Comparison of Medicaid Pharmacy Costs and Usage in Carve-In Versus Carve-Out States

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Executive Summary

We were asked by America’s Health Insurance Plans (AHIP) to analyze the impact of carving out prescription drug benefits from Medicaid managed care organization (MCO) benefit packages. MCOs, health plans that contract with states to provide benefits to the low-income populations served in Medicaid programs, currently enroll more than half of all Medicaid beneficiaries across the country. These plans generally provide medical and prescription drug benefits, which are coordinated by the MCO to ensure beneficiaries receive the most clinically appropriate, cost effective care. However, some states have carved out prescription drug benefits from MCO benefits, meaning beneficiaries receive prescription medications through the state’s Medicaid fee-for-service program in an effort to achieve greater cost savings.

Our analysis of publicly available data indicates the decision to carve out pharmacy benefits is likely to significantly increase costs for states and the Federal government, which undermines the objective of achieving optimal cost-effectiveness in the Medicaid program. Moreover, carving out prescription drugs from MCOs inhibits health plans’ ability to integrate pharmacy and medical benefits, which likely has implications for their efforts to reduce unnecessary hospitalizations and improve overall quality of care through medication adherence, care coordination, and timely provider interventions.

This paper examines thirty-five states and the District of Columbia that made use of the managed care organization (MCO) capitation contracting model in their Medicaid program, transferring risk for medical cost to coordinate care for at least some of their Medicaid beneficiaries. These programs seek to create a system of coverage that optimally tracks and facilitates access to needed services, measures and improves quality, and achieves available cost savings. Each state implements its own program design features regarding which populations are included in their capitated MCO program and which Medicaid covered services are included/excluded in the capitated benefits package.

This paper analyzes the dynamics of the Medicaid prescription drug benefit included in state MCO capitation programs (carved-in) versus those excluded (carved-out) in state MCO capitation programs. Our analyses first focused on federal fiscal years (FFY) 2013 and 2014 and encompassed all fifty states (as well as the District of Columbia). The study examined twenty-eight states and the District of Columbia that carve in the pharmacy benefit, seven states that carve out the pharmacy benefit, and fifteen states that do not use the capitated Medicaid MCO model. Our analysis then compared the experience of states that recently carved-in pharmacy benefits to those states that continued to carve them out.

We provide the following comparisons between carve-in and carve-out services:

1) Section II compares national volume, generic usage, and cost per prescription data for Medicaid prescriptions paid by Medicaid MCOs to the data for prescriptions paid in the Medicaid FFS setting

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1 Medicaid pharmacy services that are not included in the MCOs’ capitated benefits package typically continue to be paid via the underlying fee-for-service (FFS) payment structure and are commonly referred to as a “pharmacy carve-out.” Conversely, pharmacy services included in the capitated services are often referred to as “pharmacy carve-in.”
2) Section III compares more detailed state-level prescription usage and cost data for states that pay Medicaid MCO enrollee prescriptions through a carve-in model to the data in states that pay for Medicaid prescriptions entirely in the FFS setting.

3) Section IV focuses on the 13 states that used the carve-out model as of 2011, and compares the 2014 pharmacy costs for seven states that have continued the carve-out approach to the costs in the six states that have moved to a carve-in model.

The findings from these three approaches were consistent and compelling – the carve-in model is out-performing the carve-out approach by a wide margin with regard to cost savings. Our key findings are summarized below and described in detail in the full paper.

- Nationally, MCOs make greater use of less expensive generic drugs. Generic drugs comprised 82.8% of all MCO prescriptions, compared to 78.0% of all FFS prescriptions.

- Across the 28 states (plus the District of Columbia) using the carve-in model, the FFY2014 net cost per prescription -- after taking into account each state’s rebates and factoring in Health Insurer Fee dynamics, initial amounts paid to the pharmacies, and other costs -- was 14.6% lower for carve-in states than the average in the carve-out states.

- This differential of 14.6%, or $6.33, multiplied by all MCO prescriptions dispensed in carve-in states, suggests Medicaid realized a $2.06 billion net savings in state and federal expenditures during FFY2014 relative to the expected costs had the carve-out model been universally used. These savings are a result of MCO’s greater use of generics and of lower-cost drugs within brands as well as within generics. Medicaid MCOs also negotiate lower pharmacy reimbursement rates for prescriptions than are paid in the Medicaid FFS setting.

