suggests that available research does not support most claims of large cost savings or improved quality of care for children and pregnant women as a result of managed care” (26).

## Findings

Several years later, Brown et al. reported on a six-year evaluation of Medicaid managed care initiatives in five states (Hawaii, Maryland, Oklahoma, Rhode Island and Tennessee). Their findings were similar to those of Freund et al.: There was little evidence that the initiatives had saved money, increased access or improved quality (10).

There is no doubt, however, that state administrators have in recent years become far more experienced in managed care contracting: more sophisticated purchasers, regulators and administrators. Medicaid managed care has moved from the periphery of most state programs to the mainstream, especially for child beneficiaries and their parents, but increasingly for the aged, the disabled and the chronically ill as well. The issue then is whether the more recent literature suggests that the managed care initiatives are doing a better job than their predecessor programs of saving money, improving access, or improving quality.

### Have states saved money by implementing Medicaid managed care?

**Peer-reviewed literature finds little savings from Medicaid managed care on the national level, but some states have been more successful than others.** The peer-reviewed literature on the cost implications of Medicaid managed care is quite thin, especially given the anecdotal claims of cost savings by policy-makers at both the state and federal levels (see Table 2). There are a few studies that find modest savings. Momany et al., for example, examine the Iowa PCCM program between 1989 and 1997, and conclude that the program generated savings of 3.8 percent (or \$66 million over the nine years), due primarily to reduced inpatient hospital utilization (65). Hutchinson and Foster review several studies that examine the impact of managed care on mental health services for children, and conclude that reductions in inpatient care led to reductions in overall expenditures (41). Kirby reaches a similar conclusion looking at national data: Using a dataset that compares beneficiary spending across the nation between 1987 and 1997, the authors conclude that the increase in Medicaid HMO enrollment led to modestly lower costs, again due to reduced hospital utilization (48).

At the same time, however, the majority of peer-reviewed studies of the fiscal implications of Medicaid managed care reach a different conclusion. Indeed, Kirby is the only such study that looks at national data and finds overall cost savings; the others all agree that such initiatives are either cost neutral or could actually end up costing more than traditional fee-for-service programs (48). Duggan and Hayford (22) offer the most recent perspective on the question of cost savings in Medicaid managed care: After looking at a dozen years of national data (from 1991–2003) the authors conclude that the state initiatives have no effect on overall Medicaid spending. The Duggan study also provides evidence of why some individual states do seem to save while others spend more (leading to the overall equilibrium): Those states with relatively high historic fee-for-service reimbursement rates save money when they switch to managed care (because of a general reduction in prices), while those states with low historic fee-for-service reimbursement lose money (as health plans need to raise prices to attract providers) (22). As Duggan notes, this finding is consistent with the more general literature on managed care that suggests savings, if any, are achieved primarily through reduced prices rather than through the more traditional tools of care management (20).

Several other researchers offer a similarly bleak picture of potential cost savings. Herring and Adams, for example, look at national data from 1996 to 2002 and conclude that direct medical costs remain relatively constant, and add that when administrative costs are added in, the overall cost in the managed care systems could well be higher than under fee-for-service (34). Burns looks at national data from 1996 to 2004 on disabled adult beneficiaries in capitated managed care and

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finds no difference in costs with their counterparts still in fee-for-service (13). Aizer, Currie and Moretti focused on the California Medi-Cal program, linking Medicaid data and birth outcomes data for 1999 and 2000, and conclude that the transition to managed care increased costs as more pregnant women went without needed prenatal care and ended up with high hospital-based NICU costs (1). Duggan reached a similar conclusion in a study that compared beneficiaries in counties with mandatory managed care with those still in fee-for-service during the period 1993 to 1999: Spending in the managed care counties was 12 percent higher even though there were no noticeable improvements in health outcomes. He speculated that the higher costs could be attributable to higher payments to providers, higher administrative costs, or HMO profits (23).

The paucity of evidence on cost savings from Medicaid managed care is consistent with recent findings on care management in Medicare. In a recent synthesis of 34 Medicare-funded disease management and care coordination programs, the CBO concluded that Medicare spending was unchanged or increased in nearly every program (15).

**Studies conducted by consulting firms on behalf of interested groups find overall cost savings, due primarily to reduced inpatient utilization.** The most commonly cited paper on the topic, done by the Lewin Group, synthesizes 24 studies of state Medicaid managed care initiatives, most done by consulting firms on behalf of health plan associations (much like the Lewin report itself), and most focusing on a single state. Despite the concern about bias, the studies themselves seem generally well done, though none were subject to the rigors and oversight of peer-reviewed literature. The findings suggest modest savings attributable to the managed care initiatives, due mainly to reduced inpatient utilization and lower pharmacy expenditures. The report also suggests that by far the most significant savings and impact occurs when states include the SSI population in their initiatives (55).

### **Why Medicaid managed care is unlikely to significantly lower costs:**

Taken together, there are several reasons for the reports of lower-than-expected fiscal savings.

- Fee-for-service rates are already so low that it is hard to get additional price discounts. More generally, Medicaid already is a low-cost program, with a lower rate of per capita cost growth than either commercial insurance or Medicare.
- States were using prior authorization, utilization review, and other similar tools, even before moving to managed care.
- It is unlawful to impose significant co-payments on Medicaid beneficiaries, thereby making it more difficult to incentivize beneficiaries to change care-seeking behavior.
- It is arguably more costly (at least in the short term) for states to develop the administrative infrastructure needed to contract with and regulate health plans than it is to simply pay bills directly to health care providers.
- Providing beneficiaries with a usual source of care could lead to higher costs as previously unmet needs are treated.
- Health plans have relatively little ability to themselves change the health delivery systems for the poor, especially if there are multiple plans contracting with multiple providers.
- The federal government requires that health plan capitation rates be “actuarially sound,” which gives the plans a legal lever with which to seek higher rates.

