MFH
Missouri Foundation for Health

Bending the Health Care Cost Curve in Missouri

Options for Saving Money and Improving Care

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Executive Summary

The increase in health care costs over the past several decades has been both a national and a state-specific issue. Despite many efforts, the overall health care cost growth rate has not significantly slowed. These growing cost pressures require a serious, focused effort to fundamentally restructure the delivery of care and associated spending. This report, commissioned by the Missouri Foundation for Health (MFH), is designed to inform a state-level discussion of health care savings opportunities in Missouri.

The full report outlines the estimated impact of six scenarios that could help contain escalating health care costs in Missouri over the next decade while improving health care quality. Billions of dollars in savings are possible. Missouri's health care cost curve can be bent through policy options that better integrate care and yield better health care outcomes. While government would realize much of the savings, in many cases, they would also extend to private employers and households.

Policy Scenarios Designed to Help Contain Costs and Improve Quality of Care

To provide a baseline against which to measure the six scenarios, growth in Missouri health spending was projected through 2021. The Centers for Medicare and Medicaid Services (CMS) projects that national health spending will grow more than 5.9 percent per year over the next decade. Historically, Missouri's growth rate in health spending has averaged about 0.3 percentage points higher than the national average. Based on this trend, health spending in Missouri was projected to equal the national growth rate of 5.9 percent plus 0.3 percent, for an assumed growth rate of 6.2 percent.

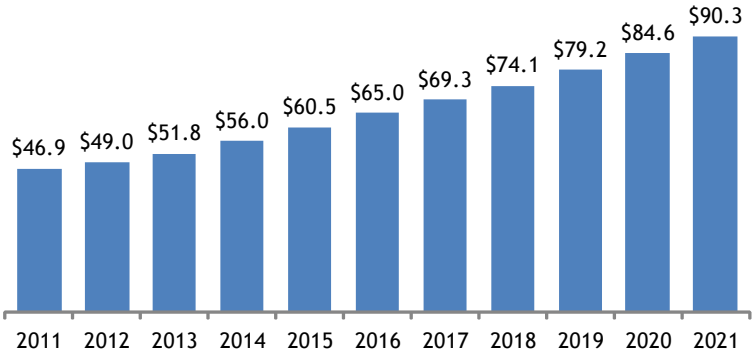
The Patient Protection and Affordable Care Act (ACA) will increase the number of people with health insurance coverage beginning in 2014. Additional spending for the newly insured is estimated to increase health care spending in Missouri by about 4.7 percent once all provisions of the ACA are fully implemented. Using these data, health spending in Missouri was estimated to grow from $46.9 billion in 2011 to $90.3 billion in 2021 (Figure ES -1), resulting in a 10-year baseline of almost $725 billion.

Identification of the six modeled scenarios began with examining a broad variety of policy options. While savings to the state's budget were an important consideration, the approach taken was to examine scenarios that could save health care dollars for all stakeholders. Options focused on approaches that would improve the quality of care provided; catalyze sustainable reductions in cost; and avoid significant disruptions in the health care marketplace for any participant (e.g., costs would not be extracted from, or borne exclusively by, one group or another). The six options selected are not meant to be exhaustive, but rather represent options to address various factors contributing to increasing health care costs and inefficiencies in existing delivery and financing systems. They were selected with the advice of a Technical Advisory Panel (TAP). TAP members came from a broad spectrum of the state health care market, including providers; individuals with knowledge of primary, acute, and long-term care services; and people with experience in government, private industry, and research.

This analysis also recognizes that the state's ability to influence health care policy is often bounded by its role as a direct purchaser of health care and a regulator of health care providers and insurance companies. As a result, the state has limited ability to influence the actions of

Medicare, private insurance, and self-insured organizations. Therefore, when appropriate, scenarios were modeled two ways: projecting "potential savings" if the scenario was universally adopted in Missouri, and "actionable savings" if it was adopted only by MO HealthNet, the Children's Health Insurance Program (CHIP), state and local employee benefit plans, and as the result of provider or payer regulation by state government.