- The seven states that continued to use a carve-out approach as of FFY2014 had a 20% increase in net costs per prescription from FFY2011 – FFY2014. By contrast, the six states that recently switched from a carve-out to carve-in during this same timeframe had a dramatically different experience – they had only a 1% increase in net costs per prescription indicating costs were essentially flat.

- We estimate the collective FFY2014 “missed” savings opportunity for the seven carve-out states (had they used a carve-in approach) to be $307 million.

In addition to the financial results described above, there are a number of significant programmatic advantages of the carve-in approach. Prescription drugs play a central role in health care treatment. Moving this benefit out of the MCO capitation model runs directly counter to the goals of achieving integrated, whole-person focused coverage and care coordination for the Medicaid population. There should be compelling evidence of large-scale financial savings in order for policymakers to choose to forego the programmatic advantages of the pharmacy carve-in model.
Our findings suggest that states that maintain prescription drugs as part of the MCO benefit are able to achieve cost savings while at the same time provide highly integrated care. The pharmacy carve-in model appears to resoundingly fulfill both objectives.

I. Introduction and Background

A. Introduction

States are increasingly relying on coordinated care models – and capitation contracting with managed care organizations (MCOs) in particular – to strengthen the performance of their Medicaid programs. These programs seek to create a system of coverage that optimally tracks and facilitates access to needed services, measures and improves quality, and achieves available cost savings.

States make their own determinations as to what form of Medicaid coordinated care model(s) they use. This paper examines 35 states and the District of Columbia that made use of the MCO capitation contracting model in their Medicaid program, transferring risk for medical costs to coordinate care for at least some of their Medicaid beneficiaries. Each state determines its own program design features regarding which populations are included in their capitated MCO program, how many (and which) MCO contracting partners are selected/approved, and which Medicaid covered services are included/excluded in the capitated benefits package.

Medicaid pharmacy services that are not included in the MCOs’ capitated benefits package typically continue to be paid via the underlying fee-for-service (FFS) payment structure and are referred to as a “pharmacy carve-out.” Conversely, when pharmacy is included in the capitated services it is referred to as “pharmacy carve-in.”

This paper contrasts the financial impacts of using a pharmacy carve-in (carve-in) versus a pharmacy carve-out (carve-out) model for pharmacy benefits within MCO capitation contracting programs.

B. Key Policymaking Dynamics Related to Carve-In/Carve-Out Approaches

States’ decisions regarding their pharmacy carve-in and carve-out options generally revolve around the following key dynamics:

Integration. Including pharmacy – along with other medical services – in the MCO’s capitated benefits package facilitates the integration of care and coverage and best meets the “whole person” focused care coordination objectives states have in utilizing the MCO contracting model. Conversely, carving out pharmacy from the MCOs’ responsibility removes a service that is central to the Medicaid population’s health care treatment.
Management. MCOs are generally deemed to be best suited in managing the pharmacy benefit compared to state Medicaid agencies. From the negotiation of pharmacy payment rates (which are higher in the Medicaid fee-for-service setting than for commercial payers) to greater use of relatively low-cost generic products, to addressing narcotics abuse, to supporting adherence to needed medication regimens, to utilizing pharmacy data to promptly identify treatment gaps and opportunities for improved services coordination, MCOs have many tools at their disposal to manage the pharmacy benefit that are not as effectively utilized in the Medicaid FFS setting.

Rebate Maximization. Medicaid rebates have played a significant role in the decision-making of the states that have opted for the carve-out model. Drug manufacturers have been required by federal law to pay large rebates, but before passage of the Affordable Care Act (ACA) these federal requirements applied only to Medicaid medications paid for in the Medicaid FFS setting. Prior to 2011, Federal rebates grew to represent significant cost savings, and states could only access rebates on this scale by adopting the carve-out model. The ACA extended the federal rebates to medications paid by MCOs, and increased the level of the federal rebates. While states and MCOs may negotiate additional “supplemental” rebates that are mutually acceptable to drug manufacturers, the federal rebates represent the vast majority of all rebate funds paid by drug manufacturers for Medicaid medications. Therefore, the rebate equalization provisions of the ACA essentially eliminated the rebate-related financial advantages of the carve-out model.