## Findings

Table 2: Summary of studies on costs in MMC

Authors	States studied	Model studied	Data years	Main findings
<b>Duggan &amp; Hayford (22)</b>	U.S.	MCO and PCCM	1991–2003	<b>No cost savings.</b> Nationally, shifting from FFS to MCO does not reduce overall Medicaid expenditures. States that did reduce costs had relatively high prior FFS reimbursement rates. <b>Methodological comments:</b> Analysis based on relatively old data.
<b>Alker &amp; Hoadley (2)</b>	FL	MCO	2011	<b>No clear evidence.</b> Insufficient data to assess cost implications. <b>Methodological comments:</b> Not peer-reviewed.
<b>The Lewin Group (53)</b>	CT, DE, IL, IN, IA, MO, NE, NY, OH, TN, TX, UT, WV, WI	MCO		<b>Projected cost savings.</b> States with pharmacy carve-outs are projected to save \$11.7 billion within a 10-year period (2012–2021) upon adopting pharmacy “carve-in” model. <b>Methodological comments:</b> Not peer-reviewed; study sponsored by Medicaid Health Plans of America.
<b>The Lewin Group (52)</b>	PA	MCO	2010	<b>Cost savings.</b> Pennsylvania’s MCO resulted in cost savings of \$2.1 billion to \$2.9 billion relative to fee-for-service. <b>Methodological comments:</b> Not peer-reviewed; study sponsored by managed care organizations.
<b>Herring &amp; Adams (34)</b>	U.S.	MCO	1996–2002	<b>No cost savings.</b> Implementation of commercial HMOs or Medicaid HMOs did not result in decreasing health expenditures. <b>Methodological comments:</b> Data based on Community Tracking Study’s household survey, CMS, and Interstudy.
<b>Burns (13)</b>	U.S.	MCO	1996–2004	<b>No cost savings.</b> Compared prescription, medical, and dental care costs between FFS and MCO counties for adult SSI beneficiaries. <b>Methodological comments:</b> Assessments based on MEPS and Area Resource Files.
<b>The Lewin Group (55)</b>	AZ, KY, MI, NM, OH, WA, PA, WI	MCO	Update of 2004 study	<b>Cost savings.</b> MCOs can yield savings of 1% to 20%. These savings result from: (1) enrolling SSI Medicaid beneficiaries, (2) decreasing preventable hospitalization utilization, and (3) reduced drug costs in MCOs relative to FFS. <b>Methodological comments:</b> Not peer-reviewed; study sponsored by America’s Health Insurance Plans.
<b>The Lewin Group (54)</b>	NY	MCO	2005–2007	<b>Cost savings.</b> HIV SNP program attributed to \$4.2 million savings for Medicaid. <b>Methodological comments:</b> Not peer-reviewed; study was collaboration with the NY State Dept. of Health AIDS Institute.
<b>Verdier et al. (80)</b>	AK, IN, NC, OK, & PA	PCCM	1992–2009	<b>Cost savings.</b> Anecdotal evidence suggests enhanced PCCM can save money with effective care management, even though model has limited ability to control hospital costs. <b>Methodological comments:</b> Not peer-reviewed; based on case studies in five states.
<b>Verdier et al. (81)</b>	OK	PCCM	2008	<b>Cost savings.</b> Cost savings in both per-member expenditures and total state expenditures. <b>Methodological comments:</b> Not peer-reviewed; single state study.
<b>Sparer (73)</b>	NY	MCO	2007	<b>No clear evidence.</b> Concludes that (1) it is difficult to conduct accurate comparative analysis between MCO and FFS spending and (2) must take into account high expenditure factors such as high administrative and marketing costs under health plans as well as costly administrative state requirements. <b>Methodological comments:</b> Not peer-reviewed; single state study.

## Findings

Table 2: Summary of studies on costs in MMC (continued)

Authors	States studied	Model studied	Data years	Main findings
Aizer et al. (1)	CA	MCO	1999–2000	<b>No cost savings.</b> The lack of cost savings was attributed to poor access to prenatal care resulting in higher NICU costs. <b>Methodological comments:</b> Single state study.
Momany et al. (65)	IA	PCCM	1989–1997	<b>Cost savings.</b> Iowa’s PCCM program resulted in \$66 million (3.8%) savings to the state over 8-year period. Cost savings attributed to improved care coordination and reduced unnecessary medical utilization. <b>Methodological comments:</b> Analysis based on relatively old data; single state study.
Kirby et al. (48)	U.S.	MCO	1987&1997	<b>Modest cost reductions.</b> Increasing Medicaid HMO enrollment led to fewer hospital visits, thus modestly lowering overall Medicaid expenditures. <b>Methodological comments:</b> National study using National Medicaid Expenditure Survey and MEPS; analysis based on relatively old data.
Duggan (23)	CA	MCO	1993–1999	<b>Costs increased.</b> Shifting enrollees from FFS to MCO increased overall costs by 12%. The author speculated that the increased costs resulted from higher payments to providers, higher administrative costs, and inclusion of “normal level” HMO profits. <b>Methodological comments:</b> Single state study; analysis based on relatively old data.
Holahan et al. (36)	AL, CA, CO, FL, MA, MI, MN, MS, NJ, NY, TX, WA, WI	MCO and PCCM	—	<b>Projected cost savings.</b> States hope for 5%–10% savings from implementing MMC programs—mainly by controlling provider payments and reducing utilization. <b>Methodological comments:</b> Case study of 13 states.

Despite these obstacles, however, policy-makers and policy analysts continue to tout the potential cost savings of Medicaid managed care. The recent exchange in *Health Affairs* between John Iglehart and Marguerite Burns is illustrative: After Iglehart cited the Lewin Group’s 2009 synthesis for the proposition that “...the available evidence does suggest that states will reap savings from enrolling the aged and disabled into Medicaid managed care” (42), Burns responded with a letter noting that “there is no evidence that Medicaid managed care yields long-term cost savings for these populations” (11). In response, Iglehart agreed, but also offered a quote from New York’s Medicaid director, Jason Helgeson, in which he said, “We’re going to need the federal government to take a leap of faith with us with some of these populations.” (43).

There is little doubt that states will continue to take the managed care “leap of faith.” First, while managed care does not necessarily save money, it does offer program officials some predictability and stability around expenditures, which is especially important during times of fiscal retrenchment. Second, and perhaps more important, the opportunity for savings arguably is more likely when enrolling aged, disabled and chronically ill populations, than it is when enrolling healthy children and their mothers, as has typically been the case in most state initiatives. These are far more expensive populations to treat under the best of circumstances, and the potential savings if care management works probably makes it worth pursuing, especially if there also are access and quality improvements.



## Findings

Interestingly, even the health plan community is split as to the cost (and clinical) effectiveness of the new care management programs: some are skeptical while others believe they are central to plan (and program) success (73). But just as the movement to more integrated and coordinated delivery systems (such as accountable care organizations and medical homes) is central to the nation's health reform initiatives, so too the movement toward managed care likely will remain high on the Medicaid agenda. As it moves forward, however, policy-makers should know that there is little evidence to date that the initiatives will contain program costs.

### **Do Medicaid managed care beneficiaries have better access to care?**

Medicaid beneficiaries in traditional fee-for-service programs generally have relatively poor access to high-quality office-based physicians, and instead typically receive primary and preventive care via hospital emergency rooms and outpatient clinics, community health centers, and public health clinics. Beneficiary access to specialist physicians in traditional fee-for-service is even more problematic. One important goal of Medicaid managed care initiatives is to provide better access to good quality care. The assumption is that managed care beneficiaries will have a stable and usual source of primary care and good access to a network of specialists, thereby encouraging reduced reliance on hospital emergency rooms and lowered rates of inpatient hospitalizations.

