Missouri Department of Social Services

Rapid Response Review – Assessment of Missouri Medicaid Program

FINAL REPORT

February 11, 2019

Contents

Executive Summary

Missouri's Medicaid program is an important safety net for Missouri's most vulnerable populations, providing health care and support for activities of daily living for nearly one million Missourians. Children in low-income families comprise 63.5% of participants, while persons with disabilities comprise the largest share (46%) of spending. In State Fiscal Year (SFY) 2018, total spending for the program was approximately $10 billion, funded 53% by federal funds, 21% by state general revenues, and the balance by provider taxes and other funds.

Analysis of historical trends indicates that the financial sustainability of Missouri's Medicaid program is currently under pressure: Medicaid spending has grown from 17% of state general revenues in SFY2009 to 24% in SFY2018. Based on continuation of these trends, spending could grow to 26% by SFY2023. This number could be even higher (30%) if Missouri were to experience an economic downturn, given the potential for such a downturn to increase Medicaid enrollment while also reducing growth in state general revenues.

Under any of the scenarios described in the pages that follow, significant changes in the structure and performance of Missouri's Medicaid program would be necessary to bring Medicaid spending growth in line with projected economic growth of the state.

Opportunities for Improvement

Since October, a detailed assessment of the Missouri Medicaid program has uncovered a wide range of opportunities for improvement, which may collectively deliver substantial reductions in the rate of growth of Medicaid spending. These opportunities, detailed in the pages that follow, are based on extensive interviews with state agency leaders and staff, detailed analysis of claims- and non-claims data, review of agency operations, and benchmarking against other states as well as Medicaid managed care organizations (MCOs) and other health insurers.

High-level summaries are provided below for each of eight programmatic and functional areas. Further details follow in the report, including descriptions of opportunities (with supporting facts) and potential initiatives that may be considered by the state in shaping its approach to Medicaid transformation. Potential initiatives include possible changes to provider payment methods, care management, and contracting with MCOs and other vendors, as well as improvements in agency and vendor operations. A selection of potential initiatives outlined in the following pages could collectively enable the Medicaid program to achieve significant cost savings while maintaining or improving access to high-quality care, without broad-based cuts in provider rates, or reductions in eligibility or covered services.

Were Missouri to effectively address the opportunities and potential initiatives outlined in this report, total savings to the program (including federal and state share) could total up to $0.5-1.0 billion by SFY2023. This level of savings, while significant, does not represent an absolute reduction in the size of the Medicaid program but rather a meaningful reduction in the rate of growth of Medicaid spending, to bring it more closely in line with growth of the economy. Implementing changes at this scale would make the program more financially sustainable under all future financing scenarios, allowing for the state to continue to make investments to protect the program's essential role in serving the state's most vulnerable populations.

Acute Care Services. Missouri spent ~$4.2 billion in SFY2018 on acute care services, including hospital, clinic, physician, and diagnostics services, across both the managed care and non-managed care populations. (Pharmaceutical services are discussed in a separate section). Provider payment for acute care providers in Missouri is currently almost exclusively fee-for-service. Fee schedules are based on historical costs; in some cases, these are adjusted each

year based on changes in operating costs. Accordingly, the payment methods used offer few incentives for providers to contain costs. A significant proportion of Missouri Medicaid acute care expenditures is associated with potentially avoidable exacerbations and complications (PECs) and inefficiencies in the choice of provider, site, or treatment. In addition, Missouri Medicaid is unique in making "add-on payments" to hospitals for services provided by Missouri hospitals to non-Missouri residents. Potential initiatives to improve incentives and reduce costs include adjusting rate setting methodologies, moving to value-based payment models, and investing in the rural and safety net heath care infrastructure, including primary care and behavioral health. In total, the gross impact of Acute Care initiatives could range anywhere from $250 million to $500 million, depending on choices made by the state.

Long-Term Services and Supports. Missouri spent ~$2.9 billion in SFY2018 on long-term services and supports (LTSS) for approximately 106,000 Medicaid participants accessing these services. LTSS in Missouri consist of institutional services (e.g., nursing homes for frail elderly, intermediate care facilities for individuals with intellectual disabilities), and home and community-based services (both residential and non-residential) covered by the Medicaid State Plan and nine waivers. Nursing facilities are reimbursed using a cost-based, facility-level per diem methodology without adjustments for acuity, quality, or outcomes, and home and community-based services (HCBS) are reimbursed on a fee-for-service basis. LTSS in Missouri are administered by Missouri Medicaid in conjunction with the Department of Health and Senior Services (DHSS) and the Department of Mental Health (DMH), each of which administers HCBS waivers and conducts assessments to determine access to LTSS. The assessment process currently in use by DHSS uses decades-old standards and, as such, may not consistently determine institutional level of care accurately. Potential initiatives include incorporating an acuity adjustment into the nursing home reimbursement methodology, completing and expanding upon revisions currently underway for the state's assessment algorithms, more directly applying assessment results in the care planning process, and improving the consistency of the prior authorization approval process for personal care services. In total, the gross potential impact across LTSS initiatives ranges from $90 million to $275 million, depending on choices made by the state.

Pharmacy. Missouri spent ~$1.5 billion in SFY2018 on pharmaceutical products. This spending is inclusive of all participants as the state carves pharmacy benefits out of its MCO arrangements. The state utilizes a preferred drug list and receives statutory and supplemental rebates to help control costs. The basis for drug ingredient cost reimbursement was recently updated, and Missouri is in the process of updating dispensing fees. Missouri rebate performance is below the average for other states, potentially due to expansive grandfathering. While the state uses a broad range of approaches to ensure appropriate utilization, there is an opportunity to expand it to other high-cost drug classes such as oncology, hemophilia, and IVIG. Potential initiatives include limiting grandfathering, implementing additional utilization management, joining a purchasing consortium to increase supplemental rebate capture, requiring NDC submission on claims for non-J-code HCPCS drugs, and applying for a value-based contracting waiver from CMS. In total, the gross potential impact across Pharmacy initiatives ranges from $35 million to $60 million, depending on choices made by the state.

Program Integrity. Program integrity functions within the state Medicaid agency center serve to: prevent fraud, waste, and abuse; ensure proper participant enrollment and identify third-party resources to pay for medical claims. Numerous divisions within the state help accomplish these goals; however, the separation of divisions leads to siloed data and communication. Potential initiatives include expanding adoption of best practices from the National Correct Coding Initiative, updating certain medical and reimbursement policies to prevent improper payments,

implementing claims edits that would prevent improper billing based on Missouri's current policies, optimizing the state's ability to identify and enroll participants who are eligible for Medicare, and improving third-party liability identification. In total, Program Integrity initiatives could deliver savings between $65 and $100 million, depending on choices made by the state.

Managed Care. Missouri's Medicaid managed care program covers primarily acute care and professional services for non-disabled adults and children. Approximately 75% of Medicaid participants are covered by managed care, whereas approximately 23% of Medicaid expenditures (~$2.2 billion) flow through managed care contracts. Most pharmacy and behavioral health services for the managed care population remain "carved out" of managed care; the Medicaid aged, blind, and disabled (ABD) population is entirely excluded from the current managed care program. Potential initiatives include incorporating additional adjustments to managed care rates to remove inefficient utilization (e.g., inpatient stays that could have been avoided with better outpatient care) from rate calculations, expanding day-one managed care eligibility to streamline participant transitions and reduce residual fee-for-service payments, strengthening key contract provisions and the compliance and performance management relationship between MHD and the MCOs, and altering the scope of the managed care program—for example, including additional services or Medicaid eligibility groups. In total, the gross potential impact of all Managed Care-related initiatives ranges from $175 million to $300 million, depending on choices made by the state.

Federal Financing. Federal Financing focuses on identifying opportunities to optimize federal funding for the state's Medicaid program. Overall, Missouri has been able to capture a significant share of the available federal funding opportunities, capturing funds across Medicaid spending and non-Medicaid spending within DSS, DMH, and DHSS and capturing enhanced match on select categories. However, there remain several opportunities that the state could pursue to capture additional federal funding. These opportunities could include new waiver and grant programs released in the SUPPORT for Patients and Communities Act, enhanced match on substance use disorder (SUD) focused health homes, among others. In total, potential impact from these improvements may be $10 million to $20 million, based on choices made by the state.

Medicaid Management Information System. Missouri's Medicaid Management Information System (MMIS) is a set of ~70 components, partially developed within a mainframe-based system dating from 1979. The system supports a wide range of vital activities within the Medicaid program, but is not positioned to meet both current and future needs. Its limited functionalities underlie several of the opportunities for improvement identified in other topical areas. There is little alignment between program strategy and the MMIS replacement plan, and the Information Systems (IS) group lacks the wide range of capabilities needed to ensure an MMIS replacement trajectory that will deliver the future functionality Missouri needs. The potential initiatives discussed in this section attempt to address these challenges.

Operations. This section analyzes the performance and operational efficiency of three operational functions: participant managed care enrollment, claims processing, and contact centers. These functions are currently executed through a mix of state staff and vendor contracts. In comparison to other states, work processes often appear fragmented, process steps seem poorly integrated and best-practice management principles are variably applied. Potential initiatives include organizational process optimization, automation and digitization, and improved contract management. Adoption of best practices across the different functional areas could liberate up to 15-20% of operational resources, which could be redeployed to improve service levels for participants and for other external and internal "customers" of the different functions.

Implementation Considerations

The potential initiatives described in the following pages are wide-ranging, including operational improvements to bring the program up to date with common practices among other state Medicaid programs, as well as best practices and more transformational changes. Some of the potential initiatives outlined represent alternative ways of achieving similar goals: in some cases, the initiatives could reinforce one another; in other instances, they could be mutually exclusive. Such interdependencies will be highlighted throughout.

Broadly, the state could balance two approaches to controlling spending. One approach commonly adopted by both public programs and managed care would rely primarily on controlling the unit prices paid for services and seeking to curb utilization through broad-based utilization management. Such an approach could reduce costs in the short term. However, on its own such an approach may not provide incentives to improve outcomes. As an alternative approach, the state could seek to adopt value-based payment and care delivery models that reward providers for quality and efficiency of the total care delivered to patients. This approach may support more transformational changes in care delivery, with corresponding improvements in patient outcomes and experience. However, such an approach is likely to require greater commitment of resources and will take longer to generate impact given the need for providers to adopt new capabilities and implement changes in clinical practices.

Aligning the growth of Medicaid expenditures with the state's economic growth may involve a combination of these approaches, with targeted use of utilization management and targeted adjustments in provider rates in the near-term, combined with investments in care management and value-based payment to support sustainable improvements in quality and efficiency. In parallel, there may be a series of operational changes that the state could implement to bring policies and operations up to speed with common practices, such as state-of-the-art program integrity measures and improvements of internal administrative processes. Such changes could generate near-term savings to offset investments in transformation changes.

Any substantial portfolio of initiatives would demand careful planning and execution, as well as investments to support the transformation and build new capabilities. Key requirements for effective design and implementation of Medicaid transformation include: strong and visible executive leadership; effective stakeholder engagement; commitment to fact-based decision making supported by robust data; upskilling of key agency staff; a well-resourced transformation office; and modernization of the program's technological infrastructure.

Overview of Medicaid Program

In State Fiscal Year 2018, Missouri Medicaid was a $10.3 billion program, funded by state general revenue ($2.2 billion), federal funds ($5.5 billion), and other funds ($2.6 billion).[1] The "other funds" consisted primarily of revenue from provider taxes ($1.4 billion).[2]

Since 2009, Medicaid spending has grown in proportion to the total state budget, and in proportion to state general revenues. In 2009, Medicaid spending comprised 17% of state general revenues; in 2018, it was 24%.[3] Without significant changes in the Missouri Medicaid program, spending growth may continue to outpace growth in state general revenues and could comprise 26-30% of state general revenues by 2023.[4]

The following pages provide a brief introduction of the Missouri Medicaid program and a summary of key trends in the larger U.S. healthcare context that influence program spending, as well as state fiscal scenarios that could lead Medicaid spending to represent a greater share of state general revenues.

THE CURRENT PROGRAM

Enrollment and Spending

Missouri Medicaid is a $10.3 billion program that covers predominantly four types of participants: low-income children; parents of low-income children; pregnant women; and aged, blind, or disabled (ABD) individuals.[5] Children comprise the largest eligibility group in Missouri Medicaid, representing 63.5% of enrollees; however, persons with disabilities account for the greatest proportion (46%) of Medicaid spending (see Exhibit 1 and Exhibit 2).

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[1] Missouri DSS, "TSM Expenditures History FY05 to FY18," 2018; Missouri DSS, "Final FY18 Total State Medicaid Expenditures," 2018.

[2] Missouri DSS: see note 1.

[3] Missouri DSS: see note 1.

[4] Analysis based on projections from past trends. Missouri DSS: see note 1.

[5] Missouri DSS, "MO HealthNet enrollees and expenditures," 2018, see: dss.mo.gov/mhd/general/pdf/mhdollars.pdf.

EXHIBIT 1: MEDICAID ENROLLMENT & SPENDING BY ELIGIBILITY CATEGORY, SFY2018[6]

100% = 976,779 enrollees   **100% = $9.4 billion**

Eligibility category	Enrollees	Expenditures
Persons with disabilities	16.0%	46.0% $4.3B
Seniors	8.2%	
Pregnant women, custodial parents	12.3%	16.9% $1.6B
		9.6% $0.9B
Children	63.5%	27.5% $2.6B

Enrollees by eligibility category

Expenditures by eligibility category
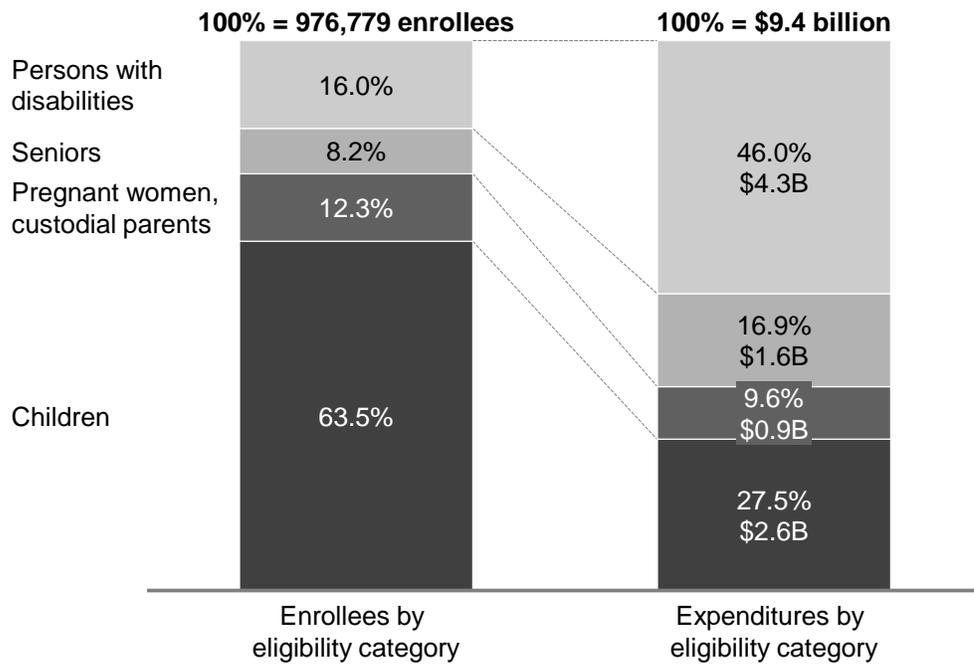
EXHIBIT 2: MEDICAID ENROLLMENT & SPENDING BY TYPE OF COVERAGE, SFY2018[7]

100% = 976,779 enrollees   **100% = $9.4 billion**

Eligibility category	Enrollees	Type of coverage	
Persons with disabilities	16.0%	62.9%	Fee-for-service population
Seniors	8.2%		
Pregnant women, custodial parents	12.3%		
Children	63.5%	14.2%	FFS spend for MC population
		22.9%	Managed care

Enrollees by eligibility category

Expenditures by type of coverage

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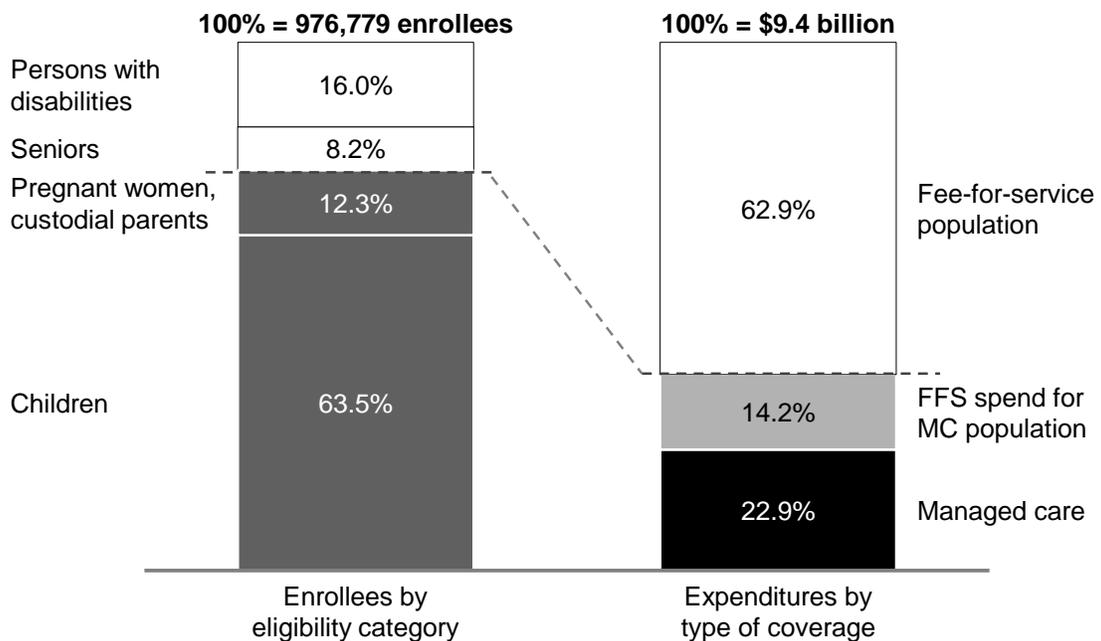
[6] Missouri DSS: see note 5.
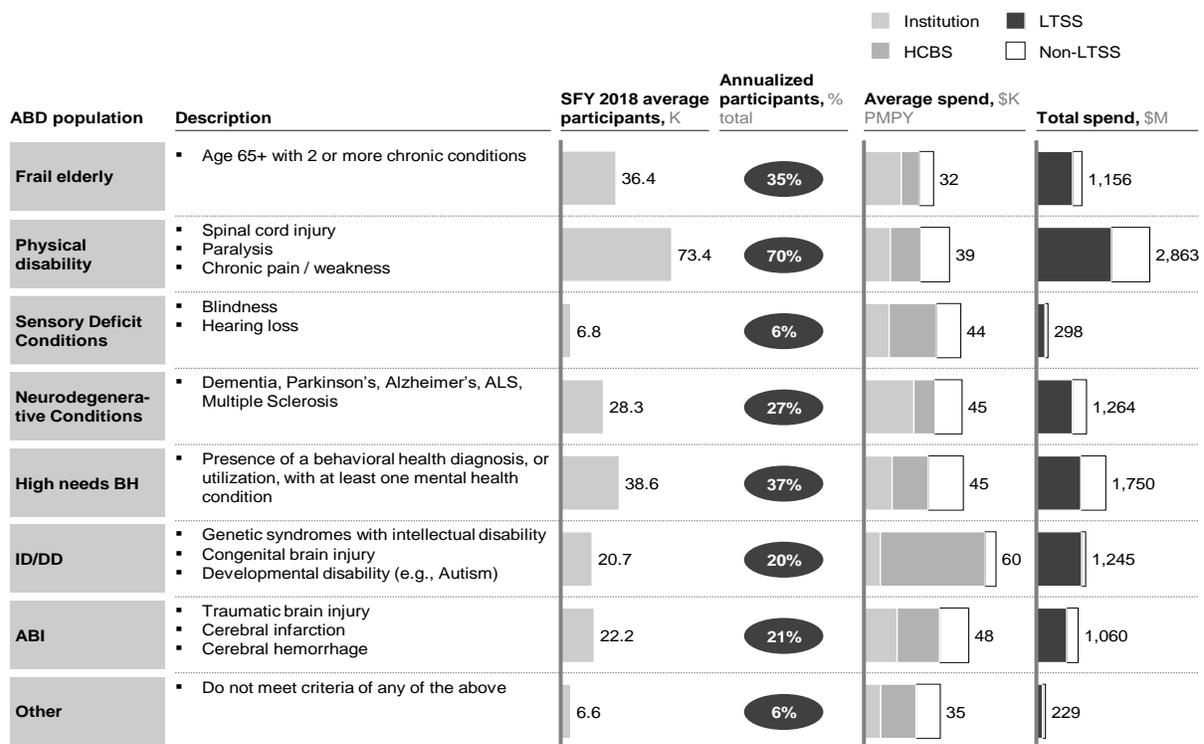
[7] Missouri DSS: see note 5.

Services for >155,000 persons with disabilities and >80,000 elderly participants (the aged, blind and disabled [ABD] population) are provided through Medicaid fee-for-service, comprising 24.2% of enrollees but 62.9% of total program expenditures. The ABD population includes distinctive subpopulations with different cost patterns: frail elderly, individuals with intellectual and/or developmental disabilities, individuals with severe behavioral health issues, and others.

Non-disabled children, parents, and pregnant women comprise 75.8% of enrollees (about 650,000 in all) but 37.1% of total program costs, of which 22.9% is covered through managed care and 14.2% (pharmacy and behavioral health) is paid through Medicaid fee-for-service.

Exhibit 3 shows one possible categorization of diagnostic groups,[8] including numbers of participants per group, and average per member per month (PMPM) spending per main category (institutional long-term services and supports [LTSS], home and community-based services [HCBS], acute services).

All elderly and 40% of individuals with disabilities are dually eligible for both Medicaid and Medicare. For these participants, Medicare pays for the acute care costs (e.g., hospitals, physicians, drugs); Medicaid pays for long-term services and supports (e.g., home care, nursing homes).

EXHIBIT 3: SUBPOPULATIONS WITHIN THE ABD POPULATION, SFY2018[9]

Legend: Institution | LTSS | HCBS | Non-LTSS

| ABD population	Description	SFY 2018 average participants, K	Annualized participants, % total	Average spend, $K PMPY	Total spend, $M
Frail elderly	• Age 65+ with 2 or more chronic conditions	36.4	35%	32	1,156
Physical disability	• Spinal cord injury • Paralysis • Chronic pain / weakness	73.4	70%	39	2,863
Sensory Deficit Conditions	• Blindness • Hearing loss	6.8	6%	44	298
Neurodegenerative Conditions	• Dementia, Parkinson's, Alzheimer's, ALS, Multiple Sclerosis	28.3	27%	45	1,264
High needs BH	• Presence of a behavioral health diagnosis, or utilization, with at least one mental health condition	38.6	37%	45	1,750
ID/DD	• Genetic syndromes with intellectual disability • Congenital brain injury • Developmental disability (e.g., Autism)	20.7	20%	60	1,245
ABI	• Traumatic brain injury • Cerebral infarction • Cerebral hemorrhage	22.2	21%	48	1,060
Other	• Do not meet criteria of any of the above	6.6	6%	35	229

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[8] Medical diagnosis, procedure codes and demographic information from Missouri Medicaid claims for SFY2018 were used to develop sub-segmentations of ABD population by diagnosis category. Diagnosis categories are based on claims data only, with the exception of the frail elderly category which is based on age and participant chronicity.

[9] Analysis of Missouri Medicaid claims data, SFY2016-18; participants may overlap across categories.

Financing and Budget

Missouri Medicaid is funded by state general revenue ($2.2 billion), federal funds ($5.5 billion), and other funds ($2.6 billion).[10] The "other funds" are primarily provider taxes ($1.1 billion from hospitals, and $0.3 billion from nursing homes and pharmacies).[11] As these taxes generate federal matching funds (nearly two federal dollars for every dollar generated through provider taxes[12]), they are significant to the financing of the Missouri Medicaid program. Exhibit 4 shows the flow of funds, highlighting the hospital tax and its integration in the Medicaid funding flow.

EXHIBIT 4: MISSOURI MEDICAID FUNDS FLOW (SFY2018, USD BILLIONS)[13]
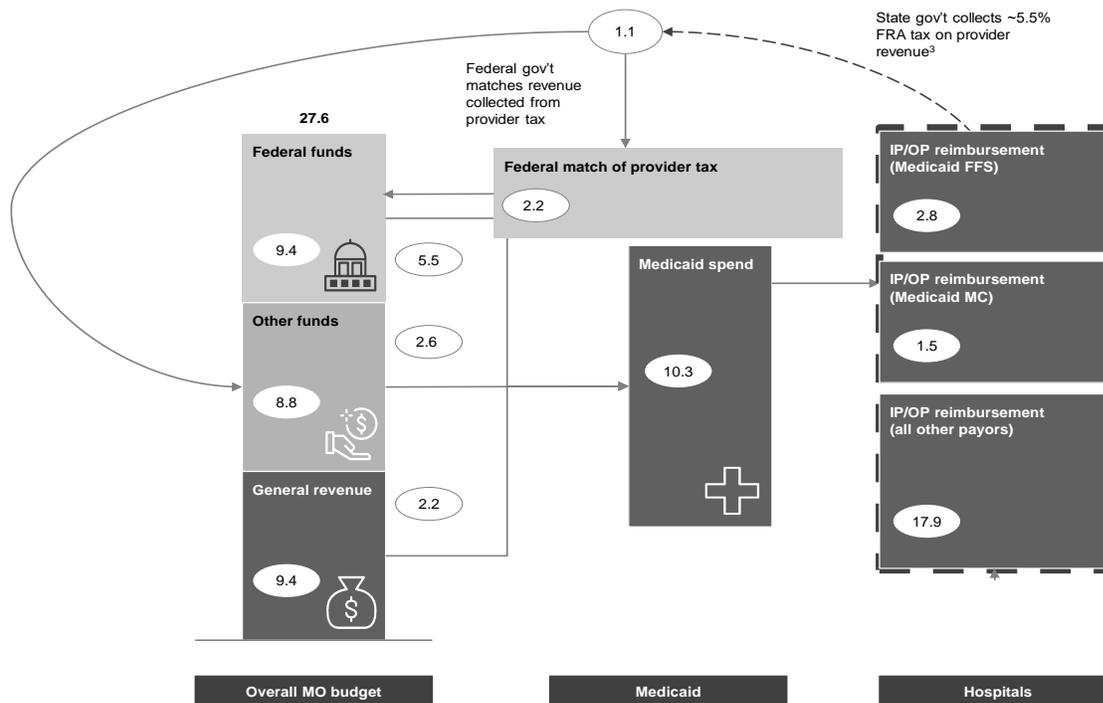
Organization

Three departments jointly manage parts of the Medicaid program. The Department of Social Services (DSS) operates MO HealthNet (MHD), which is primarily responsible for medical expenses for eligible individuals. This includes both the fee-for-service and the managed care populations. The Department of Mental Health (DMH) administers services for populations with

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[10] Missouri DSS: see note 1.

[11] Missouri DSS, "Provider taxes overview," 2018.

[12] Kaiser Family Foundation (KFF), "Federal Medical Assistance Percentage (FMAP) for Medicaid and Multiplier," 2018, see: www.kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier.

[13] Office of Administration, "The Missouri budget fiscal year 2018 summary," 2018, see: www.oa.mo.gov/sites/default/files/FY_2018_Budget_Summary.pdf; Missouri DSS: see note 1; Missouri DSS: see note 11; Missouri DSS, "Annual_Table 23 and 24_FY18 by Large Group PMPM," 2018; Missouri DSS, "Payments Assessment for SFY 14-18," 2018.

developmental disabilities (both intellectual and physical disabilities, as well as certain learning disabilities), community-based health centers, psychiatric rehabilitation services, comprehensive substance treatment and rehabilitation (CSTAR) services, and health home programs, amongst others. The Department of Health and Senior Services (DHSS) operates the Division of Senior and Disability Services (DSDS), which administers the HCBS benefits for adults 18 and over, and Special Health Care Needs (SHCN), which administers the Healthy Children and Youth benefits for persons with special health care needs up to 21 years of age. DSS is responsible for the largest share of Medicaid spending at approximately $7.9 billion, DMH's share is $1.5 billion, and DHSS' share of Medicaid spending is $0.9 billion.[14]

MAJOR INDUSTRY TRENDS AFFECTING THE PROGRAM

Healthcare inflation rising faster than GDP

The United States faces increasing pressure to contain its rising healthcare costs. In 2017, total U.S. healthcare spending reached $3.5 trillion, marking a 3.9% increase from the previous year, amounting for almost 18% of gross domestic product (GDP)[15]. U.S. health spending per person climbed to over $10,739 in 2017, the third year that the spending has exceeded $10,000.[16] The growth in per-person spending, or medical cost inflation, outpaces the general inflation rate (see Exhibit 5). CMS projects spending to grow 1% faster than GDP to reach $5.7 trillion by 2026.[17]

EXHIBIT 5: MEDICAL INFLATION, GENERAL INFLATION, GDP GROWTH, SFY2001-17, %[18]

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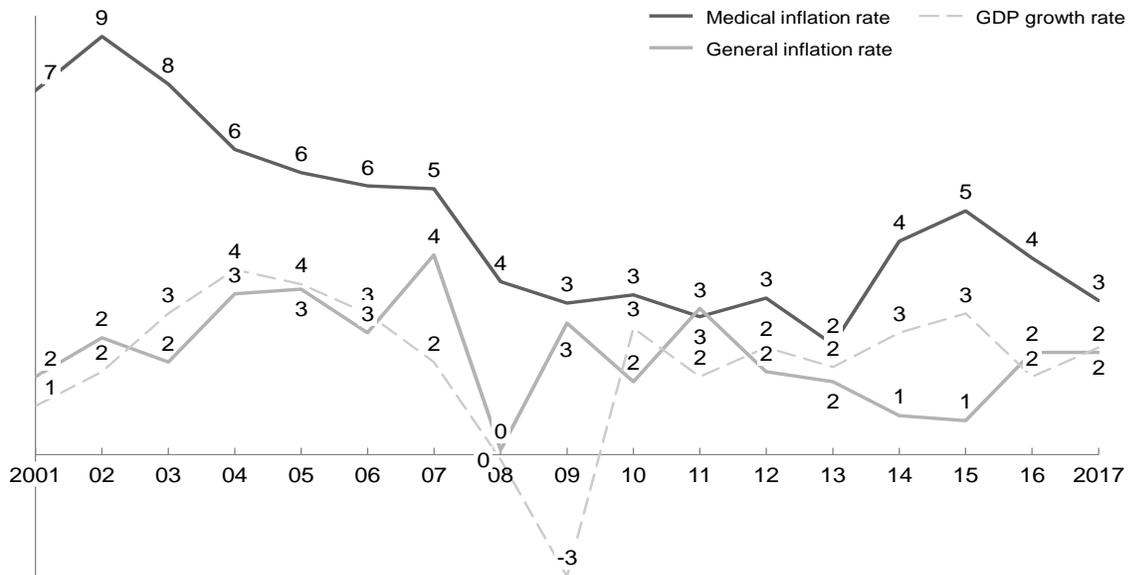
[14] Missouri DSS: see note 1.

[15] CMS, "NHE Fact Sheet," 2017, see: www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nhe-fact-sheet.html.

[16] CMS, "The National Health Expenditure Summary including share of GDP, CY 1960-2017," 2017, www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html.

[17] The Balance, "U.S. Inflation Rate by Year from 1929 to 2020," 2019, see: www.thebalance.com/u--inflation-rate-history-by-year-and-forecast-3306093; The Balance, "U.S. GDP by Year Compared to Recessions and Events," 2019, see: www.thebalance.com/us-gdp-by-year-3305543.

[18] The Balance: see note 17.

Costs are rising in Medicare and Medicaid, putting pressure on both federal and state budgets. In addition, rising health care costs create challenges in the commercial market as well. Employees' contribution to health insurance grew almost three times faster than wages between 2010 and 2015,[19] and middle-class Americans' healthcare spending increased 60% over the past 30 years.[20] The growing financial burden of healthcare has been a significant factor in the low growth in purchasing power of the middle class in the U.S. over the past two decades.[21]

While rising health expenditures are not unique to the U.S., its spending exceeds that of other countries even after adjusting for differences in average wealth. While outcomes of U.S. healthcare exceed those of other countries for some catastrophic illnesses and other complex conditions (e.g. breast and colorectal cancer), outcomes lag other countries for most chronic conditions.[22] Chronic conditions, in particular, account for a significant portion of healthcare spending growth, underscoring concerns that increased levels of investment in healthcare have not translated to proportional improvements in life expectancy or quality of life (see Exhibit 6).

EXHIBIT 6: LIFE EXPECTANCY AND HEALTH EXPENDITURE ACROSS COUNTRIES[23]

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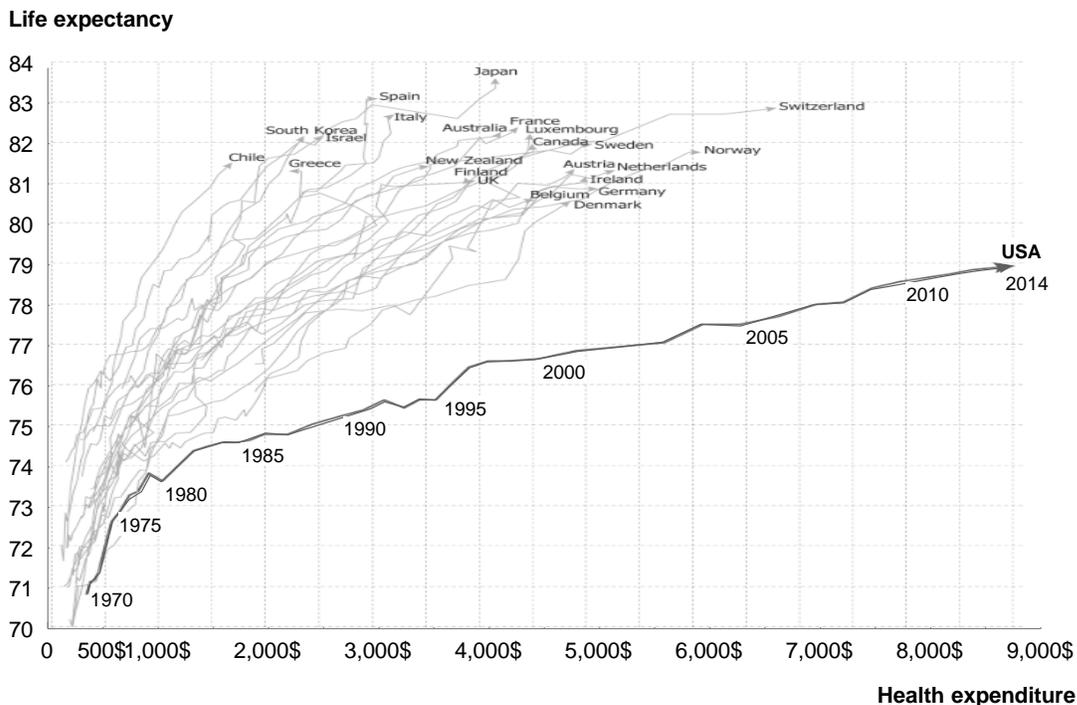
[19] KFF, "2015 Employer Health Benefits Survey," 2015, see: www.kff.org/health-costs/report/2015-employer-health-benefits-survey.

[20] Hamilton Project, "Where Does All the Money Go: Shifts in Household Spending Over the Past 30 Years," 2016, see:www.hamiltonproject.org/papers/where_does_all_the_money_go_shifts_in_household_spending_over_the_past_30_y.

[21] Pew Research, "For most U.S. workers, real wages have barely budged in decades," 2018, see: www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/.

[22] Peterson-Kaiser Health System Tracker, "How does health spending in the U.S. compare to other countries?" 2018, see: www.healthsystemtracker.org/chart-collection/health-spending-u-s-compare-countries; www.kff.org/slideshow/how-does-the-quality-of-the-u-s-healthcare-system-compare-to-other-countries/.

[23] Our World in Data, "Link between health spending and life expectancy: US is an outlier," 2017, see: ourworldindata.org/the-link-between-life-expectancy-and-health-spending-us-focus.

CMS taking steps to reduce federal spending on health care

The Centers for Medicare & Medicaid Services (CMS) have undertaken a series of initiatives to reduce federal healthcare costs for Medicare, ranging from attempts to reduce what it pays for drugs and outpatient visits in Medicare to limiting cost growth in Medicare Advantage plans. [2 4] As the federal government will pay for 50% to 78% of Medicaid costs through federal match in 2019 (65% in Missouri)[25], federal spending on Medicaid is similarly assessed for cost reduction opportunities: CMS has announced its intention to increase the level of scrutiny of Medicaid waiver expenditures.[26] In addition, CMS has described its intention to increase audits of state claims for federal matching funds and beneficiary eligibility determination, among others.[27]

Public and private payors are migrating to value-based payment

There is a broad consensus that one of the key drivers of waste and inefficiency in U.S. healthcare is the fee-for-service (FFS) payment model that characterizes most provider payments. FFS stimulates volume rather than coordination of services, and there are no inherent incentives to achieve optimal outcomes nor to deliver care in an efficient manner.[28] Both public and private payors are transitioning from FFS to value-based payment (VBP), using Alternative Payment Models (APMs) to reward providers for delivering high-quality care at lower cost. Research suggests that well-designed APMs improve the quality of care and can meaningfully reduce the cost of care if implemented across the full spending base.[29]

PROJECTED SPENDING WITHOUT SIGNIFICANT COURSE CORRECTIONS

Over the last 10 years, Medicaid spending growth has outpaced growth in state general revenues. For example, in 2009, 17% of state general revenue funds were directed toward Medicaid; however, in the wake of the Great Recession, Medicaid grew to 22% of state general revenue by 2012 and, in 2018, reached 24% (see Exhibit 7). Although Medicaid enrolment has fluctuated over this timeframe, total Medicaid spending growth has outpaced growth in state general revenues when measured over any five-year timeframe, due to the increase in spending per participant enrolled in the program. Notwithstanding reductions in Medicaid enrollment observed since the beginning of SFY2019, program spending is likely to occupy a greater share of state general revenue over the coming five years, absent changes in program performance.

In this section, we consider three scenarios as a method for gauging the level of fiscal pressure that may arise from Medicaid spending growth. In Scenario 1, Medicaid spending as a share of state general revenues continues to grow at a pace similar to the last five years; in Scenario 2,

[24] CMS, "CMS-1695-P: Hospital Outpatient Prospective Payment- Notice of Proposed Rulemaking (NPRM)," 2019, see: www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Hospital-Outpatient-Regulations-and-Notices-Items/CMS-1695-P.html; CMS, "Prior Authorization and Step Therapy for Part B Drugs in Medicare Advantage," 2018, see: www.cms.gov/Medicare/Health-Plans/HealthPlansGenInfo/Downloads/MA_Step_Therapy_HPMS_Memo_8_7_2018.pdf.

[25] The percentage varies by state; for Missouri the match rate in FY2019 is 65.4%.

[26] CMS, "Budget Neutrality Policies for Section 1115(a) Medicaid Demonstration Projects," 2018, see: www.medicaid.gov/Federal-Policy-Guidance/downloads/SMD18009.pdf.

[27] CMS, "CMS announces initiatives to strengthen Medicaid program integrity," 2018, see: www.cms.gov/newsroom/press-releases/cms-announces-initiatives-strengthen-medicaid-program-integrity.

[28] Health Care Learning and Action Network, "Alternative payment model (APM) framework. Updated version 2017," 2017, see: hcp-lan.org/workproducts/apm-refresh-whitepaper-final.pdf.

[29] McKinsey, "The seven characteristics of successful alternative payment models," 2019, see: www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/the-seven-characteristics-of-successful-alternative-payment-models.

an economic downturn accelerates the growth of Missouri Medicaid spending while reducing the growth of state general revenue; in Scenario 3, the trends from Scenario 1 are exacerbated by potential changes in CMS policies that would reduce federal revenue for Missouri.

EXHIBIT 7: MEDICAID SPENDING AS PERCENT OF GENERAL REVENUE, SFY2009-23[30]
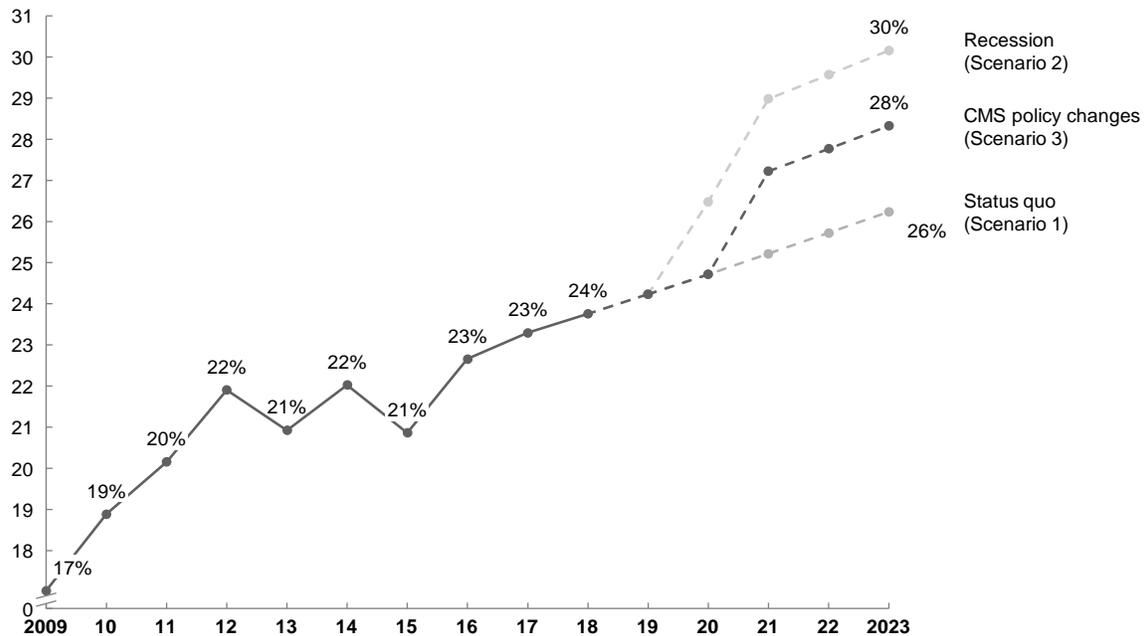
Scenario 1—Continuation of Recent Trends: Spending on the program increased from 21% of state general revenue in 2013 (36% of total state spending) to 24% (40% of total spending) in 2018.[31] In the first scenario illustrated in Exhibit 7, the assumption is that growth of both Medicaid spending and total state spending continue at the pace observed over these past five years. Under this scenario, total Medicaid spending would increase to $12.8 billion by 2023, while the state's total spending would grow to $29.2 billion (growing 2.5% annually) by 2023. In 2023, Medicaid spending would comprise 44% of the overall state spending and 26% of state general revenues.

Scenario 2—Potential Impact of Economic Downturn: In the second scenario, a severe economic downturn (comparable to the recession that began in 2008) affects both state general revenues and Medicaid enrollment. Based on analyses by Moody's, an economic downturn occurring within the next four years could reduce total general revenue by approximately 12% over a two-year period. This reduction in general revenue will likely coincide with an increase in Medicaid enrollment, as individuals lose jobs and incomes fall, resulting in an estimated increase in Medicaid spending by 1.9% in total over the course of two years.[32] These changes could translate to Medicaid spending growing to comprise 51% of total state spending and 30% of state general revenues in 2023.

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[30] Medicaid expenditures have continued to outpace economic growth. Missouri DSS: see note 1.

[31] Missouri DSS: see note 1.

[32] Moody's, "Stress-Testing States," 2017, see: www.economy.com/getlocal?q=91a42834-85af-4773-b408-5da811028c00&app=eccafile.

Scenario 3—Potential Changes in CMS Policies: In the third scenario, no recession occurs, but CMS policy changes could lead to reductions in federal funds for the state's Medicaid program and, consequently, to greater pressure on the state budget. A 3.5% drop in net federal funds could reduce federal funding by approximately $200 million in SFY2023.[33] If the Medicaid program's total spending were to remain unchanged, the loss of federal funds may need to be offset by a similar increase in funding from state general revenues. This could increase the program's share of state general revenues to 28% in SFY2023.

Savings needed to keep spending growth in line with State General Revenues

Under any of the scenarios described above, significant changes in the structure and performance of Missouri's Medicaid program would be necessary to bring Medicaid spending growth in line with projected economic growth of the state. Following are estimates of the reductions in Medicaid program spending that would be necessary to maintain spending at 24% of state general revenues through SFY2023, under each of the three scenarios.

- In Scenario 1 (continuation of recent historical trends), Missouri would need to reduce the growth rate of Medicaid spending by approximately 2 percentage points to bring it in line with the growth of state general revenue, to maintain spending at 24% of state general revenue. In SFY2023, this would equal approximately $735 million savings to total Medicaid spending, or approximately $260 million savings to state general revenues.

- In Scenario 2 (occurrence of a recession similar in magnitude to that experienced 10 years ago), it would be necessary to reduce Medicaid spending by nearly $1.7 billion, or $590 million in spending from state general revenues, to maintain spending at 24% of state general revenues.

