

Pharmacy Benefit Management Can Save Medicaid Drug Programs Over \$100 Billion—Appendices

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Appendix I: Data Sources and Analyses

This brief includes findings from analyses of the Centers for Medicare & Medicaid Services (CMS) State Drug Utilization Data¹ and CMS 64 reports for federal fiscal years 2011 to 2016.^{2,3} The State Drug Utilization Data contains nearly 100% of Medicaid prescriptions and the CMS 64 reports contain all state Medicaid agency program benefit costs and administrative expenses reported to CMS. The analyses of these data sources were conducted by The Menges Group, a leading national firm on Medicaid drug spending, based on research questions developed in collaboration with UnitedHealth Group. The Menges Group ensured that the brief and appendix present the analytical findings accurately. The State Drug Utilization Data includes prescription drug counts by National Drug Code (NDC) along with each NDC's corresponding pre-rebate payment amount for each state. This NDC-level dataset breaks-out volume and expenditures for Medicaid fee-for-service (FFS) and health-plan administered drug programs. In addition, The Menges Group identified the brand or generic categorization of each NDC. The State Drug Utilization Data for federal fiscal years 2011 to 2016 used in this brief come from the May 2017 CMS release and include covered outpatient drugs that are paid for by state Medicaid agencies. The CMS 64 reports include aggregate statutory rebates and supplemental rebates negotiated by each state.

The focus of the analyses was net (post-rebate) prescription drug cost and net (post-rebate) savings. Nationally, roughly half of the initial amounts paid to pharmacies for Medicaid prescriptions are refunded to the federal and state governments through Medicaid's rebate program by individual drug manufacturers. Statutory rebates for a given drug are determined through a formula mandated by the Affordable Care Act (ACA).⁴ States and Medicaid health plans negotiate additional ("supplemental") rebates with drug manufacturers. The analyses used aggregate statutory rebates and supplemental rebates drawn from the CMS 64 reports.

Appendix II: Pharmacy Benefit Management Tools

Pharmacy Benefit Management Tools Utilized in Medicaid Drug Programs

Pharmacy Benefit Managers (PBMs) perform many operational and clinical services for Medicaid drug programs. These services leverage PBMs' expertise, data analytics capabilities, and negotiating capacities to drive cost savings, while simultaneously improving care quality, safety, and appropriate drug use – all of which make PBMs essential to lowering Medicaid drug spending through effective medical and drug management. This Appendix describes the pharmacy benefit management tools used in the model to estimate the Medicaid pharmacy savings generated from 2011 to 2016 and to project the additional savings that could be realized from 2019 to 2028 if all Medicaid programs fully utilize these pharmacy benefit management tools.

Preferred Drug List (PDL)/ Drug Mix Management: Typically Medicare and commercial drug benefit plans include a formulary that incentivizes beneficiaries, through variable cost-sharing, to select the lower-cost, clinically effective drug for a condition. In Medicaid, there is limited cost-sharing for drugs and the formulary is replaced with a list of preferred drugs that are covered by Medicaid without restrictions. In addition to establishing the list of covered drugs through the PDL, PBMs sometimes use the PDL to drive use of the highest therapeutic quality, lowest-cost brands and generics and shift utilization from brands to generics to achieve a lower net cost per prescription.

¹ The State Drug Utilization Data includes all prescriptions used to calculate the Medicaid drug rebates owed by each manufacturer under the provisions of the ACA. The prescriptions in the dataset do not include those filled for persons dually eligible for Medicare and Medicaid, for which Medicare Part D has primary financial responsibility.

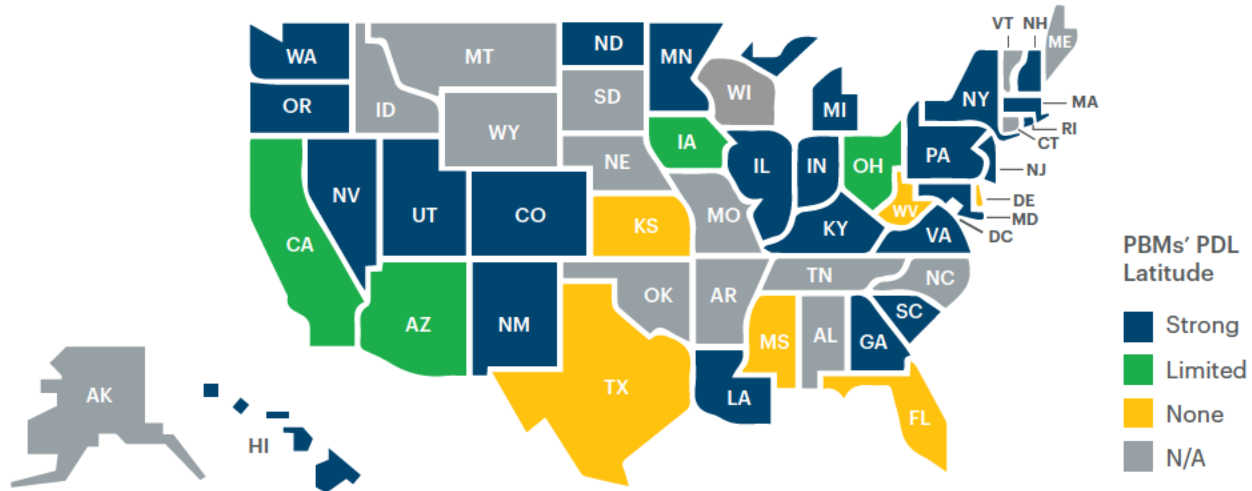
² Federal fiscal year 2011 is the first full federal fiscal year in which the ACA required Medicaid health plan-paid prescriptions to be eligible for Medicaid rebates. Federal fiscal year 2016 is the most recent full federal fiscal year for which data is available.