**Medicaid managed care can and sometimes does provide beneficiaries with improved access, but the scope and extent of such improvements generally are state specific and variable.** There are some national studies with positive findings, especially with respect to access to a usual source of care (see Table 3). Coughlin et al. (18), for example, find evidence that disabled beneficiaries in HMOs are more likely to have a usual source of primary care (though there is no evidence of such improved access for disabled beneficiaries in PCCM programs). Similarly, Garrett and Zuckerman (30) conclude that adult beneficiaries will have lower rates of emergency room use and better access to a usual source of care. There also are several state-based studies that reach similar conclusions. Verdier et al. conclude that Oklahoma's PCCM program both improves access and reduces preventable hospitalizations (81). In addition, Bindman et al. (7) examine the California initiative and find that beneficiaries have 18 percent to 29 percent fewer ambulatory care sensitive hospitalizations, leaving the reader to presume that one explanation is better access to primary and preventive care. And in one of the earliest studies of the access issue, Sisk et al. conclude that beneficiaries in New York are more likely to have a usual source of care than their fee-for-service counterparts (70).

There are, however, several studies that reach a very different conclusion, finding that access to care is either reduced or unchanged. Herring and Adams (34), for example, conducted a national study that examined both commercial and Medicaid-dominant HMOs in Medicaid, and conclude that

... neither the increased use of commercial HMOs nor Medicaid-dominant HMOs over this time period resulted in significant decreases in health care expense or improvement in access to care for the Medicaid population, relative to what would have occurred under direct fee-for-service reimbursement from the states.

## Findings

Reaching similar conclusions, Greene et al. (33) find that managed care initiatives do not increase primary care provider participation in Medicaid, and Baker and Afendulis (4) conclude the children in one of California's PCCM programs are more likely to go without a usual source of care and have higher rates of unmet needs.

Illustrating the complexity and state-specific nature of the access issue are a series of studies that examine beneficiary access to prenatal care. A couple of these studies find improved access (38, 51). At the same time, however, there are several studies that suggest Medicaid managed care actually reduces beneficiary access (1, 16, 71). Finally, Kaestner et al. (44) conducted a national study of the issue and found that managed care enrollment has essentially no impact on beneficiary access to prenatal care.

### **Why Medicaid managed care is likely to have a mixed impact on access:**

Taken together, there are several reasons why the shift to managed care is likely to have a mixed impact on access to care.

- Managed care is explicitly designed to have a mixed impact on access, increasing access to a usual source of primary care while reducing inpatient and emergency room utilization.
- Health plans employ a variety of provider reimbursement methodologies, from capitation (which in theory can create incentives to underserve) to fee-for-service (which in theory can create incentives for unnecessary utilization). Different managed care models are thus likely to have different impacts on access.
- Managed care plans often have limited provider networks, which can make it difficult for vulnerable and high-risk populations to maintain access to needed specialists and specialized services. At the same time, managed care plans can at times provide more access to specialists than is available in traditional fee-for-service programs.
- States were using prior authorization and utilization review in their traditional fee-for-service Medicaid programs, lessening the odds that health plans could use such tools to change utilization patterns.
- Health plans cannot impose significant co-payments on Medicaid beneficiaries, thereby complicating efforts to encourage beneficiaries to change care-seeking habits.
- The health delivery system for the poor is entrenched and decentralized, and health plans generally lack the leverage to ensure systemwide changes.

## Findings

Table 3: Summary of studies on access implications of MMC

Authors	States studied	Model studied	Data years	Main findings
Alker & Hoadley (2)	FL	MCO	2011	<p><b>Potential concern.</b> Anecdotal evidence signifying access concern. At the same time, data to fully assess implication is unavailable.</p> <p><b>Methodological comments:</b> Not peer-reviewed. Study's objective was to provide a fiscal update on effect of MCOs on Medicaid expenditures. Did not have the data to fully assess the access issue.</p>
Hiranandani (38)	Single City (not identified)	MCO	—	<p><b>No improvement.</b> People with disabilities report barriers to seeing doctors as well as receiving DME, medications, hospital and preventive care.</p> <p><b>Methodological comments:</b> Qualitative study of Medicaid beneficiaries with disabilities; small sample size (30 interviewees).</p>
Herring & Adams (34)	U.S.	MCO	1996–2002	<p><b>No improvement.</b> Use of Medicaid MCO did not improve access to care for Medicaid beneficiaries.</p>
Burns (12)	U.S.	MCO	1996–2004	<p><b>No improvement</b> When compared with FFS enrollees, MCO beneficiaries report waiting longer to see health care professional and were less likely to receive preventive services.</p> <p><b>Methodological comments:</b> National comparative study on adult SSI beneficiaries.</p>
Coughlin et al. (18)	U.S.	MCO and PCCM	1997–2004	<p><b>Some improvement.</b> Medicaid beneficiaries with disabilities who were enrolled in MCO were more likely to have usual source of preventive care in urban areas and more likely to have non-physician providers in rural areas. Not much evidence of improved access in PCCM models.</p> <p><b>Methodological comments:</b> National study on disabled Medicaid beneficiaries based on NHIS data.</p>
Verdier et al. (81)	OK	PCCM	2008	<p><b>Mixed evidence.</b> Improvement on some measures of access (increased participation of primary care provider groups, decline in preventable hospitalizations and ER visits). Primary care utilization declined, however.</p> <p><b>Methodological comments:</b> Single state study; not peer-reviewed; data based on interviews with stakeholders, state budget and legislative documents, and national data.</p>
Long (56)	U.S.	MCO	2002	<p><b>Access better in nonprofit MCOs than for-profit MCOs.</b> Individuals enrolled in for-profit plans reported fewer doctor visits, more likely to experience unmet needs.</p> <p><b>Methodological comments:</b> Compared Medicaid beneficiaries enrolled in for-profit MCOs with nonprofit MCOs, not relative to FFS.</p>
Aizer et al. (1)	CA	MCO	1999–2000	<p><b>Reduced access.</b> Probability decreased (4 to 6 percentage points) that pregnant women in MCOs use prenatal care in the first trimester compared with FFS. Evidence suggests that MCO incentives for reducing cost led to health care professionals limiting care .</p>
Greene et al. (33)	U.S.	MCO	1996–2001	<p><b>No improvement.</b> The use of MCOs did not lead to increased participation by primary care physician in Medicaid.</p> <p><b>Methodological comments:</b> Measurement of provider participation was based on physician self-reporting.</p>
Pollack et al. (68)	MI	MCO	1999–2001	<p><b>Access improvement.</b> ER utilization rate among children decreased by nearly 25%.</p> <p><b>Methodological comments:</b> Single state study of children enrolled in Medicaid and program for children with special health care needs.</p>
Garrett & Zuckerman (30)	U.S.	MCO	1997–1999	<p><b>Mixed evidence.</b> HMOs in Medicaid lowered ER use among adults, and increased likelihood that adults will have a usual source of care. At the same time, HMOs in Medicaid also had reduced use of preventive services by adults. HMOs in Medicaid seem to have little impact on children's access to care.</p>

## Findings

Table 3: Summary of studies on access implications of MMC (continued)