Figure ES-1: Projected Total Health Spending in Missouri for 2011 through 2021 ($ in billions)



Source: Lewin Group estimates using CMS spending growth estimates.

The six scenarios include:

- **Implementing Mandatory Managed Care for the Dual-Eligible Population.** Under this model, dual-eligibles would be mandatorily enrolled in a fully integrated coordinated care setting under capitated managed care organizations (MCOs). These MCOs would be at full financial risk for the entire Medicaid and Medicare benefits package for their enrolled dual-eligibles. Requiring a partnership between CMS, which manages these programs at the federal level, and Missouri, it is assumed that Medicare and Medicaid funds for dual-eligibles would be pooled and savings split 50/50 between the federal government and Missouri. This scenario also estimated the savings that would accrue if the state adopted an "opt-out" approach: assigning dual-eligibles to an MCO but allowing them to opt out of a managed care environment and return to fee-for-service. Over 10 years, the mandatory policy is estimated to save $4.8 billion, assuming that 100% of dual-eligibles are enrolled; or $2.7 billion under the opt-out approach.

- **Adopting Bundled Payment Methods.** This scenario would make prospective payments for entire episodes of care, offering global fees otherwise referred to as "bundled payments." It potentially encompasses inpatient care, physician services while hospitalized, and post-acute care services including short-term skilled nursing facility (SNF) and home health care. This model would provide an opportunity for hospitals, physicians, and other health care providers to benefit from reducing complications and hospital readmissions and increasing flexibility in allocating resources. Based on adopting bundled payments initially for a selected number of conditions, this option has the potential of saving $1.9 billion across all payers during the 10-year period, approximately $0.53 billion of which is actionable through implementing bundled payments for MO HealthNet, CHIP, state and local government health care programs, and insurers participating in the state's health insurance exchange.

- **Enabling a Robust Insurance Exchange.** Under the ACA, Missouri has the option to implement a health insurance exchange addressing its unique needs. States may open exchanges to all insurers meeting minimum standards, or play an active role in selecting carriers, including competitive bidding on the basis of price and quality measures. This

Figure ES-2: Summary of Projected Savings by Policy Scenario, 2012-2021 ($ in billions)

Policy Scenario	Baseline Spending 2012-2021	Cumulative Potential Savings		Cumulative Actionable Savings	
		$	%	$	%
Implementing Mandatory Managed Care for Dual-Eligibles					
Mandatory	$73.5	$4.8	6.6%	$0	0%
Opt-Out	$73.5	$2.7	3.7%	$0	0%
Adopting Bundled Payment Methods	$38.6	$1.9	5%	$0.5	1.4%
Enabling a Robust Insurance Exchange	$38.1	$3.3	6.1%	$3.3	6.1%
Promoting Shared Decision Making and Palliative Care	$360.0	$5.9	1.6%	$4.34	1.2%
Care Coordination and Disease Management					
Mandatory Medical Home	$501.7	$11.9	2.4%	$3.2	0.6%
Voluntary Medical Home	$501.7	$3.1	0.6%	$0.89	0.2%
Advanced Disease Management	$501.7	$1.4	0.3%	$0.2	0.1%
Broadening the Scope of Practice for Primary Care Practitioners	$360.0	$1.6	0.4%	$1.6	0.4%

scenario estimates the effects of a competitive bidding model, often referred to as the "active purchaser" model, determining which plans may participate on the basis of price, access to providers, and quality of care measures. The decision of which approach to take in Missouri would apply to exchanges for individuals and small employers. Over 10 years, using an active purchaser model is estimated to save $3.3 billion, all of which would be actionable by the state.