- In Scenario 3 (continuation of historical trends, exacerbated by CMS policy changes), it would be necessary to reduce total program spending by approximately $1.3 billion, or $460 million in spending from state general revenues to maintain spending at 24% of state general revenue.[34]

The funding gap implied by the above scenarios is meant to provide context for understanding the estimated $0.5 billion to $1.0 billion in cost savings associated with the opportunities and potential initiatives detailed in the pages that follow. Maintaining spending at 24% of state general revenues may not necessarily represent the state's policy objective and may not be feasible in all future scenarios. In all scenarios, however, implementation of initiatives such as those outlined in the pages that follow could help the Medicaid program to reduce fiscal pressure on the state budget while maintaining or improving access to high-quality care, without broad-based cuts in provider rates, or reductions in eligibility or covered services.

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[33] As outlined in the section on acute care services, existing risks to the state's federal match revenue exist (e.g. inpatient UPL calculations, planned federal reduction of DSH payments, DSH payments-related legal developments, federal scrutiny of existing provider tax pooling arrangements, federal initiatives to reduce the provider tax safe harbor, and so forth). $200 million is a low estimate of the impact of any combination of two to three of these risks becoming reality.

[34] Assumes a corresponding $120 million decrease in provider tax and $80 million decrease in other cuts to federal funding (e.g., DSH payments). The savings would bring the percentage of Medicaid spending of state general revenue to SFY2018 levels.

Opportunities and Potential Initiatives

Without significant changes, Medicaid spending may increase from 24% of state general revenues in SFY2018 to comprise 26% to 30% of state general revenues by SFY2023. Significant cost savings would be necessary to bring growth of Medicaid spending in line with the level of economic growth of the state, while preserving access to care for participants.

The Missouri Department of Social Services, MO HealthNet Division (MHD) commissioned a rapid, in-depth independent assessment of its programs and operations to identify potential opportunities and strategies to transform the Missouri Medicaid program, including evaluation of which functions the Department is performing well in, what activities or practices could be improved, and what priorities could be considered for future investment.

Overall, the Missouri Medicaid program is currently outdated in most aspects compared to other peer states, and significant opportunities exist relative to industry best practices:

- Dollars spent in the program are not well aligned with value received from delivery system;

- Specifically, methods to pay providers lack incentives to contain costs or enhance quality;

- Approaches to utilization management; eligibility management; fraud, waste, and abuse; and third-party liability are limited, partially due to the limitations of the MMIS (see below);

- Programs for special needs populations are fragmented;

- There is no substantial measurement nor transparency of outcomes of care; and

- Service levels to consumers and providers could also be improved, including reductions in average wait times for handling questions, as well as increased service channels.

Leaders and staff in DSS, DMH, and DHSS are aware of these challenges and highly motivated to modernize the program. However, the foundational operational capabilities to do so are equally outdated, hampering opportunities for improvement: the existing technology infrastructure (MMIS) is antiquated; data quality needed for program management is suboptimal; and access to key management information is absent.

Detailed findings from the assessment conducted over the past several months are outlined in the pages that follow, organized into eight project areas which collectively address sixteen performance opportunities prioritized by DSS at the outset of this assessment. For each topical area, potential opportunities for improvement have been identified and evaluated through interviews with functional leaders and subject matter experts within the relevant departments, analysis of claims- and non-claims data, review of activities and operations, assessment of supporting infrastructure and analytics, and benchmarking against other state Medicaid programs, Medicaid managed care organizations (MCOs), or other private health insurers.

Based on these opportunities, a wide range of potential initiatives have been outlined for further consideration by the Department. Depending on the selection of initiatives the state chooses to pursue, total gross savings to the program (including federal and state share) could total up to $0.5 billion to $1.0 billion by SFY2023. These estimated savings would be net of reinvestments in the delivery system (e.g., in primary care, rural health, and the safety net; as well as rewards for providers that generate savings under value-based payment models) and in the Medicaid program's operations to improve service levels to participants and providers.[35]

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[35] One-time investments as well as MMIS replacement investments are not included.

Many of the opportunities for improvement could require changes in policies and contracts requiring cooperation of local providers, support from the state legislature, and in some cases federal approval. Potential initiatives outlined in this report are not meant to represent advocacy for specific policies, nor conclusions yet reached by DSS. The state retains sole responsibility for decision making over which of these potential improvement initiatives (or others) to pursue, and in what form, in compliance with applicable laws, rules and regulations.

ACUTE CARE SERVICES

Missouri spent ~$4.2 billion in SFY2018 on acute care services, including hospital, clinic, physician, and diagnostics services, across both the managed care and non-managed care populations. Including pharmaceutical services, the total is ~$5.7 billion.[36] Hospitals are paid through a combination of base rates and "add-on payments", updated periodically based on changes in hospital operating expenses. This approach offers minimal incentives for providers to contain costs, making it an outlier among states. Uniquely, Missouri Medicaid makes add-on payments to hospitals for services provided to non-Missouri, non-eligible residents.

Physicians and behavioral health providers are also paid per service (fee-for-service [FFS]). Compared to other states, physicians' reimbursement is low. Also, total spending on non-hospital acute care services (physicians, Federally Qualified Health Centers [FQHCs], clinics, and rural health services) is lower than other, comparable states.

The overall value of care delivered (dollars spending vs outcomes for participants) varies significantly across counties. In general, >15% of Missouri Medicaid acute care expenditures may be associated with potentially avoidable exacerbations and complications (PECs), which includes costs of PECs associated with the prevention and treatment of opioid use disorder (OUD). In addition, 5% to 10% of expenditures may be associated with inefficiencies, such as a site of service or choice of therapy that might be more expensive without adding quality.[37]

Potential initiatives to improve incentives and reduce costs range from adjusting rate setting methodologies, moving to value-based payment models and investing in the rural and safety net heath care infrastructure, including primary care and behavioral health. In total, the impact of the acute care initiatives could range from $250 million to $500 million, net of potential reinvestments in the delivery system, depending on the state's choices.[38] To achieve the higher end of this range, the state may need to pursue a combination of initiatives, striking the balance between initiatives primarily focused on rates with initiatives focused on value-based payment (VBP) and investments.

The state could build on its providers' broad experience with Medicaid, Medicare, and Commercial Alternative Payment Models (APMs). Missouri has significant experience with Patient Centered Medical Homes (PCMH) and Health Homes in Medicaid, which aim to integrate physical, behavioral, and substance use disorder (SUD) care for patients with, or at risk of, multiple chronic conditions.

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[36] Pharmaceutical services are discussed in a separate section. The projected savings are not likely to overlap between these sections.

[37] Analysis of Missouri Medicaid claims data, SFY2016-18.

[38] Analysis of Missouri Medicaid claims data, SFY2018; Interviews with Medicaid program staff and analysis of state data, 2018.

This section will first describe the current reimbursement methodologies and the experience with and impact (where quantifiable) of VBP models in Missouri. Subsequently, it will highlight the opportunities to bend the cost curve and improve the value of care for Missourians and present an associated range of initiatives.

Current situation

This section gives an overview of Missouri's current methodology of hospital outpatient reimbursement, inpatient reimbursement, utilization management, out-of-state payments, hospital tax, physician reimbursement, behavioral health reimbursement, and acute care value-based payment initiatives.

Population served, and services provided

For Medicaid, the providers discussed in this section serve both the managed care population (children, parents, and pregnant women) as well as those participants in the disabled population that are not dually eligible.[39] Exhibit 8 shows the breakdown of the total Medicaid costs by service for these populations.

EXHIBIT 8: BREAKDOWN OF ACUTE CARE COSTS BY SERVICE CATEGORY, SFY2018[40]

SFY2018, $M	Acute care service category	Total acute care spend, $M	Share of total acute care spend	Average beneficiaries, 000	Share of total acute care beneficiaries
Hospital and ED	Hospital inpatient care	1,166	20%	139	12%
	ED care	517	9%	408	35%
	Hospital outpatient care	709	12%	419	36%
Office	Office and clinic care	484	8%	762	66%
Pharma-ceuticals	Prescription drugs	1,488	26%	753	65%
	Specialty pharma	65	1%	103	9%
Diagnostics	Lab and pathology	66	1%	383	33%
	Radiology	55	1%	262	23%
Other	Ancillary services	273	5%	45	4%
	DME and supplies	19	0%	24	2%
	PT/OT/ST	12	0%	21	2%
	Other locations	550	10%	172	15%
	Other types of care	240	4%	370	32%
	Ambulance and transportation	130	2%	130	11%

Total spend = $ 5,683M   **Total pop = 1,173K beneficiaries**

In the managed care population, costs are driven by mental illness diagnoses (including substance use disorders) and by perinatal care (pregnancy care, delivery, post-delivery care,

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[39] Dually eligible participants receive their acute care services through Medicare.

[40] Analysis of Missouri Medicaid claims data, SFY2016-18; does not include beneficiaries who have no eligibility during any given month, as well as beneficiaries who are dually eligible or have third party liability; beneficiaries may overlap across categories.
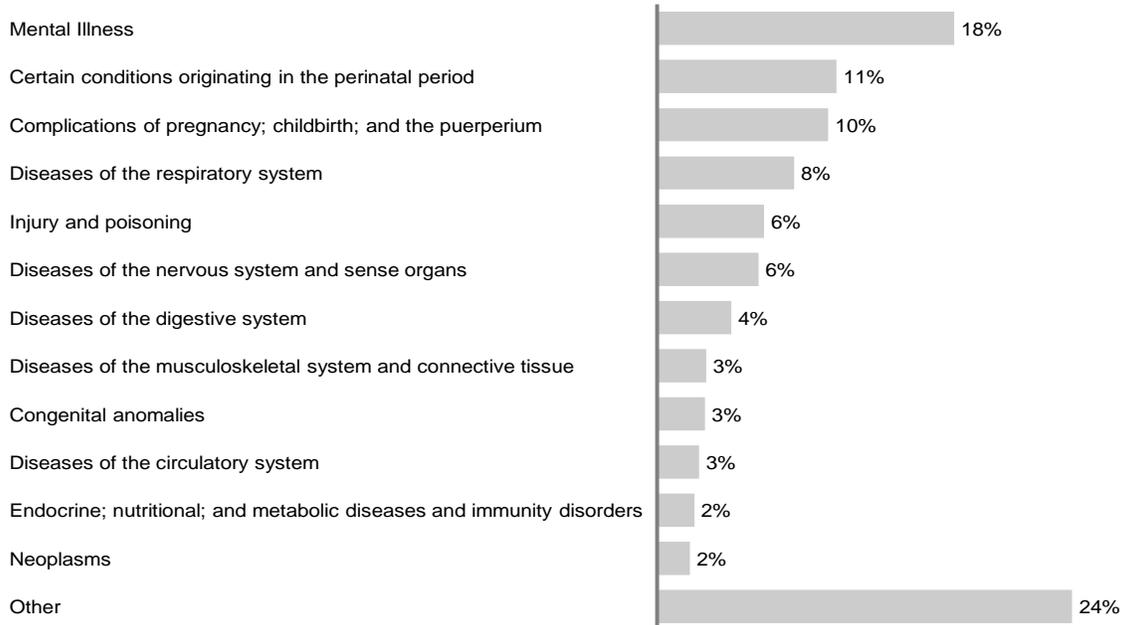
and newborn care) (see Exhibit 9). In the non-dual disabled population, mental illness diagnoses drive more than one-third of the total costs, followed by cardiovascular diagnoses (see Exhibit 10). In these exhibits, substance use disorders (including opioid use) are included in the mental illness diagnostic category.

EXHIBIT 9: MEDICAL COSTS BY DIAGNOSIS GROUP FOR MANAGED CARE POPULATION, SFY2018[41]

MANAGED CARE POPULATION

Medical spend by diagnosis groups for adult and child claimants, SFY2018
Percent of medical spend

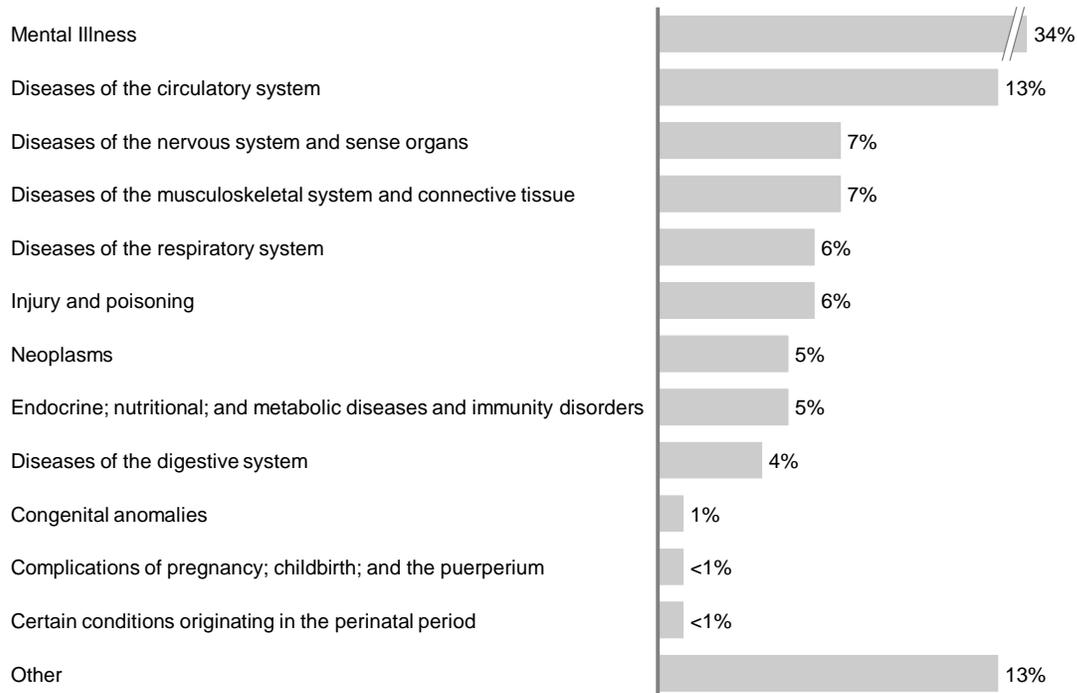| Diagnosis Group	Percent
Mental Illness	18%
Certain conditions originating in the perinatal period	11%
Complications of pregnancy; childbirth; and the puerperium	10%
Diseases of the respiratory system	8%
Injury and poisoning	6%
Diseases of the nervous system and sense organs	6%
Diseases of the digestive system	4%
Diseases of the musculoskeletal system and connective tissue	3%
Congenital anomalies	3%
Diseases of the circulatory system	3%
Endocrine; nutritional; and metabolic diseases and immunity disorders	2%
Neoplasms	2%
Other	24%

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[41] Analysis of Missouri Medicaid claims data, SFY2016-18.

EXHIBIT 10: MEDICAL COSTS BY DIAGNOSIS GROUP FOR NON-DUAL DISABLED POPULATION, SFY2018[42]

NON-DUAL DISABLED

Medical spend by diagnosis groups for non-dual disabled claimants, SFY2018
Percent of medical spend

Mental Illness	34%
Diseases of the circulatory system	13%
Diseases of the nervous system and sense organs	7%
Diseases of the musculoskeletal system and connective tissue	7%
Diseases of the respiratory system	6%
Injury and poisoning	6%
Neoplasms	5%
Endocrine; nutritional; and metabolic diseases and immunity disorders	5%
Diseases of the digestive system	4%
Congenital anomalies	1%
Complications of pregnancy; childbirth; and the puerperium	<1%
Certain conditions originating in the perinatal period	<1%
Other	13%

Inpatient reimbursement

For inpatient (IP) care, Missouri uses a hospital-specific per diem, based on historical cost reports up to two decades old. The base per diem is not differentiated by type of services provided nor patient characteristics. In SFY2018, $540 million of inpatient payments were paid to hospitals. In addition, add-on payments are made. $817 million "direct Medicaid" add-ons compensate providers for differences between the base per diem and trended costs as determined by more recent cost reports. In addition, direct Medicaid payments help offset provider tax payments.[43] Other add-ons include disproportionate share hospital (DSH) payments ($759 million) and graduate medical education (GME) payments ($139 million) (see Exhibit 11).

The state uses a vendor to manage utilization of inpatient services. The vendor conducts six types of reviews: prospective (pre-admission), admission (initial), continued stay review, retrospective (post-discharge), and ongoing validation reviews. All review determinations are made using Milliman Care Guidelines® and pertinent medical information received from the attending physician or hospital regarding the patient's condition and planned services.

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[42] Analysis of Missouri Medicaid claims data, SFY2016-18.

[43] Missouri Foundation for Health, "Briefing Book for Missouri Medicaid," 2016, see: mffh.org/wordpress/wp-content/uploads/2016/04/Medicaid-Financing.pdf.
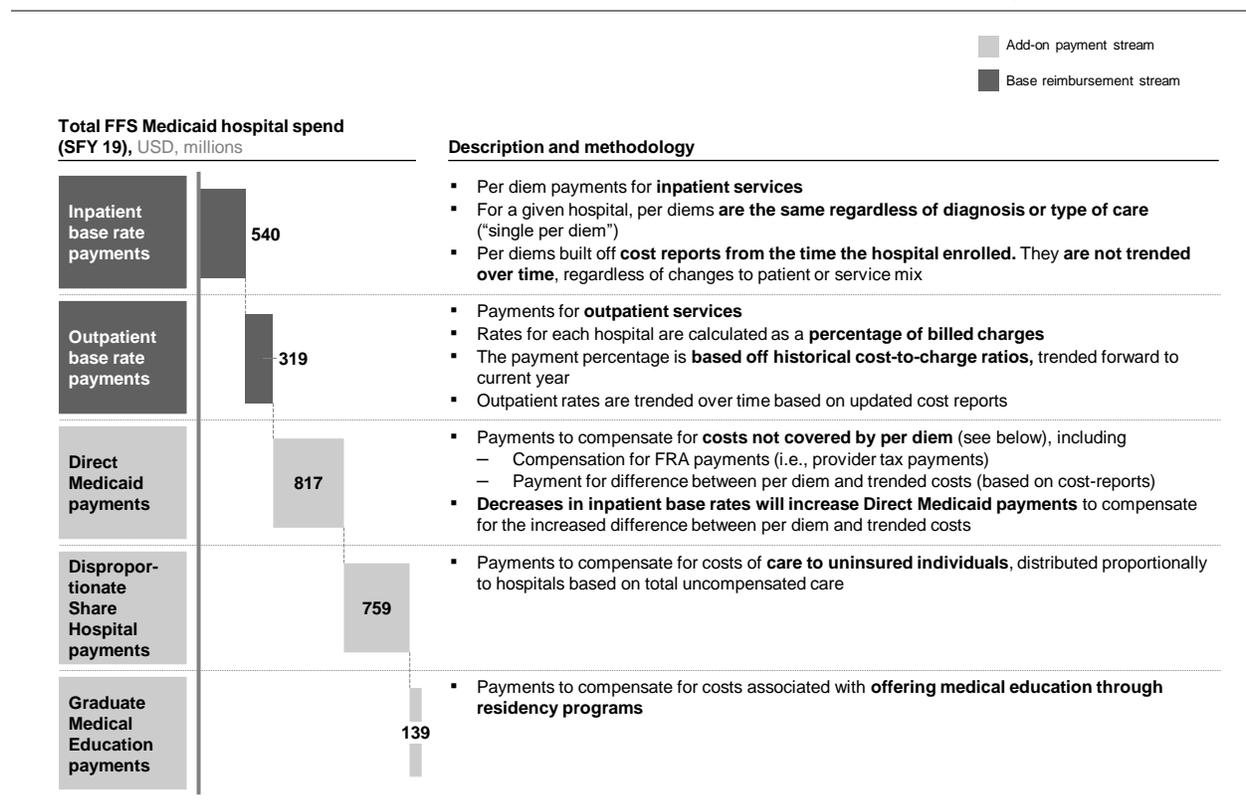
MHD covers up to 24 hours of observation services, ordered for patients who require significant periods of treatment or monitoring before a decision on admission is made. Only one observation code per stay can be billed, capping the reimbursable portion to 24 hours.

Outpatient reimbursement

For outpatient (OP) FFS reimbursement, Missouri pays a percentage of charges for individual services. The percentage is based on analysis of historical cost reports trended to the current state fiscal year. Currently, the state is transitioning towards a Medicare-based outpatient fee schedule model. In SFY2019, hospitals received $319 million in outpatient base rate payments. In addition, add-on payments are made to further help offset provider taxes (these are included in the "direct Medicaid" add-ons, see Exhibit 11).[44]

The state uses a vendor to conduct prior authorizations for advanced imaging (CT/CTA, MRI/MRA, and PET) and select cardiac procedures (cardiac nuclear medicine and cardiac catheterization).

EXHIBIT 11: HOSPITAL REIMBURSEMENT BREAKDOWN, MEDICAID FFS, SFY2019[45]

Legend:
- Add-on payment stream
- Base reimbursement stream

Total FFS Medicaid hospital spend (SFY 19), USD, millions

Description and methodology

Inpatient base rate payments — 540
- Per diem payments for **inpatient services**
- For a given hospital, per diems **are the same regardless of diagnosis or type of care** ("single per diem")
- Per diems built off **cost reports from the time the hospital enrolled.** They **are not trended over time**, regardless of changes to patient or service mix

Outpatient base rate payments — 319
- Payments for **outpatient services**
- Rates for each hospital are calculated as a **percentage of billed charges**
- The payment percentage is **based off historical cost-to-charge ratios,** trended forward to current year
- Outpatient rates are trended over time based on updated cost reports

Direct Medicaid payments — 817
- Payments to compensate for **costs not covered by per diem** (see below), including
  - Compensation for FRA payments (i.e., provider tax payments)
  - Payment for difference between per diem and trended costs (based on cost-reports)
- **Decreases in inpatient base rates will increase Direct Medicaid payments** to compensate for the increased difference between per diem and trended costs

Disproportionate Share Hospital payments — 759
- Payments to compensate for costs of **care to uninsured individuals**, distributed proportionally to hospitals based on total uncompensated care

Graduate Medical Education payments — 139
- Payments to compensate for costs associated with **offering medical education through residency programs**

Provider tax

Like other states, Missouri taxes hospitals and uses these revenues to fund Medicaid and draw down federal funds at the Missouri federal match rate of 65.4% (see Exhibit 4). Missouri's hospital tax rate is higher than most other states (greater than 5.5%).[46] Missouri compensates

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[44] Missouri DSS, "FRA 19-3 – 10 24 18 – FINAL," 2019; UPL analysis, Missouri DSS, 2018-19.
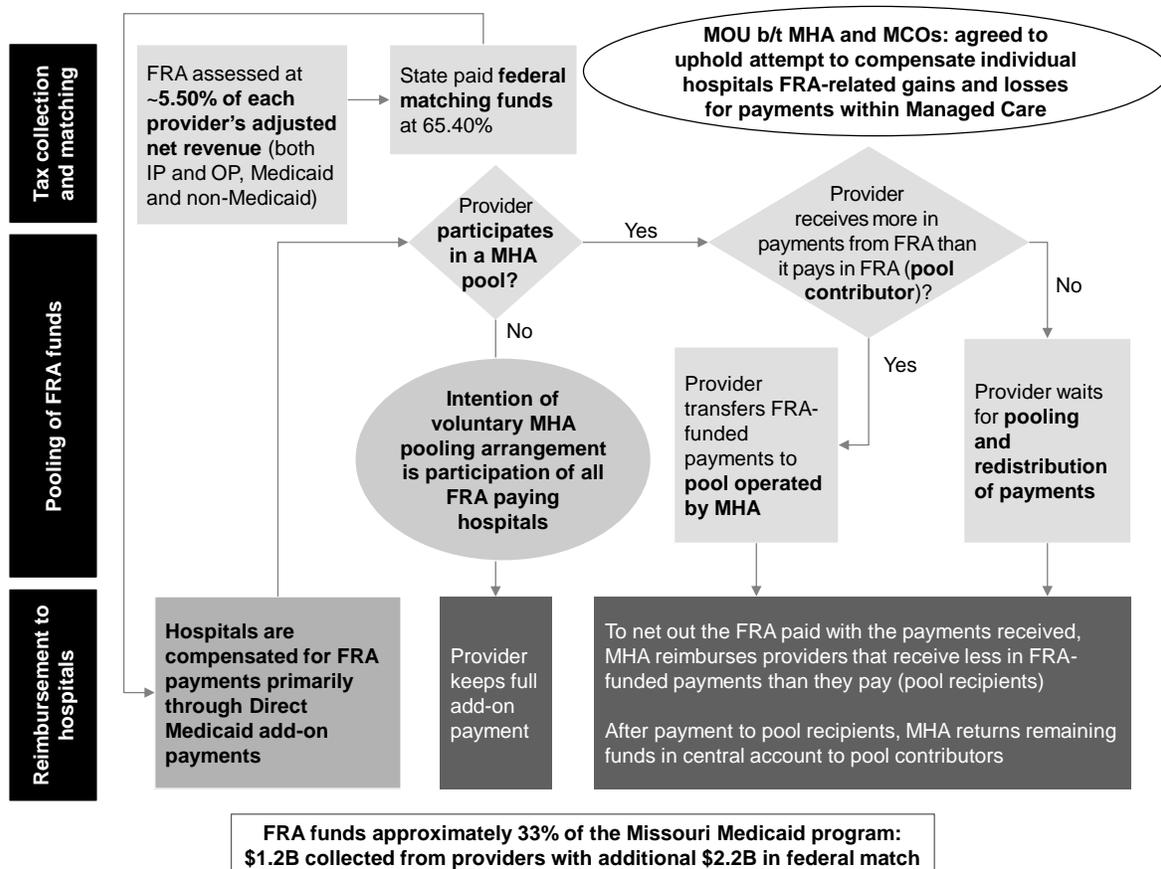
[45] Missouri DSS, see note 44; uses FY18 data for outpatient base rate payments.

[46] KFF: see note 12.

hospitals for these Federal Reimbursement Allowance (FRA) payments through the FFS add-on payments. To attempt to make the tax closer to budget neutral for hospitals, the Missouri Hospital Association (MHA) operates a pooling mechanism (see Exhibit 12).[47]

Since 2017, when managed care was implemented statewide, the state includes a portion of add-ons (primarily to offset provider taxes) in the managed care capitation rate. Through a Memorandum of Understanding, the MCOs and the MHA have agreed to uphold efforts to compensate hospitals for their costs attributable to the FRA assessment.[48]

EXHIBIT 12: MISSOURI HOSPITAL ASSOCIATION FRA FUNDING POOL[49]

FRA funds approximately 33% of the Missouri Medicaid program: $1.2B collected from providers with additional $2.2B in federal match

Physician reimbursement

Physicians are reimbursed through a fee schedule based on a percentage of what Medicare pays for the same services. Once fees are set (e.g., when fees are initially calculated as a percentage of Medicare's rates for a certain procedure code), they are static until the state legislature changes them. Physicians who are organized in clinics can bill the services provided

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[47] Missouri Hospital Association, "How the FRA funds are used," 2014, see: web.mhanet.com/FRA%20Tutorial.pdf.

[48] MHA Management Services Corporation, "MSC Health Plan MOU and Amendment," 2017.

[49] Missouri Hospital Association, "Missouri's Hospital Provider Tax Pooling Arrangement," 2016, see: web.mhanet.com/article/4387/Missouri8217sHospital-Provider-Tax-Pooling-Arrangement.aspx?articlegroup=2663. Missouri DSS: see note 1. KFF: see note 12.

through their clinics, for which reimbursement rates are generally higher than they are for physicians.

Behavioral health reimbursement

Behavioral health services are covered by both DMH and MO HealthNet. DMH covers Community Psychiatric Rehabilitation services, which include intake and annual evaluations, behavioral health assessment, psychosocial rehabilitation, and day treatment for youth.[50] DMH also covers Comprehensive Substance Treatment and Rehabilitation (CSTAR) services. MO HealthNet covers other behavioral health services, such as various psychotherapy services (e.g., family and group therapy, individual psychotherapy), services in a school setting, applied behavioral analysis, and selected telehealth services, among other covered services.[51] Behavioral health services not covered by Medicaid include housing supports, drug screens, transportation, and occupational therapy for adults. Behavioral health services are reimbursed on a fee-for-service basis, determined by relevant information (e.g., charge information from providers across the state, recommendations from the State Medical Consultant) and current appropriated funds.

Value-based payment (VBP)

There is significant experience with VBP in the state, both within Medicaid and across other payors, although many of these models are not yet fully mature or at scale. The initiatives in Medicaid are primarily focused on PCMHs and health homes (both within the FFS and through the managed care local community care coordination program [LCCCP]), through which providers may receive additional payments to improve the value of the care delivered. The impact of some initiatives can be quantified.

- *Local community care coordination program (LCCCP).* Missouri contracts require MCOs to develop a LCCCP to be approved by the state in which MCOs are to develop VBP contracts (such as ACOs, PCMHs, primary care case management programs [PCCM]) with providers. Provider participation should have reached 10% in June 2018, with 20% of participants enrolled in the LCCCP by the end of the contract period. The program has recently started; no results are yet available.

- *Accountable care organizations (ACOs).* In addition to the LCCCP initiatives, there are at least 13 ACOs in Missouri, concentrated in St. Louis, Kansas City and Springfield, of which 11 are Medicare ACOs, and two are commercial ACOs. The six Medicare ACOs for which the number of participants has been published jointly serve >184,000 Missourians. At least three of these ACOs have risk-based contracts; one reported $8.9 million in earned savings in 2017.[52]

- *Patient-centered medical home (PCMH).* There are currently 419 NCQA accredited PCMHs in Missouri,[53] contracting with MCOs through the LCCCP program and with commercial plans. Fifty-three practices participate in CMS' Medicare Comprehensive Primary Care Plus Initiative (CPC+), in which Blue Cross Blue Shield of Kansas City and

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[50] MO HealthNet Community Psych Rehab Program Manual. http://manuals.momed.com/collections/collection_cpr/print.pdf.

[51] MO HealthNet Behavioral Health Services Manual. http://manuals.momed.com/collections/collection_psy/print.pdf.

[52] CMS, "Shared Savings Program Accountable Care Organizations (ACO) Public-Use Files," 2017, see: www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/SSPACO/index.html.

[53] National Committee for Quality Assurance, "Practices," see: reportcards.ncqa.org/#/practices/list?state=Missouri.
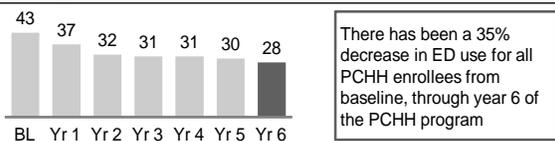
UnitedHealth also participate; these practices receive care management fees and quality- and efficiency bonus payments. No Missouri-specific results have been published.

- *Health homes*. Missouri was one of the first states to create health homes. Health homes must meet specific quality criteria and receive a per member per month (PMPM) payment for care management and other dedicated health home services. Primary care health homes (PCHH) focus on patients with at least two physical chronic conditions, such as diabetes, cardiovascular disease, or substance use disorder. As of 2017, PCHHs received $63.72 PMPM for health home services; of the 38 PCHHs, 25 are federally qualified health centers (FQHCs), 11 are hospital affiliated providers, and two are clinics. In 2018, 24,580 Medicaid participants were receiving care from PCHHs. According to evaluations published by the state, PCHHs saved $98.35 PMPM, compared to baseline in 2016 (see Exhibit 13).[54] Lower actual and risk-adjusted PMPM costs for the PCHH population are partially driven by lower inpatient costs (see Exhibit 14).[55]
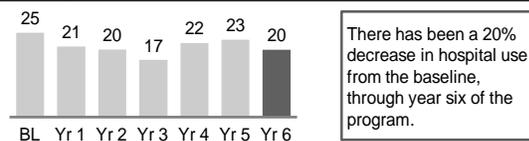
EXHIBIT 13: IMPACT OF PRIMARY CARE HEALTH HOMES: HOSPITAL USE, SFY2012-18[56]

Utilization results across all PCHH enrollees
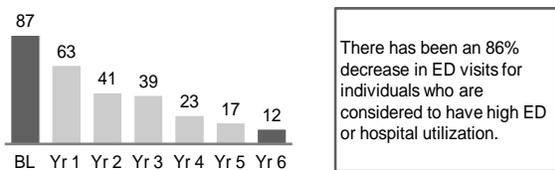
Percentage of PCHH enrollees who had an ED visit, %

43, 37, 32, 31, 31, 30, 28 (BL, Yr 1, Yr 2, Yr 3, Yr 4, Yr 5, Yr 6)

There has been a 35% decrease in ED use for all PCHH enrollees from baseline, through year 6 of the PCHH program

Percentage of PCHH enrolees who had a hospitalization, %

25, 21, 20, 17, 22, 23, 20 (BL, Yr 1, Yr 2, Yr 3, Yr 4, Yr 5, Yr 6)

There has been a 20% decrease in hospital use from the baseline, through year six of the program.

Utilization results across high utilizers

% of high utilizers with ED visits

87, 63, 41, 39, 23, 17, 12 (BL, Yr 1, Yr 2, Yr 3, Yr 4, Yr 5, Yr 6)

There has been an 86% decrease in ED visits for individuals who are considered to have high ED or hospital utilization.

% of high utilizers with hospital admissions

58, 35, 24, 17, 14, 11, 8 (BL, Yr 1, Yr 2, Yr 3, Yr 4, Yr 5, Yr 6)

In total, the percentage of high utilizers who are admitted to the hospital has been reduced by 86%.
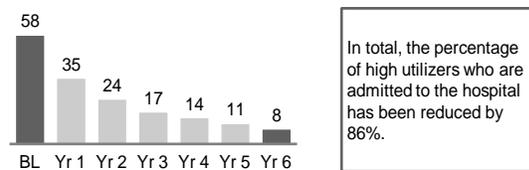
Average # of ED visits for high utilizers

4.7 ... 0.5 (BL to Yr 6)

The average number of ED visits decreased from 4.7 visits per person to less than one visit/person by year six, an 89% decrease.
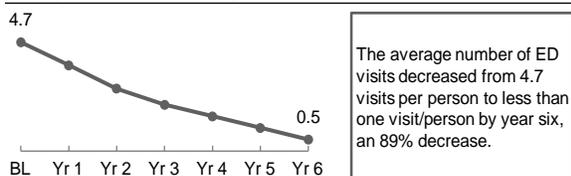
Average # of hospitalizations for high utilizers

1.5, 0.8, 0.5, 0.4, 0.3, 0.3, 0.2 (BL, Yr 1, Yr 2, Yr 3, Yr 4, Yr 5, Yr 6)

The average number of hospitalizations has decreased by 87 % from baseline to year six.
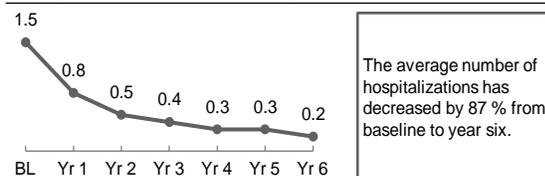
The impact of PCHH on ED and hospital use has been especially effective among high utilizers

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[54] Missouri DSS, "Paving the way," 2017, see: dss.mo.gov/mhd/cs/health-homes/pdf/pchh-paving-the-way.pptx; Missouri DSS, "MO HealthNet PCHH Progress Report 2014-2017 FINAL 07192018," 2018, analysis of Missouri Medicaid claims data, SFY2016-18.
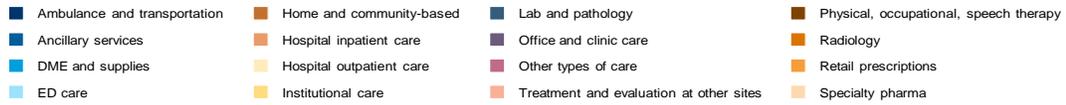
[55] Analysis of Missouri Medicaid claims data, SFY2016-18.
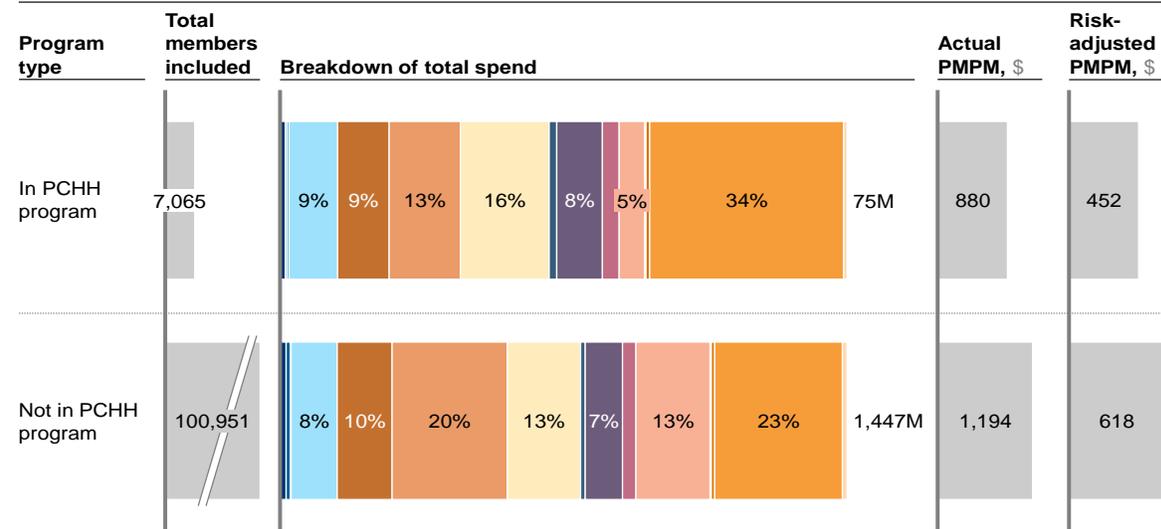
[56] Missouri DSS: see note 54.

EXHIBIT 14: COMPARISON OF EXPENDITURES IN PCHH PROGRAM WITH NON-PCHH PARTICIPANTS WITH COMPARABLE RISK-PROFILE (MANAGED CARE), SFY2018[57]

MANAGED CARE POPULATION

SFY2018

Ambulance and transportation	Home and community-based	Lab and pathology	Physical, occupational, speech therapy
Ancillary services	Hospital inpatient care	Office and clinic care	Radiology
DME and supplies	Hospital outpatient care	Other types of care	Retail prescriptions
ED care	Institutional care	Treatment and evaluation at other sites	Specialty pharma

Spend by service category by HH enrollees, vs. comparable population

Program type	Total members included	Breakdown of total spend	Actual PMPM, $	Risk-adjusted PMPM, $
In PCHH program	7,065	9% · 9% · 13% · 16% · 8% · 5% · 34% — 75M	880	452
Not in PCHH program	100,951	8% · 10% · 20% · 13% · 7% · 13% · 23% — 1,447M	1,194	618

Community mental health center health homes (CMHC HH) focus on patients with (serious) mental illness and/or substance use disorder. CMHCs receive $85.23 PMPM to support the infrastructure needed to deliver CMHC HH services; of the 28 CMHCs, 22 are clinics and six are hospital affiliated providers (15 of these CMHCs have become certified community behavioral health clinics [CCBHCs; see below]). As of January 2017, 24,844 participants were enrolled in CMHC HH. An evaluation by the state concluded that in 2016, CMHC HHs saved $284.94 PMPM compared to baseline (see Exhibit 15 for additional results).[58] To compare participants served by CMHC HHs with participants with comparable conditions and co-morbidities, individuals with high behavioral health needs were identified within the CMHC HH population as well as in the non-HH population.[59] In this comparison, participants in the non-dual disabled population show similar nominal PMPM costs but lower risk-adjusted PMPM costs for the CMHC population. As in the PCHH analyses, these results were driven partially by higher pharmacy costs and lower inpatient costs in the CMHC
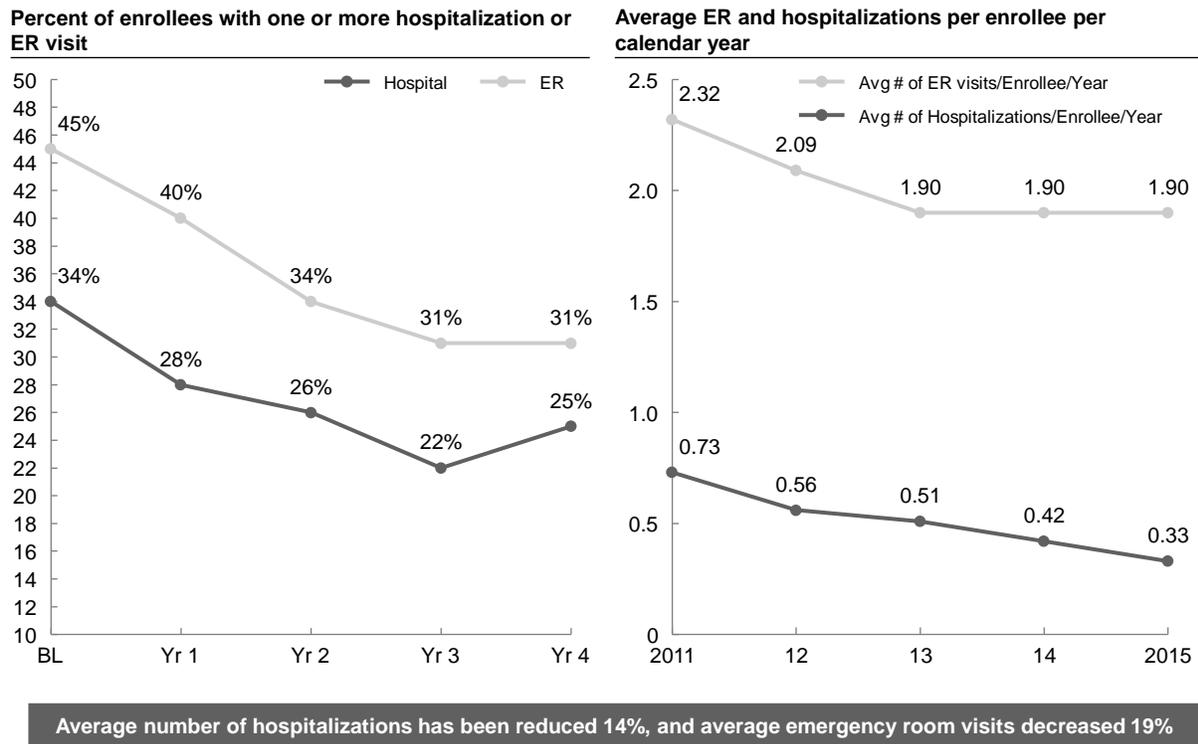
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[57] Analysis of Missouri Medicaid claims data, SFY2016-18.

[58] Missouri DMH, "DMH CMHC Healthcare Homes progress report," 2016, see: dmh.mo.gov/mentalillness/provider/docs/cmhchchprogreport16.pdf.

[59] In these analyses, participants were flagged as having high behavioral health needs if they either (1) have diagnoses of schizophrenia, bipolar disorder with psychosis, major depression w/ psychosis, attempted suicide or self-injury, homicidal ideation, or substance use with pregnancy or one year postpartum OR (2) have one or more behavioral health-related utilization of inpatient hospital visit, crisis unit visit, residential facility visit, rehab facility visit, medication-assisted treatment, ED visit, or injection antipsychotics AND presence of bipolar disorder without psychosis, major depression without psychosis, other depression, PTSD, substance use, conduct disorder, personality disorder, psychosis, ODD, or eating disorders.

population. This comparison could indicate that the CMHC is cost-effective, improving the care for these patients (including utilization of needed drugs) and reducing potentially avoidable hospital admissions (see Exhibit 16). (The results for the managed care population, mostly children, did not show a comparable difference.)

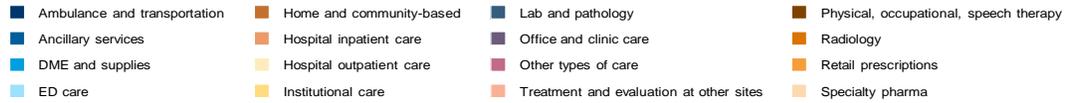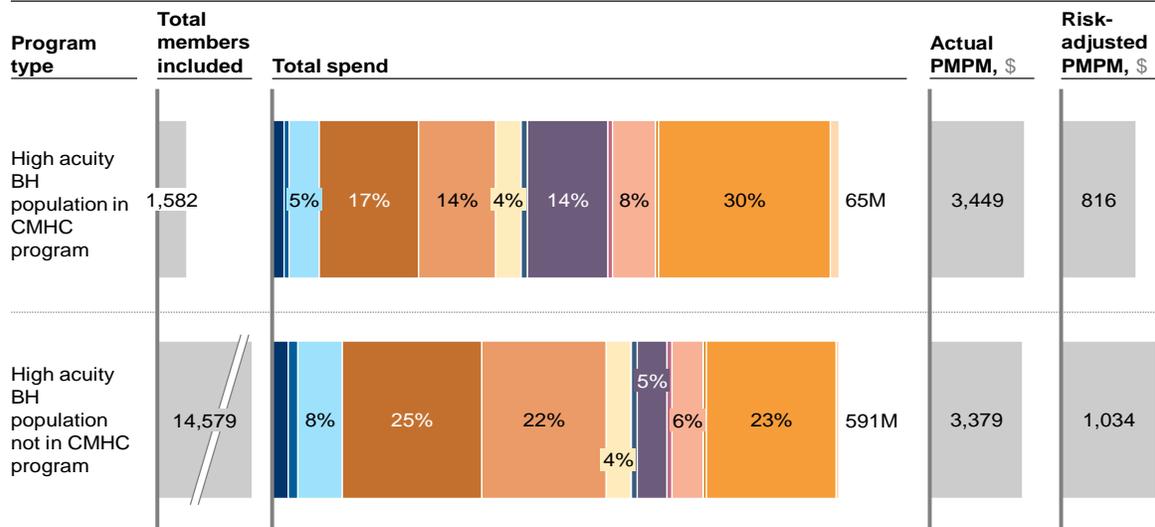EXHIBIT 15: IMPACT OF COMMUNITY MENTAL HEALTH CENTER HEALTH HOMES ON HOSPITAL USE, SFY2011-2015[60]

Percent of enrollees with one or more hospitalization or ER visit

Average ER and hospitalizations per enrollee per calendar year

Average number of hospitalizations has been reduced 14%, and average emergency room visits decreased 19%

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[60] Missouri DMH: see note 58.