Authors	States studied	Model studied	Data years	Main findings
<b>Baker &amp; Afendulis (4)</b>	AL, AR, AZ, CA, FL, GA, IL, IN, LA, MA, MD, ME, MI, MO, NC, NJ, NY, OH, OR, PA, SC, TX, UT, WA	MCO and PCCM	1996–1999	<b>Mixed evidence.</b> Children enrolled in MCO had fewer ER visits and hospitalizations, and more outpatient visits. At the same time, there were delays in access to care and lower overall satisfaction. Children in PCCM had higher rates of unmet needs and more without usual source of care compared with FFS.
<b>Bindman et al. (7)</b>	CA	MCO	1994–1999	<b>Access improvement.</b> MCO enrollees had 18%–29% fewer ambulatory care sensitive hospitalizations than FFS enrollees.
<b>Kaestner et al. (44)</b>	U.S.	MCO and PCCM	1990–1996	<b>No improvement.</b> Beneficiaries in mandatory managed care counties did not have higher utilization of prenatal care than those in counties with voluntary managed care. <b>Methodological comments:</b> National study on prenatal care and health outcomes (infant birthweight and pre-term birth rate) using National Natality Files.
<b>Basu et al. (5)</b>	NY, PA, WI, TN	MCO	1997	<b>Minimal evidence of access improvement.</b> Small difference in preventable hospitalizations between the MCO and FFS enrollees.
<b>Howell et al. (38)</b>	OH	MCO	1993–1998	<b>Access improvement.</b> MCO enrollees had more prenatal visits compared with FFS enrollees.
<b>Center for Disability Issues (14)</b>	CA	MCO	2003	<b>No improvement.</b> MCO enrollees reported barriers to care (such as finding physician). <b>Methodological comments:</b> Single state study using focus groups; small sample size.
<b>Garrett et al. (14)</b>	U.S.	MCO and PCCM	1991–1995	<b>Mixed evidence.</b> PCCMs had minimal effect—slight increase in usual source of care for children. Mandatory HMO programs had no effect on adult ER use, but did decrease children’s ER use and expand access to specialists.
<b>Nolen (67)</b>	CA	MCO	2002	<b>No improvement.</b> Health plans reported initiatives to increase access for Medicaid beneficiaries with disabilities, but no evidence of success. <b>Methodological comments:</b> Based on health plan self-reported data.
<b>Conover et al. (66)</b>	TN & NC	MCO	1993–1995	<b>Mixed evidence.</b> Lower use of prenatal care, but higher use of some prenatal tests in TN MCO compared with NC FFS.
<b>Lo Sasso et al. (57)</b>	CA	MCO	1989–1992	<b>Decline in access.</b> Managed care beneficiaries had fewer outpatient visits and more ED visits than their counterparts. <b>Methodological comments:</b> Study compares experience of SSI and AFDC Medicaid managed care enrollees with FFS counterparts.
<b>Coughlin &amp; Long (18)</b>	MN	MCO	1988	<b>No improvement.</b> No difference in ER utilization and health care visits (preventive services) compared with FFS.
<b>Levinson &amp; Ullman (51)</b>	WI	MCO	1994	<b>Access improvement.</b> MCO enrollees had better access to prenatal care compared with FFS enrollees.
<b>Sisk et al. (70)</b>	NYC	MCO	1993–1995	<b>Mixed evidence.</b> MCO enrollees more likely to have usual source of care, but no evidence of reduced utilization of ER or inpatient care.

### **Do Medicaid managed care beneficiaries receive higher-quality care?**

Medicaid managed care advocates promise not only better access, presumably at a lower cost, but also that beneficiaries will ultimately receive more coordinated and higher-quality health care. After all, beneficiaries receiving a usual source of care for the first time presumably should be receiving higher-quality care. So too, those beneficiaries enrolled in disease or care management programs would seem likely to receive better care and have better health outcomes than their counterparts in fee-for-service systems. For this reason, another way to evaluate the effectiveness of Medicaid managed care is whether the quality of care improved for beneficiaries.

**There is scant literature that carefully examines the effectiveness of disease and care management programs administered by Medicaid health plans (including state-administered PCCM programs) (see Table 4).** More than a decade ago Landon and Epstein surveyed 130 health plans in the Medicaid market, and found that while nearly all had both disease and care management programs, most acknowledged their minimal success in effectively managing care (49). More recently, Bodenheimer and Berry-Millet documented evidence that care management programs (especially those that worked with recently discharged hospital patients) can improve quality of care (9). Have these advances in care management strategies found their way into Medicaid programs? Rather remarkably, despite the phenomenal growth of such programs by nearly every Medicaid managed care health plan, there is no peer-reviewed study in the last several years that examines and evaluates the clinical effectiveness of such efforts. There are, to be sure, a host of case studies of small but arguably successful initiatives, in which health plans have apparently improved clinical outcomes through the use of care management techniques (3, 6, 73). Nonetheless, given the extraordinary interest in Medicaid-funded efforts to better manage the care of the aged, the disabled, and the high-cost chronically ill, the need for rigorous and reliable research cannot be overstated.

**There is scant literature that uses HEDIS data to evaluate quality improvement in Medicaid managed care.** McCue and Bailit (60) recently used HEDIS data to compare the quality of care provided by different types of managed care organizations. The authors find that provider-sponsored plans score higher than commercial and other for-profit plans on a range of criteria (such as preventive services and care to the chronically ill). There is a need for more of this sort of research, both to compare quality indicators in different types of health plans, and also to compare outcomes in managed care with those of fee-for-service.

**Pregnant managed care enrollees are no more likely to deliver a healthy baby than their fee-for-service counterparts.** There are several studies that examine whether enrollment in a managed care delivery system improves the likelihood that a pregnant beneficiary will have a healthy child. Most such studies find that there is no impact on either birthweight or infant mortality rates (16, 17, 25, 38, 44, 51). This seems to be true whether the managed care initiative improved access to prenatal care (38, 51) or resulted in reduced access to prenatal care (16). Aizer et al. offer an even more troubling finding: Their study of California's managed care initiative suggests that managed care enrollees actually had higher rates of low-birthweight babies and neonatal deaths (1).

One explanation for this discouraging literature could be that health plans (including state-administered PCCM programs) have only a limited ability to alter traditional care delivery systems (and the various social determinants of health), and even less ability (at least so far) to improve the health outcomes of the Medicaid beneficiary. Moreover, this seems to be so even when the beneficiaries have improved access to a usual source of care and thus have reduced reliance on emergency room and inpatient hospital care.

## Findings

### Why Medicaid managed care's impact on quality is hard to discern:

Taken together, there are several reasons why there is little evidence about Medicaid managed care's impact on quality.

- Health outcomes are produced by a complex combination of factors, including various social determinants (such as education, housing and culture), making it hard to identify the impact of any particular intervention (such as Medicaid managed care).
- Much of the data on quality available to researchers are process measures that are less helpful in identifying and evaluating changes in health outcomes.
- The complex combination of factors impacting quality makes it more feasible to conduct case studies on particular quality initiatives than to conduct large-scale (and presumably more generalizable) studies.
- The literature on quality improvements in Medicaid Advantage and the commercial markets is also thin, suggesting the problem of evaluating quality in managed care goes well beyond Medicaid.