Health Insurer Fee. Another impact of the ACA has been the institution of a fee on health insurers including most Medicaid health plans. When the pharmacy benefit is carved in, these costs must be built into the capitation rates paid to the MCOs, where they are then subject to the Health Insurer Fee. While the law exempts some non-profit plans from paying the fee and limits liability for others, there is no Health Insurer Fee on the pharmacy benefit when it is carved out.

Administrative Ease. Some stakeholders contend that the carve-out model is more “user-friendly” for physicians and pharmacies because a single Medicaid preferred drug list (PDL) and set of prior authorization policies are in place, whereas the different Medicaid MCOs each use their own PDLs and benefits management processes. It is important to note that Medicaid represents only a small portion of most physicians’ prescribing and pharmacies’ dispensing of medications, and these physicians must still work with the pharmacy policies of private and other public program insurance. Additionally, the growing sophistication of payers’ and providers’ information systems makes the administration of multiple payer policies much more automated and less burdensome than was previously the case. In the other direction, the carve-in model yields many administrative efficiencies relative to the carve-out approach. MCOs operating in a carve-out setting must obtain pharmacy data in the state’s uniform format and weave this into their own information systems. This generally occurs at a slower rate and at greater cost than in a carve-in setting, where the MCO has access to the pharmacy data and can determine how to best integrate that data into its overall coordinated care program. The lack of having immediate access to pharmacy data makes it more difficult for MCOs to provide coordinated care for some beneficiaries.
C. Current Pharmacy Carve-In Landscape

During 2014, 28 states and the District of Columbia used the carve-in model, and seven states implemented a pharmacy carve-out model. Fifteen states did not engage in full-risk contracting with Medicaid MCOs. Within the carve-in states, the six states that switched from a carve-out approach to a carve-in since the passage of the ACA were Illinois, New York, Ohio, Texas, Utah and West Virginia.

The seven remaining carve-out states were Delaware, Indiana, Iowa, Missouri, Nebraska, Tennessee, and Wisconsin.

There are important variations within carve-in states worth noting. Several states generally cover prescription drugs within MCOs, but carve-out certain categories (e.g., HIV or mental health drugs). Also, some states employing the carve-in model may require MCOs to follow statewide formularies and prescription drug lists (PDLs) and are included as carve-in states in the analysis. These requirements dampen MCOs’ ability to effectively manage prescription drug benefits through establishment of clinically based formulary management tools within a carve-in approach. While our analyses reflect the savings that the existing benefits design policies have collectively achieved across the carve-in states (relative to carve-out states), even greater savings may be achievable in those carve-in states where some medications are carved out and/or where MCOs are not yet permitted to fully use their formulary management tools to achieve better care coordination and cost-effectiveness. As demonstrated in the findings below, MCOs are able to use formulary management to promote more use of generic drugs and cost-effective brand-name drugs when appropriate. These efforts are impeded when states require MCOs to use a statewide formulary.

D. CMS Data Sources Create Unique Analytical Opportunity

Data made publicly available by CMS makes it possible to assess the carve-in/carve-out dynamics in a comprehensive manner. This report drew upon the following available data sources:

**State Drug Utilization Files.** CMS provides data files that include the volume of prescriptions and corresponding initial (pre-rebate) amount paid for each drug -- at the National Drug Code (NDC) level -- for each state and calendar quarter. Medications paid for by Medicaid MCOs are separately identified from medications paid for via

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2 Some states included as “carve-in” states in this report do use the carve-out model in some therapeutic classes, such as California for HIV medications and Maryland for behavioral health medications.
3 There are grey areas regarding which states use the MCO contracting model. Among the 15 states we have grouped in this report as not using the capitated MCO model are several states that use the capitated model for selected services and beneficiaries.
4 Iowa is currently in the process of procuring statewide MCO contracts and the program design includes a switch to the pharmacy carve-in model.
Medicaid FFS. The vast majority of our work for this report involved organizing these quarterly files into Microsoft Excel and conducting tabulations.