- **Promoting Shared Decision-Making and Palliative Care.** Requiring providers to use patient decision aids in all health care programs, and requiring hospitals to establish palliative care programs, promotes better coordinated, higher value care where appropriate. Palliative care programs have been shown to improve physical and psychological symptom management, caregiver well-being, and family satisfaction. Studies have shown that when given the choice, patients nearing the end-of-life often will decline costly and invasive treatments that hospitals may be inclined to provide. Studies also have shown patients report more comfort and satisfaction with their treatment after using a decision aid; report more realistic expectations of treatment outcomes; and patient aids reduce waste associated with defensive medicine. Savings are estimated at $5.9 billion over 10 years, of which approximately $4.3 billion is actionable.

- **Care Coordination and Disease Management.** Implementing a medical home or advanced disease management program would improve care coordination, particularly for individuals with complex, chronic diseases. Designed to coordinate the care provided, this model includes a team of professionals led by a primary care provider, and programs designed to ensure that patients with chronic health conditions are treated according to evidence-based guidelines. Adoption of a mandatory or voluntary medical home program or an advanced disease management model could result in potential savings of $11.9 billion,

$3.14 billion, or $1.35 billion, respectively, over the next 10-years. Implementing only those program changes over which the state has management control would result in lower savings ($3.2 billion, $860 million, and $23 million, respectively).

- **Broadening the Scope of Practice of Primary Care Practitioners.** Missouri's current scope of practice for physician assistants and nurse practitioners is limited compared to many other states. For example, these trained professionals are often unable to write prescriptions or practice when they are not under the direct supervision of a physician. Expanding their scope of practice will improve access to primary care, for which there is significant unmet need in Missouri, and will reduce the overall costs of care while continuing to provide high quality care. Over 10 years, modeling of this scenario demonstrates that health care costs would be reduced by $1.6 billion, all of which is actionable by the state.

Additional Considerations

There are a number of additional considerations regarding these scenarios and savings.

1. **Results are not additive.** A number of these scenarios have overlapping impacts and thus, savings estimates are not additive.

2. **Results include potential and actionable savings.** These estimates reflect the total estimated "potential" savings that could result from each scenario, and "actionable" savings that the state can independently achieve. Actionable savings are limited when an entity such as the federal government, an insurance company, or provider has authority to choose whether to implement the proposed change.

3. **Federal health care reform initiatives provide new opportunities.** With the recent passage of the ACA, the federal government has taken steps that have the potential to slow the rate of growth in health care spending or enhance the impact of some of the options discussed here. While some of these changes have been incorporated, the impact of many of them is not yet known.

4. **Intrastate differences exist.** While the scenarios were modeled for statewide impact, the "I-70 corridor" clearly differs from the rest of the state. Policymakers may want to consider such differences during implementation.

5. **Effective design and phased implementation are assumed.** For the purposes of this paper, savings are presented on a consistent 10-year timeframe (2012–2021) to permit comparison; however, realistic timeframes to implement these options vary. This report assumes effective implementation and phased-in savings estimates, where appropriate. The impact of these cost-savings scenarios on provider taxes, which contribute to the funding of MO HealthNet, was beyond the scope of this report and should be taken into consideration as implementation plans and phase-in periods are determined.

6. **Realizing savings assumes that costs are not shifted elsewhere.** Savings to providers or insurers are not savings to consumers unless passed back as lower prices and/or lower premiums. We assume here that savings would come as a reduction in the rate of growth in health spending, but note that if those savings are retained by insurers or providers as income, they would not represent a net reduction in health spending and premiums.

Conclusions

Health care costs nationwide and in Missouri continue to escalate and squeeze government, employers, and households. In the wake of sizable state budget deficits, rising health insurance premiums and expanding public insurance enrollment, it is important to start addressing health care costs now. Federal health care reform will further increase the number of Missourians accessing the health care system, increasing cost pressures and the need to find more efficient, higher value approaches to health care delivery.