³ National average drug price increase data derived from analysis of U.S. Bureau of Labor Statistics data. Consumer Price Index of Prescription Drugs in U.S. City Average, All Urban Consumers, Seasonally Adjusted, 12-Month Percent Change. Accessed October 31, 2017. <https://data.bls.gov/pdq/SurveyOutputServlet>

⁴ The ACA sets the minimum Medicaid rebate for brand drugs at the greater of either 23.1% of the Average Manufacturer Price (AMP) per unit or the difference between AMP and the best price per unit (which often exceeds 23.1%) and adjusted by the Consumer Price Index-Urban (CPI-U) based on launch date and current quarter AMP. The Medicaid rebate for generic drugs is set at 13% of the AMP per unit.

States decide how much latitude PBMs have over the development and implementation of the PDL, which, in turn, impacts PBMs' ability to drive to the lowest net cost per prescription. The level of PBM latitude over the PDL varies across states as demonstrated in the map below.

Exhibit 1: PBMs' PDL Latitude by State, 2016



In 24 states and the District of Columbia, PBMs have **strong** PDL latitude, meaning that the PBM both determines and implements the optimal PDL for Medicaid health plan beneficiaries.⁵ PBMs that have strong PDL latitude use the PDL to drive use of highest therapeutic quality, lower-cost brands and generics, shift utilization from brands to generics, and discourage utilization of prescription drugs that are harmful or unnecessarily costly. In four states, PBMs have limited latitude over the PDL and are required to match aspects of their PDL with the Medicaid FFS PDL controlled by the state. In another 6 states, PBMs have no latitude over the PDL (denoted as “**none**” in the map above) and are required to fully adhere to the state-controlled PDL for beneficiaries covered by Medicaid health plans. Lastly, in 16 states, the state administers the drug benefit outside a Medicaid health plan contract and determines and implements the PDL (denoted as “**N/A**” in the map above).⁶

Fraud, Waste, and Abuse Detection and Prevention: PBMs use data analytics capabilities to detect fraudulent claims, duplicative prescriptions, improper medication quantities, and other inappropriate drug claims errors that drive up prescription drug spending. Through their claims management and monitoring tools, PBMs are able to detect most fraud, waste, and abuse activity before a prescription is filled and to prevent improper payments. PBMs also undertake claims and pharmacy store audits to recover any overpayments identified.

⁵ Kaiser Family Foundation. States Reporting Managed Care Pharmacy Uniform Preferred Drug List (PDL) Requirements: State Fiscal Years 2015-2017. <http://www.kff.org/medicaid/state-indicator/states-reporting-managed-care-pharmacy-uniform-preferred-drug-list-pdl-requirements>

⁶ Four of these 16 states have “carved-out” prescription drugs from their Medicaid health plans’ benefit packages: Missouri, Nebraska, Tennessee, and Wisconsin.

Utilization Management: PBMs employ various evidence-based clinical programs and practices to promote appropriate utilization of drugs. These practices include, but are not limited to, step therapy, prior authorization, medication therapy management, and drug utilization reviews. These programs and practices not only ensure that members are taking prescription drugs that are safe and effective, and that their medications are supporting their disease management goals, but also reduce unnecessary and wasteful drug spending.

Preferred Pharmacy Networks: PBMs establish a network of preferred pharmacies for members covered by their drug benefit. In exchange for a greater volume of plan members channeled to these network pharmacies, PBMs secure drug discounts and lower drug dispensing fees and/or point-of-sale price concessions for plan sponsors and members.

Appendix III: Methodology for Retrospective and Future Medicaid Pharmacy Savings Estimates

While all of the pharmacy benefit management cost-saving tools described above are available to Medicaid programs, not all states use the breadth of PBM tools to manage their Medicaid prescription drug benefit. Also, various states pay for their Medicaid prescriptions through FFS and Medicaid health plans in different proportions, creating additional opportunity for future savings through better management of the Medicaid drug benefit and spending as described in the Future Savings Estimates Methodology section of this Appendix.

Retrospective Savings Methodology: PBM-Driven Medicaid Pharmacy Savings, 2011-2016

Nationwide, PBMs saved Medicaid \$6 billion in 2016 and \$18.6 billion cumulatively for federal fiscal years 2011 to 2016. These savings to date represent only a portion of the potential savings achievable if all states were to fully utilize pharmacy benefit management tools and capabilities.

The savings realized from 2011 to 2016 were achieved through pharmacy benefit management tools and strategies including, but not limited to, managing the mix of drugs through PDLs; driving evidence-based, clinically appropriate utilization; developing preferred pharmacy networks; and detecting and preventing fraud, waste, and abuse.

For each year from 2011 to 2016, the percentage difference in net cost per prescription between PBM-administered, Medicaid health plan-paid drugs and Medicaid FFS-paid drugs was calculated. This savings factor was applied to Medicaid health plan-paid prescriptions to determine PBM-driven drug cost savings. Additionally, two savings factors were applied to account for reductions in Medicaid prescription volume, resulting from PBM efforts to drive appropriate utilization and reduce fraud, waste, and abuse.⁷ PBM costs incurred for realizing these savings on Medicaid health plan-paid prescriptions were estimated and offset.⁸ State-specific savings estimates are shown in Appendix IV, Exhibit 3.