**CMS 64 Reports.** Medicaid drug rebate information was provided from CMS 64 reports for each federal fiscal year. CMS 64 data are publicly posted every year\(^6\). The published rebate information shows both the federally required rebate amounts as well as any supplemental rebates the state and its MCOs (in a carve-in) have negotiated.

Because the rebate information is aggregated by federal fiscal year, we aligned the quarterly State Drug Utilization data into Federal fiscal years (FFY) so that initial (pre-rebate) costs and corresponding post-rebate costs could be discerned for the same timeframe in each state. We also created a crosswalk at the NDC level to other CMS data files so that each NDC code could be categorized as brand or generic. Nationwide for FFY2014, the mix of Medicaid drugs in FFY2014 (across nearly 600 million prescriptions) was 80.7% generic, 19.0% brand, and 0.3% uncategorized.

Our ability to assess carve-in/carve-out dynamics was strengthened by the existence of both carve-out and carve-in data for the six states that have switched to a carve-in model during the past few years. We compared these six states’ costs and usage during FY2011 under the carve-out model with their FY2014 data under the carve-in model, in conjunction with looking at the seven states across this same timeframe that continuously used the carve-out model.

As noted earlier, the ACA also created a Health Insurer Fee, which we estimated and factored into our analysis.

**E. Focusing On Cost Per Prescription**

This report primarily focuses on Medicaid’s cost per prescription in the MCO and FFS settings, comparing pre-rebate costs at the point-of-sale and post-rebate costs in states using the carve-in model with states using the carve-out. The data sources did not report Medicaid pharmacy usage by Medicaid eligibility group, thus it was not possible to compare costs in specific eligibility categories on a per member per month basis.

The cost per prescription statistic captures all of the pharmacy benefits management dynamics except the volume of medications prescribed. Price negotiations related to ingredient costs, dispensing fees, and supplemental rebates all directly affect average costs per prescription, as do efforts to encourage volume shifts towards specific drugs within any given therapeutic class.

With regard to the volume of medications utilized, it is likely there will either be a lower volume of medications in the carve-in setting (through the use of MCO pharmacy benefit management tools to better coordinate care and reduce over-utilization caused by unnecessary and fraudulent prescriptions) or no meaningful difference in volume between the carve-in and carve-out settings.

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Carve-in settings better align financial incentives with MCOs’ prescription drug management tools and facilitate plan efforts to drive utilization to the most clinically appropriate, cost-effective options. For these reasons, we believe usage is unlikely to be lower in the carve-out setting than in the carve-in setting.\(^7\) Some prior assessments have found a substantial reduction of utilization in the carve-in setting; others have found no meaningful difference.\(^8\) No studies have suggested that the carve-out setting produces a lower usage of medications.

Having access to the average cost per prescription for all Medicaid medications in each state, pre-rebate and post-rebate, provides an excellent means of assessing the financial impacts of the carve-in and carve-out approaches. Factors that can often distort this type of analysis – such as patent expirations, introduction of new high-cost medications, the severity of a flu season, etc. are likely to affect pharmacy costs (i.e., costs per prescription) in a carve-in state similarly to a carve-out state. For example, national data indicate Medicaid costs per prescription for the new Hepatitis C drug Sovaldi, introduced in late 2013, were consistent across the FFS and MCO settings.

II. National Cost Differences, Medicaid Medications Paid by MCOs and FFS

The first component of our analysis tabulated national Medicaid MCO and FFS medications during FFY2013 and FFY2014. Exhibit 1 summarizes national prescription volume. The proportion of Medicaid prescriptions paid by MCOs has increased rapidly in recent years, growing from 27% in 2011 to 55% in 2014. This has occurred due to the increased degree to which the capitated MCO model is being used and because several states have recently moved from a carve-out model to a carve-in model within their capitated program. Exhibit 1 shows that this trend continued from FFY2013 - FFY2014. While an overall Medicaid prescription volume increase of 3.8% occurred, the volume of prescriptions paid for in the FFS setting decreased by 2.6% while MCO prescription volume increased 9.7% reflecting states’ greater use of MCOs to address the needs of low-income individuals. Exhibit 1 also demonstrates the large scale of the Medicaid medication volume – hundreds of millions of prescriptions – drawn upon in this study.