This report shows Missouri has the ability to trim health care cost growth by billions of dollars using a wide range of policy options available to the state. Implementing these changes would slow spending growth in Missouri without destabilizing the foundations of the delivery system. Rather, each scenario would improve the manner in which care is delivered or structured, resulting in a more efficient, integrated, patient-centered, and quality-oriented system.

Introduction

Perennial increases in health care costs present budgetary and other challenges for numerous stakeholders including governments, employers, consumers, insurers, and providers. Furthermore, escalating costs restrict access to necessary health services, which may have a negative impact on the public's health. Rising health care costs correlate with significant drops in health insurance coverage, and national surveys show that the primary reason people are uninsured is the high and escalating cost of health coverage.

The facts largely speak for themselves. From 1965 to 2009, health spending as a percentage of gross domestic product (GDP) steadily increased from 5.9 to 17.3 percent. National health expenditures grew by 1.1 percent between 2008 and 2009 alone, from 16.2 to 17.3 percent of GDP, while GDP fell by 1.1 percent in the same time period. Projections for the period of 2010 through 2020 estimate an annual health spending growth rate of 5.8 percent, 1.1 percentage points greater than the average annual growth rate in the overall economy. By 2020, national health spending is expected to reach $4.6 trillion and comprise 19.8 percent of GDP.[1]

While it is not the state with the highest health care expenses, Missouri still faces substantial health care costs. Total annual health care spending in Missouri exceeded $41 billion in 2009, with the state exhibiting somewhat higher-than-average per capita health spending when compared to national statistics ($6,967 vs. $6,815).[2] Of this, $9.6 billion was paid by Medicare, $7.4 billion by Medicaid, and $24.7 billion was covered by other sources including private insurance, other public programs, and out-of-pocket spending by families. Hospital care accounted for 45 percent of spending with physician care accounting for 18 percent of expenditures.

Health care spending in Missouri is estimated to grow to $46.9 billion in 2011 under current law (Figure 1). This includes total spending for Missouri residents by all payer groups, including payments to health care providers and the cost of administration for insurance and public programs (excluding public health research and construction).[3] Of this, $19 billion would be for hospital care and $9.6 billion would be spent on physician care.

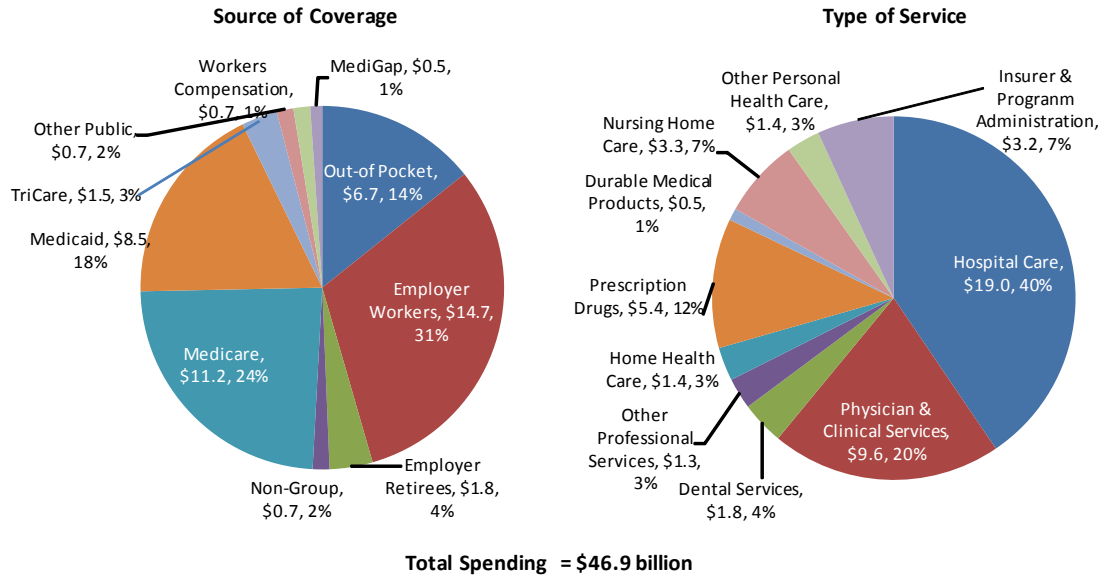
Long-term care spending would be $6.1 billion in 2011, including nursing home care, home health, and other personal health care services. Missourians will spend about $5.4 billion on outpatient prescription drugs, which is equal to about 11.5 percent of total spending. The cost of administration for private insurance and public programs would be $3.2 billion, which is 6.9 percent of total spending. (Administrative costs for providers are included in the amounts paid for services and are not reported separately.)