Future Savings Estimates Methodology: Medicaid Pharmacy Savings from Optimal Use of PBM Tools, 2019-2028

Considerable opportunities exist to achieve new savings through optimal pharmacy benefit management of Medicaid drug spending. Further, substantial additional savings are achievable in states that do not allow PBMs to fully manage the Medicaid drug benefit. During 2016, while almost 69% of Medicaid prescriptions were paid for by Medicaid health plans, 41% of those prescriptions were filled in states where PBMs do not have strong latitude over developing and implementing the PDL. In addition, cost savings opportunities exist in any state where the generic utilization rate falls below 92.5%.

⁷ Visante. February 2016. Pharmacy Benefit Managers (PBMs): Generating Savings for Plan Sponsors and Consumers. <https://www.pcmnet.org/wp-content/uploads/2016/08/visante-pbm-savings-feb-2016.pdf>

⁸ Sood, N. et al. June 2017. The Flow of Money Through the Pharmaceutical Distribution System. http://healthpolicy.usc.edu/documents/USC%20Schaeffer_Flow%20of%20Money_2017.pdf

The optimal use of all pharmacy benefit management tools for all Medicaid prescriptions would yield additional (new) savings of \$8.5 billion in 2019 and \$106 billion from 2019 to 2028. The \$8.5 billion projected savings represents a 24.9% savings in Medicaid drug spending and an average of \$127 saved per Medicaid beneficiary in 2019. The \$106 billion amounts to a 23.2% savings in Medicaid drug spending over 10 years. States would accrue \$3.3 billion of the savings in 2019 and \$41.6 billion over 10 years, while the federal government would accrue \$5.2 billion of the savings in 2019 and \$64.4 billion over 10 years.

Achieving these savings would require all states to fully utilize PBM tools for all Medicaid prescriptions, effective October 1, 2018 (FFY 2019). Notably, the savings realized to date are not included in these 10-year estimates. All future savings estimates are *in addition to* what PBMs have already saved – and will continue to save – Medicaid programs through states' existing use of PBM services.

Savings from fully utilizing each PBM tool from 2019 to 2028 are outlined below and shown in Exhibit 2. The state-specific savings estimates, including average savings on a per Medicaid beneficiary basis, from fully utilizing each PBM tool in 2019 are shown in Appendix IV, Exhibit 4 and the state-specific savings for 2019 to 2028 are shown in Appendix IV, Exhibit 5.

Aggregate Future Medicaid Pharmacy Savings Estimates from Full Use of Each PBM Tool

Preferred Drug List/Drug Mix Management:

The projections include three components of savings related to drug mix management, enabled by PBM latitude over the PDL: 1) utilizing the lowest-cost brand; 2) utilizing the lowest-cost generic; and 3) shifting utilization from brands to generics.

Driving Use of Lowest-Cost Brands

- ▶ By driving use of the lowest-cost brands available, PBM-administered, Medicaid health plan-paid prescriptions achieve a lower average cost *within* brands when compared to FFS Medicaid programs.
- ▶ Greater use of lower-cost brands will save Medicaid \$722.3 million in 2019 and \$10.4 billion from 2019 to 2028, representing 9.8% of net prospective savings over 10 years.

Driving Use of Lowest-Cost Generics

- ▶ By driving use of the lowest-cost generics available, PBM-administered, Medicaid health plan-paid prescriptions achieve a lower average cost *within* generics when compared to FFS Medicaid programs.
- ▶ Greater use of lower-cost generics will save Medicaid \$1 billion in 2019 and \$13 billion from 2019 to 2028, representing 12.3% of net prospective savings over 10 years.

Shifting Utilization from Brands to Generics

- ▶ PBMs drive greater generic utilization – 88.1% of PBM-administered, Medicaid health plan-paid prescriptions during 2016 were for generics, versus 83.1% of FFS-paid prescriptions.
- ▶ The shift in utilization from brands to generics will save Medicaid \$3.6 billion in 2019 and \$40.1 billion from 2019 to 2028, representing 37.8% of net prospective savings over 10 years.

Detecting and Preventing Fraud, Waste, and Abuse (FWA):

- ▶ PBMs employ data analytics capabilities and staff to detect, prevent, and address FWA activity.
- ▶ Detecting, preventing, and addressing FWA will save Medicaid \$192.4 million in 2019 and \$2.6 billion from 2019 to 2028, representing 2.4% of net prospective savings over 10 years.

Employing Utilization Management Practices:

- ▶ PBMs employ evidence-based, clinical programs that promote appropriate and safe use of drugs through a variety of utilization management practices.
- ▶ Utilization management will save Medicaid \$481.1 million in 2019 and \$6.4 billion from 2019 to 2028, representing 6.1% of net prospective savings over 10 years.