Table 4: Summary of studies on quality implications of MMC

Authors	States studied	Managed care model	Data years	Main findings
McCue & Bailit (60)	U.S.	MCO	2009	<b>Evidence of quality difference.</b> Publicly traded Medicaid health plans had lower quality scores than non-publicly traded health plans. <b>Methodological comments:</b> Not peer-reviewed; comparison between types of Medicaid health plans not relative to FFS.
Bella et al. (6)	NY	MCO	—	<b>Evidence of quality improvement.</b> New York and several other states had successful plans to meet the needs of Medicaid beneficiaries with severe and persistent mental illness. <b>Methodological comments:</b> Not peer-reviewed; based on case studies; difficult to generalize.
Sparer (73)	NY	MCO	2007	<b>Mixed evidence.</b> Health plans had minimal impact on changing provider behavior, but some success at managing the care of high-cost beneficiaries. <b>Methodological comments:</b> Not peer-reviewed; qualitative “snapshot”; difficult to generalize.
Landon et al. (49)	U.S.	MCO	2002–2003	<b>No evidence of quality difference.</b> Medicaid beneficiaries receive poorer quality care than their commercial counterparts, regardless of plan type. <b>Methodological comments:</b> Compared quality between types of plans, not with FFS.
Aizer et al. (1)	CA	MCO	1999–2000	<b>Evidence of poorer quality of care.</b> MCOs associated with increases in low-birthweight prevalence and neonatal death. <b>Methodological comments:</b> Single state study.
McFarland et al. (61)	OR	MCO	1994; 1996–1997	<b>No evidence of quality difference.</b> Focus on the outcomes of managed care substance abuse treatment. <b>Methodological comments:</b> Analysis based on relatively old data; single state study.
Howell et al. (38)	OH	MCO	1993–1998	<b>Mixed evidence.</b> Managed care enrollment had no effect on (1) birthweight or (2) health outcomes. However, there were lower rates of smoking among Medicaid-covered pregnant women in their second pregnancy. <b>Methodological comments:</b> Single state study; analysis based on relatively old data.

## Findings

Table 4: Summary of studies on quality implications of MMC (continued)

Authors	States studied	Managed care model	Data years	Main findings
Thompson et al. (76)	U.S.	MCO	1999	<b>No evidence of higher quality care.</b> Medicaid beneficiaries enrolled in plans with both Medicaid and commercial business had lower quality of care than their commercial counterparts.
Duggan (23)	CA	MCO	1993–2001	<b>No evidence of quality impact.</b> MCO enrollment had no effect on infant mortality or prevalence of low birthweight relative to FFS.
Kaestner et al. (44)	U.S.	MCO	1990–1996	<b>No evidence of quality impact.</b> No difference in mandatory vs. voluntary managed care counties on prenatal care or birth outcomes. <b>Methodological comments:</b> Analysis based on relatively old data.
Conover et al. (16)	TN & NC	MCO	1993 & 1995	<b>No evidence of quality impact.</b> MCOs in TN did not differ from NC FFS on infant mortality. <b>Methodological comments:</b> Analysis based on relatively old data.
Coughlin & Long (17)	MN	MCO	1998	<b>No evidence of quality difference.</b> There is minimal difference on quality of care measures when enrollees moved from FFS to MCO.
Landon & Epstein (49)	AZ, CA, CT, DC, FL, IL, MD, PA, TN, WA	MCO	1997–1998	<b>No evidence of higher quality care.</b> Neither commercial nor Medicaid dominant plans result in quality improvement. <b>Methodological comments:</b> Based on relatively old data.
Levinson & Ullman (51)	WI	MCO	1994	<b>No evidence of quality impact.</b> Minimal difference in birth outcome between MCO and FFS enrollees. <b>Methodological comments:</b> Single state study; based on relatively old data.

## Conclusion

It is hard to generalize with any certainty about the impact of Medicaid managed care on costs, access or quality. The uncertainty is due in large part to the extraordinary variation in Medicaid managed care initiatives. Indeed, there is much truth to the old cliché that what you learn from studying one such initiative is largely limited to the particular circumstances of that initiative.

Given this methodological barrier, most evaluations of Medicaid managed care focus on particular states and on particular programs and populations within those states. The quantitative studies typically compare managed care enrollees with those still in fee-for-service, while the qualitative studies rely on interviews with key informants to generate analyses and lessons, but both literatures offer a similar set of mixed conclusions.

- The peer-reviewed literature finds little savings on the national level, but some success by particular states, in controlling costs through Medicaid managed care. The successful states appear to be those with relatively high provider reimbursement rates in their fee-for-service program. The cost savings are due primarily to reductions in provider reimbursement rates rather than managed care techniques, though reductions in emergency room utilization and inpatient hospital care also contribute.
- The majority of studies that do find cost savings were not peer-reviewed and were conducted by consulting firms on behalf of interested parties, creating at least a perceived bias.
- The trend to add high-need, high-cost beneficiaries into managed care increases the cost savings potential, most likely via reduced emergency department and inpatient care services. However, the extent of such savings (if any) is still uncertain.
- There is some evidence that Medicaid managed care improves access to care, but the scope of the improvements is state-specific and depends on how access is measured. In general, there is evidence that Medicaid managed care sometimes improves access to a usual source of primary care, while also reducing emergency department utilization and ambulatory sensitive hospitalization. At the same time, studies which focus on pregnant beneficiaries' access to prenatal care show mixed results.
- The literature on Medicaid managed care and quality has focused to date on examining whether pregnant beneficiaries have healthier babies than their fee-for-service counterparts: They do not. There is little peer-reviewed research that focuses on health plan care management programs for the high-need, high-cost beneficiary, and even less literature that utilizes the wealth of quality data (such as HEDIS data) available from states which may shine more light on this issue.
- Health plans, like the Medicaid agencies themselves, have only a limited ability to change traditional delivery systems and an equally limited ability to respond to the social determinants of health that play a large role in the fragmented care Medicaid enrollees receive.



## Policy Implications

Most policy-makers today seem to believe that providing care to the high-cost chronically ill is the arena where managed care can provide the most significant improvements in access, quality and care coordination, while also potentially achieving large cost savings. Indeed, states are especially interested in expanding efforts to coordinate the care of the dual eligible (those enrolled in both Medicaid and Medicare): As of April 2012, 26 states had submitted proposals to HHS to test care coordination models for this population (46). Moreover, the states are also pressing for more and better data to both guide such initiatives and evaluate their impact (8).

There still is no consensus among these policy-makers on the “best” managed care model by which to achieve such a positive outcome: enhanced PCCM, traditional HMO, special needs plans, accountable care organizations, medical home programs, and so on. This is not surprising since there is no one-size-fits-all solution. Indeed, the best model for particular communities and particular groups of beneficiaries is likely to be site- and group-specific.