1 "National Health Expenditure Projections 2010-2020." Centers for Medicare and Medicaid Services. 2011. Available at: https://www.cms.gov/nationalhealthexpenddata/03_nationalhealthaccountsprojected.asp.

2 Kaiser State Health Facts; "Health Care Expenditures per Capita by State of Residence, 2009," accessed at http://statehealthfacts.org/comparetable.jsp?ind=596&cat=5&sub=143&yr=14&typ=4&sort=a, January 4, 2012.

3 This definition of spending is termed "health services and supplies."

Figure 1: Projected Spending in Missouri by Type of Service and Source of Coverage in 2011 ($ in billions)



Source: Lewin Group estimates using data provided by the Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS).

Spending by source of coverage required a number of analyses. Medicaid and CHIP spending are estimated using CMS information by type of service for 2009 and 2010. These data show that total program spending, including the state and federal shares, was $7.88 billion in 2010, a 4.4 percent increase from the prior year. Assuming the same rate of growth, overall Medicaid and CHIP spending is estimated to be $8.5 billion in 2011. The Medicare health spending estimates were projected to 2011 based on CMS data on Medicare spending by service after 2004, and into the projection period for 2011, resulting in estimated 2011 spending of $11.2 billion.

Data on spending for state safety-net programs and health benefits under the workers compensations program also are included. These estimates were based on a detailed assessment of federal, state, and local government spending using data from CMS.

Total employer health spending in the state was estimated based on average premiums and the number of covered workers in each firm size and policy type group in Missouri. Employer spending was projected in 2011 based on the CMS projection of spending for private health insurance nationally. There will be an estimated 1.6 million workers with employer-sponsored health insurance covering $14.7 billion in health services for workers and dependents. Other private health spending was estimated using The Lewin Group Health Benefits Simulation Model (HBSM), a micro-simulation model of the health sector designed to produce state-level estimates.

Despite the relatively high level of health care spending in Missouri, the state is not performing well on many indicators of health system performance and quality. The 2009 Commonwealth Fund State Scorecard ranks Missouri in the third or fourth quartile in many dimensions of health care. The state ranks 41st in healthy lives, 33rd in equity, 30th in access to care as well as prevention and treatment, and 28th in potentially avoidable use of hospitals and costs of care.

Overall, Missouri is ranked 36th in the nation, down from 31st in 2007.[4] These rankings suggest opportunities to provide more efficient and effective care.

Six Options to Bend the Cost Curve

This paper outlines the estimated impact of six health care cost containment scenarios that could help contain escalating health care costs in Missouri over the next decade, while simultaneously leading to improved care coordination and quality. Though each of the six scenarios is summarized here for policymakers, the paper is accompanied by a detailed technical appendix that contains additional information regarding the estimates and assumptions on which they are based.

This report is modeled after two other reports. The first, the 2007 Commonwealth Fund report, "Bending the Curve: Options for Achieving Savings and Improving Value in U.S. Health Spending," examined 15 options with the potential to lower health care spending nationally. The second, the 2010 New York State Health Foundation report, "Bending the Health Care Cost Curve in New York: Options for Saving Money and Improving Care," identified 10 options to lower health care spending and improve care in New York. Moreover, in moving the cost and quality discussion from a national to a state level, this second report recognized both the amount of work states have historically undertaken to address health care costs and the limitations faced by states due to their inability to impact a large portion of the health care marketplace.