Establishing Preferred Pharmacy Networks:

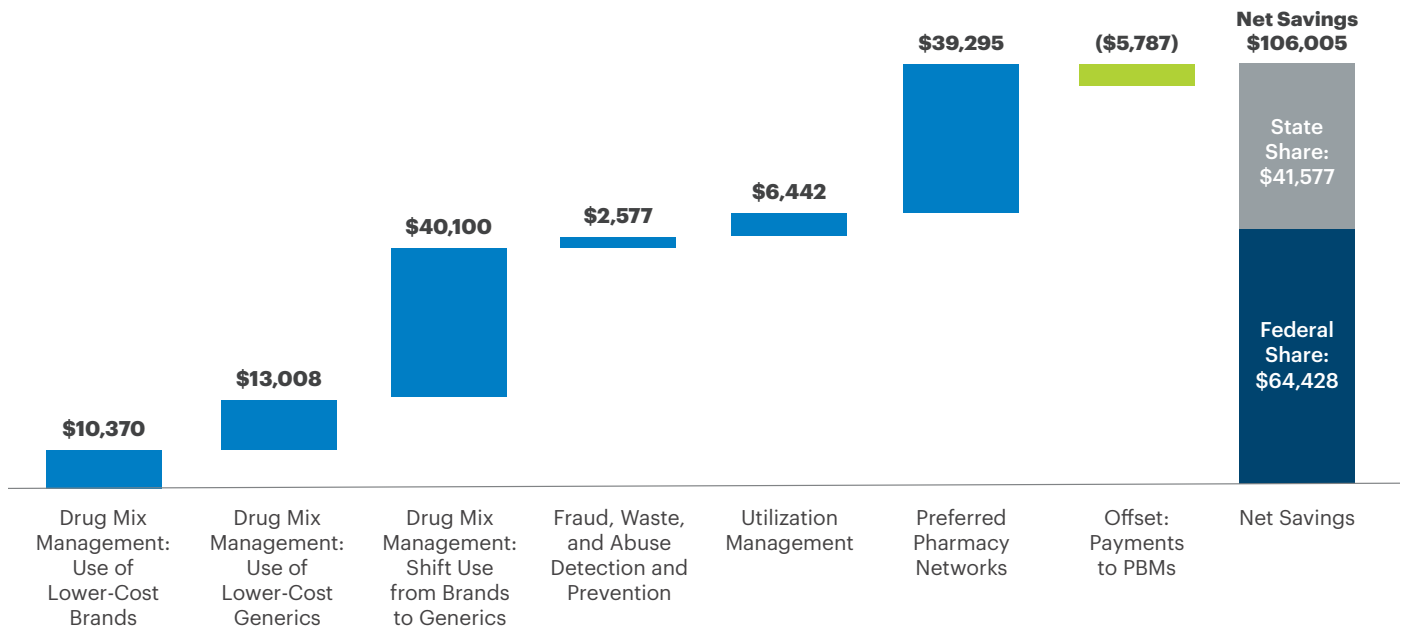
- ▶ PBMs negotiate down drug prices paid to pharmacies by establishing preferred pharmacy networks.
- ▶ Preferred pharmacy networks will save Medicaid \$2.9 billion in 2019 and \$39.3 billion from 2019 to 2028, representing 37.1% of net prospective savings over 10 years.^{9,10}

Offsetting Payments to PBMs:

- ▶ Achieving these savings will require states to fully leverage PBM tools and capabilities.
- ▶ PBM services will cost Medicaid \$429.7 million in 2019 and \$5.8 billion from 2019 to 2028.¹¹

Together, these estimates sum to the \$106 billion in savings over ten years (2019-2028).

Exhibit 2: Future Medicaid Pharmacy Savings Estimates From Optimal Use of PBM Tools, 2019-2028 (Dollars in Millions)



Appendix IV, Exhibit 5 provides state-specific savings estimates for 2019 to 2028.

⁹ Part D Claims Analysis: Negotiated Pricing Between Preferred and Non-Preferred Pharmacy Networks. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/PharmacyNetwork.pdf>

¹⁰ The analysis limits pharmacy-related savings to drug discounts negotiated by the PBM. Medicaid recently shifted its pharmacy payment formula for FFS-paid drugs to Average Acquisition Cost plus professional dispensing fees however, Medicaid health plans are not required to use the same payment methodology for pharmacies. The variation in pharmacy payment methodology between FFS- and Medicaid health plan-paid drugs disallows accurate estimation of dispensing fee savings realized by PBMs. As a result, the analysis does not include any savings that maybe generated by PBMs through negotiation of lower dispensing fees to pharmacies.

¹¹ Sood, N. et al. June 2017. The Flow of Money Through the Pharmaceutical Distribution System. http://healthpolicy.usc.edu/documents/USC%20Schaeffer_Flow%20of%20Money_2017.pdf

Appendix IV: Additional Exhibits

Exhibit 3: PBM-Driven Medicaid Pharmacy Savings, 2011-2016 (Dollars in Millions)