In this context, Medicaid policy-makers across the country are implementing extraordinarily divergent managed care initiatives. Moreover, they are moving ahead with such programs even though there is limited peer-reviewed evidence as to what works and what does not work among such programs, and even though the limited evidence suggests the programs will have uncertain impact on beneficiary access, and may neither save money nor improve health outcomes.

At the same time, however, the literature that we do have suggests the following implications for policy-makers:

- Policy-makers may want to be far more cautious and conservative in their estimates of the likely benefits of Medicaid managed care. In particular, policy-makers need to more carefully take into account the trade-offs between costs, access and quality. For example, programs that improve access and/or quality are not likely to save money, especially in a program that is already quite low-cost.
- Focusing managed care on the goal of cost saving could lead to reduced access and/or quality. In other words, it is extraordinarily difficult to develop initiatives that can simultaneously improve access and quality, while also reducing costs. Managed care may be the right next step for Medicaid, but it is not a magical panacea.
- There is a clear need for more and better research on the impact of Medicaid managed care on costs, access and quality, including research that focuses on individual states as well as national data. This is especially true for the emerging programs for high-cost beneficiaries.

In the end, however, Medicaid officials have no choice but to continue efforts to better manage the care of the high-cost beneficiary. This is both an economic and a political imperative. The hope is that the states can act as effective policy laboratories, trying and testing different managed care strategies, looking and learning from each other, researching and evaluating what works, what doesn't, and why. As this national effort proceeds, the need for rigorous research and evaluations could not be more important.

## Need for Additional Information

We know very little about why certain states and certain programs seem to achieve good results, while others do not. Indeed, aside from Duggan (23) and McCue (60), few researchers have even asked the question. There are remarkably few studies that compare and contrast outcomes in programs with different approaches to Medicaid managed care. Are risk-based health plans more likely to produce good outcomes than PCCM programs? What about safety-net plans as opposed to for-profit commercial plans? Or programs that carve in most benefits versus those that more often carve out?

Nor have peer-reviewed researchers used the detailed data that states (and their technical advisers) collect from health plans and providers to generalize about access and quality outcomes. Indeed, it is rather remarkable that while state officials cite HEDIS and CHAPs scores to tout the benefits of Medicaid managed care (and to provide data for pay-for-performance bonuses), academics and other researchers generally ignore such data altogether.

Nor does the literature acknowledge that the difference between “successful” and “unsuccessful” programs may be rooted in management performance. Some programs and some health plans simply may be administered better than others. But the literature says nothing about the various dimensions of management and how they affect cost, quality and access. There may be good reason for this literature gap. Indeed, it likely is quite difficult to capture the variables that result in good management (strong leadership, good data systems, the right mix of physicians and non-physician providers, effective outreach programs, and so on). Nonetheless, only by figuring out *why* some managed care initiatives do better than others will we be able to replicate successful models and improve others.

Researchers need to continue to study the emerging and evolving managed care initiatives, and seek to tease out patterns as to when and why certain initiatives seem to reduce costs or promote improved access while others apparently do not. At this point, the evidence on that point is simply too murky to provide clear policy guidance.

There is, therefore, an extraordinarily important need for more and better research into the outcomes generated by Medicaid managed care, and the explanations for such outcomes. There should be studies that combine quantitative and qualitative methods to compare and contrast different Medicaid managed care models. There should be studies that utilize the health plan and provider data that Medicaid officials are already collecting. There should be studies that focus on the organizational and management dynamics of managed care. Put simply, there should be a major research initiative that considers new approaches to studying and evaluating Medicaid managed care.

## Appendix I References

1. Aizer A, Currie J, Moretti E. "Does Managed Care Hurt Health? Evidence from Medicaid Mothers." *The Review of Economics and Statistics*, vol. 89, no. 3, 2007.
2. Alker J, Hoadley J. *As Legislators Wrestle to Define Next Generation of Florida Medicaid, Benefits of Reform Effort Are Far From Clear*. Georgetown University Health Policy Institute report for the Jessie Ball duPont Fund, 2011.
3. Allen G. "To Cap Medicaid, Florida Looks to Managed Care." National Public Radio, March 8, 2011.
4. Baker LC, Afendulis C. "Medicaid Managed Care and Health Care for Children." *Health Services Research*, vol. 40, no. 5 (Part 1), 2005.
5. Basu J, Friedman B, Burstin H. "Managed Care and Preventable Hospitalization Among Medicaid Adults." *Health Services Research*, vol. 39, no. 3, 2004.
6. Bella M, Somers SA, Llanos K. *Providing Behavioral Health Services to Medicaid Managed Care Enrollees: Options for Improving the Organization and Delivery of Services*. Report prepared for the Medicaid Institute at United Hospital Fund. New York: United Hospital Fund, 2009.
7. Bindman AB, Chattopadhyay A, Osmond DH, Huen W, Bacchetti P. "The Impact of Medicaid Managed Care on Hospitalizations for Ambulatory Care Sensitive Conditions." *Health Services Research*, vol. 40, no. 1, 2005.
8. Bloomberg BNA. "More Medicare Data Needed to Integrate Care for Dual Eligibles, State Directors Say." *Health Care Policy Report* vol. 20, no. 19, 2012.
9. Bodenheimer T, Berry-Millett R. *Care Management of Patients with Complex Health Care Needs*. Research Synthesis Report No. 19. Princeton, NJ: Robert Wood Johnson Foundation, December 2009.
10. Brown R, Wooldridge J, Hoag S, Moreno L. *Reforming Medicaid: The Experiences of Five Pioneering States With Mandatory Managed Care and Eligibility Expansions*. Mathematica Policy Research report prepared for the Health Care Financing Administration, 2001.
11. Burns ME, Long S. "Medicaid Managed Care for Elderly, Disabled Populations." *Health Affairs*, vol. 30, no. 11, 2011.
12. Burns ME. "Medicaid Managed Care and Health Care Access for Adult Beneficiaries with Disabilities." *Health Services Research*, vol. 44, no. 5, 2009.
13. Burns ME. "Medicaid Managed Care and Cost Containment in the Adult Disabled Population." *Medical Care*, vol. 47, no. 10, 2009.
14. Center for Disability Issues and the Health Professions. *Adults with Disabilities in Medi-Cal: The Beneficiary Perspective*. Medi-Cal Policy Institute Report. Oakland, CA: California HealthCare Foundation, 2003.
15. The Congressional Budget Office. "Lessons from Medicare's Demonstration Projects on Disease Management and Care Coordination." Working Paper 2012-01. January 2012.
16. Conover CJ, Rankin PJ, Sloan FA. "Effects of Tennessee Medicaid Managed Care on Obstetrical Care and Birth Outcomes." *Journal of Health Politics, Policy and Law*, vol. 26, no. 6, 2001.
17. Coughlin TA, Long SK. "Effect of Medicaid Managed Care on Adults." *Medical Care*, vol. 38, no. 4, 2000.
18. Coughlin TA, Long SK, Graves JA. "Does Managed Care Improve Access to Care for Medicaid Beneficiaries With Disabilities? A National Study." *Inquiry*, vol. 45, no. 4, 2009.
19. Currie J, Fahr J. "Medicaid Managed Care: Effects on Children's Medicaid Coverage and Utilization." NBER Working Paper 8812. Cambridge, MA: National Bureau of Economic Research, 2002.
20. Cutler D, McClellan M, Newhouse J. "How Does Managed Care Do It?" *Journal of Economics*, vol. 31, no. 3, 2000.