EXHIBIT 16: COMPARISON OF PARTICIPANTS WITH SEVERE BEHAVIORAL HEALTH NEEDS IN CMHC PROGRAM WITH NON-CMHC PARTICIPANTS WITH SEVERAL BEHAVIORAL HEALTH NEEDS (NON-DUAL DISABLED POPULATION), SFY2018[61]

NON-DUAL DISABLED

SFY2018

■ Ambulance and transportation	■ Home and community-based	■ Lab and pathology	■ Physical, occupational, speech therapy
■ Ancillary services	■ Hospital inpatient care	■ Office and clinic care	■ Radiology
■ DME and supplies	■ Hospital outpatient care	■ Other types of care	■ Retail prescriptions
■ ED care	■ Institutional care	■ Treatment and evaluation at other sites	■ Specialty pharma

Spend by service category by HH enrollees, vs. comparable population

Program type	Total members included	Total spend	Actual PMPM, $	Risk-adjusted PMPM, $
High acuity BH population in CMHC program	1,582	5% 17% 14% 4% 14% 8% 30% 65M	3,449	816
High acuity BH population not in CMHC program	14,579	8% 25% 22% 4% 5% 6% 23% 591M	3,379	1,034

Certified Community Behavioral Health Clinics (CCBHC), a new initiative started in 2017, focus on a similar patient population as CMHCs, and can also provide Health Home services. Of the 28 CMHCs mentioned above, 14 have become CCBHCs (and one new CCBHC has been created). As of November 2018, CCBHCs HHs served ~16,650 Medicaid participants (largely participants who were enrolled in CMHC HHs before).[62] CCBHCs are reimbursed using a prospective payment system, in which health home payments are included. No results have yet been published.

– *Bundled Payments.* There are currently seven participating healthcare facilities in CMS' Medicare Bundled Payment for Care Improvement (BPCI) Advanced program, which have selected between one and 19 episodes, including sepsis, hip/knee replacement, and spinal fusion surgery.[63] Additionally, 36 hospitals participated in CMS' Medicare Comprehensive Care for Joint Replacement (CJR) program in 2016-2017, earning savings of on average ~$2 million.[64]

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[61] Excludes health home PMPM payments; analysis of Missouri Medicaid claims data, SFY2016-18.

[62] Interviews with Medicaid program staff.

[63] CMS, "BPCI Advanced," 2018, see: innovation.cms.gov/initiatives/bpci-advanced/.

[64] CMS, "Comprehensive Care for Joint Replacement Model," 2018, see: innovation.cms.gov/initiatives/cjr.

Durable Medical Equipment

- The state follows a CMS fee schedule for most DME products (with exceptions such as speech generation software and accessories, and certain types of hospital beds, which use negotiated rates on a case-by-case basis). Total SFY2018 costs were $52 million, of which 27% were for respiratory DME, 27% were for bulky DME (such as wheelchairs and lift chairs), 14% were for orthotics and prosthetics, and the remainder were for other DME categories such as incontinence products and infusions.[65]

- Utilization management techniques are in place for DME products. Prior authorization, precertification, or meeting medical necessity criteria is required for most high-cost/high-utilization products such as power wheelchairs and other bulky DME.

Potential opportunities for improvement

This section identifies potential opportunities to improve Missouri's current approach to hospital and physician reimbursement, as well as regulatory and stakeholder risks. The opportunities are not intended to be mutually exclusive: opportunities for savings or improved outcomes may overlap.

- **The cost-based, single per diem payment method for hospital inpatient care provides limited incentives to contain costs and improve quality**. An outlier among states, Missouri's use of a single per diem lacks a direct connection between payments, actual care provided, and types of patients served. This lack of incentive for efficiency is exacerbated by the tight coupling between the reported cost of delivery and the level of the per diem: increased costs lead to higher per diems. Most state Medicaid programs (similar to Medicare and most commercial health insurers) currently use Diagnosis-Related Groups (DRGs), which make a fixed payment for the entire stay in the hospital, creating cost-containment incentives while also accounting for patient mix and severity.[66]

- **There is no inpatient readmissions policy.** While Missouri spent $160 million on hospital readmissions in SFY2018, it has no policies in place to address potentially avoidable readmissions. CMS, MCOs, and other state Medicaid agencies have extensive experience with such policies.

- **The cost-based, outpatient payment method also contains limited incentives for cost containment.** Proactive outreach to avoid exacerbations of depression or inefficiencies in diabetes care is not part of the standard fee schedule; in fact, reducing ER visits or hospital (re-)admissions reduces revenue for providers in a FFS payment system.[67] In addition, providers tend to have no access to data about the overall costs and outcomes of the care they provide, making it difficult to fully mobilize to prevent potentially avoidable complications and inefficiencies.

  Most states use outpatient fee schedules that are indexed to Medicare's fee schedule or ambulatory payment group models.[68] Missouri has started to move towards a comparable,

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[65] Analysis of Missouri Medicaid claims data, SFY2016-18.

[66] MACPAC, "State Medicaid Payment Policies for Inpatient Hospital Services," 2018, see: www.macpac.gov/publication/macpac-inpatient-hospital-ayment-landscapes.

[67] Krupka, DC et al., "The Impact On Hospitals Of Reducing Surgical Complications Suggests Many Will Need Shared Savings Programs With Payers," 2012, Health Affairs, 31: 2571-78.

[68] Such as Enhanced Ambulatory Patient Groups (EAPG) or Ambulatory Payment Classification (APC) methodologies.

Medicare-based outpatient fee schedule model, but has not yet completed that transition. For SFY2020, the state currently estimates this transition to be budget-neutral.[69] Expansion of this approach could generate savings over time as hospitals improve operational efficiencies. Savings could be realized more quickly depending on the approach taken to setting prices under the new fee schedule.

- **Several categories of high-cost outpatient services do not require prior authorization.** Prior authorization (PA) is limited to advanced imaging and select cardiac procedures**.** Other states and MCOs incorporate measures to ensure appropriate utilization on other OP procedures such as sleep studies, radiation therapy, and arthroscopies.

- **Providing add-on payments to hospitals for non-Missouri residents served is a unique feature of the Missouri Medicaid program.** Throughout the U.S., hospitals serving out-of-state Medicaid patients will be paid by the patient's home state according to that state's Medicaid regulations. In Missouri, the state provides additional add-on payments (estimated at approximately $177 million in SFY2019) to its hospitals for services provided to persons eligible for Medicaid from Kansas, Illinois or elsewhere.[70]

- **Managed care payments to hospitals are set at a higher rate than FFS payments**. Excluding compensation for provider taxes, current MCO inpatient base payments are approximately 30% higher than FFS per diem payments.[71] An estimated >$100 million of MCO payments to hospitals are at rates above 120-130% of FFS payments.[72]

- **Variability in reimbursement levels between hospitals is significant.** Excluding the Medicaid portion of each hospital's provider tax assessment, the difference between the Medicaid payments hospitals received and their individual UPLs varied between <50% and >150% of their hospital-specific UPLs in SFY2016.[73] The variation in outpatient procedure fees is currently being reduced through the introduction of the Medicare-based outpatient fee schedule.

- **Physician reimbursement is lower than in most other states.** Physicians are paid based on a fee schedule that is historically linked to Medicare but is not regularly updated. Reimbursement rates are less than in other states: Missouri Medicaid pays 79% of the national average (ranked 46th); for primary care, the state pays 81% (ranked 42th). Compared to Medicare fees, Medicaid pays 60% for overall physician services (ranked 44th) and 55% for primary care services (ranked 41th).[74] Spending on non-hospital physician services, including Federally Qualified Health Centers (FQHCs), clinics, and rural health services, is lower than other comparable states: In SFY2016, Missouri spent 5% of

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[69] Missouri DSS, "MHD – FY 19 Core exercise," 2018.

[70] Third-party analysis provided by MHD, 2018.

[71] Third-party analysis provided by MHD, 2018.

[72] Missouri DSS, "20181119 Medicaid Update," 2018.

[73] Missouri DSS, FY2016 UPL analyses; AHA Hospital Cost Report Files (HCRIS): CMS.Gov Case Mix Index Data; Missouri DSS, FY2016 FRA schedule; FRA share of Medicaid revenue calculated by multiplying each hospital's FY2016 Medicaid revenue, the FRA tax rate (5.95% in FY2016), and the percentage of FRA payments from FFS (91%, per the FRA schedule).

[74] KFF, "Medicaid physician fees," 2016, see: www.kff.org/state-category/medicaid-chip/medicaid-physician-fees/.

total expenses on non-hospital physician services, as opposed to 9% in comparable states.[75]

- **>15% of Missouri Medicaid acute care expenditures may be associated with potentially avoidable exacerbations and complications (PECs).** A PEC is any event that negatively affects the patient and is potentially controllable by the health care delivery system: an ER visit for an asthma exacerbation, a hospital readmission for a post-surgical wound infection, or an emergency admission for a patient with a depression. PECs are an inherent part of health care: a patient with bronchitis can develop a pneumonia, and post-surgical complications will likely never be completely eradicated. But improving the coordination and quality of care can significantly reduce the volume and costs of PECs.[76]

As mentioned earlier, the current FFS reimbursement method does not reward coordination of care or adequate care management. Likewise, preventing PECs tends to negatively impact provider economics. Reducing such events, however, is an important source of value for payors and patients alike: addressing PECs means reducing total costs of care through improving outcomes for patients.

In Exhibit 17, the risk-adjusted total costs of care for the Medicaid managed care population[77] are shown per county and mapped against the percentage of total costs that are associated with PECs. The percentage of costs associated with PECs per county is highly variable, ranging from <10% to >23%. (For persons with disabilities, the variability is comparable; percentages range between 6% and 14%.)[78] Reducing PECs by 20% would amount to ~$170 million in savings or opportunities for reinvestment.

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[75] FMR, 2016; comparable states are other states with enrollment in managed care of 30% or less (Alaska, Arkansas, Alabama, Colorado, Connecticut, Idaho, Massachusetts, Montana, North Carolina, North Dakota, Oklahoma, South Dakota, Vermont, and Wyoming).

[76] De Brantes, F, A Rastogi, and M Painter, "Reducing potentially avoidable complications in patients with chronic diseases," 2010, Health Serv Res, 45: 1854-71.

[77] Excluding dually eligible beneficiaries.

[78] PECs percentages are lower for this population as a larger proportion of the spending is LTSS spending, which is not included in PECs.

EXHIBIT 17: POTENTIALLY AVOIDABLE EXACERBATIONS AND COMPLICATIONS AND RISK ADJUSTED SPENDING BY COUNTY, MANAGED CARE POPULATION[79]
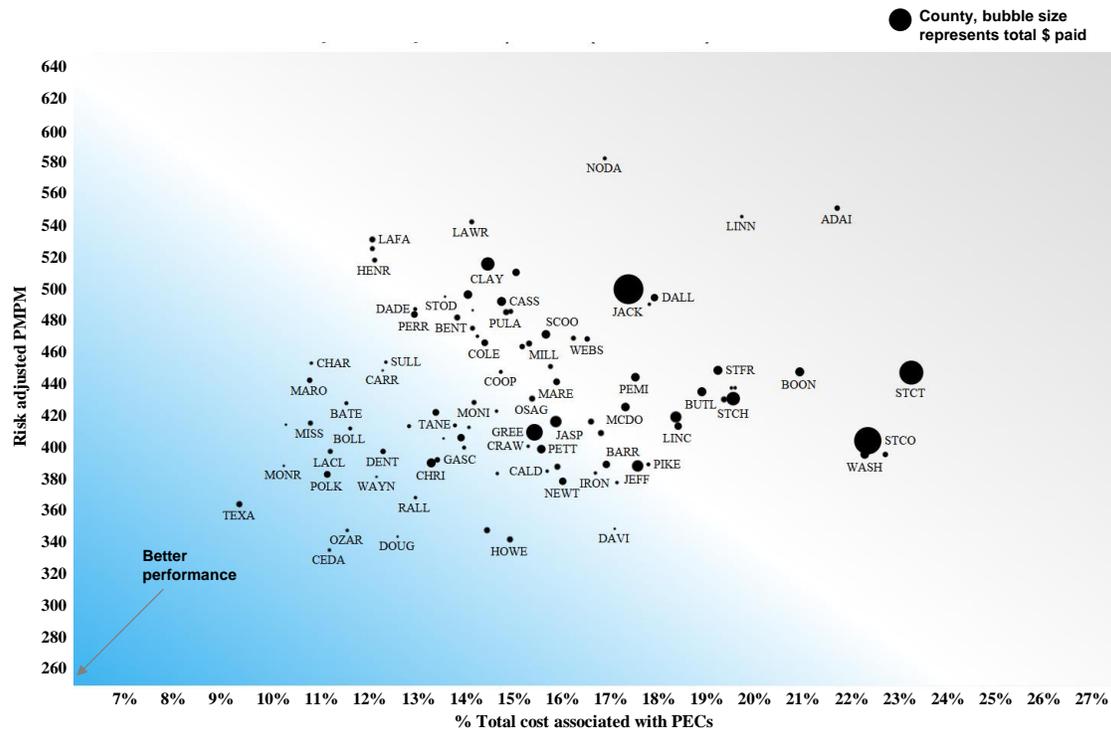
There are several ways value-based payment could support reducing PECs: incentivizing high quality, integrated primary care; rewarding a focus on high-cost patients who cycle in and out of ERs and hospitals (for persons with disabilities, 4% of participants account for nearly one-third of all ER visits) (see Exhibit 18); and strengthening the role of behavioral health care throughout the care cycle (mental health and substance use are the main reasons for hospital admissions amongst the individuals with disabilities, and – after maternal and newborn care – the second main reason in the children and adults population). See Exhibit 19 for the admissions for mental health diagnoses in the non-dual disabled population.[80]

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[79] Analysis of Missouri Medicaid claims data, SFY2016-18; excludes counties <15,000 member-months. "Managed Care Population" refers to those individuals eligible for managed care: children, parents, and pregnant women.

[80] Analysis of Missouri Medicaid claims data, SFY2016-18.

EXHIBIT 18: 4% OF MANAGED CARE PARTICIPANTS ACCOUNT FOR ALMOST ONE-THIRD OF ED VISITS, OF WHICH >50% ARE POTENTIALLY AVOIDABLE[81]
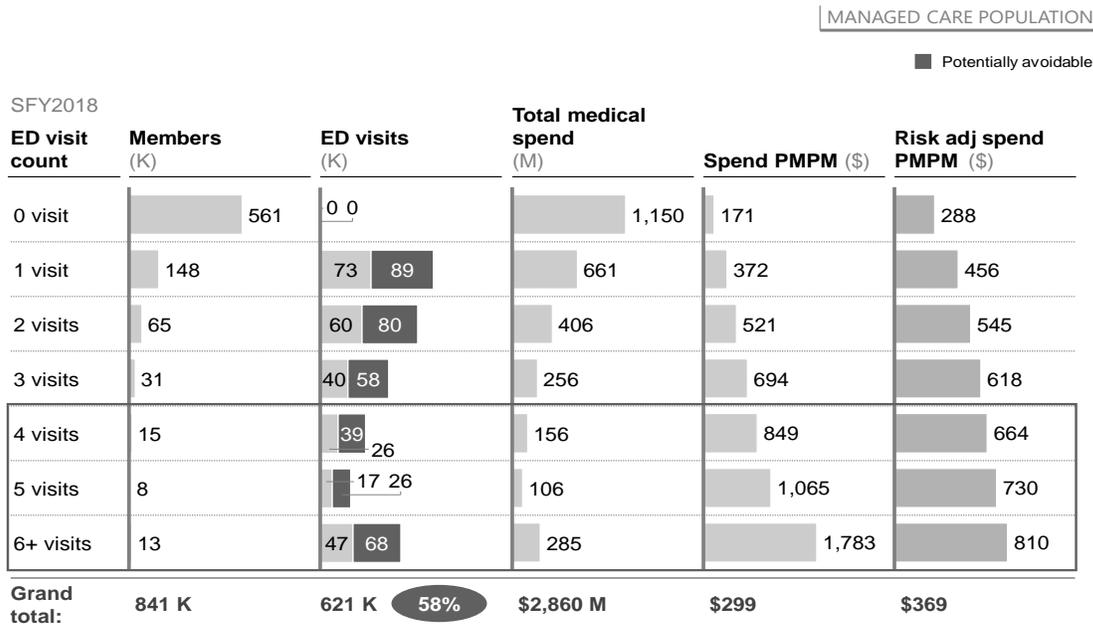
MANAGED CARE POPULATION

■ Potentially avoidable

SFY2018

ED visit count	Members (K)	ED visits (K)		Total medical spend (M)	Spend PMPM ($)	Risk adj spend PMPM ($)
0 visit	561	0	0	1,150	171	288
1 visit	148	73	89	661	372	456
2 visits	65	60	80	406	521	545
3 visits	31	40	58	256	694	618
4 visits	15	39	26	156	849	664
5 visits	8	17	26	106	1,065	730
6+ visits	13	47	68	285	1,783	810
Grand total:	**841 K**	**621 K**	**58%**	**$2,860 M**	**$299**	**$369**

EXHIBIT 19: HOSPITAL ADMISSIONS IN THE NON-DUAL DISABLED POPULATION[82]

Members by DRG for members with mental diseases admission, SFY2018
Includes only members with an inpatient admission during SFY2018

NON-DUAL DISABLED

	Annualized members captured by category (members can be in multiple categories)	Total spend, $	PMPM spend, $
Major Depressive Disorders & Other/Unspecified Psychoses	2,038	101M	4,115
Bipolar Disorders	1,948	101M	4,315
Schizophrenia	1,872	112M	4,989
Alcohol Abuse & Dependence	669	38M	4,756
Depression Except Major Depressive Disorder	499	26M	4,329
Opioid Abuse & Dependence	351	18M	4,271
Other Drug Abuse & Dependence	321	14M	3,679
Adjustment Disorders & Neuroses Except Depressive Diagnoses	248	14M	4,650
Acute Anxiety & Delirium States	183	12M	5,506
Disorders Of Personality & Impulse Control	167	12M	5,831
Cocaine Abuse & Dependence	160	10M	5,371
Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	151	10M	5,385
Organic Mental Health Disturbances	124	11M	7,519

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[81] Analysis of Missouri Medicaid claims data, SFY2016-18.

[82] Analysis of Missouri Medicaid claims data, SFY2016-18; excludes top and bottom 2.5% of episodes by cost.

- **5-10% of Missouri Medicaid acute care expenditures may be associated with the location where services are provided and the choice of diagnostics and interventions.** FFS does not incentivize efficiency considerations in making diagnostic or therapeutic decisions, nor does it stimulate providers to select the most cost-effective location to perform these services. Serving people in the ER is costly compared to serving them in a doctor's office; opting for an MRI scan where a CT scan could suffice is similarly inefficient. The risk-adjusted variation in spending per county is ~100%, driven partially by differences in hospital admissions that do not appear to be due to differences in overall differences in risk score per county (see Exhibit 20 and Exhibit 21). In general, across all payors, Missouri's hospital utilization is high compared to that of other states (see Exhibit 22). Analyzing spending per episode of care shows similar variability in expenditures: Exhibit 23 illustrates that perinatal care costs also vary ~100% for perinatal care between high-volume zip codes.[83] As with PECs, some efficiencies may be unavoidable: the MRI may simply be available faster, or the primary care practice – as an alternative to the ER – might be closed. Yet reducing these inefficiencies tends to be feasible. Reducing these inefficiencies by 20%, without negatively impacting the quality of care, would amount to $55 million to $110 million in savings or opportunities for reinvestment.[84]

EXHIBIT 20: RISK ADJUSTED SPENDING BY COUNTY, MANAGED CARE, SFY2018[85]

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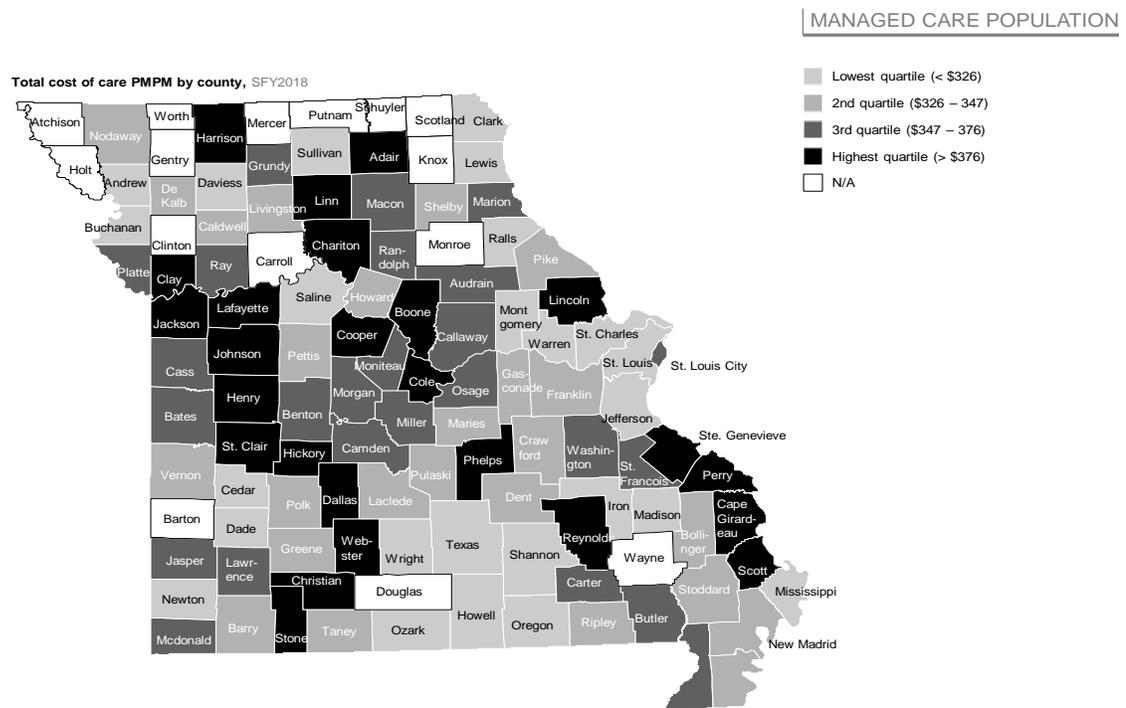
[83] Analysis of Missouri Medicaid claims data, SFY2016-18. Some of these admissions and costs may be due to PECs.

[84] Calculation: 20% of 5-10% of $5.7 billion (total acute care spending) = $55-110 million (rounded).

[85] Analysis of Missouri Medicaid claims data, SFY2016-18; not calculated for counties with fewer than 1,000 managed care-eligible Medicaid-enrolled residents ("N/A").

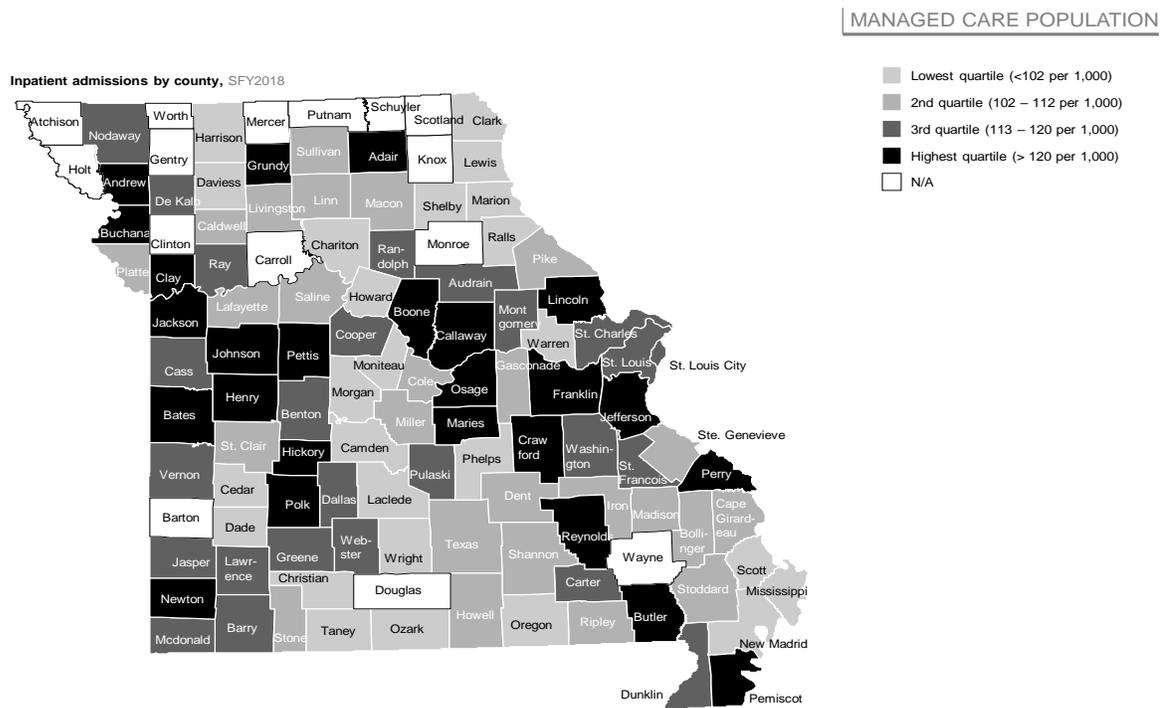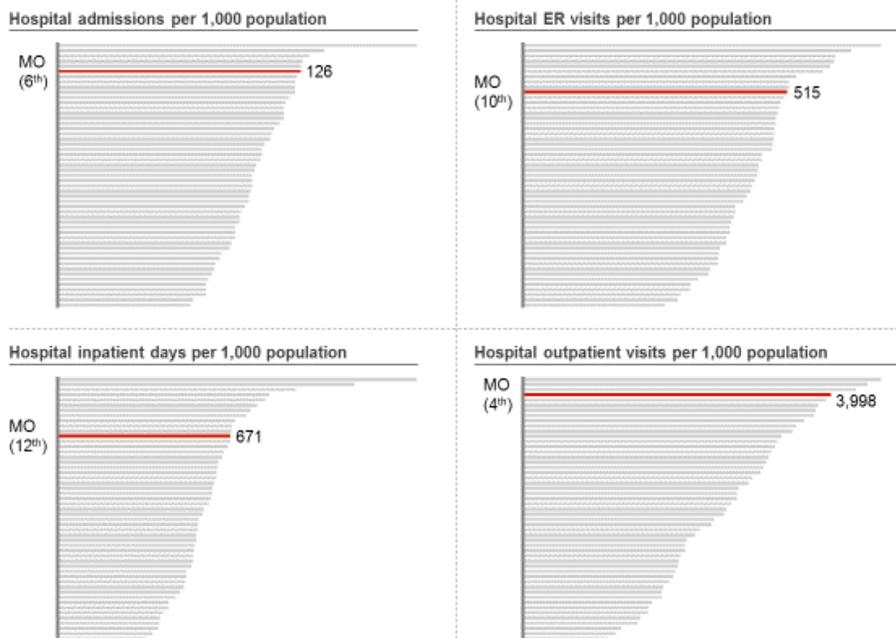## EXHIBIT 21: INPATIENT ADMISSIONS BY COUNTY, MANAGED CARE, SFY2018[86]

EXHIBIT 22. HOSPITAL USE COMPARED TO OTHER STATES (ALL-PAYORS)[87]

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[86] Analysis of Missouri Medicaid claims data, SFY2016-18; not calculated for counties with fewer than 1,000
managed care-eligible Medicaid-enrolled residents ("N/A").

[87] KFF, "Hospital Outpatient Visits per 1,000 Population by Ownership Type," 2016, see: www.kff.org/other/state-
indicator/outpatient-visits-by-ownership.

EXHIBIT 23: VARIATION IN HIGH-SPEND EPISODES: PERINATAL, SFY2018[88]

MANAGED CARE POPULATION

Average episode cost by member zip code for all zip codes

Each vertical bar represents a zip code
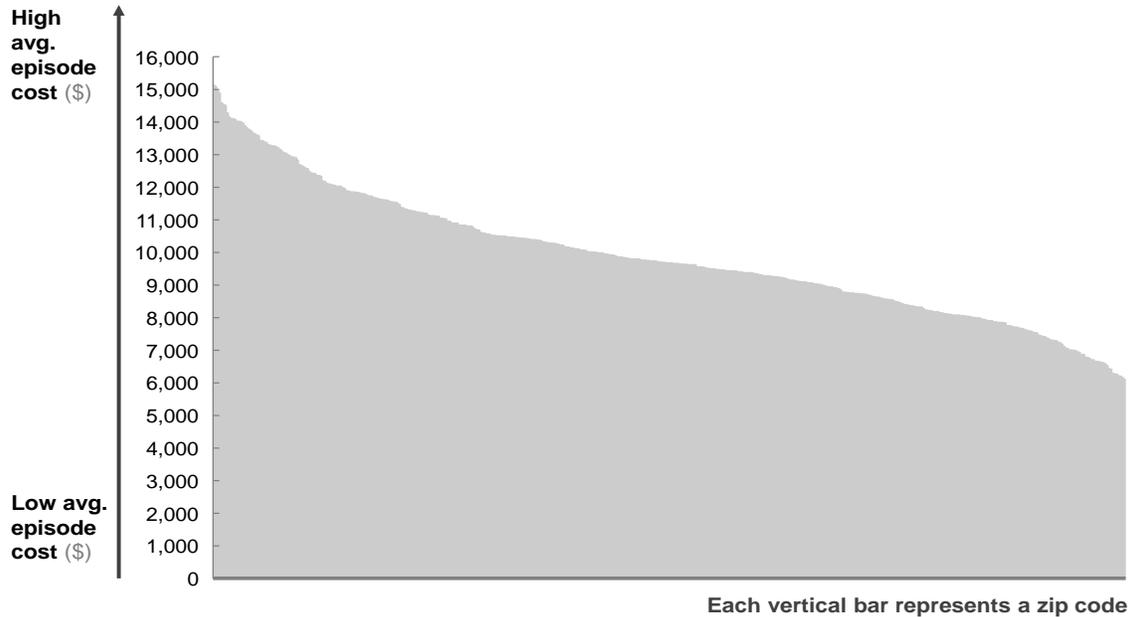
- **There is little to no transparency of outcomes of care in Medicaid.** Available data (e.g., external quality reviews of the MHD managed care program)[89] covers a limited range of performance measures. There is no readily publicly accessible information about the outcomes of care delivered per (sub)population or condition and per (groups of) provider. This limits consumer choice, accountability, and the opportunity and incentive for provider self-improvement.

- **The incentives embedded in several existing programs can be made stronger and aimed more explicitly at the outcomes of care that matter most to participants**. There are opportunities to build upon the success of the primary care initiatives, Accountable Care Organizations (ACOs), bundled payments, and health homes: increasingly link upside incentives to the outcomes of care, and tie the rewards received to the amount of savings realized. By reducing PECs by 1 percentage point in a Missouri managed care population, a PCMH, health home or ACO with 50,000 attributed lives could receive $1.5 million[90] in savings shared to further invest in improving their care (assuming 50% shared savings). Sharing in the savings could also help these providers to focus even more on the social determinants that may drive up PECs.

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[88] Analysis of Missouri Medicaid claims data, SFY2016-18; figures are based on total claims-based expenditure associated with a perinatal episode triggered by live birth diagnosis and delivery procedure code. The top and bottom 2.5% of episodes by cost were excluded in analyses of variation.

[89] Behavioral Health Concepts, "2016 MO HealthNet Managed Care Program External Quality Review: Report of Findings," 2016, see: dss.mo.gov/mhd/mc/pdf/2016-external-quality-review-report-mohealthnet-managed-care.pdf.

[90] Estimate based on a 500 PMPM average spending of which 18% is associated with PECs.

- **There are physician shortages in many parts of the state, particularly rural areas.** 80% of Missouri counties are considered physician shortage areas, and only 10% of new physicians enter rural primary care. At 267, the state falls below the national average physician to patient ratio of 272 physicians per 100,000 people; for primary care, the state has 87 PCPs per 100,000 people, compared to 91.7 nationally. In rural areas, these issues are particularly challenging: of the 101 rural counties, 99 are Primary Medical Health Professional Shortage Area (HPSAs), 97 are Mental Health HPSAs, and 95 are Dental HPSAs.[91] This may contribute to system inefficiencies and the incidence of PECs: these services tend to be key to avoiding PECs and can lead to institutional care when community care might have been preferable. Creating innovative delivery or reimbursement models fitting the challenges of rural healthcare is difficult within the limits of the FFS fee schedules.[92]

- **The financial viability of many rural and safety net providers is precarious.** Some rural and safety net providers are financially frail, with year over year negative results. Approximately 90% of safety net hospitals and ~60% of rural hospitals had negative margins in SFY2016.[93] Without a rural health care infrastructure that is viable and meets local community needs, access to care for rural Missourians could be threatened. This could in turn lead to higher downstream costs due to missed (secondary) prevention opportunities.

In addition to the previously outlined potential opportunities, there are regulatory and stakeholder challenges which may impact current reimbursement approaches:

- Recent changes in CMS IP Upper Payment Limit (UPL) calculations may result in inpatient payments exceeding the UPL and thus a corresponding loss of federal funds. UPLs limit state Medicaid FFS spending on specific provider classes (e.g., hospital inpatient) to what Medicare would have paid for these services. For IP, both FFS base payments, out-of-state payments, and add-on payments count against the IP UPL. FFS payments that exceed the UPL are not eligible for federal match. CMS has recently introduced a new template to calculate the inpatient UPL, leading to Missouri's inpatient payments to possibly exceed the UPL by $16 million.[94]

- Missouri's tax rate is currently within the federal safe harbor limit (6%), but regulatory scrutiny of exact mechanisms used to compensate hospitals for tax payments could increase. Alternatively, CMS may reduce the current 6% provider tax limit below which it has so far allowed comparable payment arrangements in several states to e.g. 5% or even 3%.[95]

- Provider tax compensation arrangements in FFS and managed care are under pressure as hospitals that are net contributors to pooling mechanisms may opt out.[96] Under the existing MHA pooling mechanism, participating providers who receive more in estimated

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[91] Association of American Medical Colleges, "2017 State Physician Workforce Data Report," 2017, see: members.aamc.org/eweb/upload/2017%20State%20Physician%20Workforce%20Data%20Report.pdf.

[92] Missouri DHSS, "Health in Rural Missouri Biennial Report 2016-2017," 2017, see: health.mo.gov/living/families/ruralhealth/pdf/biennial2017.pdf.

[93] AHA Hospital Cost Report Files (HCRIS); CMS.Gov Case Mix Index Data.

[94] UPL calculation, Missouri DSS, January 2019.

[95] KFF: see note 12.

[96] MHA: see note 49.

FRA-related add-on payments than their provider tax payments contribute to the pool so that other hospitals can be compensated. If pool contributors withdraw from the voluntary transfers, the pool would become less able to compensate pool recipients, thus exacerbating the concern of some hospitals with the provider tax.

- In SFY2016, Medicaid made $19.7 billion in DSH payments nationally ($8.5 billion in state funds and $11.2 billion in federal funds). A reduction of $4 billion is planned for 2020, with the reduction increasing to $8 billion for each year from 2021 to 2025.[97] This could lead to a substantial reduction in available federal DSH funding for the state.

- CMS may recoup parts of DSH payments made to hospitals from previous years' allotments. Many states and hospitals have operated under the assumption that third-party payments did not have to be included in Medicaid DSH payment calculations and audits. In 2017, however, CMS issued a final rule stating that inclusion was needed, which has since been contested in several courts. If CMS prevails, this could lower hospital-specific DSH limits, creating, for example, a potential risk for Missouri hospitals of $96 million from 2011 and 2012 allotments alone.[98]

- Missouri's DME rates are higher than CMS' DME fee schedule across most product categories. Commercial payors, MCOs, and some state Medicaid agencies set DME rates significantly below CMS' DME rates (between approximately 65% to 75%); Missouri's DME fee schedule is currently priced at over 100% of CMS' DME rates. The variance between current pricing and pricing at 70% of CMS' DME rates is >$10 million.[99]

Potential initiatives

The following is a wide range of potential initiatives that Missouri Medicaid may consider, either in combination or as alternatives for improving the financial sustainability of the program. In total, the gross impact of the hospital, physician and behavioral health reimbursement initiatives outlined below could range from $250 million to $500 million, depending on choices made by the state. This excludes the impact on provider tax revenues (see the section on federal financing).

Potential initiatives to improve incentives and reduce costs include adjusting the inpatient (IP) and outpatient (OP) base rate methodologies and the add-on payments for out-of-state patients. Following other states, Medicare and commercial plans, Missouri could also consider transitioning further to value-based payment models and transparency of care costs and outcomes, which would maximize incentives for providers to deliver high-quality care while lowering costs. Through the latter, the state could work to address the significant costs associated with potentially avoidable exacerbations and complications (PECs) as well as other inefficiencies. In addition, value-based payment models could facilitate investments in the rural and safety net heath care infrastructure, including primary and behavioral health.

To achieve the higher end of the estimated impact range, the state would likely need to combine a focus on adjusting hospital reimbursement rates and utilization management with a broader

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[97] MACPAC, "Disproportionate share hospital payments," see: www.macpac.gov/subtopic/disproportionate-share-hospital-payments.

[98] Modern Healthcare, "CMS appeals Missouri court decision stopping DSH clawback," 2018, see: www.modernhealthcare.com/article/20180416/NEWS/180419941.

[99] Analysis of Missouri Medicaid claims data, SFY2016-18; CMS, "DME18-A," 2018, see: www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSFeeSched/DMEPOS-Fee-Schedule-Items/DME18-A.htm.

value-based payment program in which providers could share in the savings realized across the total cost of care or in episodes of care. The state could choose its preferred balance between these approaches, which would imply choosing between those initiatives that address similar opportunities in different ways. The list below is intended as an outline of potential options for the state, providing the state with the opportunity to decide on both sizing and timing of the potential implementation of a selection of initiatives.

1. **Implement an inpatient hospital readmissions policy.** Inpatient hospital readmission policies are used by commercial payors, MCOs, other state Medicaid programs, and CMS to not only ensure appropriate utilization of services but also to improve quality. This policy could be modeled after policies that MCOs have today and further refined by the state. This could help ensure safe and appropriate discharge of participants and would also provide important feedback to hospitals. Operationally, this initiative would require modest policy and MMIS changes.

2. **Expand prior authorization (PA) to additional outpatient procedures.** PA policies are likewise used by commercial and other payors. This initiative could add select categories to the current PA list, and it could potentially make changes to the approach used in the existing outpatient PA process. This may require additional system edits and updates to current vendor contracts.

3. **Adjust outpatient base rate methodology.** Missouri could consider further anchoring outpatient base rate payments to a percentage of Medicare fee schedule rather than a percentage of charges across all outpatient services. This could allow Missouri to improve alignment between payments and services provided, increase predictability of outpatient expenditures, and be better able to compare rates both within the state and with other states. In addition, the Medicare fee schedule evolves with changes in the science and practice of medicine, thus ensuring the appropriateness of the payment methodology over time. As this transition has already been set in motion, the implementation complexity of this initiative would be limited.

4. **Adjust inpatient base rate per diem methodology.** To increase provider incentive for cost containment, Missouri could adopt a stratified per diem for inpatient services, offering different per diem rates for different types of patients (e.g., medical, surgical, maternity, neonatal, psych). Rates could be set in one of two ways: 1) based on current payment levels using a state-set trend factor, which would build off current price-setting methodology; or 2) based on regional average costs for each per diem category. Both approaches would likely improve alignment between payments and services offered, but they would not maximize cost containment incentives given the pay-per-service setup. The second approach, basing rates on regional average costs, may better improve alignment between payments and services as it eliminates link to historical costs. But additional risk adjustment would likely be necessary to capture within-region variations across hospital types (e.g., safety net hospitals may not incur the same costs as non-safety net). While it would not be challenging to implement the change from a regulatory respective, redesigning the per diem methodology – including ensuring a smooth transition without disruptive impact on reimbursements of individual hospitals – is not a well-standardized approach and is likely to be complex from a technical and operational standpoint.

5. **Consider case rate methodology for inpatient and/or outpatient services.** Missouri could move away from per diems and payments for individual outpatient services toward a case rate-based reimbursement model. Such models employ a grouping mechanism that varies for inpatient and outpatient services and are in use in many other states. For

outpatient, widely used grouper options are Enhanced Ambulatory Patient Groups (EAPG) and Ambulatory Payment Classification (APC). For inpatient, the standard is Diagnosis-Related Groups (DRG). Like the stratified per diem method above, pricing could be based on regional average costs or historical pricing with forward-looking trend factors set by the Medicaid program. Although payments are no longer determined at the individual service level, this payment methodology would still be volume-focused and hence would still limit cost containment incentives. The implementation complexity will likely be significant: in particular, the change from single inpatient per diem payments will require a thorough rebasing effort so that the transition is within the planned inpatient expenditures, remains predictable, includes the needed add-ons, and does not create financial disruptions for individual providers. In addition, the current MMIS is not currently equipped to handle case rate-based reimbursement models. Workarounds through additional DRG grouping applications exist, but these would have to handle all payments to hospitals.

6. **Reevaluate add-on payments for out-of-state (non-MO) residents.** Missouri could reduce or eliminate the reimbursements it makes to hospitals for treating out-of-state patients. Out-of-state payments are concentrated in a limited set of hospitals. The technical implementation complexity of this initiative is likely to be low, but the impact on affected providers may be significant.

7. **Modify Direct Medicaid payments methodology.** The Direct Medicaid payments (one component of the add-on payments) attempt to bridge the gap between base rate payments and the hospitals' costs to serve the Medicaid population. The state could consider limiting the reliance on cost reports so that reduced utilization or reductions in payments due to other initiatives are not compensated by increased Direct Medicaid payments.

8. **Apply UPL caps to individual hospitals.** The state could consider applying hospital-specific outpatient and inpatient UPL caps. Currently, consistent with federal regulations, the state applies UPL caps to the total of payments made within the applicable service category, but it does not apply individual hospital's UPL caps. As the UPL in Missouri is significantly impacted by the OOS payments, reducing them would affect the UPLs of the recipients of OOS payments.

9. **Adjust MCO hospital payments.** The state could cap MCO hospital payments at a fixed percentage of Medicaid FFS payments.[100] This initiative would require a modification of MCO contracts.

10. **Improve physician and behavioral health reimbursement.** For physicians, not only has the methodology for establishing rates (e.g., as a percentage of Medicare) not been updated, but once set, the rates do not change. As a result, physician reimbursement is low. It is likely that increasing reimbursement could help reduce provider shortage. Likewise, there is a shortage of behavioral health providers. The state could consider integrating this initiative in an overall VBP program.

11. **Re-examine payment levels for financially vulnerable rural and safety net providers.** To the extent that other initiatives are undertaken that could reduce revenue to hospitals generally, the state could consider re-examining the effects of the initiatives on financially vulnerable rural and safety net providers in particular to determine whether adjustments in payment levels, value-based payment structures, or other changes are necessary to mitigate the potential for erosion of access to care.

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[100] Missouri DSS: see note 72.

12. **Transition to value-based payments.** In line with the healthcare industry trend led by other states, Medicare, and commercial plans, Missouri could consider moving from its current FFS payment methods to value-based payment (Alternative Payment Models, or APMs). In VBP, providers do not miss or lose revenue by increasing efficiencies and reducing potentially avoidable care services, as they tend to do in FFS. Rather, APMs allow providers to be rewarded if they reduce hospital (re-)admissions and nursing home admissions. This creates a strong business case for providers to invest in primary care, care coordination, integration of physical and behavioral health care, and home health care. In addition, if investing in social determinants of health creates net savings in Medicaid expenditures, shared savings or other VBP payments can be leveraged to fund those services.

Some forms of value-based payment could be implemented without changing the underlying architecture of the current FFS payment methods by overlaying rewards (and in some cases penalties) on top of FFS payment streams. This would facilitate implementation, as current administrative and billing processes, including the role of the MMIS, would require little change. The additional analytical capabilities required for VBP tend to be delivered by vendors, requiring limited interaction with the MMIS. With a combination of models, building upon current, successful initiatives, Missouri could include most Medicaid participants in VBP initiatives:

– *Population-based models.* Advanced Primary Care models (APCs) build on the PCMH model but increase accountability for improved outcomes of the total attributed population and total cost of care. Improvement in these parameters leads to higher bonus payments and a share in the savings realized. Accountable care organizations (ACOs) take this responsibility for the total costs and outcomes of care for a population one step further. If the ACO manages to reduce total costs of care below a target budget (usually based on the historical costs of care of the ACO's population), they receive up to 50% of the savings. ACOs can be upside-only (e.g., only savings are shared), or they can include up- and downside risk (e.g., both potential savings and losses are shared). As risk-based APMs reduce the payor's risk for losses, they can share significantly higher percentages of the realized savings (up to 100%) with the providers. ACOs can be led by primary care organizations, hospitals, and (virtually) integrated groups of providers, amongst others.

For specific high-need subpopulations (e.g. individuals with co-morbidity, severe mental illness, and/or substance use disorder), the existing health home model(s) could be leveraged to further improve outcomes.

Population-based models stimulate a focus on prevention and the management of chronic disease and individuals with severe comorbidities: avoiding the need for (institutional) care (including many PECs) is the most cost-efficient way to realize savings.