Identification of the six scenarios modeled for this report began with the 10 options included in the New York State Health Foundation report. Several options were excluded because 1) the issue had already been vetted and/or modeled in Missouri (e.g., the impact of increasing tobacco taxes on tobacco use and rebalancing the long-term care system); 2) the issue did not appear to be of substantial significance to the Missouri health care system (e.g., use of alternative delivery systems such as retail clinics); or 3) the scenario had matured during the intervening time period and did not appear as valuable to model (e.g., establishing hospital pay-for-performance systems). Other issues, such as broadening the scope of practice of primary care practitioners and the impact of establishing a robust health insurance exchange, had recently matured as the result of the ACA and were considered for this analysis.

Options were focused on identifying approaches that would improve the quality of care provided and catalyze sustainable reductions, while not creating significant disruptions in the health care marketplace for any one participant (e.g., costs would not be extracted from, or borne exclusively by, one group or another). Moreover, while savings to the state's budget were an important consideration, the approach taken in this report was to examine scenarios that could save health care dollars for all stakeholders in the system. The six options selected are not meant to be an exhaustive list of approaches. Rather, they represent a range of options to address various factors that contribute to increasing health care costs and inefficiencies in existing health care delivery and financing systems.

The final six scenarios were selected with the advice of a Technical Advisory Panel (TAP) convened by MFH and The Lewin Group. TAP members came to this project from a broad spectrum of the Missouri health care market, including individuals with knowledge of

4 Commonwealth Fund, State Scorecard Data Tables, October 2009, accessed at http://www.commonwealthfund.org/~/media/Files/Publications/Fund%20Report/2009/Oct/State_Scorecard_data_tables_2009_COMPLETE_v2.pdf, November 22, 2011.

primary, acute, and long-term care services and providers, and those with experience in government, private industry, foundations, and research. TAP members also provided valuable perspectives and feedback during the course of the modeling process.

Missouri has sought to control health care costs, particularly in its MO HealthNet program, and has achieved some success. However, the scenarios described in this paper are intended to broaden the scope of potential savings beyond those that the state can impact as a direct payer or purchaser of health care services. Furthermore, there is variation among the selected scenarios in the state's ability to directly impact savings. For example, by implementing shared decision making and expanding palliative care programs, state action could lead to savings throughout the health care system. In the case of bundled payments, savings may be limited to payers that the state can impact directly (i.e., MO HealthNet, and state and local government employees). While the scenarios were modeled for statewide impact, the "I-70 corridor" clearly differs from the rest of the state. Policymakers would likely need to account for such differences during implementation, and may wish to consider targeting scenarios to particular regions where they may be most effective.

Finally, the amount of work needed to ramp-up to implementation of each scenario varies considerably. For example, the scenario calling for expanding the availability of patient decision aids and palliative care services assumes that these resources and a sufficiently-trained and knowledgeable workforce are in place. However, workforce development resources and training may be required to recruit, retain, and train sufficient providers to make the scenario successful. For the purposes of this paper, savings are presented on a consistent 10-year timeframe (2012–2021) to permit comparison; however, realistic implementation times vary. A next logical step that should be considered by MFH is the development of high-level implementation plans, which will enable time frames and other implementation issues related to the most promising scenarios to be examined.

Methods

The following sections present estimates of the financial impact of the six cost-containment scenarios. Estimates are provided for a 10-year period, 2012 to 2021. Included under each option are a brief discussion of the scenario; a description of how savings were estimated, including assumptions required to model impacts; and a brief discussion of limitations and potential implementation considerations, such as actionable steps that the state could take to achieve these savings. Further detail regarding assumptions, data sources, and methods can be found in the detailed technical appendix.