State	Net Savings Achieved, 2016	Net Savings Achieved, 2011-2016
Alabama	\$0.0	\$0.0
Alaska	\$0.0	\$0.0
Arizona	\$124.5	\$387.7
Arkansas	\$0.0	\$0.0
California	\$572.6	\$1,655.0
Colorado	\$9.2	\$9.2
Connecticut	\$0.0	\$0.0
Delaware	\$17.9	\$31.1
District of Columbia	\$23.9	\$64.4
Florida	\$213.7	\$673.0
Georgia	\$136.6	\$543.0
Hawaii	\$42.2	\$165.2
Idaho	\$0.0	\$0.0
Illinois	\$184.9	\$339.6
Indiana	\$226.1	\$290.1
Iowa	\$16.7	\$17.1
Kansas	\$23.4	\$88.6
Kentucky	\$273.4	\$765.6
Louisiana	\$159.8	\$360.4
Maine	\$0.0	\$0.0
Maryland	\$178.8	\$664.0
Massachusetts	\$140.4	\$452.3
Michigan	\$258.2	\$881.3
Minnesota	\$144.9	\$615.6
Mississippi	\$45.0	\$115.2
Missouri	\$0.0	\$0.0
Montana	\$0.0	\$0.0
Nebraska	\$0.0	\$0.0
Nevada	\$66.3	\$151.3
New Hampshire	\$27.2	\$61.7
New Jersey	\$267.6	\$896.8
New Mexico	\$98.7	\$402.1
New York	\$1,148.9	\$3,872.6
North Carolina	\$0.0	\$0.0
North Dakota	\$5.7	\$11.0
Ohio	\$230.3	\$656.5
Oklahoma	\$0.0	\$0.0
Oregon	\$111.8	\$382.9
Pennsylvania	\$551.0	\$1,820.5
Rhode Island	\$47.0	\$111.2
South Carolina	\$67.9	\$296.1
South Dakota	\$0.0	\$0.0
Tennessee	\$0.0	\$0.0
Texas	\$226.9	\$758.4
Utah	\$21.2	\$63.2
Vermont	\$0.0	\$0.0
Virginia	\$125.0	\$521.1
Washington	\$186.3	\$468.4
West Virginia	\$30.4	\$48.5
Wisconsin	\$0.0	\$0.0
Wyoming	\$0.0	\$0.0
U.S.	\$6,004.5	\$18,640.8

Exhibit 4: Future Medicaid Pharmacy Savings Estimates From Optimal Use of PBM Tools, 2019 (Dollars in Millions*)