## Appendix I References

21. Draper DA, Hurley RE, Short AC. "Medicaid Managed Care: The Last Bastion of the HMO?" *Health Affairs*, vol. 23, no. 2, 2004.
22. Duggan M, Hayford T. "Has the Shift to Managed Care Reduced Medicaid Expenditures? Evidence from State and Local-Level Mandates." NBER Working Paper 17236. Cambridge, MA: National Bureau of Economic Research, 2011.
23. Duggan M. "The Effect of Medicaid HMOs on Spending and Health Outcomes." NBER Working Paper 9091. Cambridge, MA: National Bureau of Economic Research, 2002.
24. Flavelle C. "Managed-Care Push Not Explained by Medicaid Cost Growth Alone." *Bloomberg Government Study, Medicaid Managed Care: A Sustainable Solution? Part 1 of 3*. April 2012.
25. Flavelle C. "Evidence is Limited That Medicaid Managed Care Reduces ER Visits." *Bloomberg Government Study, Medicaid Managed Care: A Sustainable Solution? Part 2 of 3*. May 2012.
26. Freund DA. "Medicaid Managed Care and Kids. *The 12th Annual Herbert Lourie Memorial Lecture on Health Policy*." Center for Policy Research. Paper 23. 2000. Accessed online at <http://surface.syr.edu/cpr/23>
27. Freund DA, Rossiter LF, Fox PD, Meyer JA, Hurley RE, Carey TS, Paul JE. "Evaluation of the Medicaid Competition Demonstrations." *Health Care Financing Review*, vol. 11, no. 2, 1989.
28. Galewitz P. "Insurers Clash With Providers as States Expand Medicaid Managed Care." *Kaiser Health News*, April 26, 2011. Accessed online at [www.kaiserhealthnews.org/Stories/2011/April/27/Insurers-Providers-States-Expand-Medicaid-Managed-Care.aspx](http://www.kaiserhealthnews.org/Stories/2011/April/27/Insurers-Providers-States-Expand-Medicaid-Managed-Care.aspx)
29. Garrett B, Davidoff A, Yemane A. "Effects of Medicaid Managed Care Programs on Health Services Access and Use." *Health Services Research*, vol. 38, no. 2, 2003.
30. Garrett B, Zuckerman S. "National Estimates of the Effects of Mandatory Medicaid Managed Care Programs on Health Care Access and Use, 1997–1999." *Medical Care*, vol. 43, no. 7, 2005.
31. Gold M, Sparer M, Chu K. "Medicaid Managed Care: Lessons from Five States." *Health Affairs*, vol. 15, no. 3, 1996.
32. Graham J. "Illinois Medicaid's Managed Care Effort Stumbles." *Chicago Tribune*, August 26, 2011. Accessed online at [http://articles.chicagotribune.com/2011-08-26/health/ct-met-medicaid-managed-care-20110826\\_1\\_care-and-lower-costs-care-doctor-hmo-style](http://articles.chicagotribune.com/2011-08-26/health/ct-met-medicaid-managed-care-20110826_1_care-and-lower-costs-care-doctor-hmo-style)
33. Greene J, Blustein J, Remler D. "The Impact of Medicaid Managed Care on Primary Care Physician Participation in Medicaid." *Medical Care*, vol. 43, no. 9, 2005.
34. Herring B, Adams EK. "Using HMOs to Serve the Medicaid Population: What Are the Effects on Utilization and Does the Type of HMO Matter?" *Health Economics*, vol. 20, no. 4, 2010.
35. Hiranandani VS. "Disabling Health Care? Medicaid Managed Care and People with Disabilities in America." *Poverty and Public Policy*, vol. 3, no. 2, 2011.
36. Holahan J, Zuckerman S, Evans A, Rangarajan S. "Medicaid Managed Care in Thirteen States." *Health Affairs*, vol. 17, no. 3, 1998.
37. Holmes AM, Ackermann RD, Zillich AJ, Katz BP, Downs SM, Inui TS. "The Net Fiscal Impact of a Chronic Disease Management Program: Indiana Medicaid." *Health Affairs*, vol. 27, no. 3, 2008.
38. Howell EM, Dubay L, Kenney G, Sommers AS. "The Impact of Medicaid Managed Care on Pregnant Women in Ohio: A Cohort Analysis." *Health Services Research*, vol. 39, no. 4 (part 1), 2004.
39. Hurley R, Freund D, Paul J. *Managed Care in Medicaid: Lessons for Policy and Program Design*. Ann Arbor, MI: Health Administration Press, 1993.