<table>
<thead>
<tr>
<th>Payer of Medicaid Prescription Drugs</th>
<th>Prescriptions FFY 2013</th>
<th>Prescriptions FFY 2014</th>
<th>% Change, 2013-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCO</td>
<td>295,767,675</td>
<td>324,571,385</td>
<td>9.70%</td>
</tr>
<tr>
<td>FFS</td>
<td>270,636,631</td>
<td>263,475,410</td>
<td>-2.60%</td>
</tr>
<tr>
<td>Total</td>
<td>566,404,306</td>
<td>588,046,795</td>
<td>3.80%</td>
</tr>
</tbody>
</table>

Exhibit 2 conveys the degree to which generic medications are used in the Medicaid program, which has grown steadily over time both due to patent expirations and increased reliance on the

\(^{7}\) However, we are unable to reach a definitive conclusion about utilization in MCOs compared to FFS settings because the source data used do not provide utilization by eligibility category, as noted above.

\(^{8}\) Carving-Out Prescription Drugs from Medicaid Managed Care: A Review of the Evidence,” Rachel Garfield, PhD, MHS, Pennsylvania Medicaid Policy Center, University of Pittsburgh.
capitated MCO model where concerted efforts to increase generic utilization occurs. During 2014, 80.7% of Medicaid prescriptions were generics. Among medications paid for by Medicaid MCOs, 82.8% of medications were generics, 4.8 percentage points above the FFS generic dispensing rate of 78.0%. This differential is an important contributor to the cost per prescription differences identified in the remainder of the paper. On average, brand medications were 14 times costlier than generics on a pre-rebate basis and still 6 times costlier on a post-rebate basis in 2014. Therefore, seemingly modest differences in the generic dispensing rate can have substantial impacts on overall pharmacy costs.

**Exhibit 2. National Generic Percentage of Medicaid Medications, 2013-2014**

<table>
<thead>
<tr>
<th>Payer of Medicaid Prescription Drugs</th>
<th>Generic % of All Prescriptions, FFY2013</th>
<th>Generic % of All Prescriptions, FFY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCO</td>
<td>81.7%</td>
<td>82.8%</td>
</tr>
<tr>
<td>FFS</td>
<td>77.1%</td>
<td>78.0%</td>
</tr>
<tr>
<td>Total</td>
<td>79.5%</td>
<td>80.7%</td>
</tr>
</tbody>
</table>

Average nationwide costs per prescription are shown in Exhibit 3, for brand and generics paid by MCOs and in the FFS setting. Across all prescriptions nationally, average Medicaid MCO costs per prescription during FFY2014 ($61) were 30 percent below the FFS average ($87). This large differential had three components.

The first, shown in Exhibit 2, was the MCOs’ higher generic dispensing rate. The second, shown in Exhibit 3, is that average unit costs within MCO brand drugs were considerably (17.6%) lower than the average FFS unit cost for brand drugs. Third and similarly, the average MCO unit cost for generics was well (15.1%) below the FFS generic average. These findings demonstrate the degree to which beneficiaries in the carve-in MCO setting are using lower-cost drugs across the board – between brands and generics as well as within brands and within generics. The MCO averages also reflect lower payment rates that health plans have been able to negotiate with pharmacies relative to FFS payment rates, which has particularly occurred with dispensing fees.

**Exhibit 3. National Medicaid Costs Per Prescription, FFY2014**

<table>
<thead>
<tr>
<th>Payer of Medicaid Prescription Drugs</th>
<th>Initial (Pre-Rebate) Cost Per Prescription, FFY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brand</td>
</tr>
<tr>
<td>MCO</td>
<td>$263.80</td>
</tr>
<tr>
<td>FFS</td>
<td>$320.21</td>
</tr>
<tr>
<td>Total</td>
<td>$292.90</td>
</tr>
<tr>
<td>MCO % of FFS</td>
<td>82.4%</td>
</tr>
</tbody>
</table>

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9 These results above could be affected by different member mixes in MCOs compared to FFS programs. That is, if a larger number of FFS enrollees require prescriptions for which there are no generic alternatives, then we would expect the generic dispensing rate to be higher in MCOs. However, our findings in Sections III and IV below lead us to conclude MCO benefit management techniques, and not member mix, play a greater role in these findings.
The data in Exhibit 3 compellingly demonstrate cost and drug mix differences between the MCO and FFS settings. However, these findings represent initial, pre-rebate expenditures, and it is vital to assess costs on a post-rebate basis for purposes of accurately assessing carve-in and carve-out dynamics. The following sections compare post-rebate prescription drug costs between carve-in and carve-out states and confirm the findings already presented.