State	Drug Mix Management			Fraud, Waste, and Abuse Detection and Prevention	Utilization Management	Preferred Pharmacy Networks	Offset: Payments to PBMs	Net Savings	State Savings	Federal Savings	Savings per Medicaid Beneficiary, 2019	Net per Beneficiary Savings as Percent of Baseline Medicaid Prescription Net Cost, 2019
	Use of Lower-Cost Brands	Use of Lower-Cost Generics	Greater Use of Generics									
Alabama	\$13.3	\$29.4	\$54.6	\$3.3	\$8.3	\$50.4	\$(10.3)	\$148.9	\$44.4	\$104.5	\$210.0	36.1%
Alaska	\$2.1	\$6.0	\$11.4	\$0.6	\$1.6	\$9.5	\$(2.0)	\$29.3	\$13.2	\$16.1	\$156.6	37.5%
Arizona	\$17.2	\$27.1	\$42.7	\$3.2	\$8.1	\$49.5	\$(8.1)	\$139.7	\$36.0	\$103.7	\$84.8	17.4%
Arkansas	\$7.6	\$18.6	\$41.7	\$2.1	\$5.2	\$31.7	\$(6.5)	\$100.4	\$30.4	\$70.0	\$123.9	38.6%
California	\$196.4	\$188.4	\$635.9	\$32.6	\$81.4	\$496.6	\$(95.6)	\$1,535.7	\$691.1	\$844.7	\$135.4	28.9%
Colorado	\$21.1	\$33.9	\$120.0	\$4.8	\$12.0	\$73.4	\$(14.9)	\$250.5	\$112.7	\$137.8	\$185.4	41.2%
Connecticut	\$35.7	\$35.6	\$110.4	\$6.1	\$15.1	\$92.4	\$(18.9)	\$276.3	\$124.4	\$152.0	\$408.0	36.5%
Delaware	\$2.9	\$3.6	\$10.8	\$0.5	\$1.3	\$7.7	\$(1.3)	\$25.4	\$10.4	\$15.0	\$112.7	20.7%
District of Columbia	\$3.0	\$2.2	\$14.8	\$0.7	\$1.7	\$10.6	\$(1.5)	\$31.6	\$7.9	\$23.7	\$120.1	27.9%
Florida	\$41.2	\$48.4	\$184.5	\$7.3	\$18.3	\$111.4	\$(19.6)	\$391.5	\$152.3	\$239.2	\$103.6	25.0%
Georgia	\$15.2	\$20.8	\$97.3	\$4.5	\$11.3	\$68.9	\$(10.3)	\$207.6	\$66.7	\$141.0	\$137.2	28.9%
Hawaii	\$0.0	\$0.0	\$3.8	\$0.5	\$1.2	\$7.1	\$(0.0)	\$12.6	\$5.0	\$7.5	\$39.1	10.8%
Idaho	\$3.5	\$7.1	\$18.1	\$0.9	\$2.2	\$13.1	\$(2.7)	\$42.2	\$12.0	\$30.2	\$158.8	39.2%
Illinois	\$6.6	\$22.1	\$46.6	\$4.0	\$10.1	\$61.4	\$(6.5)	\$144.3	\$63.1	\$81.2	\$51.5	19.3%
Indiana	\$9.6	\$24.1	\$66.2	\$5.0	\$12.6	\$76.8	\$(8.1)	\$186.3	\$52.6	\$133.6	\$135.6	19.9%
Iowa	\$5.5	\$15.0	\$30.5	\$1.5	\$3.9	\$23.5	\$(4.6)	\$75.3	\$28.8	\$46.5	\$125.4	31.0%
Kansas	\$2.4	\$6.5	\$9.6	\$0.6	\$1.6	\$9.5	\$(1.6)	\$28.7	\$12.5	\$16.1	\$82.8	18.4%
Kentucky	\$1.2	\$2.1	\$40.8	\$3.3	\$8.2	\$50.2	\$(0.9)	\$105.0	\$25.8	\$79.2	\$95.0	13.3%
Louisiana	\$1.3	\$3.8	\$28.0	\$2.1	\$5.3	\$32.3	\$(1.2)	\$71.6	\$23.4	\$48.2	\$55.4	14.9%
Maine	\$4.7	\$6.3	\$15.4	\$0.9	\$2.2	\$13.7	\$(2.8)	\$40.5	\$14.4	\$26.0	\$237.1	36.1%
Maryland	\$19.6	\$12.1	\$85.1	\$4.4	\$11.1	\$67.6	\$(9.0)	\$191.0	\$85.9	\$105.0	\$156.2	25.5%
Massachusetts	\$9.3	\$22.0	\$90.3	\$4.3	\$10.8	\$65.7	\$(8.4)	\$194.1	\$97.4	\$106.8	\$136.5	26.1%
Michigan	\$17.3	\$41.0	\$122.5	\$6.6	\$16.5	\$100.7	\$(14.6)	\$289.9	\$86.5	\$203.4	\$133.7	27.2%
Minnesota	\$3.1	\$10.7	\$32.8	\$2.6	\$6.4	\$39.3	\$(3.2)	\$91.8	\$41.3	\$50.5	\$96.1	17.7%