– *Bundled payments or episode-based models.* In episode-based models, providers assume responsibility for the costs and outcomes of a set of services to treat a certain clinical condition or conduct a certain procedure. Like an ACO, episodes have target budgets, and they can be upside-only or risk-based. Episode-based models stimulate the creation of patient-centered care pathways across organizational boundaries. PECs and the inefficient utilization of care services are addressed through care coordination. Episodes tend to achieve impact faster as population-based models, as the opportunities for improvement tend to be clear and specific. Several private and public payors have combined population- and episode-based payments to create a "best-of-

both-worlds" mix of incentives for population health and high-value condition-specific care.

– *Global budgets for rural hospitals.* In rural areas, the state could consider global hospital budgets. Sixty-seven percent of Missouri counties have less than 5,000 managed care Medicaid participants. Access to primary care physicians and hospital facilities can be difficult, and the financial viability of many rural hospitals is under pressure. For such hospitals, global budgets (based on the expected cost of the hospital services for an attributed population) could create financial stability and facilitate transformation to a care delivery model aligned with local community needs. The establishment of regional ACOs or advanced primary care models with, for example, performance-dependent PMPM care management fees could further help to mature these geographies' regional care infrastructure.

EXHIBIT 24: MEDICAID ENROLLMENT PER COUNTY, DISTRIBUTION OF BEDS, SFY2016[101]
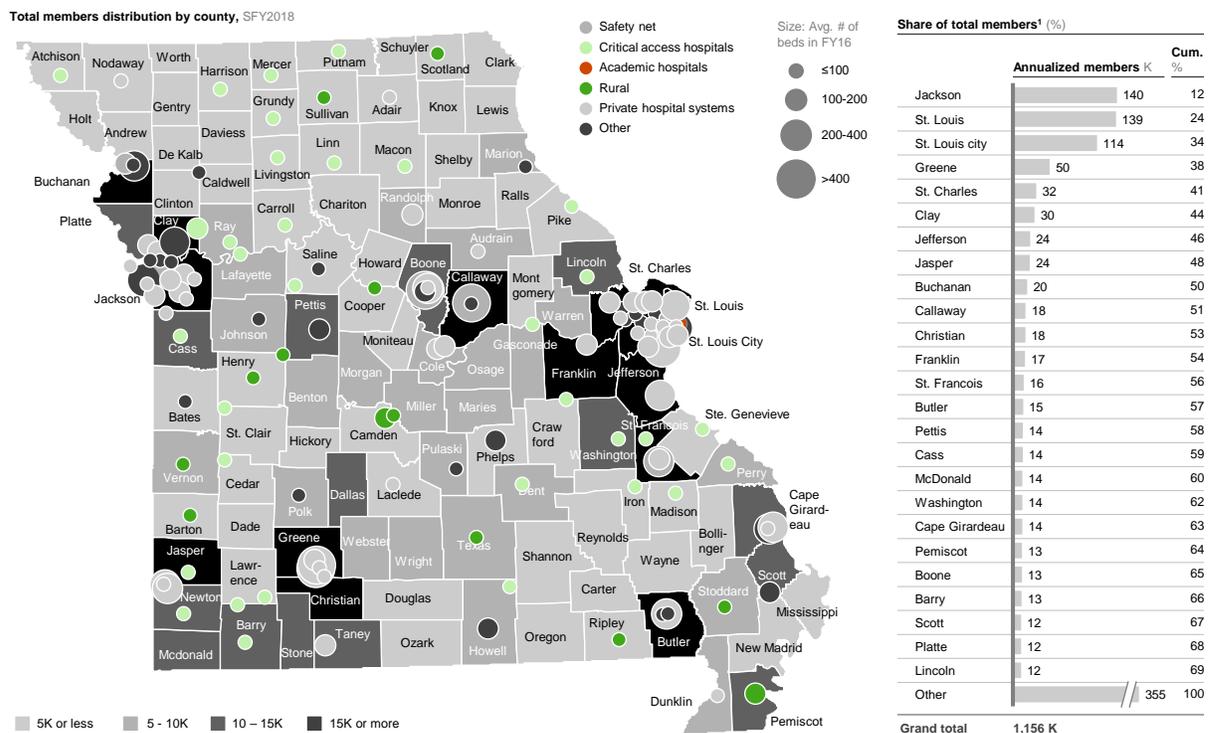
13. **Create transparency for outcomes of care.** Providing transparency of outcomes for (sub)populations and key conditions/procedures is a prerequisite of any health care system oriented towards value. Juxtaposing these outcomes to the risk-adjusted costs of care shines light on the performance of the healthcare delivery system and provides the information providers, payors, participants, and policymakers require to make informed choices and focus improvement efforts. As the collection point of all Medicaid claims

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101 Analysis of Missouri Medicaid claims data, SFY2016-18.

data, the state could publish such information on the total costs and outcomes of care per county or (group of) provider(s).[102]

14. **Include MCOs in a VBP program to maximize impact and align incentives for providers across the total Medicaid population.** The majority of Medicaid program participants are enrolled in MCOs.[103] To create the volume for providers to be sufficiently incentivized to participate, both FFS and managed care participants may need to be included, and the APMs across MCOs and Medicaid FFS may need to be adequately aligned. If some MCOs implement bundles and others carve out ACO subpopulations in different ways, providers cannot (and will not be motivated to) make the investments to change their business models. In addition, without alignment between APM definitions, the measurement of outcomes and financial performance will likely not be statistically feasible. Following the example of an increasing number of states, Missouri could consider working with its MCOs to facilitate this alignment and change MCO contracts accordingly.

15. **Explore multi-payor VBP alignment.** To further increase the potential impact of value-based payment, the state could consider collaborating with non-Medicaid payors in the state to align APMs and set collective goals. To significantly increase impact (see previous initiative), multi-payor models are becoming increasingly widespread: CMS' Comprehensive Primary Care models (CPC and CPC+) are an example. Two options the state could explore are, first, alignment with the other main state government payor, the Missouri Consolidated Health Care Plan (MCHCP).[104] Second, the state could consider engaging with CMS to facilitate mutual alignment between the existing and forthcoming Medicare APMs and the Missouri VBP strategy.[105]

16. **Update the DME fee schedule**. Missouri could update its DME rates to match those of other state Medicaid agencies and MCOs, which could potentially be supported by competitive procurements in specific categories. Operationally, this would require a change in the fee schedule, potential procurements, and efforts to ensure access.

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[102] Transparency of costs and outcomes requires a minimum number of attributed participants to allow comparisons; individual professionals, for example, may not see sufficient participants to be meaningfully compared to others.

[103] To optimally align incentives between the state, the MCOs and providers in APMs, Missouri could consider carving in pharmacy and behavioral health for the MCO population.

[104] Including MCHCP would add approximately 100,000 lives. See: http://www.mchcp.org.

[105] This could be relevant for both duals (who make up a disproportionately large share of both Medicaid's as well as Medicare's total spending) as well as for non-duals (where alignment between APMs would increase impact in the same way as alignment with other payors would).

LONG-TERM SERVICES AND SUPPORTS

Certain elderly populations and others with disabilities are eligible to receive long-term services and supports (LTSS) to assist with activities of daily living and otherwise support greater independence. Before receiving LTSS, Medicaid-eligible individuals undergo an assessment process, which determines eligibility but does not impact placement, type, or intensity of services to be provided. Once individuals are deemed eligible, the services they may receive fall into two categories: 1) institutional services and 2) home and community-based services (HCBS, which can be split into residential and non-residential services). Nursing facilities are reimbursed using a cost-based payment methodology without adjustments for acuity, quality of care, or outcomes. As a result, there are minimal incentives for these facilities to provide differentiated care to high-needs patients, or to transition lower-needs participants back to their homes or the community. HCBS are provided through a combination of State Plan and waiver programs; HCBS providers are not held accountable for nursing home (re-)admission rates.

Opportunities to improve quality and control costs of LTSS are primarily to be realized from increasing the proportion of LTSS recipients that receive services at home or in the community rather than in more costly institutional settings, and improving care planning and care management of members regardless of their setting of care.[106] Potential initiatives include improving utilization management, adjusting the nursing facility reimbursement methodology to an acuity-based system, completing and expanding upon planned improvements to the assessment algorithm and process, expanding current grant- or waiver-funded programs to cover services that support individuals in the home or community, and shifting to value-based payment. In total, the gross impact of the LTSS initiatives could range from $90 million to $275 million, net of potential reinvestments in the delivery system, depending on choices that the state may make in the selection, design, and implementation of initiatives.[107]

Current situation

This section gives an overview of the population receiving LTSS in Missouri, the assessment and service authorization process, institutional services, and HCBS.

LTSS population and services

In SFY2018, approximately 106,000 individuals received LTSS in Missouri, representing 39% of the state's total aged, blind, and disabled (ABD) population.[108] However, spending for recipients of LTSS, which was approximately $2.9 billion in SFY2018, represented 71% of the state's total spending on the ABD population. 53% of Medicaid elderly and 33% of persons with disabilities receive LTSS (see Exhibit 25).[109]
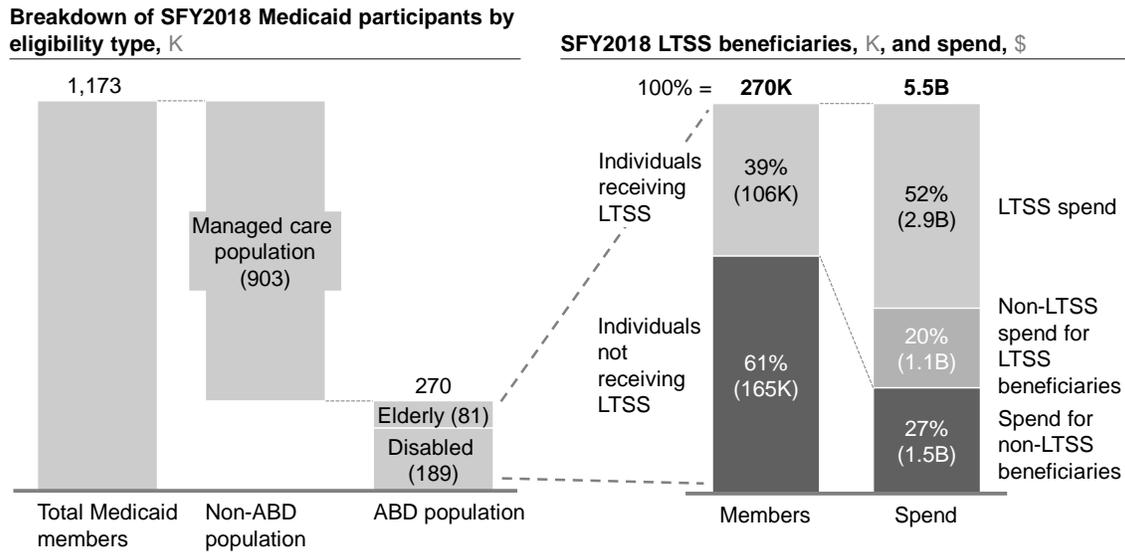
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[106] IBM Watson Health, "Medicaid Expenditures for Long-Term Services and Supports in FY 2016," 2016, see: www.medicaid.gov/medicaid/ltss/downloads/reports-and-evaluations/ltssexpenditures2016.pdf.

[107] AARP, Commonwealth Fund, SCAN Foundation, "Long-Term Services & Supports State Scorecard," 2018, see: longtermscorecard.org/databystate/state?state=MO; IBM Watson Health: see note 106.

[108] Analysis of Missouri Medicaid claims data, SFY2016-18.

[109] Analysis of Missouri Medicaid claims data, SFY2016-18.

EXHIBIT 25: LTSS PARTICIPANTS ~40% OF ABD POP'N, 70% OF COSTS, SFY2018[110]

Breakdown of SFY2018 Medicaid participants by eligibility type, K

SFY2018 LTSS beneficiaries, K, **and spend,** $

100% =   **270K**   **5.5B**

1,173

Managed care population (903)

270

Elderly (81)

Disabled (189)

Individuals receiving LTSS: 39% (106K)

Individuals not receiving LTSS: 61% (165K)

LTSS spend: 52% (2.9B)

Non-LTSS spend for LTSS beneficiaries: 20% (1.1B)

Spend for non-LTSS beneficiaries: 27% (1.5B)

Total Medicaid members   Non-ABD population   ABD population   Members   Spend

- LTSS analysis is focused on 270K participants in ABD population that make up 23% of total Medicaid enrollment

- Across the elderly and disabled beneficiaries, we found that individuals receiving LTSS services make up ~40% in enrollment but ~70% of total spend

There exist several publicly available reports and datasets that compare performance of the LTSS system across states. These sources reveal several insights about the current performance of Missouri's system. For example, Missouri is ninth in the country on the performance of its No Wrong Door system, which is a national program to streamline access to new LTSS options, improving the patient experience and potentially reducing cost of care.[111] In addition, the state is near the top quartile of states when ranked by the share of LTSS expenditures that goes towards HCBS. In SFY2018, approximately 61% were for home and community-based services (see Exhibit 25). The national average of the HCBS proportion of total LTSS spending was 57% in SFY2016.

In other areas, Missouri performs below the national average. For example, the state ranks 49th in the country in the percentage of nursing home residents that have low care needs (24% vs. the national average of 11%), suggesting opportunities for a greater share of LTSS recipients to be supported within the home and/or community.[112] Furthermore, Missouri ranks 42nd in the country in the employment rate (19% vs. the national average of 22%) for adults with Activities of Daily Living (ADL) disabilities, relative to those without them.

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[110] Analysis of Missouri Medicaid claims data, SFY2016-18; Validation checks performed against Table 23 suggests a total of 1.04 million beneficiaries after inclusion of Women's Health Services (977k not including Women's Health Services). There is ~12% gap in enrollment due to differences in participant accounting (e.g., exclusion of non-claimants).

[111] AARP, Commonwealth Fund, SCAN Foundation: see note 107.

[112] AARP, Commonwealth Fund, SCAN Foundation: see note 107.

Non-institutional services with the highest overall spending are residential services and personal care.[113] Residential services are covered exclusively by DMH's Comprehensive Waiver (see "HCBS" section for additional details on this waiver). Personal care is covered by both the State Plan and almost all the waivers. The State Plan pays for the personal care for the majority (58%) of LTSS participants.

See Exhibit 26 for a breakdown of the LTSS spending by service category and the number of participants receiving services in each category.[114]

EXHIBIT 26: BREAKDOWN OF LTSS SPENDING BY SERVICE CATEGORY, SFY2018[115]

SFY2018	LTSS service category	Total LTSS spend, $M	Share of total LTSS spend	Average participants, K	Share of total LTSS pop.
Institutional	Skilled nursing facility	1,041	36%	29.8	28%
	Intermediate care	84	3%	0.4	0%
Waiver HCBS	Adult day care / day habilitation	182	6%	6.1	6%
	Career and financing	10	0%	5.8	6%
	Community services	5	0%	1.5	1%
	Counseling and therapy	5	0%	1.2	1%
	Residential services	661	23%	6.8	6%
	Personal care	63	2%	3.4	3%
	Private duty nursing	16	1%	0.2	0%
	Respite care	4	0%	0.4	1%
	Targeted case management	58	2%	13.3	13%
	LTSS Other	27	1%	15.0	14%
State plan HCBS	Personal care	701	24%	61.7	58%
	Private duty nursing	20	1%	0.3	0%
	Targeted case management	9	0%	6.0	6%

Total spend = $ 2,886M   Total pop = 105.2K participants

Assessment and service authorization

Individuals can receive LTSS through either DHSS or DMH. DHSS follows different authorization procedures for adults and for children. For adults, personal care services can be either agency-directed (e.g., where a state agency is responsible for managing participants' personal care, including selection and supervision of personal care assistants) or consumer-directed (e.g., where the participants manage their own services by selecting, hiring, and supervising their own personal care assistants). For adults, LTSS can also include institutional care (nursing homes). DHSS uses the interRAI HC assessment (commonly used nationally) to

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[113] Analysis of Missouri Medicaid claims data, SFY2016-18.

[114] Analysis of Missouri Medicaid claims data, SFY2016-18.

[115] Analysis of Missouri Medicaid claims data, SFY2016-18; participants may overlap across categories.

determine need for institutional level of care. For children, personal care services – which must be agency-directed – can be authorized through the Bureau of Special Health Care Needs and are renewed every six months. For these children, the criterion for care is medical necessity rather than institutional level of care needs. Meanwhile, DMH has multiple assessments and determines which to use primarily based on the age of the individual (e.g., the MOCABI[116] for adults; the Vineland assessment or another age-appropriate[117] substitute for children).

The department conducting the assessment then processes the results of the assessment to determine whether the individual is eligible to receive LTSS. DHSS uses a points-based system: individuals who receive a score of 24 points or above are eligible for institutional level of care, which makes them eligible for LTSS offered through DHSS. On the other hand, if DMH determines that the individual has two or more (three or more for waivers) functional limitations, the assessor completes a Level of Care form to demonstrate the need for intermediate care facility for individuals with intellectual disabilities (ICF/IID) level of care.

Once an individual is deemed eligible for LTSS, the departments then engage in person-centered care planning, in which case managers work directly with individuals to determine setting, level, and type of care to be provided. For services provided through DHSS (except for those provided through the Independent Living Waiver), person-centered care planning is performed by regional assessors. For the Independent Living Waiver, person-centered care planning is provided through targeted case management (TCM) providers covered under the waiver. For services provided through DMH, care planning is performed by TCM providers covered by the Medicaid State Plan. The care planning process does not consistently use the results of the assessment to inform the setting, level, or type of care authorized. Rather, assessors are trained to use an HCBS manual (for DHSS services) or an Individual Support Plan (ISP) guide (for DMH services) to inform what, where, and how much of each service can be authorized, but unlike many other states, Missouri does not require that the assessor follow these guidelines.

Institutional services

Nursing facilities are reimbursed using a cost-based per diem methodology at the facility level. While not uncommon among states, this methodology does not take into account patient acuity, intensity of service, quality, or outcomes in determining nursing facility payment levels. As a result, nursing facilities are not necessarily incentivized to provide cost-efficient or appropriate levels of care. Furthermore, the per diem rates are based on historical cost reports that can date back over two decades; yearly incremental adjustments are determined by the state legislature. In total, Missouri's nursing facility payments fall well below the nursing facility Upper Payment Limit.[118]

Approximately 40% of the funds used to pay nursing facility reimbursement is derived from the Nursing Facility Federal Reimbursement Allowance (NFFRA).[119] Like other states, Missouri taxes nursing facilities and uses these revenues to fund Medicaid and draw down federal funds at the Missouri federal match rate of 65.4%.[120]

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[116] Missouri Critical Adaptive Behaviors Inventory.

[117] Interviews with Medicaid program staff members.

[118] UPL analysis, Missouri DSS, 2018.

[119] Missouri DSS, "SFY 2014-2019 Rate by Funding Source & Cost Component – 9-28-18," 2018.

[120] KFF: see note 12.

For individuals with intellectual and/or developmental disabilities, the state operates four public ICFs/IID known as habilitation centers, which collectively house 315 participants, and contracts with a number of private ICFs/IID, which house another 82 individuals, totaling 397 participants in 2018 (down from 435 in 2017).[121] This number will likely continue to trend downward, as the state plans to reduce admissions in Missouri ICFs/IID further.

HCBS

Missouri covers HCBS through a combination of State Plan and waiver programs. State Plan services include targeted case management, personal care, and private duty nursing. For these services, individuals who exhaust the maximum amount allowed by the State Plan may then access additional allotment of these services through waivers, which cover care beyond what the State Plan is able to fund. Waivers can include a broad range of services, such as personal care and residential services. These waivers do not qualify for enhanced federal match, and each waiver has an expiration date, at which point the state can elect to renew the waiver or allow it to expire.

There are nine HCBS waivers, four of which are administered in coordination with DMH and five of which are administered in coordination with DHSS. While these waivers use various rate-setting mechanisms, they are fundamentally cost-based. Most individuals can only be on one waiver at any given time. HCBS are split between residential and non-residential services. Residential services, which include shared living and group home services, serve over 6,800 individuals, primarily through the DMH Comprehensive Waiver.

The set of waivers[122] includes the following (see Exhibit 27 for a summary of trends in costs and participant count in these waivers):

- **Aged and Disabled Waiver (DHSS through the Department of Senior and Disability Services / DSDS, served 15,200 individuals in Waiver Year [WY] 2016):** For individuals age 65 years and older (or 63 and older if they have disabilities) that have impairment and unmet needs. Services covered include homemaker and chore services, home-delivered meals, respite, and adult day care.

- **Adult Day Care Waiver (DHSS through DSDS, served 1,588 individuals in WY16):** For individuals age 18 to 63 years with impairments and unmet needs. This waiver exclusively covers adult day care services.

- **Independent Living Waiver (DHSS through DSDS, served 190 individuals in WY16):** For individuals age 18 to 64 years with cognitive and/or physical disabilities but also the ability to self-direct. This is the only one of the nine waivers that covers targeted case management; part of the waiver's purpose is to serve as a continuation of State Plan targeted case management.[123] It is also the only one of the five DHSS waivers that explicitly covers self-directed personal care.

- **Comprehensive Waiver (DMH, served 8,882 individuals in WY15):** For individuals with intellectual and/or developmental disabilities. This is the only one of the nine waivers that

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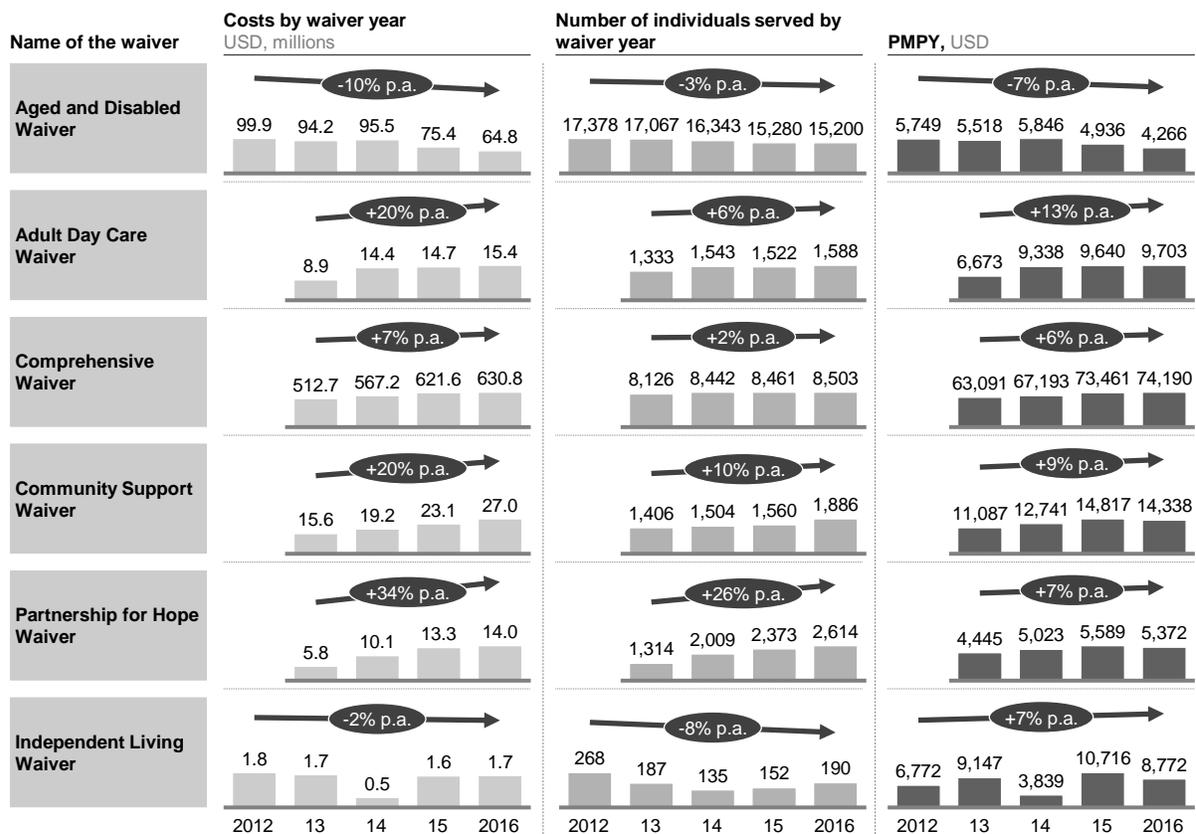[121] Missouri DSS, "State Operated Habilitation Centers," 2018.

[122] DHSS waivers with < than 400 individuals served (number served in WY16): AIDS Waiver (90), Medically Fragile Adult Waiver (166). DMH waivers with <400 individuals served (number served in WY15): MO Children with Developmental Disabilities Waiver (320).

[123] Interviews with Medicaid program staff members.

covers residential services (e.g., group home, shared living, individualized supported living; see Exhibit 28), but it also covers a range of other services, including personal care.

- **Community Support Waiver (DMH, served 1,886 individuals in WY15):** For individuals with intellectual and/or developmental disabilities who already have a place to live in the community. Given that requirement, residential services are not covered by this waiver, but it otherwise covers the same range of services as the Comprehensive Waiver. It has an annual per capita cost cap of $28,000.

- **Partnership for Hope Waiver (DMH, served 2,614 individuals in WY15):** For individuals with intellectual and/or developmental disabilities who reside in one of 104 Missouri counties plus St. Louis City. It covers the same set of services as the Community Support Waiver – in addition to others, such as dental services – and it has an annual per capita cost cap of $12,362.

EXHIBIT 27: COST PATTERNS FOR THE LARGEST LTSS WAIVERS[124]

Name of the waiver	Costs by waiver year — USD, millions	Number of individuals served by waiver year	PMPY, USD
Aged and Disabled Waiver	-10% p.a. — 99.9, 94.2, 95.5, 75.4, 64.8	-3% p.a. — 17,378, 17,067, 16,343, 15,280, 15,200	-7% p.a. — 5,749, 5,518, 5,846, 4,936, 4,266
Adult Day Care Waiver	+20% p.a. — 8.9, 14.4, 14.7, 15.4	+6% p.a. — 1,333, 1,543, 1,522, 1,588	+13% p.a. — 6,673, 9,338, 9,640, 9,703
Comprehensive Waiver	+7% p.a. — 512.7, 567.2, 621.6, 630.8	+2% p.a. — 8,126, 8,442, 8,461, 8,503	+6% p.a. — 63,091, 67,193, 73,461, 74,190
Community Support Waiver	+20% p.a. — 15.6, 19.2, 23.1, 27.0	+10% p.a. — 1,406, 1,504, 1,560, 1,886	+9% p.a. — 11,087, 12,741, 14,817, 14,338
Partnership for Hope Waiver	+34% p.a. — 5.8, 10.1, 13.3, 14.0	+26% p.a. — 1,314, 2,009, 2,373, 2,614	+7% p.a. — 4,445, 5,023, 5,589, 5,372
Independent Living Waiver	-2% p.a. — 1.8, 1.7, 0.5, 1.6, 1.7	-8% p.a. — 268, 187, 135, 152, 190	+7% p.a. — 6,772, 9,147, 3,839, 10,716, 8,772
	2012 13 14 15 2016	2012 13 14 15 2016	2012 13 14 15 2016

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[124] Missouri DHSS, "HCBS Waivers DHSS," 2018; Missouri DMH, "HCBS Waivers DHS," 2018.

EXHIBIT 28: SERVICES COVERED ACROSS LTSS WAIVERS[125]

Operated by DHSS   Operated by DMH

Waiver	Adult day care/day hab	Career and financing	Community services	Counseling and therapy	Residential services	Personal care	Private duty nursing	Respite	Supplies and technology	Targeted case management	Other[1]
Aged and Disabled	✓	✗	✗	✗	✗	✓	✗	✓	✗	✗	✓
Independent Living	✗	✓	✗	✗	✗	✓	✗	✗	✓	✓	✗
Adult Day Care	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Medically Fragile Adult	✗	✗	✗	✗	✗	✓	✓	✗	✓	✗	✗
AIDS	✗	✗	✗	✗	✗	✓	✓	✗	✓	✗	✗
Comprehensive waiver	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
Community Support	✓	✓	✓	✓	✗	✓	✗	✓	✓	✗	✓
MOCDD	✓	✗	✓	✓	✗	✓	✗	✓	✓	✗	✓
Partnership for Hope	✓	✓	✓	✓	✗	✓	✗	✓	✓	✗	✓

While Missouri Medicaid covers a range of HCBS, the plurality of spending is for personal care, covered by both the State Plan and every waiver except for the Adult Day Care Waiver.

Potential opportunities for improvement

This section identifies potential opportunities to improve Missouri's current approach to LTSS. The opportunities are not intended to be mutually exclusive: cost savings opportunities identified in individual opportunities may overlap with those identified in others. When compared to experiences and practices in other states, the following observations can be made:

- **The patient journey to get access to LTSS can be complex.** Three state agencies (DSS, DHSS, and DMH) play a role in the process of determining eligibility for LTSS and planning care for LTSS recipients. As a result, while Missouri has adopted the principle of "no wrong door" for eligibility and access to LTSS, the participant journey (see Exhibit 29) can be complex and can vary widely depending on the participant's condition and entry point into the system.

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[125] Missouri DMH and DHSS: see note 124.

EXHIBIT 29: LTSS PATIENT-CENTERED PROCESS FLOW[126]
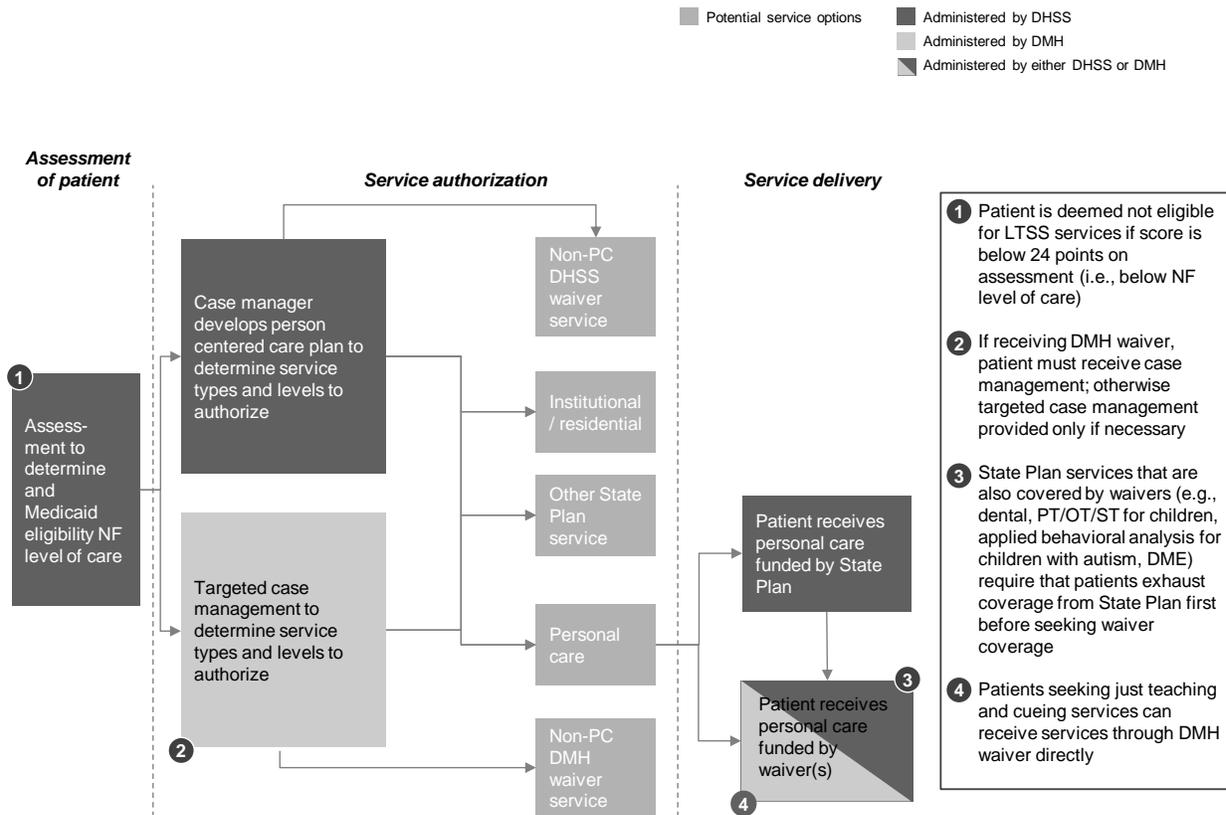
- **The DHSS assessment process to determine need for institutional level of care uses decades-old standards and, as such, may not consistently determine institutional level of care needs.** DHSS is currently considering changes to the algorithm it has used to determine nursing facility level of care. Although the state has changed the threshold scores for determining LTSS eligibility, the algorithm has not meaningfully changed since 1982.[127]

- **Assessment results are not consistently used to inform setting of care, type, or intensity of services authorized.** The care planning process currently does not consistently use the results of the level of care assessment to inform the plan of care. As a result, the setting of care, services, and service levels participants are authorized to receive may not be consistent across programs or care planners, and the care provided may not match participants' needs.

- **Personal care services are administered inconsistently depending on the channel through which they are received.** For example, utilization of consumer-directed

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[126] Interviews with Medicaid program staff members.

[127] Missouri DSS, "Rules of Department of Health and Senior Services, Division 30-Division of Regulation and Licensure, Chapter 81-Certification," 2018, see: www.sos.mo.gov/cmsimages/adrules/csr/current/19csr/19c30-81.pdf.

personal care services is almost two times higher than the agency-directed model.[128] Currently, so long as a given participant is eligible to receive consumer-directed care, she may elect to choose it (e.g., participants are not allocated to one or the other). The difference in utilization does not appear to be correlated with participant mix or participant risk. In addition, average reimbursement rates vary depending on whether they are provided through DMH or through DHSS; while these rates have converged in recent years, there remain differences in rates, primarily due to funds available for each department's waivers.[129]

- **Nursing facility rates are based on historical costs, and they do not reimburse based on patient acuity or create incentives for quality or outcomes**. While there are yearly adjustments to the per diem rates, the rates are based on cost reports from SFY2001 (trended to SFY2005).[130] Although these per diems are intended to cover nursing facilities' costs, the reimbursement methodology does not necessarily reflect their current costs. Additionally, there is little correlation between nursing facility per diem rates and either patient acuity or facility quality (see Exhibit 30: darker bubbles represent facilities that experience higher patient acuity on average, while bubbles on the right represent facilities with higher Star ratings).[131] Currently, per diem rates vary from $135.08 to $175.41 by facility, meaning the facility with the highest per diem rate receives approximately 30% more than the facility with the lowest per diem rate.[132] Finally, per diem rates do not incentivize facilities to discharge residents or attempt to avoid admissions where feasible.

[128] Analysis of Missouri Medicaid claims data, SFY2016-18.

[129] Missouri DSS, "Adult Day Care Waiver," 2018; Missouri DSS, "Aged and Disabled Waiver," 2018; Missouri DSS, "Aids Waiver," 2018; Missouri DSS, "Community Support Waiver," 2018; Missouri DSS, "Comprehensive Waiver," 2018; Missouri DSS, "Independent Living Waiver," 2018; Missouri DSS, "Medically Fragile Adult Waiver," 2018; Missouri DSS, "MOCDD Waiver," 2018; Missouri DSS, "Partnership for Hope Waiver," 2018; Missouri DSS, "Private Duty Nursing," 2018; Missouri DSS, "State Plan Personal Care," 2018; Missouri DSS, "Targeted Case Management," 2018; interviews with Medicaid program staff members.

[130] Missouri DSS, "Rules of Department of Social Services, Division 70-MO HealthNet Division, Chapter 10-Nursing Home Program," 2018, see: www.sos.mo.gov/CMSImages/AdRules/csr/current/13csr/13c70-10.pdf.

[131] Analysis of Missouri Medicaid claims data and MDS data, 2016-18.

[132] Missouri DSS, "Nursing Facility Rate List," 2018 (updated 7/1/2018), see: dss.mo.gov/mhd/providers/pages/nfrates.htm.

EXHIBIT 30: SKILLED NURSING FACILITIES BY PER DIEM, STAR RATING, SFY2018[133]
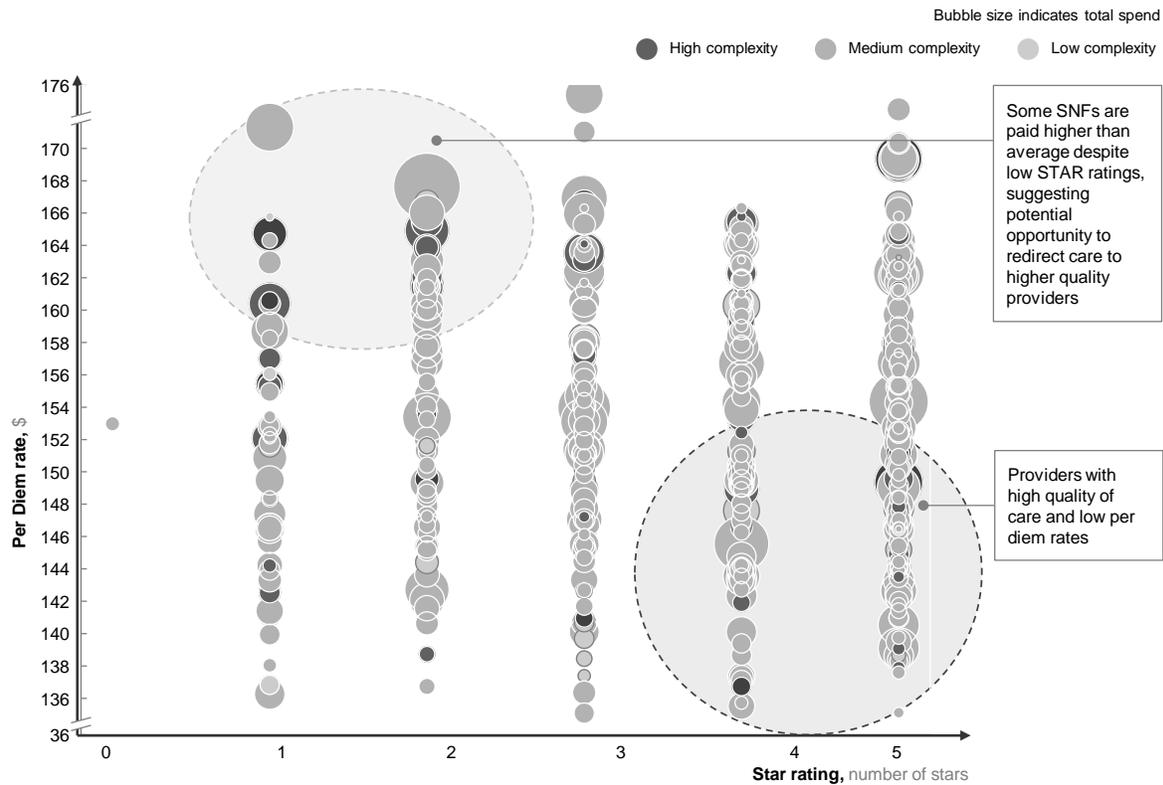
- **Nursing homes have a relatively high number of low-acuity Medicaid residents.** In Missouri, 23.7% of nursing home residents have low care needs (e.g., could potentially be adequately served through HCBS services) compared to the national median of 11.2%.[134] Diverting participants with low care needs to HCBS to reach the level of median state performance could yield a reduction of spending of up to $90 million.[135]

- **Occupancy rates in nursing facilities are relatively low.** With an average nursing facility occupancy rate of 72%, Missouri ranks 43rd amongst other states, with the top 12 at occupancy rates of 88% or higher.[136] With further reductions likely, the inefficiencies inherent to low occupancy rates will increase, and some nursing homes may not be able to maintain their current business model.

- **Additional waivers or grants could provide key services to certain subpopulations.** For example, the Money Follows the Person (MFP) program is set to expire. Extending it or substituting it with a waiver may help ensure that individuals transferring from nursing

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[133] Acuity measured as average score on 10 MDS functional status questions (e.g., Section G0110) on most recent 25 days of information retained by the state. Providers with fewer than 15 data points excluded. High complexity refers to SNFs with average ADL score of 4+; low with an average score of 2 or less; analysis of Missouri Medicaid claims data and MDS data, 2016-18.

[134] AARP, Commonwealth Fund, SCAN Foundation: see note 107.

[135] IBM Watson Health: see note 106.

[136] KFF, "Certified Nursing Facility Occupancy Rate," 2016, see: www.kff.org/other/state-indicator/nursing-facility-occupancy-rates.
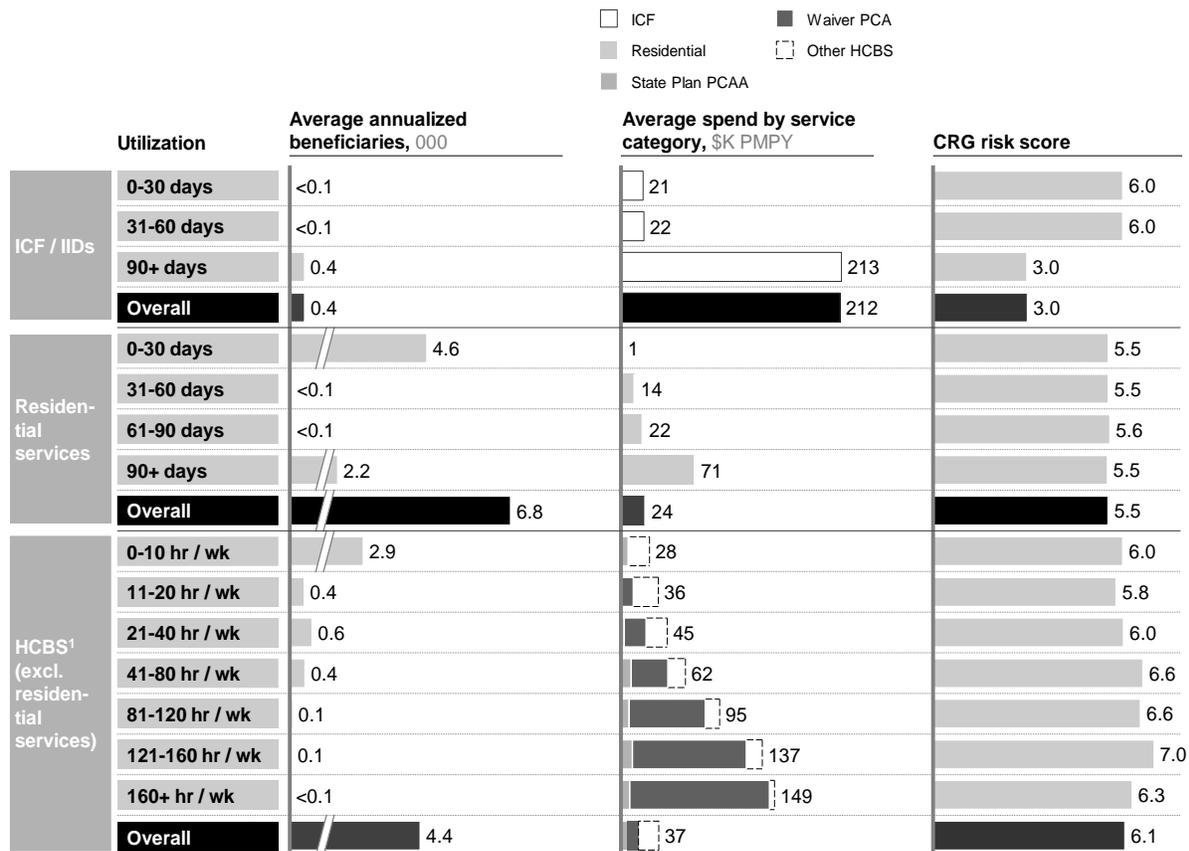
facilities or habilitation centers have access to the resources they need to facilitate their transitions. By shifting more people from institutional settings back to the community, this change could result in savings of $12.5 million to $14 million.[137] Additionally, the state could consider following through on discussions to implement a waiver that covers children with developmental disabilities who do not require habilitative services, which would cover the cost of care for children who do not qualify for Medicaid because of their parents' income. Currently, children need to be hospitalized for a certain period before they can be considered eligible for Medicaid regardless of parental income; this may result in children being hospitalized even if it does not suit the level of care they require.

- **There may be additional opportunity to provide care for participants in less intensive and restrictive settings even across the continuum of HCBS services.** Though a substantial amount of rebalancing from institutional to residential and other HCBS (waiver and State Plan) services has taken place, there may be opportunity to transition members receiving residential services in congregate care settings away from their homes to less intensive and restrictive settings within the continuum of HCBS services. See Exhibit 31 for a breakdown of LTSS spending based on utilization levels of different services.[138]

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[137] Interviews with Medicaid program staff members and analysis of state data, 2018.

[138] Analysis of Missouri Medicaid claims data, SFY2016-18.

EXHIBIT 31: LTSS UTILIZATION FOR LTSS ADMINISTERED BY DMH, SFY2018[139]

Legend:
☐ ICF ■ Waiver PCA
■ Residential ⬚ Other HCBS
■ State Plan PCAA

	Utilization	Average annualized beneficiaries, 000	Average spend by service category, $K PMPY	CRG risk score
ICF / IIDs	0-30 days	<0.1	21 (ICF)	6.0
	31-60 days	<0.1	22 (ICF)	6.0
	90+ days	0.4	213	3.0
	Overall	0.4	212	3.0
Residential services	0-30 days	4.6	1	5.5
	31-60 days	<0.1	14	5.5
	61-90 days	<0.1	22	5.6
	90+ days	2.2	71	5.5
	Overall	6.8	24	5.5
HCBS[1] (excl. residential services)	0-10 hr / wk	2.9	28	6.0
	11-20 hr / wk	0.4	36	5.8
	21-40 hr / wk	0.6	45	6.0
	41-80 hr / wk	0.4	62	6.6
	81-120 hr / wk	0.1	95	6.6
	121-160 hr / wk	0.1	137	7.0
	160+ hr / wk	<0.1	149	6.3
	Overall	4.4	37	6.1

- **There are limited incentives connecting reimbursement of HCBS providers and outcomes of care**. Reimbursement of HCBS providers is not tied to their success in keeping their clients out of nursing homes (or other forms of residential care). Likewise, as payment is based on units of care delivered, there is no economic incentive to stimulate participants' independence from care. Payments to provider groups that aim to relocate participants from nursing homes or residential care facilities to their homes could be tied to their success rate, for example. Sharing in the savings could also help these providers to focus even more on the social determinants that often stand in the way of successful transition.