## Appendix I References

40. Hurley R, Somers SA. "Medicaid and Managed Care: A Lasting Relationship?" *Health Affairs*, vol. 22, no. 1, 2003.
41. Hutchinson AB, Foster EM. "The Effect of Medicaid Managed Care on Mental Health Care for Children: A Review of the Literature." *Mental Health Services*, vol. 5, no. 1, 2003.
42. Iglehart J. "Desperately Seeking Savings: States Shift More Medicaid Enrollees to Managed Care." *Health Affairs*, vol. 30, no. 9, 2011.
43. Iglehart J. "Using Medicaid Managed Care: The Author Responds." *Health Affairs*, vol. 30, no. 11, 2011.
44. Kaestner R, Dubay L, Kenney G. "Managed Care and Infant Health: An Evaluation of Medicaid in the U.S." *Social Science and Medicine*, vol. 60, no. 8, 2005.
45. Kaiser Commission on Medicaid and the Uninsured. *Medicaid Managed Care: Key Data, Trends, and Issues*. February 2012.
46. Kaiser Commission on Medicaid and the Uninsured. *People with Disabilities and Medicaid Managed Care: Key Issues to Consider*. February 2012.
47. Kaiser Commission on Medicaid and the Uninsured. *A Profile of Medicaid Managed Care Programs in 2010: Findings From a 50-State Survey*. September 2011.
48. Kirby JB, Machlin SR, Cohen JW. "Has the Increase in HMO Enrollment Within the Medicaid Population Changed the Pattern of Health Service Use and Expenditures?" *Medical Care*, vol. 41, no. 7, 2003.
49. Landon BE, Epstein AM. "Quality Management Practices in Medicaid Managed Care: A National Survey of Medicaid and Commercial Health Plans Participating in the Medicaid Program." *Journal of the American Medical Association*, vol. 282, no. 18, 1999.
50. Landon BE, Schneider EC, Normand ST, Scholle SH, Pawlson G, Epstein AM. "Quality of Care in Medicaid Managed Care and Commercial Health Plans." *Journal of the American Medical Association*, vol. 298, no. 14, 2007.
51. Levinson A, Ullman F. "Medicaid Managed Care and Infant Health." *Journal of Health Economics*, vol. 17, no. 3, 1998.
52. The Lewin Group. *An Evaluation of Medicaid Savings from Pennsylvania's HealthChoices Program*. May 2011.
53. The Lewin Group. *Projected Impacts of Adopting a Pharmacy Carve-In Approach Within Medicaid Capitation Programs*. January 2011.
54. The Lewin Group. *Evaluation of New York's HIV Special Needs Plan Program: Cost and Usage Impacts*. November 2009.
55. The Lewin Group. *Medicaid Managed Care Cost Savings: A Synthesis of 24 Studies*. Updated March 2009.
56. Long SK. "Do For-Profit Health Plans Restrict Access to Care Under Medicaid Managed Care." *Medical Care Research and Review*, vol. 65, no. 5, 2008.
57. Lo Sasso AT, Freund DA. "A Longitudinal Evaluation of the Effect of Medi-Cal Managed Care on Supplemental Security Income and Aid to Families With Dependent Children Enrollees in Two California Counties." *Medical Care*, vol. 38, no. 9, 2000.
58. McCall N, "Lessons from Arizona's Medicaid Managed Care Program." *Health Affairs*, vol. 16, no. 4, 1997.
59. McCall N, Wrightson CW, Paringer L, Trapnell G. "Medicaid Managed Care Cost Savings: The Arizona Experience." *Health Affairs*, vol. 13, no. 2, 1994.
60. McCue MJ, Bailit MM. *Assessing the Financial Health of Medicaid Care Plans and the Quality of Patient Care They Provide*. The Commonwealth Fund: Issue Brief, no. 11, 2011.

## Appendix I References

61. McFarland BH, McCamant LE, Bigelow DA. "Outcomes for Medicaid Clients With Substance Abuse Problems Before and After Managed Care." *Health Services Research*, vol. 32, no. 4, 2005.
62. Medicaid and CHIP Payment and Access Commission (MACPAC). *The Evolution of Managed Care in Medicaid*. Report to the Congress, June 2011.
63. Medicaid and CHIP Payment and Access Commission (MACPAC). *Medicaid and CHIP*. Report to the Congress, March 2011.
64. Miller RH, Luft HS. "Does Managed Care Lead to Better or Worse Quality of Care?" *Health Affairs*, vol. 16, no. 5, 1997.
65. Momany ET, Flach SD, Nelson F. "A Cost Analysis of the Iowa Medicaid Primary Care Case Management Program." *Health Services Research*, vol. 41, no. 4, 2006.
66. Newacheck PW, Hughes DC, Stoddard JJ, Halfon N. "Children With Chronic Illness and Medicaid Managed Care." *Pediatrics*, vol. 93, no. 3, 1994.
67. Nolen JR. *Adults with Disabilities in Medi-Cal: Health Plan Practices and Perspectives*. Report prepared for the Medi-Cal Policy Institute. Oakland, CA: California HealthCare Foundation, 2003.
68. Pollack HA, Wheeler JK, Cowan A, Freed GL. "The Impact of Managed Care Enrollment on Emergency Department Use Among Children With Special Health Care Needs." *Medical Care*, vol. 45, no. 2, 2007.
69. Silberman P, Poley S, James K, Slifkin R. "Tracking Medicaid Managed Care in Rural Communities: A Fifty-State Follow-Up." *Health Affairs*, vol. 21, no. 4, 2002.
70. Sisk JE, Gorman SA, Reisinger AL, Glied SA, DuMouchel WH, Hynes MM. "Evaluation of Medicaid Managed Care." *Journal of the American Medical Association*, vol. 276, no. 1, 1996.
71. Sommers AS, Kenney GM, Dubay L. "Implementation of Mandatory Medicaid Managed Care in Missouri: Impacts for Pregnant Women." *American Journal of Managed Care*, vol. 11, no. 7, 2005.
72. Sparer M. *Health Policy for Low-Income People in Arizona*. The Urban Institute Assessing the New Federalism Project, Occasional Paper No. 32. Washington, DC: The Urban Institute, 1999.
73. Sparer M. *Medicaid Managed Care Reexamined*. Report prepared for the Medicaid Institute at United Hospital Fund. New York: United Hospital Fund, 2008.
74. Spitz B. "Medicaid Agencies as Managed Care Organizations: An 'Actuarially Sound' Solution?" *Journal of Health Politics, Policy and Law*, vol. 32, no. 3, 2007.
75. State Health Watch, "The Battle Is on to Control Soaring Costs of Medicaid's Chronically Ill." May 2011.
76. Thompson JW, Ryan KW, Pinidiya SD, Bost JE. "Quality of Care for Children in Commercial and Medicaid Managed Care." *Journal of the American Medical Association*, vol. 290, no. 11, 2003.
77. U.S. General Accounting Office. *Better Controls Needed for Health Maintenance Organizations Under Medicaid in California*. GAO/B-164031(3). 1974.
78. U. S. General Accounting Office. *Medicaid: States Turn to Managed Care to Improve Access and Control Costs*. GAO/HRD-93-46. 1993.
79. U. S. General Accounting Office. *Arizona Medicaid: Competition Among Managed Care Plans Lowers Program Costs*. GAO/HEHS-96-2. 1995.
80. Verdier JM, Byrd V, Stone C. *Enhanced Primary Care Case Management Programs in Medicaid: Issues and Options for States*. Mathematica Policy Research Resource Paper prepared for the Center for Health Care Strategies and Oklahoma Health Care Authority. Washington, DC: Center for Health Care Strategies, September 2009.

## Appendix I References

81. Verdier JM, Colby M, Lipson D, Simon S, Stone C, Bell T, Byrd V, Lipson M, Perez V. *SoonerCare Managed Care History and Performance: 1115 Waiver Evaluation*. Washington, DC: Mathematica Policy Research, January 2009.
82. Weaver C. "Medicaid Managed Care Expands in California as State Requires Seniors and Disabled to Join." *Kaiser Health News*, June 1, 2011. Accessed online at [www.kaiserhealthnews.org/Stories/2011/June/01/medicaid-california-mediCal-managed-care.aspx](http://www.kaiserhealthnews.org/Stories/2011/June/01/medicaid-california-mediCal-managed-care.aspx)
83. Weaver C. "Insurers See Growing Risks as Well as Revenues in Medicaid Managed Care." *Kaiser Health News*, August 26, 2011. Accessed online at [www.kaiserhealthnews.org/Stories/2011/August/26/managed-care-texas.aspx](http://www.kaiserhealthnews.org/Stories/2011/August/26/managed-care-texas.aspx)

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