Mississippi	\$7.3	\$14.6	\$32.9	\$1.6	\$4.1	\$25.1	\$(4.4)	\$81.3	\$20.6	\$60.6	\$150.2	23.2%
Missouri	\$29.2	\$58.9	\$150.2	\$7.2	\$17.9	\$109.1	\$(22.4)	\$350.1	\$128.8	\$221.3	\$425.8	39.1%
Montana	\$3.3	\$5.6	\$17.6	\$0.8	\$1.9	\$11.5	\$(2.4)	\$38.3	\$11.2	\$27.1	\$155.6	40.7%
Nebraska	\$2.9	\$7.6	\$17.6	\$0.9	\$2.1	\$13.0	\$(2.6)	\$41.5	\$20.0	\$21.5	\$196.9	37.7%
Nevada	\$6.4	\$8.1	\$47.0	\$1.9	\$4.8	\$29.4	\$(4.2)	\$93.5	\$28.4	\$65.1	\$154.3	29.6%
New Hampshire	\$0.1	\$0.2	\$2.7	\$0.3	\$0.9	\$5.2	\$(0.1)	\$9.3	\$4.2	\$5.1	\$57.6	11.3%
New Jersey	\$0.6	\$1.3	\$38.1	\$3.1	\$7.9	\$48.0	\$(0.5)	\$98.4	\$44.3	\$54.1	\$61.5	12.8%
New Mexico	\$0.2	\$0.4	\$15.1	\$1.1	\$2.9	\$17.5	\$(0.1)	\$37.1	\$8.8	\$28.2	\$50.5	13.2%
New York	\$18.5	\$22.5	\$283.9	\$16.7	\$41.8	\$255.2	\$(11.5)	\$627.2	\$282.2	\$344.9	\$108.5	16.8%
North Carolina	\$46.7	\$52.3	\$147.0	\$8.3	\$20.7	\$126.3	\$(25.9)	\$375.5	\$124.4	\$251.1	\$206.1	36.3%
North Dakota	\$0.7	\$2.1	\$4.9	\$0.3	\$0.7	\$4.2	\$(0.7)	\$12.2	\$5.5	\$6.7	\$151.0	28.3%
Ohio	\$32.1	\$69.5	\$197.2	\$7.8	\$19.5	\$118.9	\$(20.7)	\$424.2	\$134.4	\$289.8	\$168.2	24.9%
Oklahoma	\$9.9	\$18.9	\$61.7	\$2.4	\$6.1	\$37.3	\$(7.6)	\$128.7	\$51.6	\$77.1	\$181.9	42.1%
Oregon	\$4.6	\$7.5	\$15.2	\$2.1	\$5.2	\$31.5	\$(2.6)	\$63.4	\$19.3	\$44.0	\$69.3	15.4%
Pennsylvania	\$1.9	\$2.6	\$77.7	\$6.7	\$16.7	\$101.9	\$(1.1)	\$206.4	\$89.2	\$117.2	\$79.3	12.7%
Rhode Island	\$0.1	\$0.1	\$6.3	\$0.6	\$1.4	\$8.6	\$(0.1)	\$17.1	\$7.5	\$9.6	\$60.9	12.4%
South Carolina	\$1.7	\$3.5	\$13.8	\$1.1	\$2.8	\$17.3	\$(1.3)	\$39.0	\$11.2	\$27.8	\$43.0	16.7%
South Dakota	\$1.3	\$4.9	\$3.2	\$0.4	\$1.1	\$6.5	\$(1.3)	\$16.0	\$7.2	\$8.8	\$159.2	30.2%
Tennessee	\$18.1	\$32.6	\$114.1	\$4.5	\$11.2	\$68.3	\$(13.7)	\$235.0	\$82.3	\$152.6	\$186.8	41.0%
Texas	\$48.4	\$59.1	\$147.6	\$8.4	\$21.0	\$127.8	\$(22.8)	\$389.5	\$170.7	\$218.8	\$92.4	22.5%
Utah	\$1.4	\$5.3	\$7.5	\$0.7	\$1.6	\$10.0	\$(1.5)	\$25.1	\$7.6	\$17.5	\$89.0	24.0%
Vermont	\$5.4	\$6.7	\$17.1	\$1.0	\$2.5	\$15.2	\$(3.1)	\$44.7	\$18.1	\$26.6	\$324.6	36.0%
Virginia	\$2.2	\$5.0	\$29.5	\$2.0	\$5.0	\$30.8	\$(1.8)	\$72.7	\$36.3	\$36.3	\$84.4	16.8%
Washington	\$6.4	\$4.1	\$55.3	\$2.9	\$7.3	\$44.2	\$(3.3)	\$117.0	\$52.7	\$64.4	\$70.1	19.7%
West Virginia	\$8.1	\$14.4	\$46.1	\$1.8	\$4.6	\$27.9	\$(5.3)	\$97.6	\$22.6	\$74.9	\$196.5	30.6%
Wisconsin	\$24.2	\$37.7	\$105.1	\$5.1	\$12.8	\$78.1	\$(16.0)	\$246.9	\$102.4	\$144.5	\$291.7	38.6%
Wyoming	\$0.5	\$1.7	\$2.6	\$0.2	\$0.4	\$2.5	\$(0.5)	\$7.4	\$3.7	\$3.7	\$144.0	36.1%
U.S.	\$722.3	\$1,033.7	\$3,570.7	\$192.4	\$481.1	\$2,934.5	\$(429.7)	\$8,505.0	\$3,323.5	\$5,181.5	\$126.9	24.9%