III. FFY2014 Cost Comparisons by State Groupings

Average Medicaid prescription drug unit costs were tabulated on a pre-rebate and post-rebate basis for each state, and states were grouped into two categories:

1) States where all Medicaid prescriptions are paid in the FFS setting (either because the MCO model is not used or because a pharmacy carve-out model is used); and

2) Pharmacy carve-in states.

These tabulations are shown in Exhibit 4, and yield several interesting findings.

Exhibit 4. FY2014 Costs Per Prescription by State Grouping

<table>
<thead>
<tr>
<th>Medicaid Pharmacy Approach (number of states in parantheses)</th>
<th>Generic % of All Prescriptions Filled</th>
<th>Percentage of Prescriptions Paid by MCOs, FFY2014</th>
<th>Initial Amount Paid to Pharmacy (pre-rebate)</th>
<th>Rebates</th>
<th>Estimated MCO Premium for Administration and ACA Insurer Fee</th>
<th>Net Cost (Initial Cost Less Rebate Plus MCO Premium Add-Ons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% FFS States (22)</td>
<td>77.8%</td>
<td>0%</td>
<td>$84.50</td>
<td>$41.01</td>
<td>$0.00</td>
<td>$43.49</td>
</tr>
<tr>
<td>Rx Carve-In States (29)</td>
<td>81.5%</td>
<td>69%</td>
<td>$69.29</td>
<td>$33.55</td>
<td>$3.37</td>
<td>$39.10</td>
</tr>
<tr>
<td>National Total</td>
<td>80.7%</td>
<td>55%</td>
<td>$72.40</td>
<td>$35.09</td>
<td>$2.81</td>
<td>$40.12</td>
</tr>
</tbody>
</table>

- **Point-of-sale payments are less in carve-in states.** Initial (pre-rebate) payments to pharmacies averaged $84.50 per prescription in the FFS states, and $69.29 in the carve-in states. The carve-in states’ average is $15.21 per prescription (18%) below the average across the carve-out states. Because the MCOs did not pay for all medications in the carve-in states (31% were paid by FFS on behalf of populations not served via the MCO model), we estimate that the 18% unit price difference versus the carve-out states prorates to a 26% difference in unit costs attributable to the MCOs (relative to the carve-out state average). Using this same proration, the pre-rebate unit price differential attributable to MCOs (relative to the carve-out state average) grows from $15.21 to $21.97.10

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10 As noted above, some states carve out certain categories of drugs and/or populations from the MCOs, which could cause some differences in utilization patterns. However, it is important to note our findings in Exhibit 4 are not affected by these differences because we report the results at the statewide level encompassing all Medicaid prescriptions. That is, results in such carve-in states reflect the average of prescriptions financed through capitated payments to MCOs as well as those covered in the FFS programs.
- **Point of sale savings in carve-in states more than offset FFS rebates.** Because the FFS setting uses brand drugs (where very large rebates occur) more extensively, overall rebates per Medicaid prescription were $7.46 higher in the FFS states than in the carve-in states. This is consistent with the arguments that some stakeholders have made in the carve-out states (i.e., that larger rebates occur in the carve-out setting than the carve-in setting). However, the rebate differential of $7.46 per prescription does not come close to offsetting the initial unit cost differential described above. Therefore, the arguments that the additional rebates in a carve-out environment will yield more favorable net costs than the carve-in model do not appear to be valid.