- **There is little to no transparency of outcomes of care in LTSS.** While available data on the performance of LTSS in Missouri show mixed results, there is little or no publicly accessible information about the outcomes of care delivered per (sub)population or condition and per provider (or group thereof). This limits consumer choice, provider accountability, and the information necessary for provider self-improvement**.**

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[139] Only considers population receiving services from administered by DMH; analysis of Missouri Medicaid claims data, SFY2016-18; residential services include individual supported living, group home, and shared living services; CRG stands for Clinical Risk Group.

Potential initiatives

Based on a review of Missouri's current approach, interviews with functional leaders and subject matter experts within the relevant departments, and analysis of other states' activities, this section discusses potential initiatives Missouri could consider to improve the value of LTSS in the state, which include reducing costs and, through increasing the number of participants that would be able to remain in their own homes and/or in the community, possibly improving participant experience, quality, and outcomes. In total, the gross financial impact of LTSS initiatives ranges from $90 million to $275 million, depending on choices made by the state.

1. **Include an acuity adjustment in the nursing home reimbursement methodology.** Missouri could consider adding an acuity adjustment to the current per diem methodology. By using an acuity adjustment such as a resource utilization group (RUG)-based grouper, Missouri could categorize patients based on need and reimburse nursing facilities accordingly, using a stratified set of per diem rates. This shift would enable allocation of resources based on need. Additionally, it may encourage further rebalancing from institutional care to HCBS.

2. **Rationalize rates for similar HCBS services provided through different programs and funding authorities.** For services provided through multiple waivers or through a combination of State Plan and one or more waivers (e.g., personal care services), Missouri could consider standardizing rates independent of the funding source for the service. Without standardization, providers may be reimbursed different amounts for care provided to patients with similar needs and acuity levels, which may encourage them to participate selectively in certain programs while not participating in others. This may result in access issues in certain programs and/or geographic areas, eroding patient experience and outcomes. DHSS has engaged an external vendor to conduct a rate study to determine the validity of the reimbursement rates for services covered in their waivers, which may reveal further opportunities to rationalize rates.

3. **Complete and expand upon revisions currently underway to assessment algorithm and process**. The state recently announced changes to DHSS' algorithm to assign points using the interRAI HC assessment instrument, which represent the first major changes since 1982. These revisions could improve the accuracy of the level of care assessment process. The state could also consider further streamlining and strengthening the assessment process across populations, programs, and departments (e.g., improving capture of personal care data with review on a per-reviewer and per-physician basis, especially in the consumer-directed program).

4. **More directly employ assessment results in care planning process.** In addition to improving the assessment process as is currently planned, Missouri could consider incorporating additional functionality into the assessment instrument. First, it could be used to determine eligibility for services. Second, it could more closely tie results of assessment to the care planning process. For example, DHSS has previously considered using a case rate-based system, using a RUG-based grouper mechanism layered on top of the current interRAI HC assessment. This could include more consistently using assessment results as a standardized basis for setting of care determinations and the types and intensity of services to be provided. Third, the assessment instrument could be used to determine payment levels for care. Fourth, the assessment results could serve as an auditing mechanism: care planners and/or providers could be flagged if they are providing a level of care that is inconsistent with the results of the assessment.

5. **Improve the consistency of the approval process for personal care services**. The state could better capture personal care (PCA) PA data digitally and review it on a per reviewer and physician level to ensure consistency in implementing assessment tools and appeals processes. This would be especially important in the consumer-directed program, as different PA approvers may be inconsistent in the type and degree of services they authorize for different individuals with similar care needs.

6. **Extend Money Follows the Person (MFP) through a new grant or waiver.** On average, MFP in Missouri has helped 206 individuals each year to transition back to their communities.[140] The quality of life of individuals living at home may be much higher than it may be for those living in an institution; in addition, the cost of a year of nursing home care is $45,000, versus ~$8,300 for home-based care. According to experts interviewed, if the state includes a rent subsidy for those in the MFP program, it could double the number of transitions per year, to approximately 400 per year.

7. **Implement additional waivers (e.g., waiver for children with developmental disabilities who do not require habilitative services) or expand current waivers.** Implementing such a waiver would allow children who are ineligible for Medicaid because of their parents' income to receive Medicaid services without hospitalization. This would not only allow children to receive care from the comfort of their homes, if they do not require more intensive care, but would also potentially reduce the cost of care.

8. **Missouri could consider introducing Alternative Payment Models (APMs) for LTSS services.** The main value opportunity for LTSS services is moving care from a nursing home or residential services to care in the participant's home where possible. The costs of this care are generally less than half the cost of intuitional care and living at home tends to be highly preferable.[141] Improving care planning and management for this population can also be a significant source of value. An Accountable Care Organization model, specifically designed for LTSS, may be one option to incentivize providers to create this value. Yet for those providers most likely to do so – home care providers – taking on the financial responsibility for nursing home costs is a large risk and is likely not feasible for many smaller providers. Alternatively, such providers could be incentivized by tying a part of their reimbursement to the key outcomes that matter to participants, such as the extent to which they can be successful in delaying or avoiding nursing home admissions, improving self-determination, encouraging independence at home, etc.

9. **Create transparency of the outcomes of care.** Providing transparency of outcomes for (sub)populations is a prerequisite of any healthcare system oriented towards value. Juxtaposing these outcomes to the risk-adjusted costs of care shines light on the performance of the healthcare delivery system and provides the information providers, payors, participants, and policymakers require to make informed choices and focused improvement efforts. As the collection point of all Medicaid claims and assessment data, the state could publish such information on the total costs and outcomes of care per county per provider, or per group of providers.

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[140] Missouri DSS, "Money follows the person," 2018.

[141] Missouri DSS: see note 140.

PHARMACY

In SFY2018, Missouri Medicaid spent ~$1.5 billion on pharmaceutical products.[142] Missouri is one of four states that carves pharmacy out of its managed care arrangements.[143] This carve-out gives the state complete responsibility for paying for and managing the utilization of drugs for all participants. To ensure appropriate utilization and control spending, the state has established a preferred drug list (PDL), which requires prior authorizations, step therapy, and quantity limits for select drugs. Through its process of "grandfathering" treatment, Missouri does not require participants that are established on a non-preferred drug to switch to a preferred drug. In addition to the PDL, Missouri receives statutory and supplemental rebates from pharmaceutical manufacturers as means of cost containment. The state uses a vendor to help it maintain its PDL and to assist in supplemental rebate negotiations.

The state pays for retail drugs in two ways: an ingredient cost and a dispensing fee. In terms of reimbursement for the ingredient cost, Missouri, like other state Medicaid agencies, has converted to an average actual cost methodology. The state is in the process of revising its dispensing fee.

Potential initiatives for Pharmacy include the elimination of grandfathering of drug selection, implementing additional utilization management, joining a purchasing consortium to increase supplemental rebate capture, requiring NDC submission on claims for non-J-code HCPCS drugs, establishing a preferred specialty pharmacy, and applying for a value-based contracting waiver from CMS. When combined, the potential impact of Pharmacy initiatives could range from $35 million to $60 million, net of ongoing operational costs.[144] This savings opportunity is variable and dependent on decisions that are made with respect to initiatives discussed in the managed care and acute care services sections (e.g., including pharmacy as an MCO-covered benefit).

Current situation

This section gives an overview of Missouri's current pharmacy in terms of spending and structure, reimbursement methodology, utilization management (UM) practices, clinical guidelines and (for pharmacy) rebate capture.

Program spending and structure

In SFY2018, 25 drugs accounted for ~25% of Missouri's $1.5 billion pharmacy spending, while 4141 drugs accounted for the other 75%. Total pharmacy costs have grown 5% over the last three years. Treatment for attention-deficit/hyperactivity disorder (ADHD), hepatitis C, behavioral health conditions, hemophilia, rheumatologic conditions, diabetes, asthma, growth deficiency syndromes, and pain are the main drivers of pharmacy spending and growth (see Exhibit 32).[145]

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[142] Analysis of Missouri Medicaid claims data, SFY2016-18; only includes pharmaceutical products billed as separate pharmacy claims.

[143] KFF, "States Focus on Quality and Outcomes Amid Waiver Changes: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2018 and 2019," 2018, see: www.kff.org/report-section/states-focus-on-quality-and-outcomes-amid-waiver-changes-pharmacy-and-opioid-strategies.

[144] Analysis of Missouri Medicaid claims data, SFY2016-18; interviews with Medicaid program staff members.

[145] Analysis of Missouri Medicaid claims data, SFY2016-18.

EXHIBIT 32. 25 DRUGS ACCOUNT FOR ~25% OF PHARMACY SPENDING, SFY2018[146]

Drugs	SFY2018 Spend, ($M)	SFY2017 to SFY2018 spend trend	SFY2017 to SFY2018 utilization trend
LATUDA	36.0	3%	-5%
MAVYRET	28.9	New to the market in SFY2018	
INVEGA SUSTENNA	28.8	22%	65%
HUMIRA PEN	20.7	16%	5%
METHYLPHENIDATE ER	20.6	13%	-5%
VYVANSE	20.6	-1%	-1%
PROAIR HFA	18.9	6%	-1%
LYRICA	18.4	9%	-6%
ADVAIR DISKUS	16.6	-8%	-19%
LANTUS SOLOSTAR	16.5	-6%	-21%
NORDITROPIN FLEXPRO	15.9	18%	14%
SYMBICORT	15.0	6%	-1%
SPIRIVA	12.8	-7%	-24%
ADDERALL XR	12.6	-10%	-2%
ARIPIPRAZOLE	12.2	-22%	-6%
FLOVENT HFA	11.9	16%	16%
NOVOLOG FLEXPEN	11.7	12%	-3%
SYNAGIS	10.8	-7%	-7%
OXYCONTIN	10.4	-25%	-28%
KOGENATE FS	10.1	110%	52%
METFORMIN HCL ER	9.7	55%	-13%
PALIPERIDONE ER	9.1	13%	3%
ONFI	8.8	17%	13%
SUBOXONE	8.5	39%	37%
GENVOYA	8.5	31%	26%

Missouri carves pharmacy benefits out of its managed care program. Missouri's SFY2018 spending of $1.5 billion was paid on a fee-for-service basis. All pharmacy program operations, including utilization management, are the responsibility of MHD. Missouri also utilizes a preferred drug list vendor. This vendor assists the state with supplemental rebate negotiation and updating/reviewing the state's PDL. Finally, the state has an open pharmacy network, including an open specialty network. An open network allows participants to use any pharmacy of their choice.

Reimbursement

Missouri uses a recently modified hierarchy method to determine reimbursement for drug ingredient costs. Missouri reimburses covered drugs by applying a hierarchy method that starts with National Average Drug Acquisition Cost (NADAC), followed by Missouri Maximum Allowed Cost (MAC), and Wholesale Acquisition Cost (WAC). Missouri uses the usual and customary (U&C) charge submitted by the provider if it is lower than the chosen price. Reimbursement for covered drugs for 340B providers who carve-in for Medicaid was modified by applying the following method: WAC-25% or the U&C charge submitted by the provider if it is lower.[147]

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[146] Analysis of Missouri Medicaid claims data, SFY2016-18.

[147] Missouri DSS, "State of Missouri Pharmacy Manual," 2019, see:
manuals.momed.com/collections/collection_pha/print.pdf.

Missouri also has structured fees for reimbursement rates for pharmacy dispensing fees. The state currently pays $9.55 in base dispensing fee to all pharmacy providers, and $4.82 in enhanced dispensing fee to in-state pharmacy providers. In addition, $5.00 in preferred generic product incentive fee is paid for each multi-source product to in-state pharmacy providers. In addition to the retail fees, an additional $0.50 in long-term care dispensing fee is paid per claim under specific circumstances. Outpatient physician-administered drugs are reimbursed as a percentage of billed charges for hospital providers. These fees are under active review with CMS.[148]

Utilization management practices and clinical guidelines

Utilization management protocols are in place for a range of drug classes but lacking in some**.** Prior authorization (PA), step therapy, and quantity limits are used across the PDL. However, these UM techniques are lacking in certain drug classes (e.g., hemophilia, oncology). Newly approved drugs are automatically placed on the PA list for the first six months after launch. Additionally, Missouri uses an automated PA system for first-level clinical reviews. The system can match participant diagnosis codes to approval criteria to generate automated approvals/denials.

Rebate capture

The state collects both federal and supplemental rebates. Missouri's SFY2018 federal and supplement rebate capture rates were 52.4% and 3.0% of total pharmacy spending, respectively.[149] All claims for physician administered drugs with "J" prefixed HCPCS codes are required to be submitted with an NDC so that rebates can be captured.

The state's PDL vendor negotiates supplemental rebates on its behalf. The state collects supplemental rebates in various therapeutic categories such as: growth hormones, anti-virals to treat hepatitis C, ADHD therapies, and drugs used to treat rheumatologic conditions.

The process for rebate invoicing to manufacturers is highly manual. This process involves using different computer systems to compare claims and invoices. Additionally, it takes the effort of multiple FTEs to convert data from one system to another, do quality checks, send invoices to manufacturers, and review any appeals that come back from the manufacturers.

In Missouri, providers may choose to either carve-in to or carve-out of 340B. The state follows the guidelines set forth by the Health Resources and Services Administration (HSRA). All covered entity providers are identified as such by the state and rebates are not collected on these drugs.

Potential opportunities for improvement

This section identifies potential opportunities to improve Missouri's pharmacy program. When compared to the practices of other states, the following observations can be made:

- **Missouri's expansive grandfathering practice limits the state's ability to shift utilization to the lowest net cost drug.** While some states allow grandfathering for specific drug classes, most require participants to follow changes to the PDL.

- **For certain high-cost drug classes (such as oncology, hemophilia, and IVIG), there are no medical necessity policies.** MCOs and some state Medicaid agencies have

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[148] Missouri DSS, "Missouri MoHealthNet Provider Bulletin Volume 39 Number 52," 2017, see: dss.mo.gov/mhd/providers/pdf/bulletin39-52_2017april14.pdf.

[149] Analysis of Missouri Medicaid claims data, SFY2016-18.

medical policies and often use utilization management levers such as PA, step therapy, and quantity limits to ensure appropriate utilization in these high-cost drug classes.[150]

- **Missouri's rebate capture rates are below the national average.** While federal rebate capture has improved from 43.4% to 52.4% between SFY2016 and SFY2018, Missouri is still below the weighted national average of 55.5% (see Exhibit 33) and further below the highest-performing quartile. Additionally, the state's SFY2018 supplemental rebate capture rate of 3.0% also falls below the weighted national average of 3.8%.[151] These deviations from the mean may be in part due to grandfathering practices or PDL design.

EXHIBIT 33: STATE-BY-STATE, FEDERAL REBATE CAPTURE IN SFY2016[152]
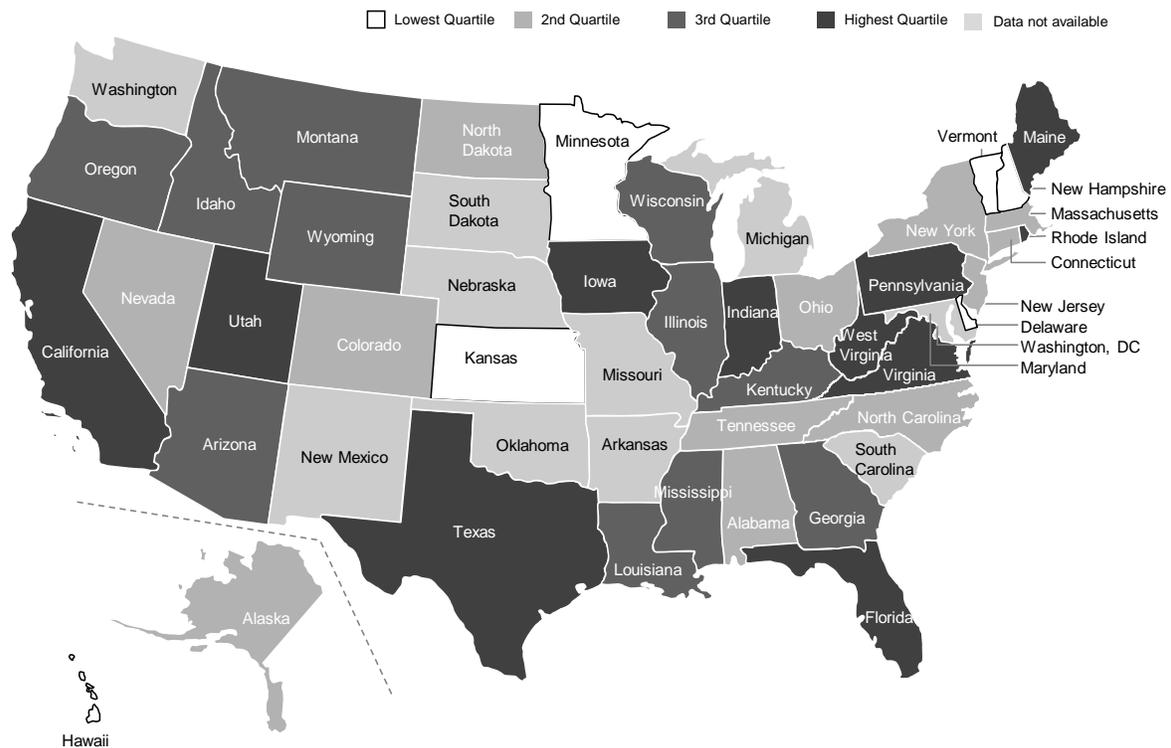
- **Missouri does not currently participate in any value-based contracts with pharmaceutical manufactures.** Value-based contracting is becoming more popular with commercial and MCO players. Recently, CMS approved waivers for Oklahoma and Michigan to negotiate value-based contracts with pharmacy manufacturers.

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150 Missouri DSS: see note 147.

151 Medicaid.gov, "Expenditure Reports from MBES/CBES," see: www.medicaid.gov/medicaid/finance/state-expenditure-reporting/expenditure-reports/index.html; analysis of state data, 2018.

152 Medicaid.gov: see note 151.

Potential initiatives

Based on review of Missouri's current approach, interviews with functional leaders and subject matter experts, and analysis of other states' activities, this section has identified six potential initiatives Missouri could consider for improvements to its pharmacy program. These initiatives build on the existing progress made by the state and could result in a reduction of total Medicaid expenditures from $35 million to $60 million, depending on state choices.

1. **Implement medical necessity guidelines and prior authorizations in drug classes that do not have such policies.** The state could implement new medical necessity policies for oncology, hemophilia, IVIG, and other select high-cost physician-administered therapies. This could not only bring Missouri in line with other states and MCOs but could also require that participants are receiving care based on accepted clinical guidelines in the proper clinical sequence. A vendor could be utilized to handle this process, or the process could be done in-house.

2. **Reduce grandfathering.** Missouri could consider only targeted use of grandfathering for specific drug classes (e.g., antipsychotics) based on an review of clinical need. Operationally, some requirements would include proper notification to participants and providers to ensure that all stakeholders are aware of pending changes and to avoid any impact on access.

3. **Join a purchasing consortium to increase supplemental rebate capture.** There are three supplemental rebate consortiums that state Medicaid programs utilize today: the National Medicaid Pooling Initiative (NMPI), the Optimal PDL Solution (TOPS) and the Sovereign States Drug Consortium (SSDC). Missouri would need to consider how these consortia fit with their current approach and PDL vendor. Additionally, the state would need to submit a State Plan Amendment to CMS.

4. **Require NDC submission on claims for non-J-code HCPCS drugs.** This initiative could ensure that rebates are captured on all physician administered drugs. Operationally, some requirements would include provider notification and modest MMIS system edits.

5. **Consider whether to contract with a specialty pharmacy.** The state could establish a preferred specialty pharmacy which may provide lower prices for certain specialty drugs, and potentially better care management and improved clinical outcomes for participants. Before doing this, the state would need to determine whether such an approach would be consistent with any willing provider regulations. Additionally, the state would likely have to go through the required procurement process.

6. **Apply for a value-based contracting waiver from CMS.** The state could apply for a value-based contracting waiver from CMS, which would allow the state to negotiate drug prices with manufacturers based on clinical outcomes. CMS approval of a State Plan Amendment would be required, as would negotiation with manufacturers to determine the optimal drug(s), outcome(s), and pricing.

MANAGED CARE

In 2017, Missouri's managed care program for children and families was expanded statewide under three capitated managed care organizations (MCOs).[153] The state has taken several steps to improve the performance of the managed care program and ensure its value, and the current managed care contracts attempt to create an environment that fosters innovation through incentive programs and specialized care coordination programs. Nevertheless, both the managed care contracts and rates can be improved to further increase efficiency, eliminate ambiguity in contract language, and lay the foundation for improved MCO performance and state-of-the-art performance management. Finally, the state could consider increasing the scope of managed care and carving in pharmacy and behavioral health services for the current managed care populations. The state could also consider introducing managed care for (parts of) the ABD population or continuing to improve management of those populations outside of the managed care program.

The total potential impact across these initiatives ranges from $175 million to $300 million, net of recurring investments.[154] While there are opportunities to improve the performance and efficiency of the current managed care program, the largest component of this potential impact could be achieved through the inclusion of additional services (e.g., behavioral health, pharmacy) and populations (e.g., ABD) in managed care. If managed care were expanded to the ABD population, MCOs could realize savings partially through implementing similar initiatives as described in the LTSS section above. As a result, there is natural overlap in the potential impact of these areas; if services for the ABD population – including LTSS – are fully carved into managed care, then the aforementioned total potential impact would overlap with the $90 million to $275 million from the LTSS section (and eliminating any incremental savings from it).

Current situation

Scope of managed care

The managed care program encompasses children, parents, and pregnant women, and it excludes most pharmacy and behavioral health services[155] (see Exhibit 34). Medicaid ABD populations are entirely excluded from the managed care program. Children in foster care or in subsidized, post-adoption or guardianship programs are included on an opt-out basis. Total managed care spending is ~$2.2 billion (see Exhibit 35; children, parents, and pregnant women comprise ~67% of Medicaid enrollees but drive only 23% of the spending, excluding FFS spending for that same population).[156]

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[153] Analysis of state data, 2018; Missouri Foundation for Health, "Missouri Medicaid Basics," 2017, see: mffh.org/wordpress/wp-content/uploads/2017/03/MedicaidBasics2017.pdf.

[154] Missouri DSS, "Annual Table 23 and 24 for FY18," 2018; Analysis of state data, 2018.
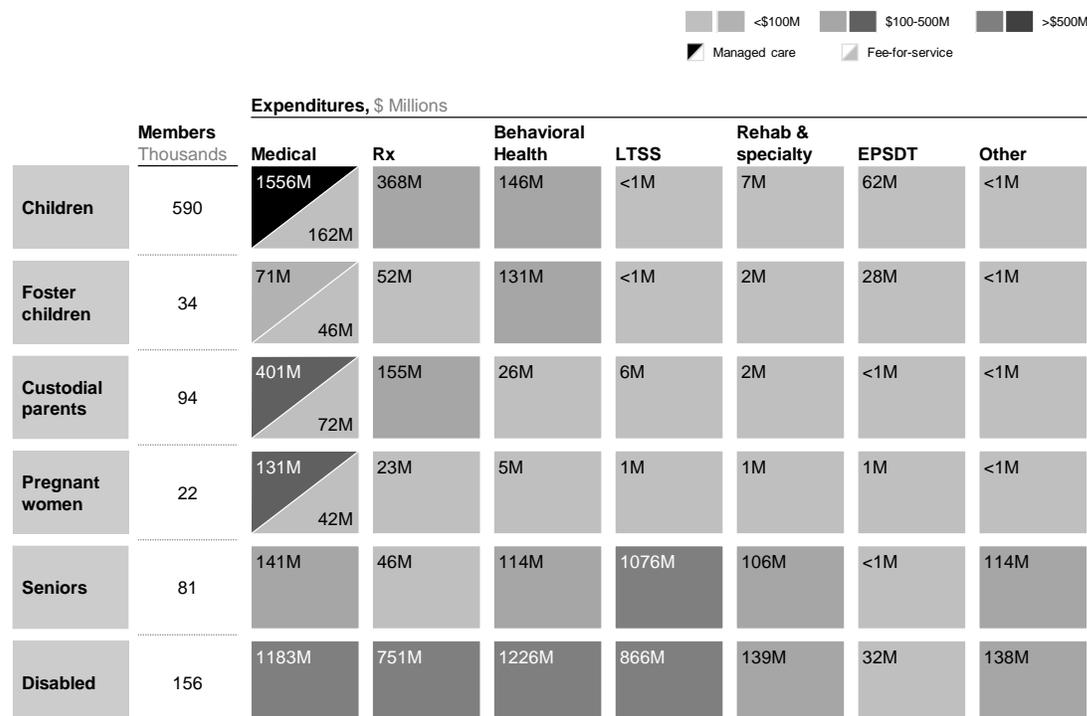
[155] Missouri Foundation for Health: see note 153.

[156] Missouri DSS: see note 5.

EXHIBIT 34: CURRENT BEHAVIORAL HEALTH COVERAGE

MO HealthNet Covered Benefits	Foster Children (Ages 0-20); Independent Former Foster Adolescents (Ages 21-25)	All other MC eligibility groups: Adults (21+), Pregnant Women, Children COA 1, CHIP Exp, CHIP Separate
Outpatient "clinic option" services	FFS	MC
Inpatient Behavioral Health Admissions	FFS	MC
Inpatient Admission with both Behavioral and Physical Diagnoses	MC	MC
Applied Behavior Analysis for Autism Spectrum Disorder	FFS	FFS (under 21)
Tobacco Cessation Counseling - psychologists, LPCs, LCSWs	FFS	FFS
CPR (Comprehensive Psychiatric Rehab - DMH)	FFS	FFS
CSTAR (Comprehensive Substance Treatment and Rehab - DMH)	FFS	FFS
TCM (Targeted Case Management - DMH)	FFS	FFS
Waivers	FFS	FFS

EXHIBIT 35: MHD ENROLLMENT, MANAGED CARE AND FEE-FOR-SERVICE SPENDING BY ELIGIBILITY GROUP AND CATEGORY OF SERVICE, SFY2018[157]

Legend: <$100M | $100-500M | >$500M | Managed care | Fee-for-service

Expenditures, $ Millions

	Members Thousands	Medical	Rx	Behavioral Health	LTSS	Rehab & specialty	EPSDT	Other
Children	590	1556M / 162M	368M	146M	<1M	7M	62M	<1M
Foster children	34	71M / 46M	52M	131M	<1M	2M	28M	<1M
Custodial parents	94	401M / 72M	155M	26M	6M	2M	<1M	<1M
Pregnant women	22	131M / 42M	23M	5M	1M	1M	1M	<1M
Seniors	81	141M	46M	114M	1076M	106M	<1M	114M
Disabled	156	1183M	751M	1226M	866M	139M	32M	138M

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[157] Missouri DSS: see note 154; "children" excludes eligibility groups associated with foster care; "foster children" includes foster care, child welfare; estimated share of Title XIX HDN population attributable to subsidized child

Managed care rate setting

Missouri's MCO rate-setting methodology encourages efficiency, adjusts payments based on risk, and manages non-benefit expenses**.** Efficiency adjustments have been implemented to avoid payments for some avoidable emergency department (ED) and inpatient (IP) services (e.g., low-acuity non-emergency adjustment for ED utilization that could have been diverted to other settings, potentially preventable hospital admissions adjustment for inpatient utilization). A risk-adjusted efficiency adjustment process is also used to address differences in claim levels among MCOs within a region after adjusting for the underlying risk profile of each MCO's population. Furthermore, a general ledger review of MCO administrative costs has been performed recently, and target MCO profit margins (i.e., underwriting gains) were adjusted to account for lower corporate taxes in Calendar Year 2018.

Contracting, compliance, and performance management

Current managed care contracts establish minimum standards for MCO performance and attempt to create an environment that fosters innovation. Contract provisions cover areas including care management, utilization management, provider payment, program integrity, provider network, grievances and appeals, among others. For care management, Missouri requires initial screening within 90 days of enrollment, with shorter timelines for pregnant women, children with elevated blood lead levels, and members with diseases. The current contracts contain provisions to stimulate innovation and value in the managed care program, through the Local Community Care Coordination Program (LCCCP) as well as member and provider incentive programs.

The performance management regime established through current contracts relies primarily on performance withholds, liquidated damages and sanctions. The performance withhold program is under revision based on negotiation between MHD and the MCOs, with an intention to use predominantly HEDIS measures going forward.[158] Liquidated damages for contract compliance infractions cover a broad set of potential operational issues, with penalties ranging from $100 per day for failure to submit a report to $10,000 per month for failure to adhere to claims processing standards.

The performance management relationship between MHD and MCOs centers on ensuring basic contract compliance and rectifying performance issues. MHD requires 24 distinct reports from MCOs in addition to submission of encounter data and other information. To date, MHD activities have focused on improving and validating the quality of the information submitted by MCOs.

Potential opportunities for improvement

- **The rate-setting methodology could be further strengthened.** While the current methodology employs several strong elements to ensure managed care rates account for all reasonable, appropriate, and attainable costs, opportunities remain to further enhance the rates. Additional efficiency adjustments are available for each of the major categories of expenditures to remove inefficient utilization (e.g., inpatient stays that could have been avoided with better outpatient care) from rate calculations.[159] Steps could also be taken to simplify the rate cell structure by combining small, high-cost rate cells to reduce potential

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welfare programs, and independent foster children ages 18-26; "custodial parents" excludes independent foster children ages 18-26.

[158] Interviews with Medicaid program staff members.

[159] Interviews with Medicaid program staff members; analysis of state data, 2018.

volatility in capitation payments. Finally, as discussed in the acute care section, the state could consider capping MCO hospital payments at a fixed percentage of Medicaid FFS payments, while simultaneously adapting overall MCO capitation rates accordingly.

- **Day one MCO eligibility and/or passive MCO enrollment could be implemented for additional populations**. Except for foster children, new participants eligible for managed care will remain in fee-for-service for some time before either choosing or being automatically assigned to an MCO. States such as Ohio have adopted day one eligibility with passive enrollment for individuals eligible for Medicaid managed care, while still preserving a participant's ability to actively choose or switch MCOs for a period of time.[160] In such states, individuals may be enrolled in an MCO retroactively to the first day of the month in which Medicaid eligibility is determined. In such states, there is no fee-for-service period before MCO enrollment occurs. This can reduce the administrative burden and financial risk to the state and accelerate the process of availing participants to care management and coordination.

- **Operational contract provisions could be further strengthened to improve program performance, increase efficiency and improve member and provider experience.** Timeliness standards for key processes (e.g., provider payment, prior authorization, grievances and appeals) can be further specified. Program integrity requirements (including fraud, waste, and abuse) can be further elaborated to define overpayments to be investigated and clarify roles (e.g., between the state and MCOs) in preventing, detecting, recovering and retaining overpayments. The state may also have an opportunity to revisit provider network and network adequacy requirements, especially considering CMS' November 8, 2018 notice of proposed rulemaking on Medicaid and CHIP managed care.[161]

- **Care management requirements can be further elaborated and appropriately enforced.** The contracts do not clearly specify standards for risk stratification and identification of participants for care management, the proportion of participants the state expects to receive care management, case load standards for care managers, or care management activity requirements once participants are enrolled in care management programs. While the contracts allow MCOs to coordinate care management activities with providers including health homes, it does not set forth a clear expectation or requirement for them to do so. In addition, initial steps to increase healthcare value (e.g., member incentive programs, provider incentive programs and LCCCPs) have not seen broad uptake and MCO progress in implementing these programs and realizing their potential for impact has been uneven.[162]

- **For a subset of health home enrollees, the state pays both MCOs and health homes for care management services.** Approximately 6,500 MCO members are enrolled in a Primary Care Health Home (PCHH), and 5,500 members are enrolled in a Community Mental Health Center Healthcare Home (CMHC HH) or Certified Community Behavioral Health Clinic Health Home (CCBHC HH).[163] In addition to their regular payments from

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160 Ohio Medical Assistance provider agreement for managed care plan. Ohio Department of Medicaid, 2018.

161 CMS, "CMS Proposes Changes to Streamline and Strengthen Medicaid and CHIP Managed Care Regulations", 2018, see: www.cms.gov/newsroom/press-releases/cms-proposes-changes-streamline-and-strengthen-medicaid-and-chip-managed-care-regulations.

162 Interviews with Medicaid program staff members.

163 Interviews with Medicaid program staff members.

MCOs, Missouri health homes receive additional care management payments directly from the state. Some behavioral health services provided by health home providers are carved out of managed care, but the responsibility for care management and coordination with other services is attributed to both the MCO and the health home.

- **The state has not fully leveraged the available levers for incentivizing MCO performance or disincentivizing MCO underperformance.** Additional levers are available to the state to create positive incentives for MCO performance on, for instance, operational or quality metrics. At present, the auto-assignment algorithm used to assign participants to MCOs only takes into consideration the level of MCO enrollment in each region (subject to minimum and maximum enrollment levels for each MCO). Other states have incorporated operational or quality metrics (e.g., encounter data submission or provider payment operational measures; HEDIS quality measures) into the auto-assignment algorithm to reward better performing MCOs with additional participants.[164] Pooled rewards, bonuses, or public report cards could also be considered as additional performance management levers. Furthermore, while the MCO contracts specify a broad set of liquidated damages or sanctions for performance infractions, the state could revisit the structure and magnitude of these penalties to ensure their efficacy, and clearly communicate to MCOs which areas of performance will be most closely monitored. Exhibit 36 shows the incentive and disincentive levers currently used in Missouri against a broader set of levers observed in other states, highlighting several opportunities for new levers to encourage MCO compliance and performance.

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[164] KFF, "Medicaid Reforms to Expand Coverage, Control Costs and Improve Care: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2015 and 2016," 2015, see: www.kff.org/medicaid/report/medicaid-reforms-to-expand-coverage-control-costs-and-improve-care-results-from-a-50-state-medicaid-budget-survey-for-state-fiscal-years-2015-and-2016.

EXHIBIT 36: MCO COMPLIANCE AND PERFORMANCE MANAGEMENT LEVERS[165]

Contract dimensions   ✓ Observed in other states   ▨ Used by MO

	Lever	Member experience	Cost/ efficiency	Quality	Network	Pharmacy	Contract perform-ance	Data sub-mission	Program integrity	APM / innovation
Incentives	Increase auto-enrollment priority		✓	✓	✓			✓	✓	✓
	Use pooled rewards	✓		✓	✓			✓		✓
	Offer bonuses		✓	✓	✓			✓		✓
	Report health grades			✓	✓			✓		
	Increase transparency			✓	✓		✓		✓	
Dis-incentives	Use withholds		✓	✓			✓	✓	✓	
	Enforce fines/penalties	✓	✓	✓	✓	✓	✓	✓	✓	
	Require corrective action plans		✓	✓	✓	✓	✓	✓	✓	
	Decrease auto-enrollment priority			✓	✓		✓	✓	✓	
	Freeze enrollment		✓	✓	✓	✓	✓	✓	✓	
	Termination		✓	✓	✓	✓	✓	✓	✓	

Callout notes within the exhibit:
- Report publicly on how MCOs are doing at participation in their member and provider incentive programs
- Build encounter data quality and timeliness into auto-enrollment algorithm
- Offer bonuses to drive APM and innovation

- **Reporting requirements for MCOs can be improved, reducing administrative burden and improving the value of the information received.** Current required reporting includes seven financial data reports (e.g., unaudited and audited financial statements, copies of administrative services contracts and management agreements), and 17 operational data reports (e.g., contact center reports, provider network reports, care management logs).[166] The state does not appear to be fully processing the volume of detailed data contained in these reports and providing concise, aggregated analysis and feedback that can drive MCO performance improvement. In addition, in several cases, ambiguity or disagreement over the type of information required, granularity, or frequency at which it must be reported have made it difficult to yield reliable data and produce meaningful insights. These issues have led to challenges in establishing the preconditions for optimal performance dialogues between the state and MCOs.

- **The poor quality of the encounter data limits adequate performance management.** The state's MMIS system is not able to take in some encounters or encounter data variables. The quality of MCO encounter data submissions is variable, in part because encounters are being held back due to issues the MMIS system has in processing encounters. The result is that the state has neither a complete, accurate set of encounter data, nor a full understanding of which encounters are not being submitted. Consequently, the state does not appear to be performing certain analyses on spending or spending
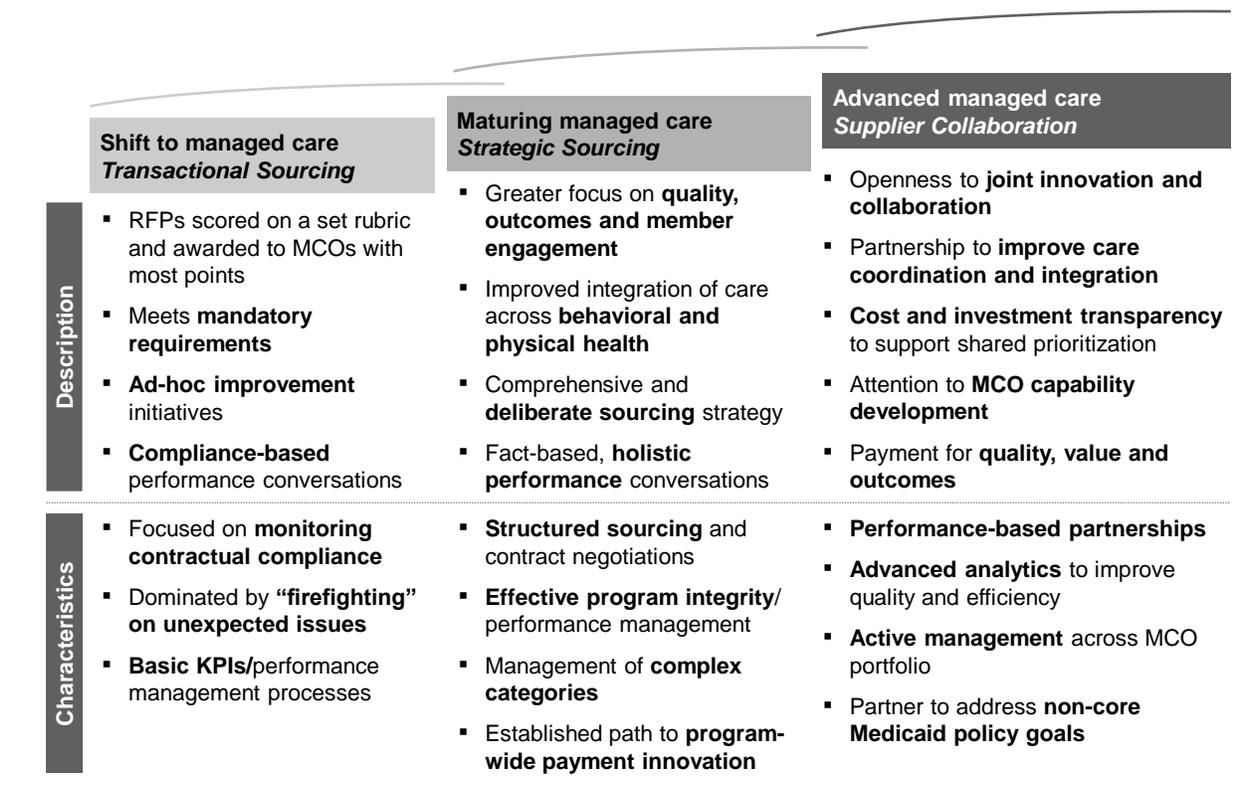
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[165] Based on review of approximately 15 publicly available managed care contracts across states from 2013-2018.

[166] Missouri DSS, "Managed Care Contracts," 2018, see: dss.mo.gov/business-processes/managed-care/.

trends, for example, or adequately comparing performance between plans, in ways that could be beneficial to the management of the Medicaid program, as a whole, and the managed care program specifically.

- **The performance dialogues between the state and the MCOs could be more focused on the value of the care delivered.** The amount of and reliance on detailed process measures and the poor quality of the encounter data lead to a lack of focus on key outcomes in the performance dialogues between the state and the MCOs. Recent interactions between the state and MCOs have focused on improving the timeliness and validity of information reported, rather than MCO performance on improving quality, outcomes, and experience for the population. Performance dialogues could be advanced to cover more substantive, outcome-, and improvement-oriented conversations. This could be consistent with and supportive of the implementation of value-based payment programs and reimbursement models that reward quality and outcomes as discussed elsewhere in this document (e.g., in the Acute Care Services and LTSS sections). The state also has an opportunity to codify the cadence and approach to performance dialogues with MCOs, establishing its agenda and priorities for these conversations rather than reacting to MCO priorities. Exhibit 37 provides a conceptual illustration of the evolution of the relationship between the state and its MCOs, highlighting potential priorities for more sophisticated levels of state/MCO collaboration.

EXHIBIT 37: EVOLUTION TOWARD MORE ADVANCED COLLABORATION WITH MCOS

|	**Shift to managed care** *Transactional Sourcing*	**Maturing managed care** *Strategic Sourcing*	**Advanced managed care** *Supplier Collaboration*
Description	▪ RFPs scored on a set rubric and awarded to MCOs with most points ▪ Meets **mandatory requirements** ▪ **Ad-hoc improvement** initiatives ▪ **Compliance-based** performance conversations	▪ Greater focus on **quality, outcomes and member engagement** ▪ Improved integration of care across **behavioral and physical health** ▪ Comprehensive and **deliberate sourcing** strategy ▪ Fact-based, **holistic performance** conversations	▪ Openness to **joint innovation and collaboration** ▪ Partnership to **improve care coordination and integration** ▪ **Cost and investment transparency** to support shared prioritization ▪ Attention to **MCO capability development** ▪ Payment for **quality, value and outcomes**
Characteristics	▪ Focused on **monitoring contractual compliance** ▪ Dominated by **"firefighting" on unexpected issues** ▪ **Basic KPIs/**performance management processes	▪ **Structured sourcing** and contract negotiations ▪ **Effective program integrity/** performance management ▪ Management of **complex categories** ▪ Established path to **program-wide payment innovation**	▪ **Performance-based partnerships** ▪ **Advanced analytics** to improve quality and efficiency ▪ **Active management** across MCO portfolio ▪ Partner to address **non-core Medicaid policy goals**

- **The scope of services covered under managed care for children, parents, and pregnant women is narrower than that in many other states.** For the managed care population, most prescription drugs and certain behavioral health services are carved out.[167] A significant majority of managed care states include pharmacy benefits in their managed care contracts (though different approaches exist to managing rebates, formularies, and preferred drug lists), and a growing number include a comprehensive set of behavioral health services. In light of the increasing emphasis on the need to integrate physical and behavioral health services (including substance use), many states have decided that a coordination barrier between physical and behavioral health may hamper the realization of optimal outcomes for patients. Carving in these services can create additional value (in efficiency, quality, and experience) through integrated care management across a more comprehensive continuum of services for covered participants. In addition, moving to value-based payment may also be facilitated by carving in these services as MCOs would otherwise have different incentives than VBP providers in making drug or behavioral health treatment choices.

- **The state could consider including (a portion of) the ABD population in managed care.** In Missouri, the Medicaid ABD populations remain in traditional (FFS) Medicaid. While the multiple improvements to efficiency, quality of care and outcomes discussed in the preceding sections (e.g., care management, rebalancing of the LTSS system, reimbursement based on quality and outcomes) could be achieved through multiple models, managed care represents one potential approach to support these efforts. A transition to managed care could be accomplished through a Medicaid managed care model that includes only the Medicaid benefits for dual or non-dual eligible ABD beneficiaries and/or through one of the several available models for integrating Medicare and Medicaid benefits. Recent guidance from CMS has signaled a renewed focus on programs that integrate Medicare and Medicaid benefits.[168] As shown in Exhibit 38, a majority of states now include at least part of this population in managed care.[169] This may be due to a belief that managed care models present opportunities to improve care management and thus improve quality, outcomes and experience for this population, while increasing the efficiency of the program by better managing medical cost trends over time. While the body of empirical evidence across states to support these claims remains nascent, several studies that have focused on specific subsegments of the ABD population (e.g., LTSS recipients or participants with high behavioral health needs) have shown evidence of the potential for well-designed and implemented managed care programs to improve program performance.[170]

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[167] Missouri DSS: see note 166.

[168] Medicaid.gov, "Ten Opportunities to Better Serve Individuals Dually Eligible for Medicaid and Medicare," 2018, see: www.medicaid.gov/federal-policy-guidance/downloads/smd18012.pdf.

[169] McKinsey, "Next-generation contracting: Managed Medicaid for individuals with special or supportive care needs," 2016, see: healthcare.mckinsey.com/next-generation-contracting-managed-medicaid-individuals-special-or-supportive-care-needs.

[170] McKinsey: see note 169; McKinsey, "Improving care delivery to individuals with special or supportive care needs," 2016, see: healthcare.mckinsey.com/improving-care-delivery-individuals-special-or-supportive-care-needs.