*Savings per Medicaid Beneficiary, 2019 are not in millions.

Exhibit 5: Future Medicaid Pharmacy Savings Estimates From Optimal Use of PBM Tools, 2019-2028 (Dollars in Millions)

State	Drug Mix Management			Fraud, Waste, and Abuse Detection and Prevention	Utilization Management	Preferred Pharmacy Networks	Offset: Payments to PBMs	Net Savings	State Savings	Federal Savings
	Use of Lower-Cost Brands	Use of Lower-Cost Generics	Greater Use of Generics							
Alabama	\$170.9	\$381.0	\$903.9	\$44.2	\$110.6	\$674.6	\$(138.2)	\$2,146.9	\$640.6	\$1,506.3
Alaska	\$31.0	\$76.7	\$133.3	\$8.2	\$20.5	\$125.1	\$(25.6)	\$369.2	\$166.1	\$203.1
Arizona	\$283.3	\$342.7	\$871	\$45.0	\$112.4	\$685.5	\$(112.9)	\$1,443.1	\$371.7	\$1,071.4
Arkansas	\$112.5	\$237.4	\$465.3	\$27.3	\$68.3	\$416.4	\$(85.3)	\$1,241.8	\$376.4	\$865.4
California	\$2,806.6	\$2,265.9	\$8,632.3	\$452.9	\$1,132.2	\$6,906.5	\$(1,330.1)	\$20,866.3	\$9,389.8	\$11,476.4
Colorado	\$303.1	\$434.5	\$1,402.2	\$63.5	\$158.8	\$968.7	\$(196.3)	\$3,134.5	\$1,409.9	\$1,724.6
Connecticut	\$488.7	\$463.3	\$1,884.0	\$84.5	\$211.2	\$1,288.1	\$(264.0)	\$4,155.8	\$1,870.1	\$2,285.7
Delaware	\$37.4	\$46.1	\$183.8	\$6.7	\$16.9	\$102.9	\$(17.1)	\$376.9	\$153.8	\$223.1
District of Columbia	\$39.3	\$28.2	\$227.3	\$9.4	\$23.6	\$143.8	\$(21.1)	\$450.6	\$112.6	\$337.9
Florida	\$543.2	\$608.8	\$2,481.2	\$96.8	\$242.0	\$1,476.1	\$(260.0)	\$5,188.1	\$2,018.2	\$3,169.9
Georgia	\$235.2	\$263.9	\$911.3	\$59.9	\$149.8	\$913.9	\$(134.4)	\$2,399.7	\$770.6	\$1,629.2
Hawaii	\$0.4	\$0.2	\$9.8	\$6.2	\$15.5	\$94.5	\$(0.1)	\$126.5	\$50.7	\$75.8
Idaho	\$48.8	\$91.3	\$231.7	\$11.4	\$28.4	\$173.5	\$(35.6)	\$549.6	\$156.6	\$393.0
Illinois	\$109.0	\$278.9	\$212.6	\$52.7	\$131.7	\$803.4	\$(83.8)	\$1,504.5	\$657.5	\$847.0
Indiana	\$127.1	\$311.7	\$1,024.0	\$66.3	\$165.6	\$1,010.4	\$(107.5)	\$2,597.6	\$734.1	\$1,863.5
Iowa	\$89.4	\$173.8	\$179.5	\$20.0	\$50.0	\$304.8	\$(59.2)	\$758.3	\$290.1	\$468.2
Kansas	\$33.1	\$84.1	\$146.9	\$8.2	\$20.4	\$124.3	\$(20.4)	\$396.5	\$173.6	\$222.9
Kentucky	\$19.6	\$27.2	\$102.9	\$44.3	\$110.8	\$676.0	\$(11.1)	\$969.7	\$238.0	\$731.8
Louisiana	\$20.7	\$48.0	\$101.3	\$28.6	\$71.5	\$436.1	\$(15.9)	\$690.2	\$225.8	\$464.4
Maine	\$62.6	\$82.4	\$265.4	\$12.3	\$30.9	\$188.2	\$(38.6)	\$603.2	\$214.9	\$388.4
Maryland	\$271.9	\$157.3	\$1,143.7	\$61.2	\$153.0	\$933.4	\$(127.6)	\$2,592.9	\$1,166.8	\$1,426.1
Massachusetts	\$154.6	\$278.5	\$744.1	\$54.5	\$136.3	\$831.6	\$(104.5)	\$2,095.3	\$942.9	\$1,152.4
Michigan	\$264.9	\$521.3	\$1,046.2	\$87.1	\$217.6	\$1,327.5	\$(191.3)	\$3,273.3	\$977.1	\$2,296.2
Minnesota	\$51.3	\$135.5	\$165.7	\$33.9	\$84.8	\$517.5	\$(41.2)	\$947.5	\$426.4	\$521.1
Mississippi	\$97.8	\$182.3	\$464.5	\$21.6	\$54.1	\$329.8	\$(58.2)	\$1,092.0	\$277.0	\$815.0
Missouri	\$404.1	\$756.5	\$1,965.2	\$94.7	\$236.7	\$1,444.1	\$(295.9)	\$4,605.4	\$1,694.3	\$2,911.1
Montana	\$46.0	\$72.0	\$226.3	\$10.0	\$25.0	\$152.3	\$(31.2)	\$500.4	\$146.8	\$353.6
Nebraska	\$47.2	\$96.0	\$137.6	\$11.1	\$27.8	\$169.8	\$(33.6)	\$456.0	\$219.6	\$236.4
Nevada	\$92.3	\$103.2	\$456.3	\$25.8	\$64.5	\$393.2	\$(54.9)	\$1,080.4	\$327.7	\$752.7
New Hampshire	\$17	\$2.3	\$39.3	\$4.5	\$11.1	\$67.9	\$(1.1)	\$125.6	\$56.5	\$69.1
New Jersey	\$9.8	\$16.0	\$256.7	\$40.9	\$102.3	\$624.3	\$(6.3)	\$1,043.8	\$469.7	\$574.1
New Mexico	\$2.5	\$5.6	\$83.0	\$15.0	\$37.5	\$228.7	\$(1.8)	\$370.5	\$88.4	\$282.1
New York	\$306.4	\$284.3	\$1,625.6	\$218.4	\$546.1	\$3,331.3	\$(148.4)	\$6,163.9	\$2,773.7	\$3,390.1
North Carolina	\$634.9	\$681.0	\$2,517.2	\$114.9	\$287.3	\$1,752.6	\$(359.1)	\$5,628.9	\$1,864.3	\$3,764.6
North Dakota	\$11.1	\$26.0	\$42.1	\$3.6	\$9.0	\$54.7	\$(8.5)	\$137.9	\$62.0	\$75.8
Ohio	\$500.5	\$862.3	\$1,290.5	\$101.2	\$253.1	\$1,543.9	\$(269.0)	\$4,282.5	\$1,356.7	\$2,925.8
Oklahoma	\$156.9	\$239.6	\$552.2	\$31.9	\$79.8	\$486.8	\$(99.7)	\$1,447.5	\$579.9	\$867.6
Oregon	\$75.6	\$94.8	\$107.3	\$28.1	\$70.1	\$427.9	\$(37.6)	\$766.2	\$233.9	\$532.3
Pennsylvania	\$31.3	\$33.3	\$712.3	\$86.1	\$215.4	\$1,313.7	\$(14.7)	\$2,377.5	\$1,027.5	\$1,349.9
Rhode Island	\$1.9	\$1.8	\$105.4	\$7.6	\$19.1	\$116.4	\$(1.1)	\$251.1	\$110.5	\$140.7
South Carolina	\$22.0	\$44.6	\$152.2	\$14.9	\$37.2	\$226.9	\$(17.0)	\$480.8	\$138.0	\$342.8
South Dakota	\$17.3	\$64.1	\$60.3	\$5.7	\$14.2	\$86.9	\$(17.8)	\$230.7	\$104.0	\$126.8
Tennessee	\$279.8	\$413.8	\$1,084.1	\$58.6	\$146.4	\$893.0	\$(178.1)	\$2,697.6	\$945.2	\$1,752.4
Texas	\$653.3	\$739.1	\$2,537.8	\$114.9	\$287.2	\$1,751.7	\$(312.7)	\$5,771.1	\$2,528.9	\$3,242.2
Utah	\$23.2	\$67.3	\$52.1	\$8.5	\$21.3	\$129.7	\$(19.4)	\$282.7	\$85.1	\$197.6
Vermont	\$73.8	\$86.6	\$292.9	\$13.8	\$34.4	\$209.9	\$(43.0)	\$668.4	\$271.0	\$397.4
Virginia	\$31.5	\$63.7	\$278.6	\$26.2	\$65.5	\$399.6	\$(23.6)	\$841.5	\$420.7	\$420.7
Washington	\$106.6	\$51.9	\$207.0	\$38.6	\$96.5	\$588.8	\$(42.0)	\$1,047.4	\$471.4	\$576.1
West Virginia	\$119.9	\$171.7	\$423.1	\$23.9	\$59.7	\$363.9	\$(68.7)	\$1,093.4	\$253.7	\$839.7
Wisconsin	\$310.2	\$488.4	\$1,712.3	\$68.9	\$172.4	\$1,051.3	\$(215.4)	\$3,588.1	\$1,488.7	\$2,099.4
Wyoming	\$7.6	\$21.2	\$33.1	\$2.1	\$5.4	\$32.7	\$(6.7)	\$95.4	\$47.7	\$47.7
U.S.	\$10,370.1	\$13,008.2	\$40,100.5	\$2,576.7	\$6,441.8	\$39,294.9	\$(5,787.3)	\$106,004.8	\$41,577.2	\$64,427.6

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