The estimated impacts of additional premium allocations to MCOs in a carve-in setting are also included in Exhibit 4. We assume a 5% premium allocation for MCO prescriptions, in addition to the MCOs’ direct costs for the pharmacy benefit, is needed to represent the cost difference of MCOs’ enhanced administrative efforts to contain pharmacy costs and a risk margin. (Note that much of the MCOs’ pharmacy-related administrative costs – e.g., transaction processing and payment – exist whether a carve-out or carve-in model is used.)

The ACA Health Insurer Fee is projected to increase net costs per prescription in the carve-in states by approximately $1.00. This amount was derived by multiplying the maximum percentage fee in 2014 (2.4%) by the initial pre-rebate cost, with a 5% factor added for MCO administration and operating margin, multiplied by the percentage of overall prescriptions paid in those states by MCOs (69% in the carve-in states during 2014) and applying a factor of 0.8 to estimate the degree to which Medicaid MCOs will be subjected to this fee (many non-profit MCOs are exempted).

Once all the factors are assessed – initial amounts paid to the pharmacies, rebates, MCOs’ administrative costs and the Health Insurer Fee — net costs per prescription can be assessed as shown in the right-hand column of Exhibit 4. The carve-in states’ net unit cost differential relative to the FFS states is $4.38 or 10.1%. When these statewide differences are prorated to take into consideration the proportion of overall medications the Medicaid MCOs paid for (69%), the carve-in model shows a net savings of $6.33 per prescription during 2014 – 14.6% below the carve-out states’ post-rebate average cost.

The 14.6% and $6.33 per prescription differentials in net costs represents a projected nationwide savings to the Medicaid program of $2.06 billion during FFY2014, relative to the expected costs had the carve-out model been universally used. This overall savings is derived by multiplying MCO-paid prescription volume in FFY2014 (324.6 million) by $6.33.

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11 Includes the net additional administrative cost investments that MCOs will make in the carve-in setting and a risk margin.
IV. Analysis of Recent Carve-In States

Our third analytical approach assesses costs in the six states that switched from a pharmacy carve-out approach to a carve-in between the end of FFY2011 and the beginning of FFY2014. For these states (Illinois, New York, Ohio, Texas, Utah and West Virginia), our FFY2011 cost tabulations represent the carve-out environment and the FFY2014 tabulations represent the carve-in setting. All Medicaid prescriptions and all Medicaid rebates are factored into these tabulations, as shown in Exhibit 5. Since many factors other than the carve-in/carve-out dynamic influence the progression of pharmacy costs over a three-year timeframe, Exhibit 5 also presents figures for the seven remaining carve-out states (Delaware, Indiana, Iowa, Missouri, Nebraska, Tennessee and Wisconsin). These states offer a “control group” regarding the expected progression of costs from FFY2011 to FFY2014 in the absence of a switch to a carve-in model.12

### Exhibit 5. FFY2011 and FFY2014 Cost Progression -- States Switching To A Carve-In

<table>
<thead>
<tr>
<th>State Grouping and Year</th>
<th>Cost Per Prescription</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial (pre-rebate)</td>
<td>Rebates</td>
<td>Estimated MCO Premium for Administration and ACA Insurer Fee</td>
<td>Net Post-Rebate Cost (Initial Less Rebate Plus MCO Increased Premium Allocation)</td>
</tr>
<tr>
<td>FFY2011 Baseline Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent Carve-In States (IL, NY, OH, TX, UT, WV)</td>
<td>$73.50</td>
<td>$35.02</td>
<td>$0.00</td>
<td>$38.47</td>
</tr>
<tr>
<td>Current Carve-Out States (DE, IN, IA, MO, NE, TN, WI)</td>
<td>$66.91</td>
<td>$32.33</td>
<td>$0.00</td>
<td>$34.58</td>
</tr>
<tr>
<td>FFY2014 Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent Carve-In States (IL, NY, OH, TX, UT, WV)</td>
<td>$69.21</td>
<td>$33.82</td>
<td>$3.43</td>
<td>$38.83</td>
</tr>
<tr>
<td>Current Carve-Out States (DE, IN, IA, MO, NE, TN, WI)</td>
<td>$81.23</td>
<td>$39.62</td>
<td>$0.00</td>
<td>$41.60</td>
</tr>
<tr>
<td>Percent Change, 2011-2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent Carve-In States (IL, NY, OH, TX, UT, WV)</td>
<td>-6%</td>
<td>-3%</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Current Carve-Out States (DE, IN, IA MO, NE, TN, WI)</td>
<td>21%</td>
<td>23%</td>
<td></td>
<td>20%</td>
</tr>
</tbody>
</table>