EXHIBIT 38: MANAGED CARE FOR SPECIAL OR SUPPORTIVE CARE NEEDS[171]
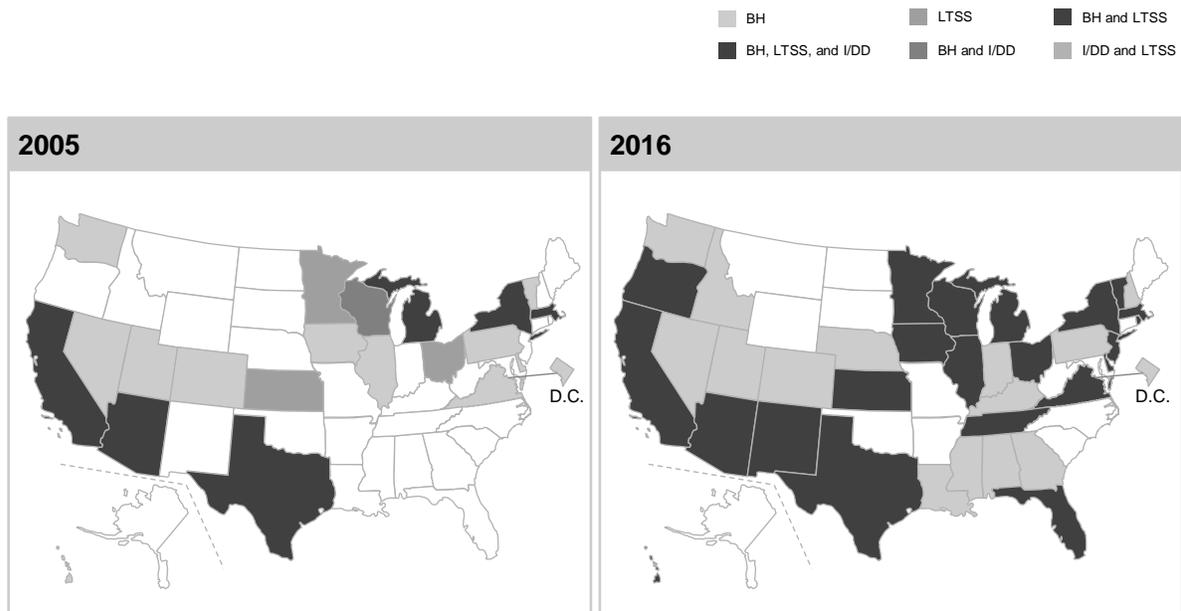
Potential initiatives

Based on a review of Missouri's current approach, interviews with functional leaders and subject matter experts within the relevant departments, and analysis of other states' activities, this section has identified 12 potential initiatives Missouri could consider to improve managed care in the state. The total potential impact across these initiatives ranges from $175 million to $300 million, which may include the savings from the LTSS section depending on whether the state fully carves in services for the ABD population

1. **Incorporate additional efficiency measures into the managed care rate-setting process.** Three efficiency adjustments have been put into place in the current managed care rate-setting methodology: 1) removing claims for potentially preventable inpatient admissions, 2) removing emergency department claims that could have been avoided, and 3) conducting an overall adjustment for risk-adjusted efficiency. These efficiency adjustments can be continued. In addition, there are several other efficiency adjustments available that have not yet been employed, covering spending areas such as short-stay admissions, readmissions and maternity care (e.g., inpatient stays that could have been avoided with better outpatient care). These additional adjustments would need to be examined for potential overlap with the adjustments current in place (e.g., risk-adjusted efficiency, a more broad-based adjustment, may already capture some of the value that could be captured through new adjustments), but they have the potential to create additional cost savings for the program.

2. **Implement stop-loss provision and combine small rate cells.** The current rate structure contains several small but high-cost, potentially volatile rate cells (e.g., a rate cell for participants in neonatal intensive care units). The state could consider implementing a stop-loss provision and combining smaller, more volatile rate cells with larger, more stable ones.

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171 McKinsey: see note 169.

This could increase the predictability of state outlays for managed care capitation payments and simplify administration of the rate structure.

3. **Expand day one managed care eligibility and passive enrollment to additional populations.** Day one MCO eligibility and passive enrollment could be expanded beyond foster children to additional populations. Passive enrollment, while still allowing participants to choose or switch MCOs as required by federal regulations, can streamline participant transitions, increase access to care management for participants by requiring it at the time of Medicaid enrollment, and reduce the burden on the FFS system.

4. **Further specify contract provisions regarding key operational processes and timelines.** Contract requirements laying out the process and required decision timelines for prior authorization, provider payment, and resolution of grievances and appeals could be clarified and strengthened. In addition, program integrity language can be further elaborated to set expectations and clarify roles between the state and MCOs for eliminating overpayments due to fraud, waste, and abuse. These improvements to the MCO contract could remove ambiguity and improve MCO performance and the state's ability to monitor and manage MCO performance against these requirements.

5. **Clarify and strengthen care management requirements.** The state could enhance care management requirements by adding specificity around risk stratification and participant identification, the proportion of participants to receive care management, case load standards for care managers, and/or care management activity requirements for MCOs. The state could consider further clarifying expectations for MCOs to collaborate and/or formally delegate care management requirements to health homes or other care management entities. This could ensure clarity of roles and prevent against payment by the state for duplicative care management efforts by multiple parties (e.g., MCOs and health homes).

6. **Clarify and strengthen incentive programs and programs intended to encourage adoption of value-based payment.** The state could engage in a focused effort to collaborate with and manage MCOs in designing and rolling out member incentives, provider incentives, and LCCCP programs. Depending on the choices the state makes in its approach to value-based payment, it could incentivize or require MCOs to align or integrate their efforts with the state's strategy and include definitions for Alternative Payment Models in MCO contracts and/or performance management.

7. **Deploy additional levers to incentivize MCO performance on key metrics.** In addition to the revisions to the withhold program currently underway, the state can consider additional levers such as MCO prioritization in the auto-assignment algorithm based on performance, pooled rewards, bonuses, or public report cards. Expanding the levers in use can enable the state to incentivize performance across a broader set of metrics covering operational performance, quality, and healthcare value (e.g., encounter data submission, member/provider incentive program participation, LCCP or VBP program participation, care management). If the state were to prioritize improving data submission, it would need to ensure that remaining obstacles in the state's encounter data intake process are resolved.

8. **Optimize financial penalties to better regulate MCO performance on key metrics.** The state could revisit the structure and magnitude of the sanctions and liquidated damages set forth in the contract to ensure their efficacy. The state could also more clearly communicate to MCOs which areas of performance will be most closely monitored in a given time period.

9. **Streamline MCO reporting requirements and improve accuracy and timeliness of information reported by MCOs; establish cadence for performance management**

dialogues. Accuracy and timeliness of information reported by MCOs could be improved to enable more informed, focused performance management discussions. This could include further streamlining of MCO reporting requirements, shifting from a focus on processes to outcomes based on collaboration between MHD and each of the MCOs. A cadence for performance management dialogues between the state and MCOs could be established along with clear priorities and expectations for the topics to be covered in each discussion.

10. **Carve in additional services to managed care for the current managed care population.** The scope of services covered under managed care for the current managed care population could be broadened to include pharmacy benefits and additional behavioral health services (e.g., those under DMH-administered programs). Including these services could enhance the MCOs' ability to manage the overall health and total cost of care for the managed care population as well as VBP programs, which could help improve quality, outcomes, and participant experience while increasing program efficiency.

11. **Transition to a single-MCO model with specialized capabilities for the foster care population.** The structure of the managed care program for children in foster care or in subsidized, post-adoption, or guardianship programs could be modified to place this population into a single MCO offering specialized capabilities, experience and expertise with this population, potentially procured through a more tailored procurement process. This could avoid the sometimes-fragmented nature of current services for this vulnerable population, ensure the application of focused expertise and experience within one MCO and optimally leverage its infrastructure to meet this population's needs. Relying on the expertise of one MCO may also improve the ability of the state to conform to the regulatory requirements associated with serving this population (e.g. the management of psychotropics).

12. **Expand the scope of the managed care program to include the ABD population (in whole, in part, or on a phase-in basis).** Expanding managed care to portions of the ABD population represents one potential approach to achieving the improvements to efficiency, quality of care, and outcomes discussed in the preceding sections, among alternatives such as improved state-led care management programs or meaningful adoption of alternative payment models. Expanding managed care to this population would likely require statutory change and could take many forms given the heterogeneity of the ABD population and the services required by its various subpopulations. In general, MCO capabilities in serving the ABD population – and state experience in operating managed care programs for this population – vary widely by subsegment of the population and associated services. Managed care programs covering the core medical, behavioral, LTSS, and pharmacy benefits of non-dual eligible ABD participants are becoming increasingly common, as are managed care programs focused on covering the LTSS services for dual-eligible beneficiaries. Meanwhile, managed care programs for persons with intellectual and/or developmental disabilities (whether residing in an institutional setting or on an HCBS waiver) remain relatively rare. Any potential consideration of managed care for the ABD population may take into consideration the diverse and nuanced characteristics and needs of the various subsegments of this population. Finally, through enrolling elderly and/or dually eligible participants with disabilities in Medicaid managed care plans, the state could take advantage of the increased opportunities recently provided by CMS to improve integrated care for dually eligible populations through, for example, Dual Eligible Special Needs Plans (D-SNPs) or Medicare Advantage Medicare-Medicaid Plans (MMPs).[172]

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[172] Medicaid.gov: see note 168.

PROGRAM INTEGRITY

To maintain the functional integrity of the state's Medicaid organization, Missouri has divisions that prevent fraud, waste, and abuse (FWA) and ensure proper payments. Fraud, waste, and abuse detection and prevention are largely the responsibility of Missouri Medicaid Audit and Compliance (MMAC) and the Welfare Investigations Unit (WIU), but multiple other agencies within DSS conduct or enable investigations or enforcement. The WIU is responsible for preventing participant fraud, while MMAC is responsible for enrolling, auditing, investigating, and sanctioning providers.

The Cost Recovery Unit administers cost avoidance and a recovery program to offset expenditures for the state Medicaid agency. This unit ensures that appropriate third-party resources (including but not limited to Medicare, commercial insurers, workers' compensation, probate-estate recoveries, and others) are utilized as the primary source of payment prior to the state paying for services. Enrollment of eligible participants into Medicare is especially important for the state as this population typically has more limitations of average daily living, poorer health, and higher medical expenditures.

When combined, the potential initiatives could save $65 million to $100 million or more, net of recurring investments, depending on decisions made by the state.[173] Potential initiatives include enhancing the quality and quantity of FWA claims-based analytics, increasing coordination between MMAC and relevant internal and external stakeholders, optimizing the identification and enrollment of Medicare-eligible participants, and improving the implementation of certain pre-payment edits.

Current situation

This section provides an overview of Missouri's current FWA organizational structure and functionality, third-party liability (TPL) identification, Medicare Buy-In, and estate recoveries.

Organizational structure and functionality

There are multiple divisions responsible for conducting investigations or performing compliance duties within the state. These divisions include Missouri Medicaid Audit and Compliance (MMAC), the Division of Legal Services (which includes the Welfare Investigations Unit [WIU] and the General Assignment Unit), Family Support Division, Division of Youth Services, Children's Division, and the Division of Finance & Administrative Services.

Missouri handles Medicaid participant fraud through the WIU. WIU deters participant fraud, prosecutes offenders, and collects money lost to the state because of fraud. The WIU currently has 18 investigators.

Missouri handles provider fraud and abuse through MMAC. In SFY2018, MMAC produced about $40 million in savings for the state.[174] MMAC is responsible for enrolling, auditing, investigating, and sanctioning providers. MMAC is currently appropriated 76.5 FTEs, including twenty-nine FTEs dedicated to provider audits and participant lock-in and eight investigators. MMAC works with an analytics vendor and the CMS Unified Program Integrity Contractor to identify opportunities to improve program integrity. Through its investigations, MMAC provides feedback to the policy teams within MHD, another unit within DSS.

TPL identification

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[173] Analysis of Missouri Medicaid claims data, SFY2016-18; interviews with Medicaid program staff members.

[174] Analysis of state data, 2018; interviews with Medicaid program staff members.

TPL information is obtained at the time a participant is enrolled. Family Support Division (FSD) specialists obtain TPL information primarily during the MHD eligibility determination process. Supplementing this initial contact are data matches with both private and public entities, edits within the claims processing system, direct inquiries to participants, non-custodial parents and other potential liable parties. MHD uses a vendor to perform data matches between participant claims' data and external sources of third-party coverage.

TPL identification for participants enrolled into MCOs is the responsibility of the MCO. CMS recommends states use one of four options to ensure that they meet the coordination/TPL requirements: (1) exclude individuals with known sources of TPL from enrollment in MCOs; (2) enroll individuals with known sources of TPL in MCOs, with the state retaining responsibility for COB/TPL; (3) enroll individuals with known sources of TPL in MCOs and contractually require that the MCO assume responsibility for COB/TPL; or (4) exclude individuals with commercial managed care coverage from enrollment in MCOs but enroll individuals with other types of third party coverage in the MCOs.[175] Missouri uses the third option, and as such, MCOs act as agents for the state for coordination of benefits and third-party reimbursement in the following circumstances: workers' compensation, tortfeasors, motorist insurance, and liability/casualty insurance. The state's MCOs are required to report their identified savings and the future capitation payments are adjusted accordingly.

Dual enrollment and Medicare Buy-In

Missouri is one of nine 209(b) states. At least one of Missouri's income eligibility criterion is more restrictive than the SSI program, thus making it one of nine states that are considered 209(b) states (see Exhibit 39).[176] States that elected this option may not use more restrictive standards than those in effect in January 1, 1972, and must provide for deductions of incurred medical expenses from income through Medicaid spenddown so that individuals may reduce their income to the income eligibility level. As a result of being a 209(b), the participant enrollment process is separate from the SSD/I determination.
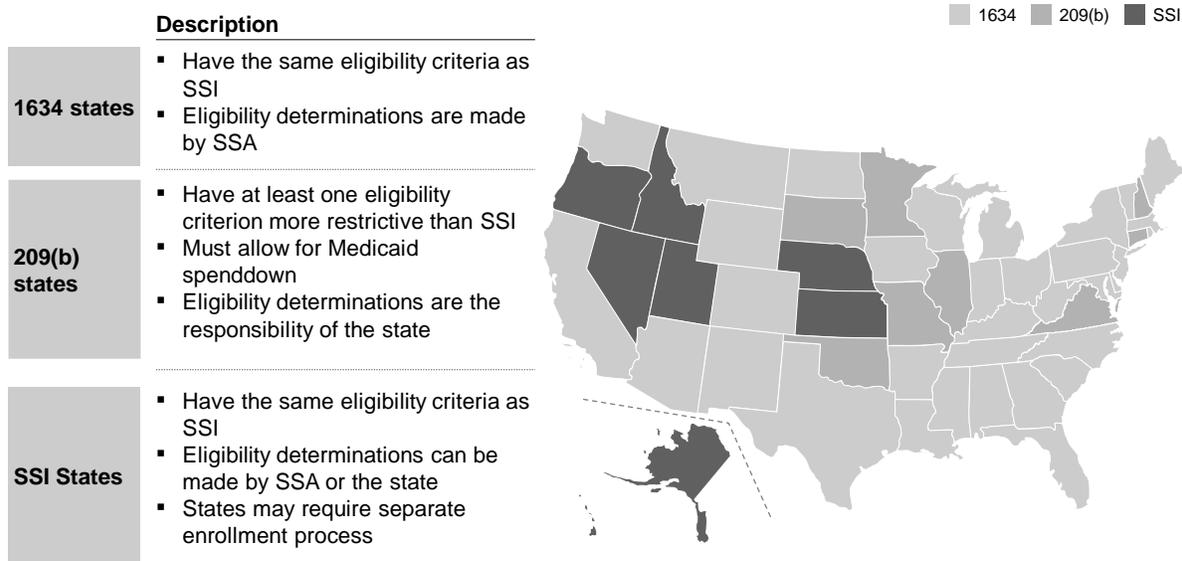
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[175] Medicaid.gov, "Medicaid Third Party Liability & Coordination of Benefits," see: www.medicaid.gov/medicaid/eligibility/tpl-cob/index.html.

[176] Social Security Administration, "SI 01715.020 List of State Medicaid Programs for the Aged, Blind and Disabled," 2016, see: secure.ssa.gov/poms.nsf/lnx/0501715020.

EXHIBIT 39: MEDICAID-SOCIAL SECURITY ELIGIBILITY AND ENROLLMENT[177]

There are three classifications for states' eligibility and Medicaid enrollment

State by state eligibility determination classification

	Description
1634 states	▪ Have the same eligibility criteria as SSI ▪ Eligibility determinations are made by SSA
209(b) states	▪ Have at least one eligibility criterion more restrictive than SSI ▪ Must allow for Medicaid spenddown ▪ Eligibility determinations are the responsibility of the state
SSI States	▪ Have the same eligibility criteria as SSI ▪ Eligibility determinations can be made by SSA or the state ▪ States may require separate enrollment process

Missouri identifies Medicare leads through three main sources. As a cost-saving measure, Medicare premiums are paid for participants of Old Age Assistance, Permanently and Totally Disabled, Aid to the Blind, Temporary Assistance for Needy Families, Specified Low Income Medicare Beneficiary, and Qualified Medicare Beneficiary programs who meet the criteria for Medicare coverage. Staff verifies Medicare leads through reports produced from files sent by CMS, the Social Security Administration, or the TPL/Medicare contractor through a data match.[178] In addition, the state has a policy that mandates participants apply for Medicaid, and they must also apply for Medicare.

Estate recoveries

Missouri identifies estate recoveries through data matches from various organizations. The state uses data from the DHSS' Vital Statistics, FSD county office staff, and cooperation of other public and private groups. When cases are established, TPL staff verifies expenditure documentation and assembles data for evidence. The TPL staff appears in court to testify on behalf of the state and to explain MHD policies and procedures.

Potential opportunities for improvement

This section identifies potential opportunities to strengthen the state Medicaid agency's program integrity. When compared to common practices in other states, the following observations can be made:

- **Improved coordination across multiple agencies could help improve fraud, waste, and abuse (FWA) efforts.** Each division may have its own computer system, eligibility criteria, provider and participant enrollment service authorizations, service delivery, payments, audits, investigations, and compliance functions. In addition, divisions with

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[177] Social Security Administration: see note 176.

[178] Missouri DSS, "Third Party Liability," see: dss.mo.gov/mhd/general/pages/about.htm#tpl.

primary fraud and abuse functions are dependent on staff within the other divisions to detect potential fraud or abuse situations and make a referral in an acceptable format with supporting documentation (see Exhibit 40). However, MHD has recently established an interdisciplinary taskforce to improve coordination of FWA activities.

EXHIBIT 40: DIVISIONS INVOLVED IN FWA EFFORTS AND ASSOCIATED CHALLENGES

Numerous divisions within DSS either conduct FWA tasks or enable other divisions to do so
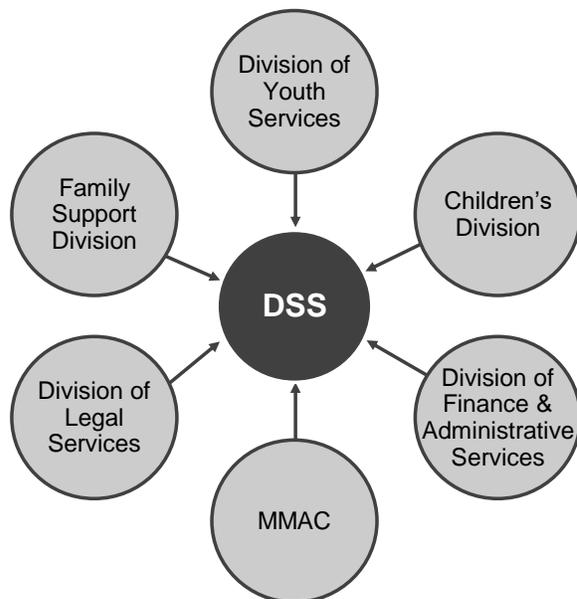
Challenges with this model

- Each division may use unique software and databases for determining:
  – Eligibility
  – Provider and participant enrollment
  – Service authorizations
  – Service delivery
  – Payments, audits
  – Investigations
  – Compliance functions

- Divisions with primary fraud and abuse functions are dependent upon staff within the other divisions to recognize a situation could be fraud or abuse and make a referral in an acceptable format with their supporting documentation

- Ability to work with data across divisions

- **MMAC could increase collaboration with relevant clinical policy teams.** A closed-loop communication system between FWA and clinical policy teams – meaning whenever FWA is identified, the situation is communicated to the clinical staff – could help shape corresponding policy changes in a timely fashion. This might also require additional capacity within the clinical policy teams.

- **The analytical capacity and capability, and the range of FWA concepts tested in Missouri could be increased in line with other Medicaid programs and commercial plans**. The internal analytics function – currently two FTEs – could benefit from additional capacity. MMAC's analytics vendor currently tests for between 25 to 40 program integrity opportunity areas; this funnel could be greatly expanded using a prioritized subset of opportunity concepts adopted by other programs.

- **Ensuring access to a larger set of higher quality data could improve Program Integrity (PI) performance.** MHD current faces challenges in the quality of MCO encounter data as well as some aspects of FFS data. Approaches to improve this data quality are described in other parts of this document. In addition, MHD could work with CMS to access other data sources directly (e.g., Medicare claims) that might be helpful in PI opportunity identification.

- **The state's enrollment of dual-eligible participants into Medicare is lower than historic state and national averages**. In SFY2013, 16% of Missouri's participants were

dually enrolled in Medicare and Medicaid, which was consistent with the national average at the time. In SFY2018, the state's dual-eligible enrollment as a percentage of total participants was 14.5% (see Exhibit 41).[179] The decrease in dual enrollment appears to be more prominent in the disabled population that is less than 65 years of age.

EXHIBIT 41: CHANGES IN DUAL ENROLLMENT AS PERCENTAGE OF TOTAL MEDICAID ENROLLMENT

Duals as a percent of total enrollment in SFY2013

Since SFY2013, dual-enrollment has fallen to 14.5% of the total population

Lowest Quartile　2nd Quartile　3rd Quartile　Highest Quartile

US average: 16%

SFY2015	SFY2016	SFY2017	SFY2018
15.1	14.7	14.0	14.5
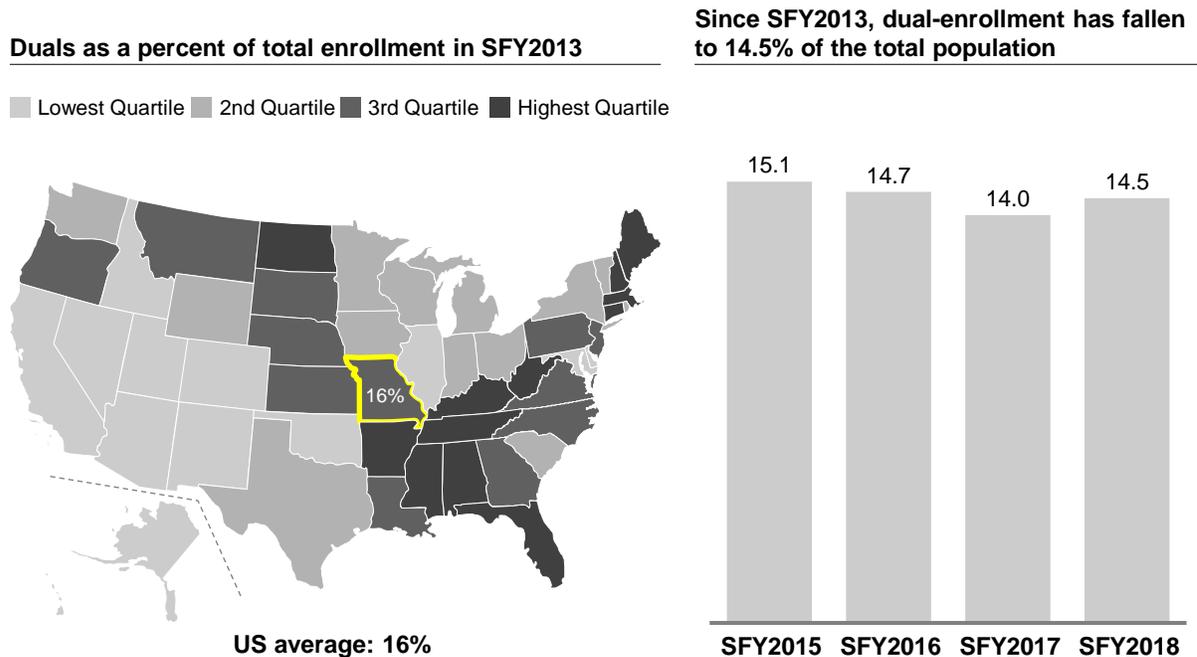
- **Missouri could increase the number of sources it currently uses for TPL identification**. Other state Medicaid agencies and CMS have pharmacy claims databases to identify primary payors. Using pharmacy claims databases typically allows states to identify an additional cohort of participants who have TPL at a faster rate because of the faster typical timing of pharmacy claims.

Potential Initiatives

Based on review of Missouri's current approach, interviews with functional leaders and subject matter experts, and analysis of other states' activities, this section includes five potential initiatives Missouri could consider improving program integrity. In total, the financial impact of Program Integrity initiatives could range from $65 million to $100 million, depending on state choices.

1. **Expanding the national correct coding initiatives (NCCI) coding edits that the state has in place.** CMS developed the National Correct Coding Initiative to promote national correct coding methodologies and to control improper coding leading to inappropriate payment in claims. There are two broad classifications of NCCI edits: Procedure-to-Procedure edits, which prevent improper payment when incorrect code combinations are

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[179] KFF, "Dual Eligibles as a Percent of Total Medicaid Beneficiaries," 2013, see: www.kff.org/medicaid/state-indicator/duals-as-a-of-medicaid-beneficiaries; analysis of Missouri Medicaid claims data, SFY2016-18; interviews with Medicaid program staff members.

reported, and Medically Unlikely edits, which prevent improper payments when services are reported with incorrect units of service. Missouri has implemented some of these edits but has not implemented the full suite of edits. This initiative would require changes to the MMIS system to implement the full suite of codes, among other requirements.

2. **Create an experimental, investigation, and unproven (EIU) medical procedure policy to prevent improper payments.** This agency policy would identify devices or procedures that have not been proven to be medically effective. This initiative would require the state's clinical staff to identify these procedures and review the procedure on annual basis. Additionally, the initiative would require feasible changes to the MMIS system.

3. **Expand the analytical funnel to identify additional improper payments that can be prevented using claims edits and pre-pay changes or can result in recoveries.** As an example, for given procedure codes, Missouri has set billing limits that the state only reimburses hospital observation stays for up to 24 hours. The state could ensure that the claims system is preventing payment for procedures after the allotted 24-hour period. Opportunities that take the form of edits would require feasible changes to the MMIS system.

4. **Optimize the state's ability to identify and enroll participants who are currently and may become Medicare eligible.** The state could implement (either internally or through a vendor) new claims-based technology that would allow the state to identify participants who are currently Medicare-eligible or may become eligible. Missouri staff could then help notify participants about this benefit. This would require medium-complexity changes to the MMIS system and potentially a new vendor.

5. **Improve TPL identification.** Missouri could begin to utilize additional sources (e.g., pharmacy claims data) to increase TPL identification rate. To do this, the state could contract with a vendor that would add additional sources of data.

FEDERAL FINANCING

Missouri has captured a significant share of the federal funding it is eligible for, but there may be additional opportunities to capture federal revenue through new federal programs, both through grants and enhanced match. The state also could consider evaluating the use of inter-governmental transfers (IGT) as an alternative or supplemental financing approach. The total federal financing opportunity is expected to be $10 million to $20 million in grant funding and additional enhanced match.[180]

This section will describe the current state of federal financing in Missouri, observed opportunities for improvement, and potential initiatives for the state to consider.

Current situation

Overall Medicaid spending across departments

Medicaid spend represents over 80% of the budget for DSS and approximately two-thirds of the budget for DHSS and DMH (see Exhibit 42).[181] The largest areas of Medicaid spending include managed care, pharmacy reimbursement, hospital and nursing facility reimbursement, physician reimbursement, and community programs. Nearly all these funds receive some form of federal match based on the category of spending (see Exhibit 43). Federal funds represent approximately 65% of the total spending across top Medicaid spending categories.

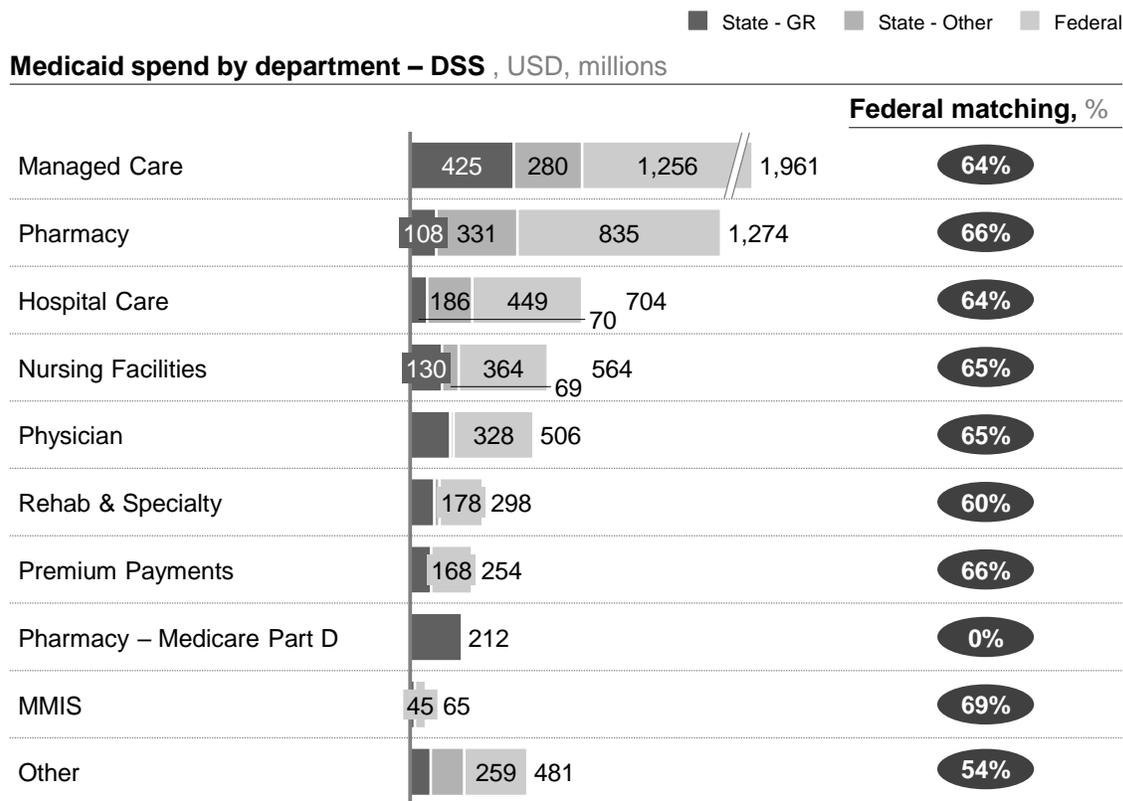EXHIBIT 42: MEDICAID SPENDING BY DEPARTMENT

Total Medicaid spend and department budget appropriation, SFY2018, USD, millions

	Medicaid	Non-Medicaid	
DSS	85%	15%	9,324
DMH	68%	32%	2,158
DHSS	66%	34%	1,413

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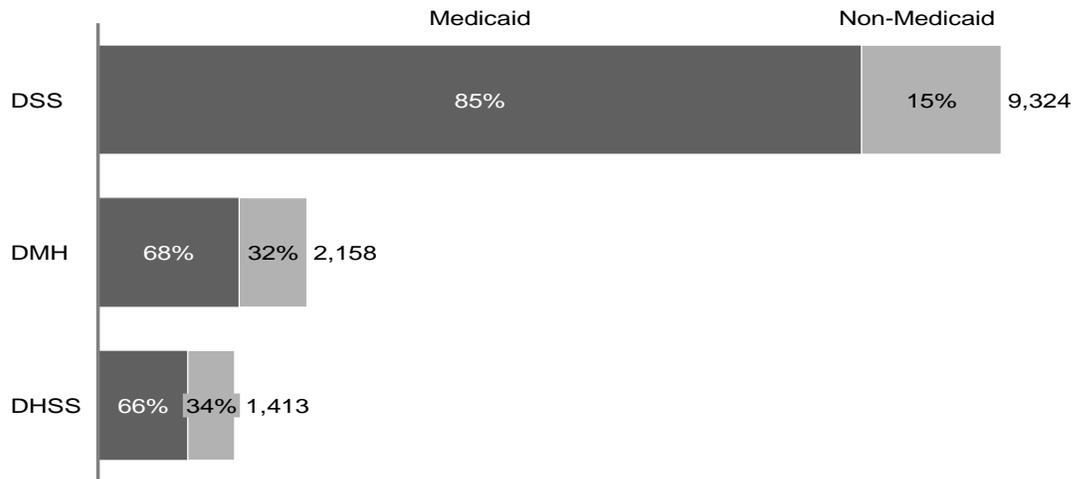
[180] U.S. Congress, "H.R.6- SUPPORT for Patients and Communities Act," 2018, see: www.congress.gov/bill/115th-congress/house-bill/6; CMS, "Maternal Opioid Misuse (MOM) Model," 2018, see: www.cms.gov/sites/drupal/files/2018-10/10-23-2018%20Fact%20Sheet%20Maternal%20Opioid%20Misuse%20%28MOM%29%20Model%20%28FINAL%29.pdf; CMS, "Integrated Care for Kids (InCK) Model," 2018, see: www.cms.gov/newsroom/fact-sheets/integrated-care-kids-inck-model.

[181] SFY2018 available appropriations: Office of Administration, "Fiscal Year 2019 Budget Priorities," 2019, see: oa.mo.gov/sites/default/files/FY_2019_Budget_Summary.pdf; Medicaid spend: Missouri DSS, see note 1.

EXHIBIT 43: DSS MEDICAID SPENDING[182]

■ State - GR   ■ State - Other   ■ Federal

Medicaid spend by department – DSS , USD, millions

		Federal matching, %
Managed Care	425	280	1,256	1,961	**64%**
Pharmacy	108	331	835	1,274	**66%**
Hospital Care	186	449	70	704	**64%**
Nursing Facilities	130	364	69	564	**65%**
Physician	328	506	**65%**
Rehab & Specialty	178	298	**60%**
Premium Payments	168	254	**66%**
Pharmacy – Medicare Part D	212	**0%**
MMIS	45	65	**69%**
Other	259	481	**54%**

Unmatched spending across departments

In DSS, only a handful of narrow categories do not receive federal funds. Some examples of these categories are Medicare buy-in, through which the state helps pay Medicare premiums for Medicare Part A and Part B for qualified individuals; state-only assistance, which includes social services block grants; Temporary Assistance for Needy Families (TANF) grants; and State General Fund. In addition, DHSS and DMH have more categories of unmatched spending, although the value of unmatched dollars is a small percentage of the total spending across the departments. Within DHSS, there could be potential to receive additional match for Alzheimer's services and communicable diseases, and within DMH, opportunity exists in autism spending, crisis intervention services (24-hour hotline and mobile outreach for psychiatric patients, although only outreach could be eligible for match), and some emergency room enhancements (ERE).

Other state funds

Provider taxes contribute $1.4 billion to the state Medicaid program, of which $1.1 billion is derived from hospital taxes and $0.3 billion from nursing homes and pharmacies. The hospital tax (>5.5%) and nursing home tax ($13.40 per patient day) rates are both high compared to other states.[183] The use of intergovernmental transfers (IGTs) is limited.

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[182] Office of Administration and Missouri DSS: see note 181; Missouri DSS, "MHD-FY 18 MMIS Expenditures Final 8-13-18," 2018; interviews with Medicaid program staff members.

[183] Missouri DSS, see note 11.

Potential opportunities for improvement

This section identifies potential opportunities to improve Missouri's current approach to federal financing. The opportunities are not intended to be mutually exclusive: potential savings identified in individual opportunities may overlap with those identified in others.

- **Missouri could consider leveraging new federal programs that provide federal funding for innovative Substance Use Disorder/Opioid Use Disorder (SUD/OUD) and behavioral health models.** A variety of new funding opportunities have recently been made available to states, including CMMI grants for the design of alternative payment models, guidance from CMS on additional demonstration opportunities that grant increased flexibility in how Medicaid funds are used, and the wide-ranging funds made available to a variety of agencies through the SUPPORT for Patients and Communities Act (SUPPORT Act). Exhibit 44 contains a breakdown of different sources of non-federal funds for Medicaid payments.

EXHIBIT 44: SHARE OF NON-FEDERAL FUNDS FROM DIFFERENT SOURCES[184]
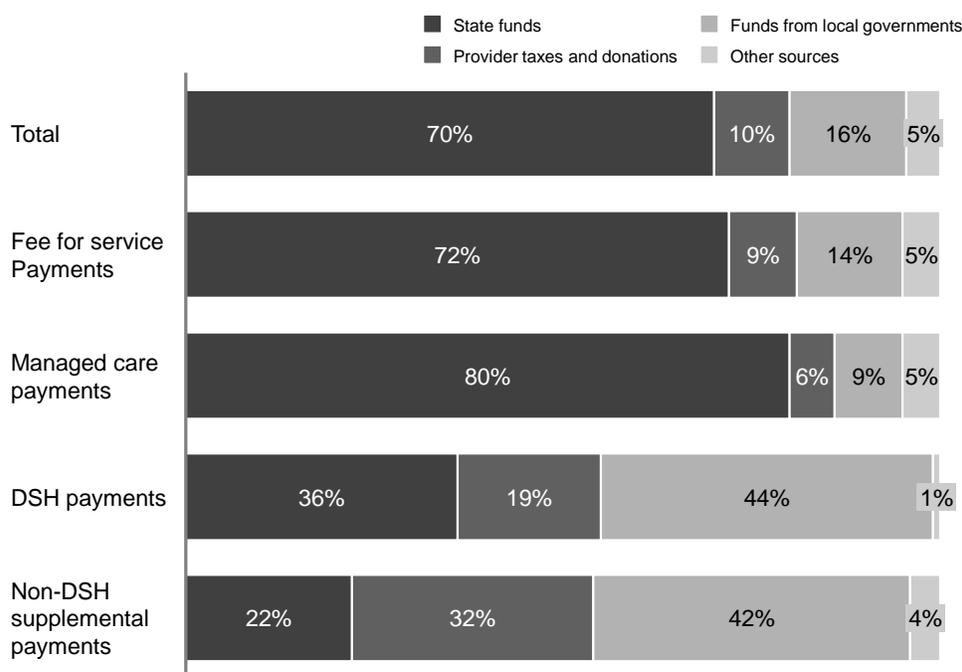
Potential initiatives

The state could consider several potential initiatives to improve its federal financing. The total opportunity could be $10 million to $20 million in grant funding and additional enhanced match, depending on decisions made by the state.[185] These initiatives address overlapping populations and provide different types of funding (grants, enhanced match, regular match for new sets of services). The state could consider strategically combining initiatives to maximize efficiency and

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[184] MACPAC, "The Impact of State Approaches to Medicaid Financing on Federal Medicaid Spending," 2017, see: www.macpac.gov/wp-content/uploads/2017/07/The-Impact-of-State-Approaches-to-Medicaid-Financing-on-Federal-Medicaid-Spending.pdf.

[185] U.S. Congress, CMS: see note 180.

generate funding to support the design, development, and implementation of the models as well as the associated care delivery costs.

1. **Access enhanced match by strengthening SUD focus in health homes.** While Missouri has exhausted the eight quarters of enhanced match for the health home program, the SUPPORT Act allows for the creation of a new SUD-focused SPA that would cover 10 quarters of enhanced match for individuals with SUD not previously covered under a health home. There are three groups of individuals whom the state could potentially consider as part of a new SUD-focused SPA: (a) participants with SUD who meet the existing health home criteria but were never successfully engaged (e.g., no payment occurred for those participants); (b) participants with SUD who are newly eligible and meet the existing health home criteria; and (c) participants who are not eligible under the current criteria but would be eligible if the state created additional eligibility pathways for the SUD population (e.g., making receipt of MAT a qualifying factor, creating an eligibility pathway for pregnant women with OUD). The state would need to meet reporting requirements outlined in the SUPPORT Act (e.g., quality of care reporting, reporting of costs of individuals in health homes).[186]

2. **Pursue a State Plan Amendment to access federal funds for SUD services provided in IMDs.** Missouri may be able to leverage the Amendment to the IMD Exclusion to use federal funds to pay for treatment services in residential settings that qualify as IMDs. To access the funds, Missouri would need to design a program emphasizing quality and value. Missouri could consider working with CMS to develop a State Plan Amendment (SPA) initiating the program; this SPA could potentially be effective as early as October 1, 2019. As the services currently are not provided, this initiative would be an investment which the state could consider as part of a value-based program, for example, to reduce total cost of SUD care.

3. **Apply for the Serious Mental Illness/Severe Emotional Disturbance (SMI/SED) demonstration through a Section 1115 Waiver.** The SMI/SED demonstration allows states to use federal funds to pay for treatment services in residential settings that qualify as IMDs for individuals with SMI/SED.[187] To access the funds, Missouri would need to design a program emphasizing quality and value that meets budget neutrality requirements for a Section 1115 Waiver. Missouri would be expected to achieve a statewide average length of stay of 30 days for participants receiving care in IMDs. Additional analysis would be required to understand the net budgetary impact of funding for SMI/SED services provided in IMDs.

4. **Apply for CMMI grant funding through the Maternal Opioid Misuse (MOM) and Integrated Care for Kids (InCK) Models.** The models provide states with federal funds to help the state fund programs to combat OUD in pregnant and postpartum Medicaid participants and improve behavioral health care for children up to 21 years.[188] MOM provides up to $64.5 million nationally for implementation, transition, and milestone funding distributed across up to 12 states; InCK provides $16 million[189]. The state could consider applying for these grants, which could be (but need not be) seen as two sides of the same coin. The Notices of Funding Opportunity (NOFO) for both programs are expected in early 2019; applications for funding are likely to be due early in 2019 and funds awarded in late 2019.

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[186] U.S. Congress: see note 180.

[187] U.S. DHHS, "Section 1115 Demonstration Process Improvements," 2017, see: www.medicaid.gov/federal-policy-guidance/downloads/cib110617.pdf.

[188] CMS, see note 180.

[189] CMS, see note 180.

MEDICAID MANAGEMENT INFORMATION SYSTEM (MMIS)

The current MMIS is a set of ~70 integrated components that plays a fundamental role in most of functions of the Missouri Medicaid program. Its "core" is a 1979 mainframe system, maintained and operated by Wipro; a set of additional components are maintained and operated by Conduent. Three main improvement opportunities were identified. First, while the level of spending on technology is not misaligned with the needs of a Medicaid system of Missouri's size, the functioning of the technology does not meet current or future needs. Its limited functionalities and the antiquated architecture underlie several of the program's performance challenges identified throughout this report. Second, there is an opportunity to increase alignment between program strategy and the Information Systems group's (IS) strategy. The current MMIS replacement plan does not include the specificity required to ensure that the forthcoming modules will meet future needs. Third, the IS group lacks the range of capabilities needed to ensure an MMIS replacement trajectory that will deliver that future functionality.

Within this context, the IS group has taken important steps, such as the creation of an outline of a strategic plan for modular replacement and the prioritization of an Enterprise Datawarehouse (EDW) and Business Intelligence System (BIS). However, the state could consider a concerted, integrated effort to set up the MMIS for success. A full end-to-end plan could further define the current roadmap for modular replacement based upon the functionalities most needed from the perspective of the future Medicaid program, including prioritization and specified use cases. If the state would decide to take such an approach, it could consider integrating strategic program priorities, operating models, capabilities, governance, and environment (e.g., procurement, FMAP) into the updated end-to-end plan.

Current situation

This section describes the MMIS, the in-flight initiatives and the plans for future improvements and its costs.

MMIS definition

MMIS includes the Core system operated by Wipro, the Clinical Management Services & System for Pharmacy Claims & Prior Authorization (CMSP), and the Program Integrity solution operated by Truven. The MMIS is not managed by the Information Technology Services Division (ITSD) of the Office of Administration but rather by MHD, with a few notable exceptions: Financial Cycles and Federal Financial Reporting is managed by Division of Finance and Administrative Services (DFAS), HCBS Assessment is managed by DHSS, and Provider Enrollment and Program Integrity is managed by MMAC. The Eligibility Determination systems (managed by Family Support Division [FSD], Division of Youth Services [DYS], and Children's Division [CD]) and Claims Pre-Processing and Adjudication (managed by DMH and DHSS) were excluded from the analysis.

The "MMIS" refers to a disparate range of technologies that are integrated. The components tend to be named for the function they support, and they can include staff or vendor staff activities associated with the technologies. There are also components that largely consist of (vendor) staff activities rather than technology, as when for example several components are managed by the same vendor. This broad definition can and does cause confusion in strategic and tactical discussions, where what "MMIS" means may vary amongst those involved.

Functional and Technical

Missouri's MMIS consists of a collection of technologies that include ~70 components supporting a broad range of administrative functions of the Missouri Medicaid Program. These

components are supported by three vendors. Wipro manages the core MMIS IBM mainframe-based system, programmed in COBOL (~7 million lines of code)[190], originally installed in 1979. Conduent manages the as-a-service CMSP system[191] which is heavily interconnected with the Core and supports Care Quality Solutions (inpatient certification, reporting, and provider web tool), Prescription Delivery (clinical decisions for claims processing and clinical edits), and the Health Information Exchange. Truven manages the current Program Integrity system[192] which is interconnected with the Wipro system.

Some of the components are managed by a single vendor while others have shared vendor responsibilities. Given the architecture and history of the system, many of the 'components' are not partitioned, distinct subsystems but may be highly intertwined within the COBOL code. To help the planning for future modular replacement, the Information Systems groups has classified the existing components into the below 11 functional categories.