It is important to note that a number of these scenarios have overlapping impacts and, thus, savings estimates are not additive. For example, if Mandatory Managed Care for Dual Eligibles (which includes acute and long-term care services) and Care Coordination were both implemented, savings would be less than the cumulative savings projected for both scenarios because a portion of the cost savings in one would also be included in the second. This interaction is also true for Broadening the Scope of Primary Care and Shared Decision Making, which both involve care coordination. While there was no attempt to quantify all of the potential overlaps, clearly a number of areas where overlaps may exist need to be considered in determining which options to implement.

Some of these proposals are not assumed to necessarily save money and could actually increase costs if the up-front investment does not result in greater efficiencies or reduced utilization of services. These issues were dealt with by designing variations on these cost savings proposals that focus on the patient groups where the potential for net savings is strongest, such as people with chronic health conditions. In each scenario, data sources are identified for purposes of the analysis. In general, this report relies on estimates of the impact of similar proposals described in peer reviewed literature.

The approach to these analyses begins with an extensive review of the literature on the effect of these policy options where implemented. For example, elements of bundled payments and disease management (DM) actually have been tested in demonstrations conducted by Medicare and some commercial insurers. Estimates can be based on the net savings documented in these demonstrations. In addition to demonstrations, there are independent studies in academic and professional journals that document the impact of alternative approaches to patient care, such as palliative care.

However, some of the ideas studied, such as health insurance exchanges, are so new that they have never been implemented or even tested through some form of demonstration. In these cases, the paper extrapolates from similar experiences in other settings that employ similar incentives, although careful adjustments are required to reflect the unique features of each policy option.

Some estimates were developed using a model that incorporates results from several studies. Each of these scenarios required very different data. For example, modeling the impact of bundled payments required an analysis of Missouri hospital inpatient discharge data provided through the Hospital Cost and Utilization Project (HCUP) for 2009. Average charge for each condition was computed separately for Medicare, Medicaid, privately insured, and other payers, and average charges were converted to costs using the average inpatient cost-

to-charge ratio for Missouri hospitals from the Medicare PPS Impact file for FY2011. Finally, payment amounts were estimated using national hospital payment-to-cost ratios from the 2011 American Hospital Association (AHA) Trendwatch Chartbook (hospital data from 2009). The dual eligibles scenario also relied on data from the Centers for Medicare and Medicaid Services (CMS) Medicaid Statistical Information System (MSIS).

Finally, data were used from The Lewin Group Health Benefits Simulation Model (HBSM) to provide detailed information on spending for people in Missouri by source of payment, type of service, and demographic group. These data are based on information on health spending for Missouri from the Office of the Actuary of CMS, state health benefits programs, state-level population demographic data, and the Medical Expenditures Panel Survey (MEPS) data for the region. For several scenarios, these data enabled estimated spending for the state populations that would be subject to state control or regulation. These data also provided information on Medicaid enrollment and spending in Missouri, which was used to estimate the impact on Medicaid spending for several of the scenarios that did not require claims level analysis.

The growth in health spending through 2021 was projected based on CMS historical and projected spending growth data. CMS projects that national health spending will grow at roughly 5.9 percent per year over the next decade.[5] Separate spending projections for Missouri are not available, but we developed long-term spending projections for Missouri based on the historical spending growth information provided by CMS. These data describe the rate of growth in health spending by state for 1991 through 2004, demonstrating that the average rate of growth in health spending for Missouri has been about 0.3 percentage points higher than the national average. Based on this historical trend, health spending in Missouri was projected to be equal to the national growth rate of 5.9 percent plus 0.3 percent, for an assumed growth rate of 6.2 percent. Using these data, health spending in Missouri is estimated to grow from $46.9 billion in 2011 to $90.3 billion in 2021.

The projection of health spending in this report was based in part on 2004 Missouri health spending data from CMS, trended forward assuming the national rate of health spending growth plus 0.3 percent. This was based on historical trend data for Missouri compared to U.S. trends. Since the completion of our analyses, CMS has released more recent state health spending data through 2009. These data show that the rate of growth in per-capita health spending in Missouri between 2004 and 2009 was about 0.4 percent higher than the national average. Based on these new data, actual Missouri health spending may be slightly higher than originally estimated in this report. Thus, the potential cost savings for the six initiatives may be underestimated.