Across the six states switching to a carve-in, overall Medicaid costs per prescription decreased by 6% on a pre-rebate basis during the three-year period assessed. On a net basis, unit costs in these states are projected to have increased by 1% across the three-year period (after factoring in rebates, a 5% allocation to the MCO premium for administration and risk margin, and the ACA Health Insurer Fee). Since not all of the states carved-in pharmacy for the entire three-year period, the FFY2014 savings estimates are likely to be conservative relative to the annual savings that occur as the carve-in model matures further.

Conversely, the 2011-2014 timeframe represented a period of considerable prescription drug cost escalation across the seven states that retained their carve-out approach. In these states, costs per prescription increased 21% on a pre-rebate basis and 20% on a net (post-rebate) basis.

This analysis suggests a large and almost immediate net savings has occurred in the states switching to a carve-in model.

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12 Again, because we tabulated these results at the state level, we do not believe member mix between MCOs and FFS meaningfully affects these findings.
• If FFY2011 costs per prescription had risen by 20% in the states that switched to the carve-in as of FFY2014 (as occurred in the remaining carve-out states), unit costs would have been **$7.47 higher than actually occurred**.

• In the carve-in states 71% of FFY2014 prescriptions were paid by MCOs, so the impacts of the switch to a carve-in **prorate to a net savings per prescription of $10.56** (dividing $7.47 by 0.71).

• Across the large volume of MCO-paid prescriptions in these six states (114 million), the net unit price savings translate to an overall savings of **$1.2 billion in FFY2014** attributable to the carve-in.

• In the other direction, if the remaining carve-out states had switched to a carve-in and realized the same results (and assuming half of these states’ FFY2014 prescriptions would have been paid by MCOs), these states would have collectively realized a net (post-rebate) savings of **$307 million even after** factoring in all the components of the MCO capitation payment (e.g., administration and the Health Insurer Fee).

V. Summary Findings

The findings from each of the three types of analyses conducted in this study resoundingly confirm the cost-effectiveness of using a pharmacy carve-in model within states’ capitated MCO contracting programs. The key findings are summarized briefly below.

• Nationally, MCOs make greater use of less expensive generic drugs. Generic drugs comprise 82.8% of all MCO prescriptions, compared to 78.0% of all FFS prescriptions.

• Across the 28 states (plus the District of Columbia) using the carve-in model, FFY2014 net costs per prescription, after taking into account each state’s rebates and factoring in Health Insurer Fee dynamics and other costs, was 14.6% lower for MCO-paid prescriptions than the average in the FFS states.

• This differential of 14.6%, multiplied by all MCO prescriptions, suggests Medicaid realized a $2.06 billion net savings in state and federal expenditures during FFY2014 for states deploying the carve-in model. These savings are a result of MCO’s greater use of generics and of lower-cost drugs within brands as well as within generics. Medicaid MCOs also generally negotiate lower pharmacy reimbursement rates than are paid in the Medicaid FFS setting.

• The six states that recently switched from a carve-out to a carve-in approach collectively experienced a 1% increase in net costs per prescription from FFY2011 - FFY2014 (after adding in an allocation for MCO administrative costs, risk margin, and Health Insurer Fee). This modest increase starkly contrasts with a 20% increase in net costs per prescription during this same timeframe across the remaining carve-out states.
The collective FFY2014 “missed” savings opportunity for the seven carve-out states (had they used a carve-in approach) has been estimated in this report to be $307 million.

States using the carve-in model are realizing large-scale savings every year, which are in addition to the benefits of promoting more fully coordinated care within an MCO setting. These findings validate the decision to use the carve-in approach, and support the argument that including additional populations in a capitated program structure is highly likely to yield great benefits.

Conversely, the findings from this report suggest that the seven remaining carve-out states are getting less than optimal results from that approach. Our findings indicate that these seven states are likely to achieve considerable savings (as well as a strengthened integrated care model) by switching to the carve-in approach.