1. Core Claims / Encounter Processing (administered by MHD): supports core Medicaid functions such as FFS claims processing, participant web portal, and financial management (e.g., calculation and transmission of payments, provider specific taxes and reimbursements, financial summaries). Wipro manages the majority of this functionality while some components are maintained by ITSD (Medicare buy-in and premium collections and spend down) and Conduent (participant web portal).

2. Pharmacy and Drug Rebate (administered by MHD), operated by both Conduent and Wipro. Pharmacy, clinical adjudication, and preferred drug list are operated by Conduent. These components include pharmacy functions such as managing participant pharmacy benefits, maintaining and applying the drug formulary, and performing pharmacy pre-certification. Wipro operates several functions including drug rebate processing and initial claims validation and pricing.

3. Pharmacy Administration (administered by MHD): primarily manages the drug formulary and setting supplemental drug rebate amounts. These services are operated primarily by Conduent.

4. Provider Enrollment (administered by MMAC): is responsible for enrolling, screening, and monitoring both FFS and managed care providers. It is maintained by Wipro, which subcontracts parts of this work to LexisNexis.

5. Managed Care Enrollment Broker (administered by MHD): these components are responsible for the enrollment of managed care participants in plans through a web portal, associated physical mailings, auto-assignment, and a contact center. The web portal and auto-assignment system are maintained by ITSD, while the contact centers and any physical mailings are operated by Wipro.

6. Contact centers (administered by MHD): supports both the provider relations, participant, and prior authorization contact centers. The provider contact center covers inquiries from providers around program policies, claim assistance, and claim processing instructions, while the participant contact center covers inquiries from participants about eligibility, spenddown, and covered services. The prior authorization contact centers support prior authorizations over the phone. The Contact centers category is operated by Wipro and includes the phone system and contact documentation software.

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[190] This system is hosted by Wipro in a data center in Omaha, NE.

[191] This system is hosted by Conduent in data centers in East Windsor, NJ; Sandy, UT; and Richmond, VA.

[192] This system is hosted by Truven in a private cloud.

7. <u>Data, Analytics, and Reporting</u> (administered by MHD): supports the Medicaid program's needs to access, analyze, and report on data stored in the MMIS. The current system is primarily focused on providing the required outputs to Transformed Medicaid Statistical Information System (T-MSIS)[193] federal financial reporting, and program reporting. Both Wipro and Conduent manage various analytics and reporting components, aligned with their business functions.

8. <u>Program Integrity</u> (administered by MMAC): supports the detection of potential Medicaid fraud, waste, and abuse (FWA) through the analysis of claims data. It is currently operated primarily by Truven Health Analytics and consists of Data Pro (which runs state-defined algorithms to detect possible FWA and provides ad hoc reporting) and Truven Advantage Suite (which provides dashboard reporting). Additionally, the surveillance and utilization review components are operated by Wipro.

9. <u>Health Information Network</u> (administered by MHD): covers the connection of MMIS to various Health Information Networks (HINs). The platform, maintained by Conduent, is in place but is currently not connected to any HINs, pending contract negotiations between the state and HIN(s).

10. <u>Prior Authorization</u> (administered by MHD): encompasses the automated PA system, the PA web portal, participant case management, and the processing of various prior authorizations. The web portal is operated exclusively by Conduent and the case management and prior authorization processing is handled by both Wipro and Conduent, with the exception of dental, physician, audiology, and out-of-state services, which are handled by Wipro.

11. <u>Ancillary / Supporting Services</u> (administered by MHD): these include cross-cutting components that support other components, such as printing and mailroom, help desks, and project management. These services may be shared across functions and vendors.

Current replacement plans

CMS has issued guidance for the replacement of MMIS, outlining the criteria for which states can be eligible for 90/10 federal match of MMIS replacement initiatives.[194] These guidelines emphasize a modular approach to the acquisition of MMIS modules to encourage reuse, reduce the need for customization, stimulate and expand the vendor landscape, grow adoption of shared services, and reduce overall MMIS cost. To meet the CMS criteria, the 11 categories outlined above are identified as the modules in which Missouri has organized the ~70 functions of its current MMIS.

As an overall business strategy for the Missouri Medicaid program is not clearly defined and integrated with IS' plans, the detailed three- to five-year end-to-end approach for MMIS modular replacement (e.g., the timing and requirements for specific modules beyond currently planned initiatives) has not yet been fully determined.

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[193] T-MSIS is a data set that CMS requires states to submit which includes data such as: utilization and claims data, enhanced information on beneficiary eligibility, managed care data, and Medicaid and CHIP expenditure data, see: www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html.

[194] CMS, "Mechanized Claims Processing and Information Retrieval Systems-Enhanced Funding," 2016, see: www.medicaid.gov/federal-policy-guidance/downloads/smd16004.pdf; CMS, "Mechanized Claims Processing and Information Retrieval Systems – APD Requirements," 2016, see: www.medicaid.gov/federal-policy-guidance/downloads/smd16009.pdf; CMS, "CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems – Modularity," 2016, see www.medicaid.gov/federal-policy-guidance/downloads/smd16010.pdf.

The state has started the replacement process with two modules identified as priorities. CMS has approved the Advance Planning Documents (IAPDs) and contracts have been awarded in April/September 2018 for a Program Integrity solution and a Business Intelligence Solution/Enterprise Data Warehouse (BIS/EDW). To support a Medicaid transformation effort, providing access to MMIS data in a timely and efficient way is considered important. The BIS/EDW, therefore, is considered a foundational module[195]. The Program Integrity solution has been contracted to replace current functionality and facilitate incremental improvements.

Cost

Total SFY2019 projected MMIS spending is $85 million, comprised mainly by two main contractors: Wipro and Conduent ($51 million [60%] and $17 million [20%], respectively).[196] IS project spending is set to increase from $65 million (SFY2018) to $93 million (SFY2020)[197], driven primarily by net-new spending, such as Truven spending on BIS/EDW and PI (the start of the modular replacement), a managed care pilot, T-MSIS, Health Information Network connection, Electronic Health Records, and HCBS support. Current system costs for MMIS and CMSP remain stable. Projected MMIS spending from SFY2018-SFY2020, by vendor, by funding source, and by spend type is shown in Exhibit 45.

The SFY2019 weighted average federal match is 73%, up from 69% in SFY2018, and it is projected to increase to 75% in SFY2020, driven by increased match on implementing new MMIS modules.[198] In SFY2019, this is projected to split into 90% match for design, development, and implementation activities (DD&I) ($20 million, or 24% of total); 75% match for maintenance and operations activities (M&O) ($48 million, or 56% of total), and 50% match for administrative activities ($17 million, or 20% of total). When the implementation activities have been completed, funding for components will shift to 75/25. Overall spending on these items is expected to decrease as the activities shift from DD&I to M&O. From SFY2018-SFY2020, administrative costs are projected to remain stable, thus decreasing as percentage of total cost as total cost increases.
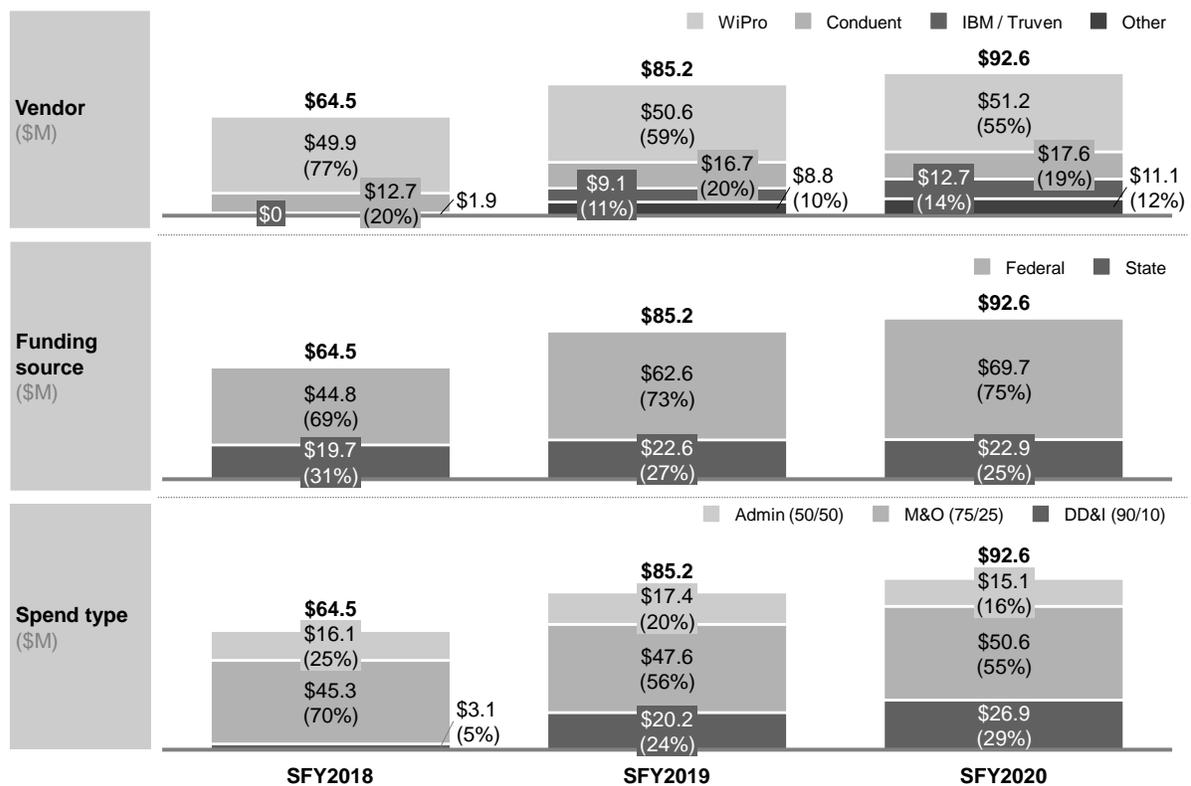
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[195] Interviews with Medicaid program staff members.

[196] Missouri DSS, "MHD – FY 18 MMIS Expenditures FINAL 8-13-18," 2018; Missouri DSS, "MHD – FY 19 MMIS Expenditures 10-31-18," 2019.

[197] Missouri DSS, "MMIS Spend Plan FY20 Compare to FY19," 2019.

[198] Missouri DSS: see note 197.

EXHIBIT 45: PROJECTED MMIS SPENDING THROUGH SFY2020

Potential opportunities for improvement

This section highlights observations based on a high-level assessment of the current state.

- **The current MMIS is insufficient for current and future needs, and the antiquated mainframe technology poses a risk to the program.** The limitations of the current systems prevent Missouri Medicaid from operating at maximum efficiency. Examples surfaced in other areas of this assessment of the Medicaid program include the following: the MMIS system rejecting certain MCO data submissions resulting in incomplete MCO data; incomplete encounter data limiting the effectiveness of MMAC audit reviews; difficulty in transferring MCO encounter data into MMIS likely resulting in increased error rates; multiple-format data entry required for pharmacy rebate information increasing rebate processing time; challenges in eligibility determinations with MEDES data for MCOs impacting participants' ability to enroll; difficulty in adding new data fields to the proprietary layout; and challenges to identifying certain eligibility categories reducing ability to correctly identify CHIP-eligible children.

  To support new initiatives coming from other topical areas, changes would be required in the MMIS, sometimes with difficult tradeoffs. Generally, there are three categories into which new initiatives fall.

  — *Narrow configuration / code changes*, where system changes to support an initiative can be directly made in the current system with minimal disruption. Examples include additional clinical edits to allow for pharmacy policy adjustments, automation of claim adjudication driven by lab testing diagnoses, or modifications to MCO auto-assignment and lock-in logic to expand day-one managed care eligibility and passive enrollment.

— *Limited workaround*, where workarounds may exist separate from the system that can be implemented to support new or updated functionality with relatively few changes made in the current MMIS system. These workarounds range from a separate software/service to support VBP analytics, a standalone data intake system to augment current encounter data, to a supplemental submission flow for X12 data.

— *Extensive workaround or rebuild*, where a workaround is theoretically possible, but may involve altering so much of the existing MMIS system that it is worthwhile considering rebuilding the functionality in a modular replacement instead. Changes this intensive include drug-level pricing for 340B drugs, DRG classification and payment processing, and additional rate cells for MCO ABD carve-in.

The state could consider prioritizing the first two categories, as the return on investment of making these changes is likely better than for the third category. Changes in the third category could involve a tradeoff between a temporary, possibly costly and higher-risk investment in the current system while the desired functionality could also be implemented as part of a forthcoming modular replacement.

Additionally, the decades-old mainframe technology poses a risk to future Missouri Medicaid success. It is increasingly difficult to maintain the aging core mainframe technology, as the needed expertise and talent in the marketplace are decreasing. Depreciating technology is supported by fewer and fewer vendors due to market trends.

Monolithic mainframe systems lead to a lack of agility to make changes in one part of the system without risking impact to others, as it is especially difficult to fully trace the impacts of changes in a non-modular system. Ultimately, the risk of mainframe impact inhibits the ability to quickly make system changes. For example, to make a small update, code changes may be required in another 50+ locations which may not be simple to edit.

Current MMIS module offerings (such as an off-the-shelf Pharmacy Benefits Management solution) are built on more modern generations of technology or delivery models (virtualized, containerized data centers, or cloud services), further risking interoperability between the old MMIS and new modules.

- **Lack of alignment and coordination between Information Systems (IS) and the Medicaid program.** Interviews with IS staff indicate that there is currently no structural process to incorporate IS in strategic program decisions or to maintain adequate program awareness of IS challenges and opportunities. In addition, the IS department's strategic plan does not appear to be well aligned with program strategic priorities and outcomes, as these have not been well established, resulting in a lack of detail and prioritization of program initiatives.[199] The lack of alignment may limit the ability of IS to create MMIS-related procurements with specific, precise program goals.

- **MHD's IS organization does not map to the needs of a next-generation, modular MMIS**. Based on discussions with IS staff as well as expert interviews across different states, Missouri's IS organization appears to not be appropriately staffed and structured to handle both the day-to-day maintenance and operation of the present MMIS as well as the planning, implementation, and certification of a new, modular MMIS. Across four areas, staff and interviewees noted that the IS department lacks key capabilities to support the new requirements of a modular MMIS.

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[199] Interviews with Medicaid program staff members.

— *Technology:* Covers the capability to define a technical architecture both between and across vendors, manage several simultaneous procurements and implementations, and sufficiently understand business process implications on the IS group. Lack of capabilities within the technology area can result in systems which are not built toward a centralized architecture, interruptions in current system maintenance, and delays in the procurement and certification processes. IS currently has one dedicated technical resource and does not appear to have resources to cover the additional activities currently slated for the modular replacement. Examples of positions that may provide these capabilities include technical architects, system operations managers, and technical managers / project managers.

— *Data:* Covers the capability to articulate a data governance strategy, align data management strategy to program goals, and translate between program requirements and data environment. Missing these capabilities can lead to issues with data quality, management, and governance. IS does not currently have any resources dedicated to data capabilities. Positions that could provide these capabilities might include data architects, and data scientists / engineers.

— *Contract management:* Covers capabilities such as technical assessment of bid responses, alignment between RFP/contract outcomes to program goals, and certification of multiple modules simultaneously. Without these capabilities, contracts may lack conciseness and precision, risking suboptimal functionality. Additionally, certification cycle time may increase without appropriate certification resources. IS currently does some limited contract management through OA and its project managers, but OA does not currently have dedicated resources to compose xAPDs (PAPDs, IAPDs, and OAPDs). Example positions that could provide these capabilities include: contract managers, xAPD writers/budget managers, and dedicated resources for various contracts and certification tasks.

— *Vendor management and accountability:* Covers capabilities such as holding vendors accountable to contract and program outcomes/deadlines and facilitating cross-vendor cooperation. Without these capabilities, the risk of vendors delivering suboptimal or incompatible functionality, or failing to meet milestone deadlines, is increased, especially as the number of vendors is likely to increase. IS currently has a limited number of project managers but does not appear to be sufficiently resourced to support upcoming modular replacement activities. Additional project managers and a clear governance structure (including who is making decisions regarding areas such as infrastructure, policy, or participant interactions) is an industry best practice without which vendors may not be able to align to a unified vision and work cohesively.

Potential initiatives for consideration

1. **Improve alignment between IS and program.** Missouri could consider adopting the following industry best practices in place in many other states.
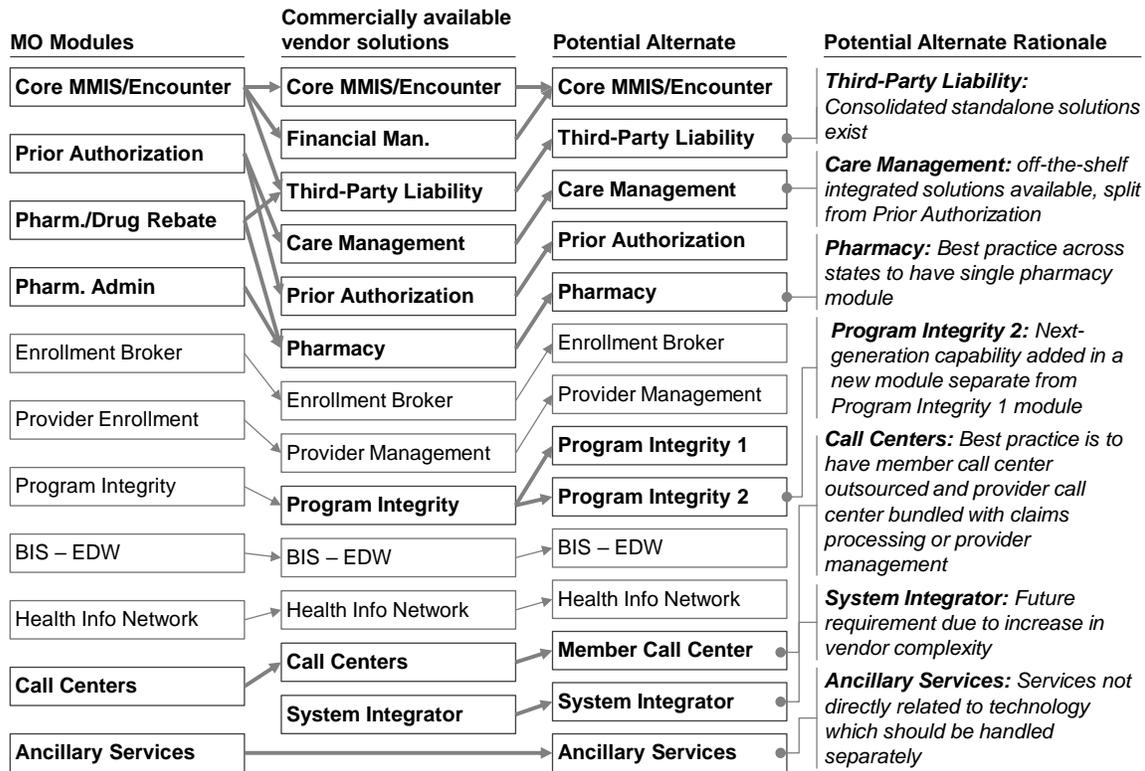
   The state could include an integrated perspective across both IS and the program in both strategy development / planning and day-to-day operations. This would include having IS representation at key program meetings to advise on technical implications and feasibility of various program decisions. In this way, IS would be able to inform and advise on implications of program decisions, introduce novel ideas, provide insights in IS-driven needs as well as opportunities ahead of time. Additionally, it would allow IS to keep business informed about in-flight initiatives to take into account during program decision-making.

Additionally, the state could conduct joint planning exercises to ensure that IS timelines are in accordance with program-desired outcome delivery dates of both technical and functional requirements. These exercises could also help IS explain the choices that the program may have to make and the implications of those choices. These decisions, which tend to be made by the program, will impact the delineations between modules as well as the sequencing of module implementation. Holding these planning exercises may help tighten the feedback loop for IS to explain the choices that the program may have to make and the implications thereof.

Lastly, the state could consider including specific desired functional/program outcomes in procurement documents (e.g., RFPs, vendor contracts) such that vendors are operating against both technical specifications required by IS and functional specifications required to drive targeted, prioritized program outcomes. The additional specificity may help ensure that IS day-to-day tactical actions are more closely aligned.

2. **Evaluate the current modular replacement strategy and define an updated strategy informed by clear strategic direction from the program and reflecting better alignment to the market, other states, and CMS.** First, Missouri could reevaluate the structure of modules used in the current replacement plan, realign it closer to the modules recommended by CMS and those utilized in other states further along in their MMIS modernizations, and map to solutions offered in marketplace. Additionally, finalized modules may be aligned to program priorities (e.g., the decision to carve pharmacy in or out of managed care would alter the future Pharmacy module). To create an illustrative example of a potential module alternative, several interviews were conducted with experts both in Medicaid and in the MMIS industry to understand the common module structures and market offerings. In Exhibit 46, a sample alternative module option is displayed, along with Missouri's current module structure as well as the common marketplace modules.
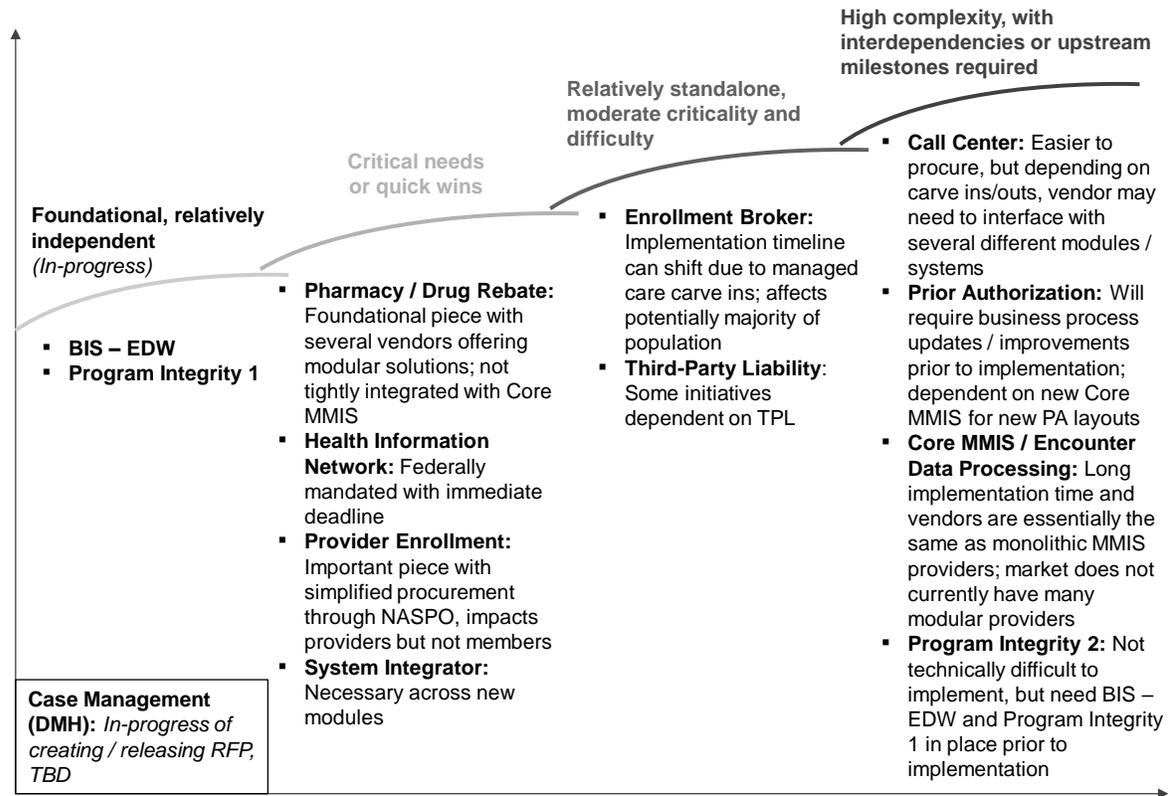
EXHIBIT 46: ILLUSTRATIVE EXAMPLE OF ALTERNATIVE MODULES

MO Modules	Commercially available vendor solutions	Potential Alternate	Potential Alternate Rationale
Core MMIS/Encounter	Core MMIS/Encounter	Core MMIS/Encounter	**Third-Party Liability:** *Consolidated standalone solutions exist*
Prior Authorization	Financial Man.	Third-Party Liability	
Pharm./Drug Rebate	Third-Party Liability	Care Management	**Care Management:** *off-the-shelf integrated solutions available, split from Prior Authorization*
Pharm. Admin	Care Management	Prior Authorization	
	Prior Authorization	Pharmacy	**Pharmacy:** *Best practice across states to have single pharmacy module*
Enrollment Broker	Pharmacy	Enrollment Broker	**Program Integrity 2:** *Next-generation capability added in a new module separate from Program Integrity 1 module*
Provider Enrollment	Enrollment Broker	Provider Management	
Program Integrity	Provider Management	Program Integrity 1	**Call Centers:** *Best practice is to have member call center outsourced and provider call center bundled with claims processing or provider management*
BIS – EDW	Program Integrity	Program Integrity 2	
Health Info Network	BIS – EDW	BIS – EDW	
Call Centers	Health Info Network	Health Info Network	**System Integrator:** *Future requirement due to increase in vendor complexity*
Ancillary Services	Call Centers	Member Call Center	
	System Integrator	System Integrator	**Ancillary Services:** *Services not directly related to technology which should be handled separately*
		Ancillary Services	

Next, the state could conduct further rigorous planning to help create a roadmap aligned to program priorities with IS input on feasibility. Four sample evaluation criteria were created that could be used to develop a heatmap of module priorities: program priority/value/service delivery strategy (e.g., impact of module and functionality on program priority and service delivery strategy, specific program outcomes driven by the module, and urgency and criticality of value unlocked by module), solution availability (e.g., maturity and competitiveness of marketplace, variety of marketplace solutions available), resources (e.g., available resources to dedicate, potential upfront and ongoing costs), and complexity (e.g., dependencies on upstream, downstream, other modules, or other departments and change required).

Through a sample planning exercise conducted with IS staff, each module from the potential alternative module option was evaluated against the sample criteria, considering factors such as updated vendor landscape information, incompletely defined program decisions, populations affected by module change, and ongoing procurements in other departments. The preliminary illustrative roadmap created (shown below in Exhibit 47) could be updated as program priorities are clarified and strategic decisions (e.g., pharmacy carve in/out, additional managed care population carve-in) are made by the program. Additionally, any roadmap could be validated at multiple levels and pressure-tested for feasibility, with many dependencies (e.g., vendor responses, CMS approvals).

EXHIBIT 47: ILLUSTRATIVE MODULE SEQUENCING

High complexity, with interdependencies or upstream milestones required

Relatively standalone, moderate criticality and difficulty

Critical needs or quick wins

Foundational, relatively independent *(In-progress)*

- BIS – EDW
- Program Integrity 1

Case Management (DMH): *In-progress of creating / releasing RFP, TBD*

- **Pharmacy / Drug Rebate:** Foundational piece with several vendors offering modular solutions; not tightly integrated with Core MMIS
- **Health Information Network:** Federally mandated with immediate deadline
- **Provider Enrollment:** Important piece with simplified procurement through NASPO, impacts providers but not members
- **System Integrator:** Necessary across new modules

- **Enrollment Broker:** Implementation timeline can shift due to managed care carve ins; affects potentially majority of population
- **Third-Party Liability:** Some initiatives dependent on TPL

- **Call Center:** Easier to procure, but depending on carve ins/outs, vendor may need to interface with several different modules / systems
- **Prior Authorization:** Will require business process updates / improvements prior to implementation; dependent on new Core MMIS for new PA layouts
- **Core MMIS / Encounter Data Processing:** Long implementation time and vendors are essentially the same as monolithic MMIS providers; market does not currently have many modular providers
- **Program Integrity 2:** Not technically difficult to implement, but need BIS – EDW and Program Integrity 1 in place prior to implementation

Based on clarified program priorities and a value assessment of the current modular replacement strategy, the state could then define their clear, updated, end-to-end strategy.

3. **Strengthen IS capabilities through hiring, partnering for talent, and retraining/upskilling.** DSS could consider prioritizing upskilling IS to complement the currently available skill sets with capabilities focused on technology, data, contract management and vendor management and accountability. Training, hiring, or outsourcing individual expertise are all possible routes towards this goal.

4. **Optimize insourcing vs. outsourcing.** Increasingly, Medicaid leaders across the country are confronted with the need to make informed decisions about what MMIS activities to keep in-house and what to outsource. This decision is particularly critical given that most agencies are making greater use of managed care, implementing value-based purchasing at scale, and/or replacing the business information system platforms they use for eligibility determinations, claims processing, and provider management. All these changes have significant impact on the component's required functionalities. CMS guidance would suggest that a best practice is to keep policy and infrastructure-related decisions in house, allowing for additional oversight and agility. Other activities, such as handling participant interactions may be more efficiently outsourced or delivered through a hybrid model. To make this determination, the state could evaluate factors such as strategic priorities, existing talent, and vendor availability.

OPERATIONS

The Family Support Division (FSD) and MHD are responsible for critical participant- and provider-focused functions for the Medicaid program such as eligibility determination, participant enrollment, provider enrollment, prior authorizations/medical management, claims processing, and general participant and provider queries and escalations. Cross-cutting support functions, such as contact centers and data and analytics, support these customer-focused tasks. The functions are executed through a mix of staff and vendor contracts.

In this section, the performance and operational efficiency of three functions identified by state staff as having relevant opportunities for improvement are discussed: managed care enrollment, claims processing, and contact centers.[200]

Compared to other states and viewed from the customer-focused functional level (the integrated process of participant enrollment from eligibility determination to MCO enrollment, for example), actual work processes often appear fragmented, process steps seem poorly integrated and best-practice management principles are variably applied. Individual staff participants tend to have deep knowledge about their own responsibilities but much less insight into the overall processes and responsibilities therein. Perceived inefficiencies in handoffs between different parts of the organization (such as manual rework) are often accepted as "inevitable" or "unavoidable." Currently, outsourced roles do not appear to be optimally integrated or managed to ensure high performance of functions.

Potential initiatives identified, if employed, may help improve suboptimal service provided to participants and providers, create efficiencies in deployment of scarce staff, reduce frustrations in the workforce, and realize savings while improving vendor performance. Initiatives could include process optimization, with redesign starting from the perspective of the client(s); automation improvements and improved contract management. Improvements made to address the gap with best practices across the different functional areas could lead to up to 15% to 20% improvements in productivity. This may create staff capacity that could be redeployed for other purposes, to improve program effectiveness and workforce satisfaction.[201]

Current situation

Participant managed care enrollment

Participant enrollment processes within MHD aim to enroll children and pregnant women found eligible by FSD into the managed care program.[202] Once a participant is found to be MCO-eligible, the Information Technology Services Division (ITSD) passes that information to the Enrollment Broker (EB). The information the EB sends is determined based on whether the applicant is a "state care and custody" individual, a pregnant woman, and/or "all other" individuals. "State care and custody" applicants are auto-assigned to a Medicaid plan. They receive letters with this information, additional information about switching plans if they wish, and enrollment guides. Pregnant women and all other individuals receive a welcome letter with an enrollment form and an enrollment guide. Pregnant women also receive a health risk assessment. If they do not decide within seven days, they are auto-assigned to an MCO. All other MCO-eligible participants have 15 days to choose an MCO before they are auto-assigned.

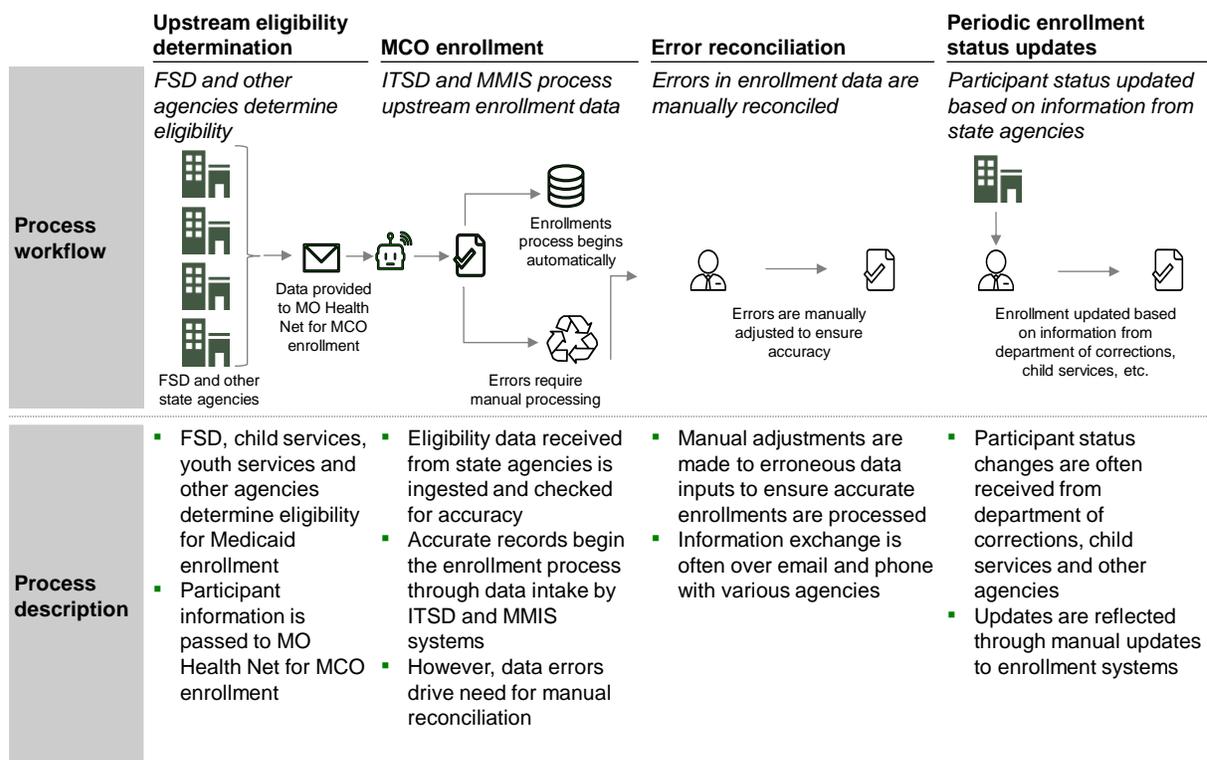[200] Interviews with Medicaid program staff members.

[201] Analysis of DSS data versus industry benchmarks.

[202] Interviews with Medicaid program staff members; for participants not in managed care no additional enrollment is required. Once found eligible, notices are triggered, and these participants are covered as long as they keep up to date on any premium payments, spend downs, etc.

While the majority of process steps are automated, errors with inbound data feeds and interactions with other state agencies drive manual interventions to ensure participant enrollment is accurate and timely. Communications with several other state agencies take place and are coordinated by the MHD team over email and phone correspondence.

The participant enrollment function serves as a critical interface with FSD. The process consists of four steps (see Exhibit 48). Eligibility determination is performed within FSD, and managed care enrollment is performed as a downstream process within MHD through an enrollment broker. The function relies heavily on upstream FSD systems for data and information feeds. MHD receives enrollment information from five systems, with the majority of volume driven by FSD systems. MEDES, the primary system for managed care eligibility, supplies participant information such as age, income, pregnancy status, etc. Once automated processes have run, any exceptions and errors are handled within MHD participant enrollment staff through manual intervention and communication with other state agencies such as FSD.

EXHIBIT 48: PARTICIPANT ENROLLMENT WORKFLOW

	Upstream eligibility determination	MCO enrollment	Error reconciliation	Periodic enrollment status updates
	FSD and other agencies determine eligibility	*ITSD and MMIS process upstream enrollment data*	*Errors in enrollment data are manually reconciled*	*Participant status updated based on information from state agencies*
Process workflow	Data provided to MO Health Net for MCO enrollment — FSD and other state agencies	Enrollments process begins automatically — Errors require manual processing	Errors are manually adjusted to ensure accuracy	Enrollment updated based on information from department of corrections, child services, etc.
Process description	▪ FSD, child services, youth services and other agencies determine eligibility for Medicaid enrollment ▪ Participant information is passed to MO Health Net for MCO enrollment	▪ Eligibility data received from state agencies is ingested and checked for accuracy ▪ Accurate records begin the enrollment process through data intake by ITSD and MMIS systems ▪ However, data errors drive need for manual reconciliation	▪ Manual adjustments are made to erroneous data inputs to ensure accurate enrollments are processed ▪ Information exchange is often over email and phone with various agencies	▪ Participant status changes are often received from department of corrections, child services and other agencies ▪ Updates are reflected through manual updates to enrollment systems

The function also engages other state services: Information feeds from the Department of Corrections, DSS, and the Children's Division are received monthly for manual enrollment updates. Information supplied contains data on incarceration dates, status in foster home programs (flagged as runaway), etc.

Claims operations

Claims operations include processes from intake of claim files, prior authorizations, claim adjudication and finalization.[203] Claims operations involve multiple stakeholders across claims

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[203] Interviews with Medicaid program staff members.

operations, IT, and vendor resources. These operations are both largely automated and outsourced, in line with industry best practices (see Exhibit 49).

EXHIBIT 49: CLAIMS INTAKE, ADJUDICATION, AND PAYMENT PROCESSING WORKFLOW
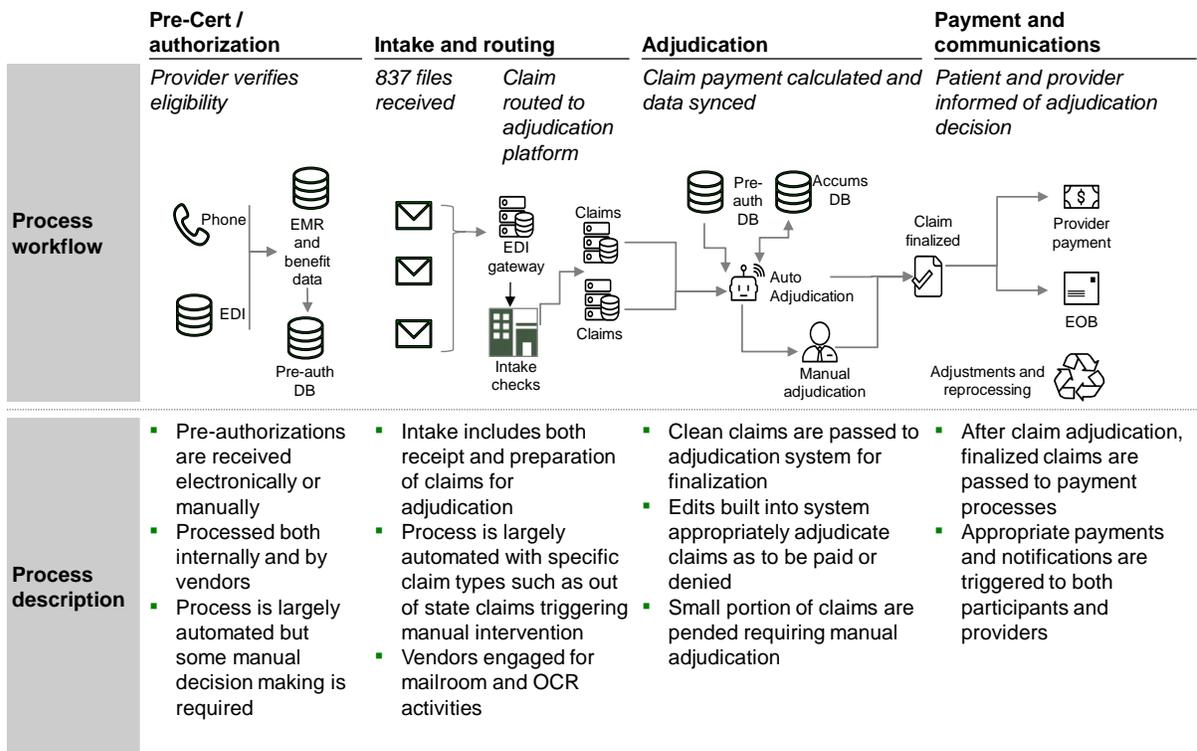
The claims operations function cuts across core claims operations, IT systems (MMIS), and other adjacent processes such as prior authorization. The claim intake is largely digital with limited need for OCR or manual intake in MMIS. The sources of manual intake include out-of-state provider claims, some drug claims, and some DME claims. Various labor-intensive process steps such as manual adjudication and prior authorization have been outsourced and MHD staff focus on issue resolution with vendors and providing expertise to allow vendors to adjudicate claims appropriately. Although the MMIS system is outdated (see previous section), its core FFS claim processing functionality has over the years become well-aligned with current work processes and needs. The system yields high auto adjudication rates, reducing manual work and improving accuracy for participant and provider stakeholders.

Claims operation processes are largely outsourced: vendors are utilized across almost all process components, including exception adjudication and medical record review.

Contact Centers

DSS manages two large clusters of contact centers. Some contact centers are outsourced; the largest, internal FSD contact centers are composed of ~350 FTEs. FSD contact centers handle calls related to food stamps, health care, child care, and child support for families. Internal contact centers employ full-time state staff members, many of whom served as case workers before the state moved away from the practice of assigning recipients case workers. The internal center within FSD handles queries related to food stamp benefits and processing in addition to a dedicated tier of agents who conduct interviews for food stamp and child care

eligibility, while outsourced FSD contact centers handle MAGI-related requests. The FSD contact centers handled 3.2 million calls in 2018.[204] The constituent health services (CHS) contact centers are largely outsourced. Both internal and external contact centers handle queries related to the state-run Medicaid program for participants and providers.[205] See Exhibit 50 for a breakdown of staff members across DSS contact centers.

EXHIBIT 50: MISSOURI DSS CONTACT CENTERS BREAKDOWN[206]
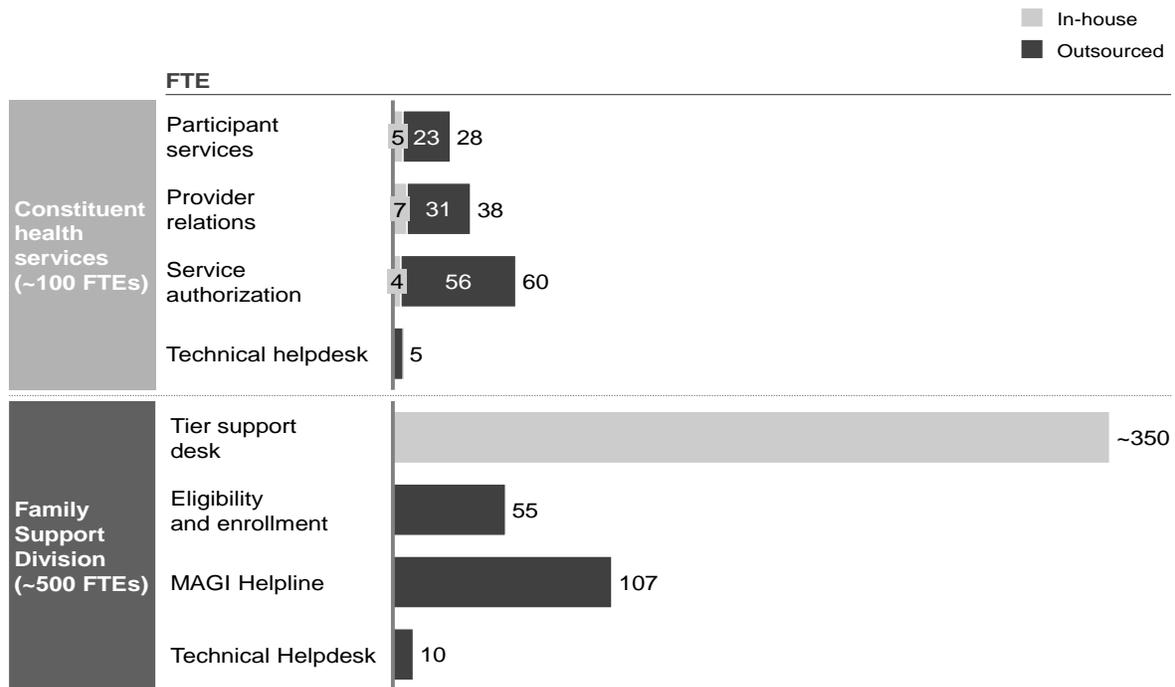
Incoming calls to FSD contact centers are routed to one of five tiers based on call reason. ~50% of FSD incoming calls are classified as Tier 1 (family support helpline): basic information requests, queries about outbound communication (annual review letters) and case status requests. ~30% of FSD incoming calls are classified as Tier 3 (food stamp interviews), which handle mandatory food stamp interviews. The remaining ~20% of calls are routed to Tier 2, 4, or 5 and are requests for live case-processing over the phone (e.g., for issuance of food-stamp benefits) or MAGI hearing requests (see Exhibit 51). Wait times average ~10 minutes but can reach over an hour for each tier.[207]

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[204] Analysis of state data, 2018; interviews with Medicaid program staff members.

[205] Interviews with Medicaid program staff members.

[206] Analysis of state data, 2018.

[207] Analysis of state data, 2018.

EXHIBIT 51: OVERVIEW OF FSD CALL TYPES[208]

Call type	Description	% of calls	FTEs in each tier	AHT Per Tier (mins)	Average wait times (mins)	Max wait times (mins)
Tier 1	▪ Basic questions about applications, eligibility, minor system changes, and SS updates	53%	67	10.0	13.0	67.0
Tier 2	▪ Case processing for food stamps and MHABD	11%	38	15.3	10.9	62.2
Tier 3	▪ Interviews for programs including food stamps and child support	30%	160	29.2	8.0	60.9
Tier 4	▪ Hearing request for MAGI	3%	33	23.3		
Tier 5	▪ Case processing for temporary assistance, childcare, and food stamps of specific participant groups (e.g., disabled)	4%	32	16.0	9.0	61.5

Internal FSD contact center operations are spread across 10 contact centers located throughout the state. These average a size of ~30-50 FTEs in each location; training, hiring and other support functions are centralized and require staff member travel. Exhibit 52 shows the number of staff members as well as the average handle time (AHT) per location.

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[208] Interviews with Medicaid program staff members; analysis of state data, 2018.

EXHIBIT 52: FTE BREAKDOWN BY LOCATION – FSD INTERNAL CONTACT CENTERS[209]

| | ATT | ACW |

Location	Number of FTEs, #	AHT in Tier 1, seconds
Chouteau	62	406
Hillsboro	59	490
Cape	53	410
Midtown	46	545
Page	42	538
St. Mary's	37	649
Jennings	32	593
Sikeston	30	478
Boone	28	478
St. Charles	26	392

-40%
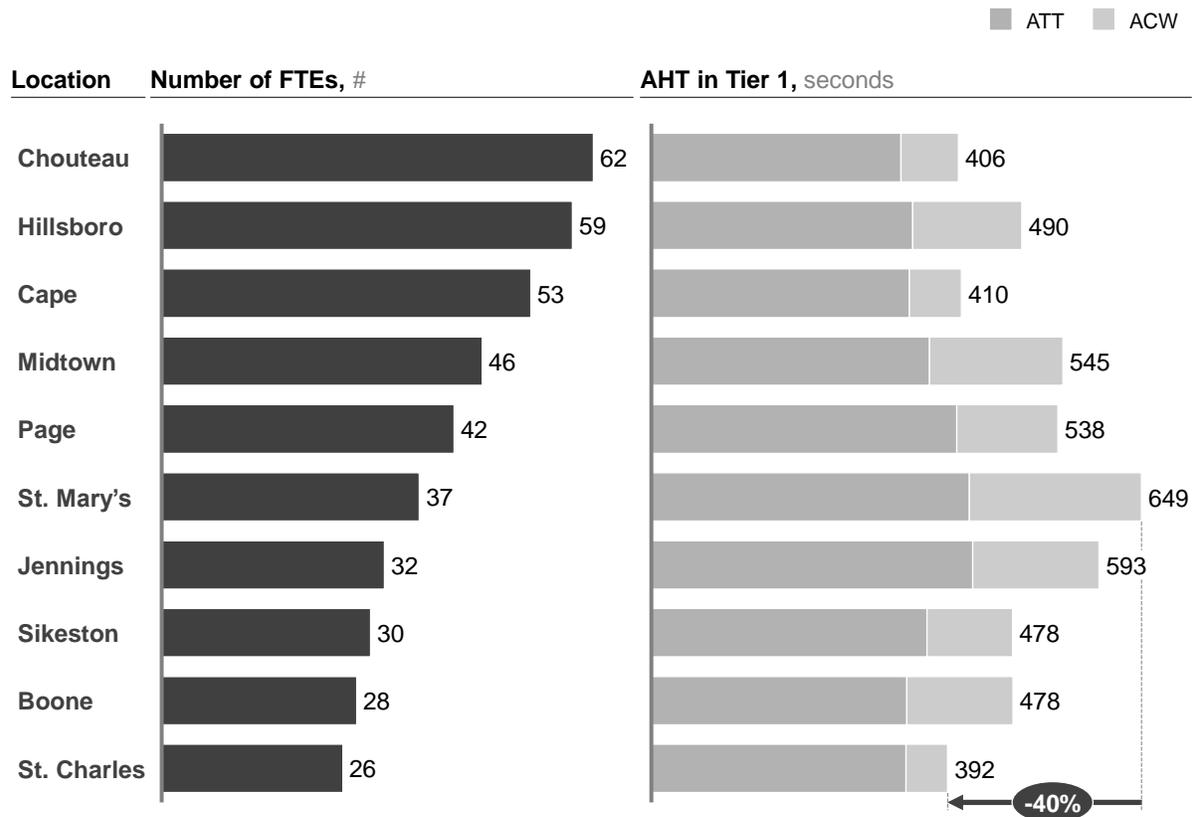
The AHT varies across locations: there is a 40% variation between the location with the highest and lowest handle times. Workforce management practices are limited across the centers. Each location operates for ~12 hours, leading to support ratios of one supervisor to eight frontline agents and one manager to 45 frontline agents.

Outsourced operations deliver several key services to the Missouri Medicaid program: MHD participant and provider communications, which handles incoming calls related to participant and provider queries related to the Medicaid program (e.g., premiums, cost estimates); service authorizations; and the technical helpdesk for the MHD program.[210]

In addition, within FSD, the outsourced contact center specializes in MAGI enrollment and the eligibility helpdesk, including calls related to program eligibility, enrollment of new participants into the Medicaid program, inquires related to MAGI and case updates for the existing MAGI programs.

Potential opportunities for improvement

This section identifies potential opportunities to improve the efficiency and outcomes of Missouri's operations functions.

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[209] Analysis of state data, 2018. ATT: average talk time. ACW: after call work (avg. time for the agent to wrap up call-related tasks).
[210] Analysis of state data, 2018.

Participant managed care enrollment and claims operations

- **Limited KPI tracking and dashboarding:** There is limited tracking of Key Performance Indicators (KPIs) across key functions. Also, compared to best-in-class payors, contract management could be improved in areas such as claim handle time, adjustment rate, and timeliness of payment at a granular level.[211]

- **Staff members, particularly those involved in the participant enrollment process, perform a significant number of repetitive manual tasks:** Some of these tasks include incarcerated participant disenrollment, runaway children closeouts in ITSD (while they remain eligible), immediate enrollment of women who have just given birth, and error reconciliation.[212] Significant manual intervention is required to ensure enrollment information is correct and up to date.

  For claims operations, the need for manual and resource intensive interventions is limited primarily to medical record review and claims adjudication. The adjudication of complex claims typically requires manual intervention to ensure the right amount is being paid for relevant/appropriate services provided to participants. In some cases, this implies requesting medical records, that may be reviewed by clinicians, to ensure that services provided conform to existing policies. Such cases can require significant time as multiple records are received piecemeal from providers and only a subset may be matched to the correct claim. Even if the medical record was available, the content/document management process is not always able to link the record with the corresponding claim.

- **Upstream processes and outputs drive errors and limit scope for process automation:** Challenges with the quality of data received from upstream systems drives manual intervention (e.g., duplicate DCNs, deceased eligibility, >9 months pregnancies). The information received can be erroneous and needs to be manually resolved by MHD staff.[213] Resolutions involve review of data received (e.g., re-coding a pregnant participant as female instead of male) and communication with agencies providing data to gain clarifications (e.g., managing multiple DCNs). Data updates for participants are often received through email and must be manually inputted or modified within enrollment systems including ITSD and MMIS. Several of these issues are currently being addressed by FSD.

- **Participant correspondence processes are not integrated across FSD and MHD:** Parallel communication with participants drives repeat, out-of-order, and therefore potentially confusing communication to participants. For example, participants receive eligibility notices and premium notifications separately from both FSD and MHD. FSD notifications do not inform individuals that they might have to pay a premium and instead only inform them that they are eligible for Medicaid. Subsequently, secondary premium notifications from MHD may go unnoticed, resulting in poor response rates and potential disenrollment.

- **Staff members perform significant tasks within participant enrollment:** Compared to those at best-in-class payors, staff members perform a significant number of tasks across processes such as managed care enrollment, disenrollment, and error correction, which in other state Medicaid programs are often managed by vendors. Currently, therefore,

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[211] Interviews with Medicaid program staff members.

[212] Interviews with Medicaid program staff members.

[213] Interviews with Medicaid program staff members.

internal staff spend much of their time performing tasks that could potentially be outsourced instead of, for example, focusing on quality assurance of the processes.

Contact centers

- **In the FSD internal contact center, current non-phone self-service options are limited, leading to a high number of live contacts and high wait times:** Limited alternative self-service options (e.g., chat or SMS bots) are available for answering basic questions, which creates high call volume in Tier 1. In addition, no status notification systems are in place to inform the participants about the status of food stamp applications or document requests, leading to requests for over-the-phone case processing and status updates. The combination of these factors leads to high incoming call volume in Tier 1, leading to high wait times and sub-optimal customer and staff member experience (e.g., waiting 60 minutes for a 1-minute answer to a question). Addressing the above opportunities could drive a 15% to 25% reduction in incoming call volume while significantly enhancing participant experience during the food stamp interview process. [214] In addition, the self-service options could reduce call volume in Tiers 2, 3, 4, and 5 through notification and tracking of claims processing, scheduling hearing requests via email or chatbots, and alerting an individual when their application is ready for interview via SMS or email. Self-service options require thoughtful design, as suboptimal website and chat bot design may reduce participant experience rather than improve it.

- **FSD outbound communications (e.g., letters, review requests) and applications highlight live customer support options that result in high wait times in FSD contact centers:** Many communications focus on providing customer support via phone and do not guide participants to alternate resources such as the website or clarify the frequently asked questions in the communication. For example, the Missouri food stamp application form bolds the customer support number and asks a participant to call as soon as possible, even though the participant needs to wait 24 hours after submission for the form to be uploaded in the system. [215] In comparison, Florida food stamp application forms more clearly explain the processing window and guide participants to resources on the web (see Exhibit 53).[216] Missouri could adopt a combination of these approaches to improve participant access to timely support.

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[214] Analysis of state data, 2018.

[215] Missouri DSS, "886-0460 (9-16) Application for Food Stamp Benefits," see: dss.mo.gov/fsd/formsmanual/pdf/fs1.pdf.
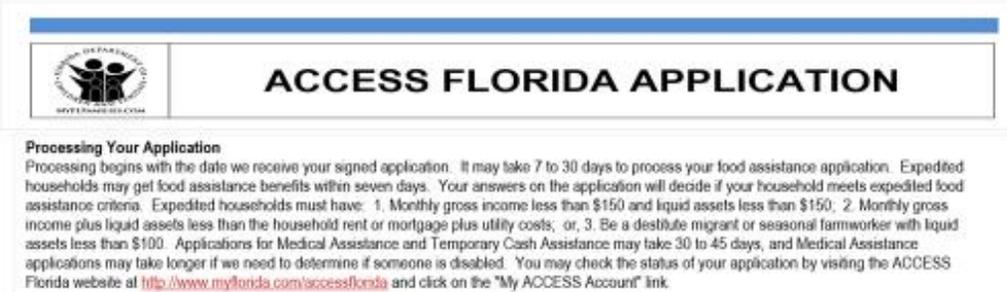
[216] Florida state government, "Access Florida Application," 2016.

EXHIBIT 53: FOOD STAMP APPLICATION EXAMPLE[217]

- **Customer experience is impacted due to both variability in average handle time for calls and high wait times**: In each tier, bottom-quartile agents require 1.7 times longer to handle an average call in comparison to the top-quartile agents. For example, in Tier 3 top-quartile agents handle an interview in ~18 minutes, while bottom-quartile agents take ~30 minutes (see Exhibit 54).[218] Top-performing agents may handle a call in ~30-40% lower handle time compared to lower-performing agents.[219] This could indicate gaps in training and coaching processes, which prevent delivery of a consistent experience. In addition, in the internal contact centers, workforce management practices are not deployed to match incoming call volume to expected staffing of agents in each tier; this likely leads to high wait times in certain tiers during peak times (e.g., >60-minute wait time in Tier 1 on Monday mornings). Currently, Tier 1 has 67 dedicated agents; although analysis indicates at least 100 agents may be required to meet demand. Conversely, Tier 5 has 32 agents although only 15 may be required to meet demand.[220]

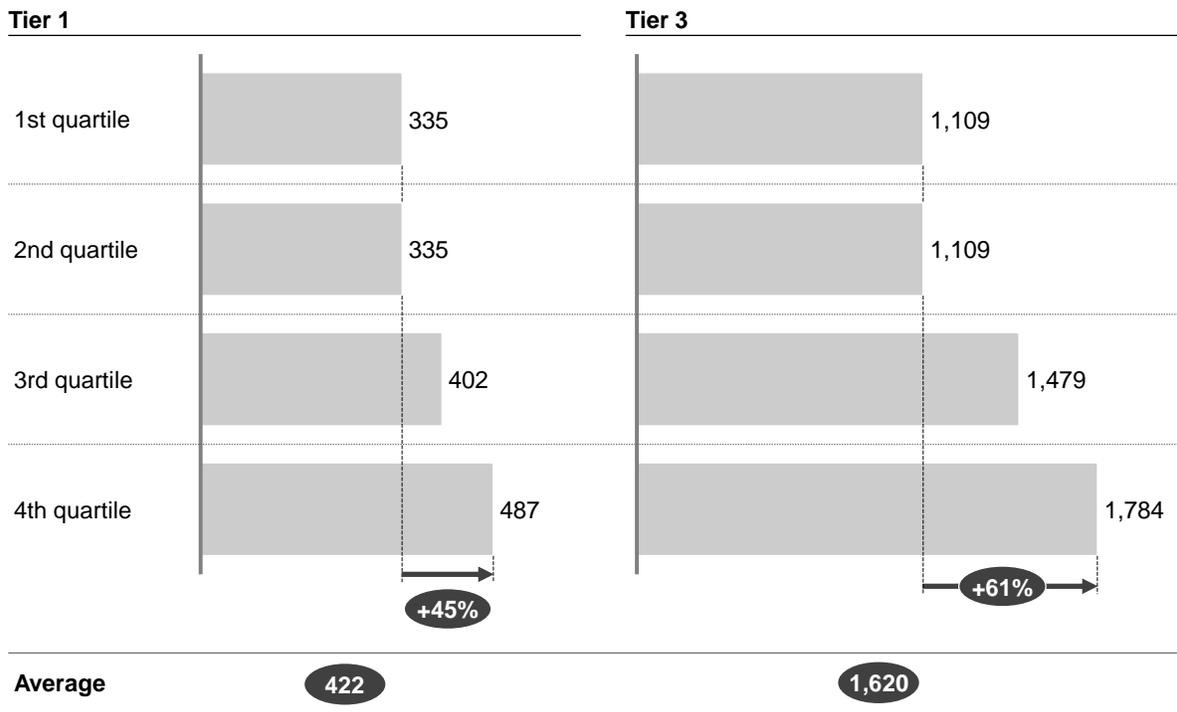[217] Missouri DSS and Florida state government: see note 215 and note 216.

[218] Analysis of state data, 2018.

[219] Analysis of state data, 2018.

[220] Analysis of state data, 2018.

EXHIBIT 54: AVERAGE HANDLE TIME VARIABILITY – FSD INTERNAL CONTACT CENTER

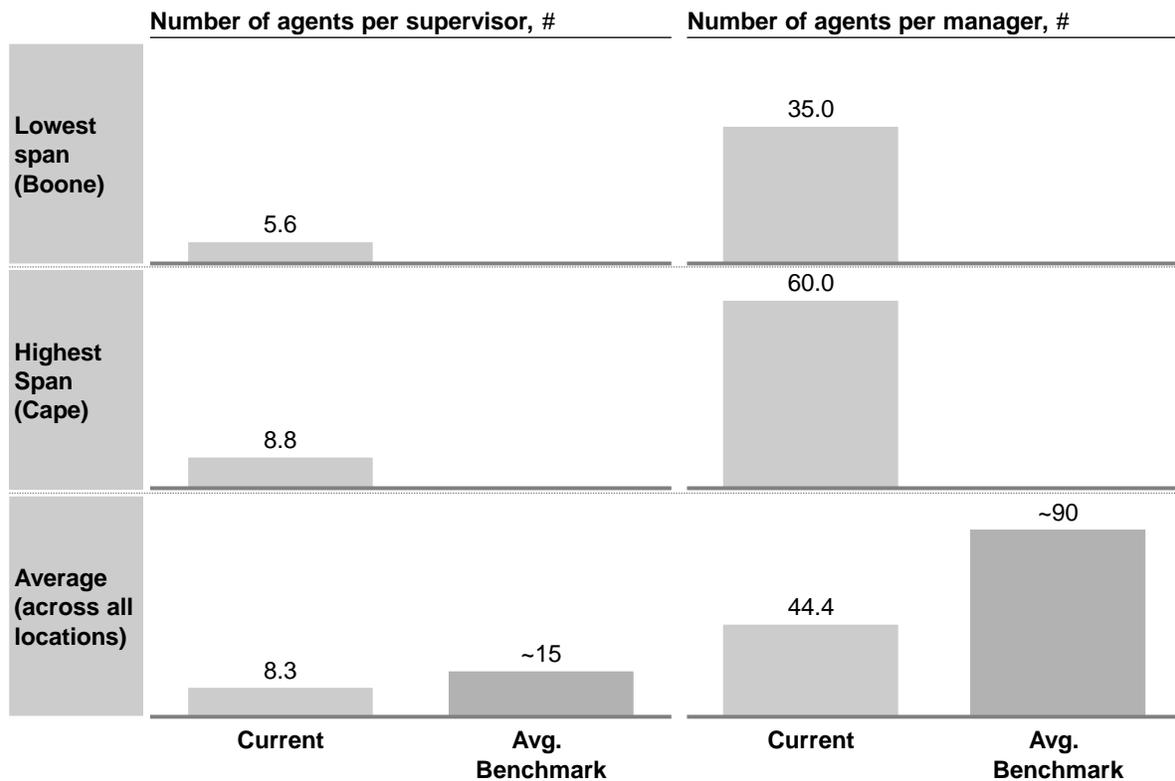**AHT** per agent quartile (Seconds/call, Aug- Oct 2018)

	Tier 1	Tier 3
1st quartile	335	1,109
2nd quartile	335	1,109
3rd quartile	402	1,479
4th quartile	487	1,784
	+45%	+61%
Average	422	1,620

- **In the internal contact centers, multiple locations limit the efficiency of support functions:** Many locations operate at low scale which leads to performance variability, challenges in support services, and underutilization of facility space.[221] Several locations have significantly lower management spans in comparison to the industry benchmark ratio of 15 frontline agents per supervisor (see Exhibit 55).[222] Multiple locations not only lead to higher cost to serve but also to diminished staff member experience due to reduced scale. For example, staff members receive less training because of the need to travel to a central location, and there is inconsistent operating experience in centers.

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[221] Internal contact center site observations; Interviews with Medicaid program staff members.

[222] Analysis of state data, 2018.

EXHIBIT 55: AGENT, SUPERVISOR, AND MANAGER STAFFING LEVELS

	Number of agents per supervisor, #		Number of agents per manager, #	
Lowest span (Boone)	5.6		35.0	
Highest Span (Cape)	8.8		60.0	
Average (across all locations)	8.3	~15	44.4	~90
	Current	**Avg. Benchmark**	**Current**	**Avg. Benchmark**

- **Policies governing the outsourced contact center operations lead to rework for internal state staff members**: In MAGI contact center operations, policies prohibit outsourced contact centers from submission of MAGI case updates in case of change of coverage. This tends to lead to a case transfer to internal case processing teams, who rework the case from the beginning, doubling work and increasing processing time, as well as potentially frustrating customers. Currently, 38% of calls to the MAGI contact center must be transferred for internal processing.[223] Similarly, a policy to transfer calls from MHD reception for internal escalation as opposed to directly to the vendor leads to disruptions in workflow for internal agents and could potentially be simplified to improve customer and staff member experience.

- **Dual operating environment of in-house and outsourced operating model:** The state currently manages both in-house and outsourced operations in its current contact center operations. Currently, Missouri's state in-house operations and outsourcers have similar operating costs. The state has approximately the same set of resources dedicated to managing in-house operations and for contracts for outsourced operations. This may lead to a dual focus of administrative resources and limited opportunity to focus and hone expertise in either of the skillsets.

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[223] Analysis of state data, 2018.

Potential initiatives

Based on observations and engagement of Missouri's leaders and functional process owners, potential initiatives spanning organizational process optimization, automation and digitization, and sourcing optimization have been identified.

Implementation of outlined initiatives could drive opportunity for MHD across the following axes:

- **Enhanced customer experience**: Automation, digitization and process improvement could drive improved experience for participants and reduce pain points.

- **Improved staff utilization and satisfaction**: Elimination of repetitive, manual processes and reduction of error corrections could help staff contribute to other high value processes. FTE capacity created could potentially be used to address limited staffing in other core operations functions.

- **Optimized vendor spending**: Assessment of current vendor contracts and management of existing work types could help reduce administrative expense and vendor performance.

Initiatives that deal with technological improvements and capabilities should likely be considered in conjunction with the initiatives discussed in the section on MMIS.

Potential organizational process optimization initiatives

1. **Develop process guides for staff member efficiency improvement and error reduction:** Currently, a limited number of job guides exist to guide staff member on best practices for repetitive tasks. The creation of such guides could drive improved efficiency, reduce errors, and greatly shorten time to ramp up new staff members on core manual processes. Specifically, the enrollment process has many potential tasks that could benefit from the creation of a guide, such as incarcerated disenrollment and error reconciliation. Guides that provide step-by-step instructions on how to complete these tasks could be readily created and may be greatly beneficial.

2. **Develop job aides for high-volume tasks:** High-volume tasks that are currently performed through experience and on-the-job learning have the potential to be standardized and expedited through the creation of job aids. (Job aids are basic decision trees, checklists, planning tools that support work and activity by guiding or directing tasks at hand.) For example, within claims operations, the team could create job aids who provide algorithmic guides specifically for top edits and manual adjudications.

3. **Implement workforce management:** In contact centers, for example, shifting staff members across tiers and optimizing staffing in each tier could achieve reduced wait time on the phone (i.e., average speed of answer of less than 60 seconds against current average of over 10 minutes). To achieve this reduction in wait time, potential solutions include moving agents from Tiers 3, 4, and 5 to Tier 1 and ensuring the right shrinkage factors (e.g., absenteeism) are factored into the staffing model. Workforce management principles could also improve efficiencies within claims processing by further aligning staff members to specializations by skill level and claim type. This could improve processing times and staff productivity.

4. **Adopt performance management practices**: In contact centers, the state could coach toward behaviors that drive high talk-time and quality and reduce variability in average handle time across each tier to achieve a ~10% to 12% reduction in average handle time in each tier and improve customer experience. The state could adopt best-in-class

performance management practices, including defining clear agent goals and KPIs and increasing structured coaching and uniform meeting cadence. To help define clear goals and a holistic set of KPIs, scorecards could be updated with realistic goals against important KPIs. (See Exhibit 56 for typical measurements that are leveraged in contact center environments and shared across contact centers to hold individuals/teams accountable for their role in creating a positive participant experience.) With clearer scorecards and KPIs, coaching could become more structured and efficient, driving better customer experience and lower wait time through reduction in average handle time.

KPIs and dashboarding could be equally essential in participant enrollment and claims processing (see Exhibit 57 for typical KPIs). In the claims tracking process, for example, organizational leadership could increase its effectiveness if it could have access to critical KPIs such as auto-adjudication rate, adjustment rate, percentage of claims paid as billed, rate of denial by denial reason code and denials overturn rate.

EXHIBIT 56: EXAMPLE BEST PRACTICE CONTACT CENTER KPIS

Key KPIs

Dimension	Category	Metric	Typical definition
Service/ Quality	• Speed of answer	• Service level • Avg. speed of answer	• % of intervals that achieve the target service level • Total wait time/ Total number of answered calls
	• Abandoned rate	• Abandoned rate after the IVR • Abandoned rate during the IVR	• Calls dropped after it reaches an CSR/Calls offered • Calls dropped during IVR, before it reaches an CSR (excluding self-serve calls)/Calls offered
	• Transactions quality	• Quality score • Critical accuracy score	• Call monitoring score(%) (average score on call monitoring/maximum score) • % of monitored calls without any fatal errors
	• Resolution rate	• Repeat transaction rate • FCR	• % SR requests/calls with a repeat call/SR within 24 hours • % of calls resolved during the first call
	• CSAT	• End-user satisfaction • End-user dissatisfaction • TNPS	• On a scale of 1-5, % of customers that have rated 4 or 5 (satisfied/ very satisfied) • % of customers choosing "dis-satisfied (2)" or "very dissatisfied (1)" • Promoters – Detractors
	• On time (for deferred transactions)	• Service level • Average time late	• % of transactions processed within targeted cycle time • Average time late of transactions which are outside of targeted cycle time.
Volume	• Escalation & transfer • Volume	• Escalation and transfer rates • Transactions offered	• % of answered calls escalated /transferred to Tier 2/ other departments/desks
Efficiency	• Utilization	• Utilization • Occupancy ratio	• (Talk+Hold+ACW)/ Total paid time • Talk and wrap time divided by logged time
	• Availability	• Attendance • Schedule adherence	• CSR showing up for work on their scheduled day • Time CSR is available / time they are scheduled to work
	• Average handle time	• Average handle time	• (Talk+Hold+ACW)/ Total number of answered calls. Average processing time for deferred transactions

EXHIBIT 57: EXAMPLE PARTICIPANT ENROLLMENT AND CLAIMS PROCESSING KPIS

Payor value chain function	Metric subcategory	Specific metric
Participant enrollment	Summary metrics	• Enrollment cost per total transaction • Total enrollment transactions per FTE per year • Total automated electronic transactions as a % of total member transactions
	Average enrollment processing days	
	Enrollment accuracy	
	ID cards	• Percent of participants that received cards before effective date
	Billing	• Total number of bills sent per participant
Claims	Summary metrics	• Suspended (manual) claims processed per FTE per year • Cost per suspended (manual claim) • Claims processed per claims FTE per year • Cost per claims processed
	Claims type rates	• Total suspension rate • Total claims auto-adjudication rate • Total adjustment rate • Denied claims rate
	Speed of processing	• Average payment period in days • Average inventory in days
	Percent of claims processed within the following days of receipts	• 0-14 days • 15-30 days • 31-60 days • > 60 days
	Timing of claims	• Claims turnaround time (TAT)
	Quality	• Dollar accuracy percent • Frequency accuracy percent

5. **Within the participant enrollment flow, integrate mailer and correspondence process with FSD:** The state could implement process change to integrate correspondence of premium notices with FSD eligibility notices to drive improved response rate. This could require a simple process change to implement the inclusion of the first premium notice in the same envelope as the eligibility notice. This may significantly reduce non-responses to premium notices.

6. **Improve medical record matching to reduce incorrect denials in participant enrollment:** Matching medical records to appropriate claims to minimize inaccurate denials could drive significant improvement in enrollment accuracy and reduce downstream rework.

7. **Improve accumulator accuracy to help manage spend down errors:** Spend down inaccuracy drives significant billing errors and inbound inquiries. The state could consider setting up a team to minimize spend down on out of sync scenarios, which could help minimize errors.

8. **Assess prior authorization (PA) list for high pass rate codes and optimize through quarterly refreshes:** State staff could conduct analysis to identify drivers of manual PAs and ensure quarterly list refreshes. This could minimize manual PAs for high pass rate codes.

9. **Redesign root-cause drivers (e.g., participant communication & notification) to reduce call volume to contact centers:** The state could institute ongoing processes to

address root-cause drivers currently leading to increased call volumes. There are several near-term initiatives that could lead to the reduction of call volume. For example, the state could consider redesigning forms and letters to guide to digital channels and highlight additional communication resources available. This communication could provide clear and updated guidelines on when to call the contact center after application submission. In the case of interviews, the state could consider asking the applicants to wait 24 hours to allow for the appropriate processing time before calling.

10. **Revise policy guidance on MAGI helpdesk to avoid rework:** The state could review internal policies that currently prohibit outsourced MAGI helpdesk agents from completing case updates in situations when a change of coverage occurs (currently, these changes must be completed by an internal agent). Also, the state could consider updating policies to enable MHD staff members to transfer to Wipro, when applicable, to reduce downstream rework in internal case processing team.

Potential automation and digitization process optimization initiatives

11. **Implement macros and automation to replace repetitive manual tasks:** The state could identify repetitive manual tasks and build simple macros/automation to reduce manual intervention. Batch enrollment corrects or incarcerated participants disenrollment could be executed automatically, for example. Implementation would require both macro development and inbound data manipulation. Creating macros or process automation routines that utilize database queries and pre-set algorithms to perform defined tasks such as participant information updates or error reconciliation could significantly reduce the manual intervention required. Engaging vendors to identify and build use cases for automation could drive efficiency gains: in some quick-win cases, technologies like optical character recognition (OCR) could be implemented within 6 to 12 months, while more complex implementations (e.g., machine learning to improve auto adjudication rates) could take 12 to 24 months.

12. **Improving upstream systems to help reduce manual rework:** Erroneous information feeds drive significant rework within MHD processes. Engaging FSD leadership to drive changes in these upstream systems (especially MEDES) could significantly reduce rework within participant enrollment function. Improved data formats (e.g., pipe-delimited flat files rather than email-based information) could provide basis for rapid system updates, eliminating manual processes.

13. **The state could engage inbound data stream owners to align on data feed formats:** Currently, data from various other state agencies is primarily received via email. Convening leaders to align on unified and simple data exchange formats (some best-in-class payors use pipe-delimited files) could allow for easy and automated intake into ITSD systems. This could reduce manual workarounds and potential for error.

14. **Invest in improvement of auto adjudication rates:** The state could conduct detailed analysis to assess current drivers of manual adjudication – such as edits, medical policies, system issues – and inbound data issues, in addition to implementing improvements in the claims systems to improve auto-adjudication rates. For example, the state could consider identifying top edits that trigger manual adjudication and determining modifications to edits that could drive claims to be auto-adjudicated. For example, if an edit requires an assessment of a particular attachment or medical record and it is found that such claims are paid with a high pass rate, removing that requirement could eliminate need for manual intervention.

15. **Implement issue and project tracking system:** Currently, issue and request management is done through email. The state could consider transitioning to a ticket-based management system that provides real time tracking, escalation paths and pan-organizational transparency.

16. **Build digital participant engagement platform:** Transitioning traditional communication channels to a digital medium for high-impact communications such as premium notices (e.g., e-pay functions), ID cards, or explanation of benefits (EOB) delivery could drive improved participant engagement. The state could consider investing to get ahead of developing participant digital preference trends and drive adoption for new enrollees over a five-year horizon.[224] Some of these participant engagement practices could help promote self-service and reduce call volumes for the contact center and save on costs incurred due to existing communication using traditional channels, such as printed ID cards and EOBs. Given the proliferation of different modes of communication, it could also be helpful to note/flag the preferred method of communication during the enrollment process.

17. **Provide self-service options for Tier 1 calls to reduce live calls and wait times:** The state could consider investing in new self-service channels for the resolution of simple issues like status of cases or food stamp eligibility through alternative channels to reduce call volume by ~15% to 20% in Tier 1. This could ease the load and reduce the current peak wait time for 60 minutes significantly. The state could consider potential quick wins like website-based self-service options and SMS-based notifications and bots to provide quick answers to simple requirement questions. Likewise, chatbots in the website could potentially answer queries on case status and document uploads (e.g., an AI-based chat service with limited human intervention).

Sourcing optimization initiatives

18. **Evaluate engaging additional vendors:** The state could consider engaging a vendor for improved participant address management. Significant correspondence challenges stem from dead or out-of-date addresses. Engaging vendors to conduct address reconciliation and quality improvement is a best-in-class payor practice and can help better engage participants. Ensuring mail is sent to correct participant addresses could also drive cost savings by reducing rework and through postage and printing cost reduction.

    In addition, the state could consider engaging vendors to maximize value added work performed by the department's participant enrollment team. MHD could consider the potential to outsource enrollment correction processes and assess the current reliance on participant enrollment team to solve routine and complex enrollment issues.

19. **Define future operating model for state contact centers to balance in-house vs outsourcing options:** As part of future review of the state's contact center operation, the state could consider three options for future operating model for contact centers:

    • Focus on operations excellence and operate contact centers internally with only strategic outsourced vendor partners as required

    • Focus on contract excellence and move to a primarily outsourced model with retention or strategic contact center operations in-house

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[224] McKinsey, "Healthcare's digital future," 2014, see: www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/healthcares-digital-future.

- Continue blended operating model with focus on operations excellence with internal center and focus on contract excellence for outsourced operations with adequate resources to manage in-house operations and outsourced operations

All options could facilitate providing best-in-class contact center services to participants and providers. In the first two options, the state could choose to dedicate its resources to focus on either on operational excellence or contract excellence; in a blended model, the state would likely need to ensure that appropriate resources are dedicated to each area against a shared resourcing model with dual focus. To determine the best fit option for the long term, the state could evaluate each of these options in view of cost, quality of service, strategic fit, administrative priorities, and operational agility to determine the best choice going forward.

Implementation Considerations

Without significant changes, Medicaid spending may comprise 26% to 30% of state general revenues by 2023. To bring growth of Medicaid spending in line with the level of economic growth of the state while preserving access for participants and avoid reducing eligibility or coverage, significant savings would be necessary. In the preceding pages, eight programmatic and functional areas were analyzed, and descriptions of the current state, potential opportunities for improvement, and potential initiatives were provided.

Were Missouri to fully and effectively address the opportunities and potential initiatives outlined in this report, total gross savings to the program (including federal and state share) could total up to $0.5 billion to $1.0 billion by SFY2023 (net of potential reinvestments in the delivery system and in the Medicaid program's operations). These potential savings are not meant to represent an absolute reduction in Medicaid program spending but rather a meaningful reduction in the growth rate of the program to bring it in line with economic growth of the state. In addition, many initiatives focus on reducing cost growth through improving participant outcomes and experience. Adopting such a transformation agenda could make the program more financially sustainable and reduce fiscal pressure that may arise in the event of a recession or changes in federal financing.

Potential initiatives are wide-ranging, including operational improvements to bring the program up to date with common practices among other state Medicaid programs, as well as implementing best practices and more transformational changes. The following entails some of the choices the state may consider in selecting the portfolio of initiatives that will comprise Missouri's approach to Medicaid transformation. Also outlined below is a summary of the key requirements for implementation.

Approach to Portfolio Selection

Broadly, the state could balance two approaches to controlling spending. One approach commonly adopted by both public programs and managed care would rely primarily on controlling the unit prices paid for services and seeking to curb utilization through payor decisions regarding clinical necessity. This approach could reduce costs and drive efficiency across provider types, readily realizes savings, with limited associated technical complexity. Yet this approach may lead to provider resistance and does not provide an incentive to improve patient outcomes. Finally, mainly focusing on rates and volume would likely be only a temporary solution: as one of the root causes of the problem – the underlying FFS payment mechanism – would not be addressed, fragmentation and growth of volume may continue to exist, potentially leading to the need for further rounds of budgetary tightening.

In the second approach, the state would seek to adopt innovative value-based payment and care delivery models that reward providers for quality and efficiency of the total care delivered to patients. This approach may support more transformational changes in care delivery, with corresponding improvements in patient outcomes and experience. A key focus would be reducing costs through improved outcomes for participants: strengthening primary care, integrating behavioral and physical care, emphasizing independent living at home (with community support where needed), and addressing social determinants of health. This approach would pay for the outcomes that matter to participants rather than volume and would stimulate the transparency of provider performance. The approach is likely to require greater commitment of resources and longer to generate impact, given the need for providers to adopt not only the new payment models but also to adopt new capabilities and implement changes in clinical practices.

To align the growth of Medicaid expenditures with the state's economic growth could require a combination of these approaches, balancing and prioritizing shorter- with longer-term needs and strategic goals. Regardless of the balance chosen, there is a range of "no regret," operational initiatives that the state may consider bringing policies and operations up to speed with common practices, including state-of-the-art fraud, waste, and abuse (FWA) as well as third-party liability (TPL) methodologies, targeted use of utilization management, as well as improvements in contact centers and other internal administrative processes. Adoption of common and leading practices in these areas will address outlier practice patterns and inefficiencies, generate near-term savings, improve customer experience, increase workforce satisfaction and reduce pressure on the rest of the system while longer-term, more transformational changes are being implemented.

Any substantial portfolio of initiatives would demand careful planning and execution, and investments to support the transformation and build new capabilities. Key requirements for effective design and implementation of Medicaid transformation include: strong and visible executive leadership; effective stakeholder engagement; commitment to fact-based decision making supported by robust data; upskilling of key agency staff; a well-resourced transformation office; and modernization of the program's technological infrastructure.

Requirements for Implementation

Whichever approach the state adopts, any substantial portfolio of initiatives will demand careful planning and execution, and thoughtful investments in new capabilities. Many states underestimate the resources needed and the challenges that may be encountered in the implementation process.

The assessment of the state's Medicaid program revealed that the Departments responsible for the Medicaid program are aware of many of the opportunities identified and would embrace an ambitious transformation plan. Yet both leadership and staff are also acutely aware of the challenges the state will face in effecting changes. While there is significant institutional knowledge that will greatly benefit the state's efforts, few have experience with managing large-scale transformations. In addition, many of the potential initiatives will require technical knowledge based on experiences outside Missouri. Finally, most initiatives will require building upon operational processes that themselves were identified as needing improvement, as well as outdated technology and data and analytics infrastructure.

Based on our experience, key requirements for successful implementation would include strong executive leadership, a detailed and objective fact base, and extensive stakeholder engagement. In parallel, significant attention to upskilling key agency staff and improving technical abilities (ranging from MMIS functionality to data and analytics to the digitization of key operational bottlenecks) will be necessary to ensure success and sustainability of improvements. The following briefly describes these key requirements in turn.

Strong and visible executive leadership. Successful transformation of the Medicaid program will require active and visible leadership from the Governor's Office, the Medicaid Director, and other agency leaders and senior staff across DSS, DHSS, and DMH, as well as additional support from the Office of Administration. In most states, the Medicaid Director would be the owner of the overall transformation and regular Steering Group meetings, which could include other agency directors/commissioners, the Medicaid CFO, and Governor's Office representative(s), for example. Such a steering group could lead not only through decision-making but also through role-modeling for senior staff, creating a sense of urgency, adopting creative solutions to problems, and communicating a compelling change story.

The planning and execution of the individual initiatives could be grouped into workstreams which could be owned by agency leaders or senior staff ("sponsors") responsible for the areas impacted by the workstream. The exact configuration of this group will be highly state-specific, but a portfolio derived from this current assessment could require sponsor roles of the Medicaid COO, CFO, and CIO, in addition to the Managed Care Director, the Value-Based Payment lead, and the Program Integrity lead, among others. Not allocating sufficient time to these roles is one of the most frequent reasons for implementation failure. In other states, sponsors will spend 20% to 30% of their time for several years per workstream. The Medicaid Director will likely have to commit to an on-the-ground leadership role in the transformation for the majority of his/her time.

A well-resourced transformation office. To realize the implementation of an ambitious portfolio of initiatives, a well-resourced transformation office (TO) has proven to be essential. The TO commonly sits outside of the normal line organization and explicitly operates with a with a clear – and bold – mandate of the executive leadership. The function of the TO goes well beyond the traditional Project Management Office to help the executive leadership, the steering group, and the workstreams to achieve their goals by fulfilling several core roles:

- Drive action, help clarify goals, balance priorities and coordinate between initiatives

- Help create and execute the initiative- and workstream specific implementation plans

- Create, maintain, report on, and further develop the fact base for initiatives per workstream

- Perform advanced data and analytics functions for the workstreams

- Support the stakeholder engagement process in its different forms

- Manage resources, timelines, internal- and external meetings and realization of the targets

- Facilitate training of agency staff

To fulfill all these roles, a TO will need sufficient resources. Successful states draw on talented agency staff as well as on subject matter experts who may bring knowledge of best practices from other states, payors, or industries to build the TO. The TO also requires rigorous project management and in-depth experience with all the dimensions of the change process. The TO should be led by a full-time, sufficiently senior member of the senior leadership with experience in change management.

Upskilling of key agency staff. The Missouri Medicaid program benefits from agency staff who are not only committed to the performance and sustainability of the program, but who collectively possess significant institutional knowledge. At the same time, staff and leadership realize that the future state (and the change process needed to get there) will require knowledge and skills that are currently absent or in short supply. Without these new capabilities, no change efforts can hope to be sustainable.

The more ambitious the agenda, the more critical it is that Medicaid agencies develop strong, end-to-end talent capabilities – including the ability to attract, develop, deploy, reward, and retain top talent. Key skills and roles that would require investment (in number of individuals and/or level of skills) are, for example:

- Project management

- Lean or other business process redesign

- Vendor contracting

- Data and analytics

- Performance management

- Outcomes transparency

- Payment innovation

- Communication

- Technical and data architects

- Data scientists / engineers

- Technical and systems operations management

- Contract management

Best practices in other states include optimally building on existing talent, investing in training (including on-the-job), redeployment, and re-training, as well as recruitment of new leaders and staff. As several of the initiatives address the optimization of the Department's own operations, staff may become available for new organizational roles.

Detailed and objective fact base. A firm footing in data is necessary to set measurable goals, and track progress and ROI. In addition, a solid base of objective facts is the foundation for effective decision making. The opportunities outlined in this report are based on a breadth of research and analysis conducted over the past three months. Going forward, detailed design and implementation of initiatives will demand an even richer fact base to

- Determine the improvement opportunities per initiative in more detail and set goals (including financial targets, outcomes of care, customer experience);

- Analyze options for granular initiative design decisions, ranging from the clinical criteria to be incorporated into new medical policies for utilization management; methods for adjusting new payment models for patient risk and severity; planning internal contact center redesign; or rebasing reimbursement rates;

- Apply risk adjustment, set target budgets, calculate shared savings/losses, quality outcomes and bonus payments;

- Forecast and track possible impacts on provider finances from changes in reimbursement;

- Forecast and track possible impacts of relevant initiatives on rural health and the safety net (financial, access and quality); and

- Create transparency of care costs and outcomes (value) per subpopulation, key conditions, regions and other relevant dimensions;

Stakeholder engagement. Each of the potential initiatives discussed in this report has the potential to affect participants, providers, and other stakeholders, placing a premium on transparency and proactive communication. Certain initiatives – chiefly those associated with reimbursement, value-based payment, and possible changes in the scope of managed care – pose more significant implications for stakeholders and therefore likely demand a collaborative process for design and implementation of changes. Without adequate stakeholder engagement, those impacted by the planned changes are more likely to experience change as something happening to them rather than as something that was co-shaped by them as partners in the change process. Also, without adequate stakeholder engagement, initiatives

may fail to be adequately grounded in the reality of care delivery and payment, and the experience of participants.

Effective stakeholder engagement will take different forms, ranging from a statewide working group consisting of stakeholder leaders, committees focused on specific initiatives or cross-cutting topics ("regulatory issues," or "APM quality measures"), a clear communication plan, interactive web-based discussion forums, informative webinars, regional stakeholder conferences, and training opportunities.

Experience has shown that successful stakeholder engagement starts with a shared narrative about the need for change, and a strong fact base underpinning key decisions. Clarity of goals is essential. Subsequently, initiatives should be fleshed out and design decisions and the implementation plan should be discussed with stakeholders. Stakeholder engagement should continue during the implementation itself as well as during the first year(s) of rollout, and progress toward goals should be jointly monitored. As the implementation and go-live of initiatives always run into unforeseen issues, obstacles, and opportunities, having the ability to jointly address these is a great benefit.

Technology

The existing MMIS poses one of the key challenges for any substantial portfolio of initiatives the state may want to implement. Many of the initiatives will require functionalities that the current MMIS does not offer. If the planning and implementation does not take these limitations sufficiently into account, these initiatives may fail to achieve their intended goals. That said, the current state of the MMIS does not have to hamper achieving ambitious goals. Functional limitations can be addressed in three ways:

1. *Limited configuration or code changes.* For many of the utilization management or pharmacy initiatives, for example, or the further modernization of hospital outpatient FFS reimbursement, minor changes to the existing MMIS will suffice. These can be incorporated in the initiative's implementation plan and – after ensuring that the combination of required MMIS changes is feasible – executed.

2. *Adding new, rapidly deployable functionalities with high program but low system impact.* A cross-cutting need for the transformation process as well as the program, as a whole, is improved access to the claims data, improvement of data quality and the analytical capabilities needed to generate the fact base mentioned above. This ranges from the identification of improvement opportunities, monitoring of APM spending, risk adjustment, calculation of shared savings, creation of reports for stakeholders to the tracking program transformation goals. Vendors that support large-scale transformation processes in Medicaid programs tend to be able to ingest states' data (and potentially and quickly deploy the analytics required. In addition, using state-of-the-art, off-the-shelf technology and agile design, high-impact digitization of key operational bottlenecks can be achieved at limited cost.

3. *Planning the initiative as dependent on the MMIS replacement process.* Some functionalities are difficult to realize without significant program and system impact. The current MMIS, for example, cannot support DRGs or drug-level pricing for 340B drugs, which are both potential initiatives. Although analytical capabilities to create DRGs and identify these drugs could be rapidly deployed, these functionalities would have to go much beyond analyses: providers would have to be paid using DRGs and different drug payment schedules, and existing program integrity algorithms (such as claims edits) would need to be changed. Such cases could lead the state to delay or deprioritize the initiative or opt for an alternative

initiative to achieve the goal (in this case, help reduce inpatient spending) with less system impact. As highlighted in the section on MMIS, the state could reassess the MMIS replacement strategy and module requirements in the light of the prioritized initiatives, thus simultaneously solving some of the MMIS' key limitations and facilitating the transformation's success.

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As described, the Missouri Medicaid program faces significant fiscal pressure, assuming continuation of historically observed increases in program spending, outpacing growth with state general revenues, with the potential for further exacerbation based on both economic and regulatory risks. There are opportunities for Missouri to dramatically improve the effectiveness and efficiency of the program. The potential range of initiatives as previously outlined are ambitious in scale and scope. Addressing these opportunities and initiatives will require a thoughtful approach to portfolio selection and investment of significant resources. However, with sufficient leadership and commitment to long-term change, Missouri has the potential to dramatically improve the quality and efficiency of its Medicaid program and in so doing protect the financial sustainability of the program for future generations.