The 2004 CMS data was only one of the sources of information used for spending projections. More recent data were also used for several of the larger payers in the state to supplement the older CMS data. 2010 Missouri Medicaid and CHIP spending data and 2009 premium data for Missouri employers from the MEPS Insurance Component were used. These two components accounted for about 50 percent of total health spending in Missouri.

When necessary, two sets of estimates were prepared for each policy option. First, estimates were made of the impact of implementing these policies for all Missouri residents not covered

5 CMS National Health Expenditures Projections 2010-2020.

under similar programs, regardless of the source of payment. These estimated savings are described as potential savings, or those reflective of the full universe of savings if the policy options were implemented for all payers (federal, state, and commercial). The second set of estimates corresponds to the cost impact of applying these policies to groups subject to state control or regulation. These estimated savings indicate those that could be realized though specific steps the state could take (termed "actionable savings" throughout this paper). Estimates were distributed across payers based on the baseline distribution of health spending for types of service affected by the option.

The actual effects of these options over the next decade could differ substantially from our projections. The market effects of a sizeable Medicaid expansion population cannot be exactly predicted, and will depend on a variety of choices made in Missouri and at the federal level in the next several years. Unforeseeable changes in new technology and disease prevalence could dramatically alter spending growth trends. These estimates also are based on the results of demonstrations and similar initiatives implemented elsewhere, and often in an ideal environment for a given option, such as size of physician group or physician affiliation with hospitals. Thus, the effect of an option on spending, once broadly implemented, may differ from the estimates presented here.

Also, it is possible that the loss of income under these policy options could cause spending shifts and increased utilization for other services. For example, some physicians may increase the number of services prescribed in other ways, such as adding new imaging equipment to their offices, to replace the lost income. Hospitals experiencing reduced admissions may seek to fill beds through elective surgeries. To bend the health care cost curve, a focused policy effort is needed to ensure reduced spending is not inappropriately offset by new spending. The growing emphasis on reporting and health outcomes will make it difficult for physicians and hospitals to provide services that do not enhance outcomes or health status.

In addition, savings to providers or insurers are not savings to consumers unless the savings are passed back in the form of lower prices and/or premiums. In this analysis, it is assumed that the savings would come as a reduction in the rate of growth in health spending. For example, savings from broadening the scope of primary care practitioners would effectively reduce the costs of primary care delivery over time, resulting in reduced premium growth. However, to the extent that savings are retained by insurers or providers as income, or made up for by increasing the utilization of other services, these savings would not represent a net reduction in health spending and premiums.

Implementing Mandatory Managed Care for the Dual-Eligible Population

Enrollment Model	Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
		$	%	$	%
Mandatory	$73.5	$4.8	6.6%	$0	0%
Opt-Out	$73.5	$2.1	3.7%	$0	0%

Baseline spending includes combined Medicare and Medicaid spending for dual eligibles.
Estimated savings are State and Federal.

Background

Dual eligibles are the low-income elderly and individuals with disabilities who are simultaneously enrolled in Medicare and Medicaid. Dual eligibles are among the frailest and most vulnerable members of the Medicaid program, resulting in high use of health care services. As a result, they are a high-cost population, accounting for 10 percent of all national health expenditures, 40 percent of Medicaid spending, and 25 percent of Medicare spending.[6] In Missouri, dual eligibles account for 35 percent of Medicaid spending. Dual eligibles are predominantly served by traditional fee-for-service (FFS) models, which can lead to poorly coordinated care and unnecessarily high costs. An array of initiatives is currently under way around the country to transition health coverage for dual eligibles to a more efficient and effective coordinated care setting.[7]

Several characteristics of dual eligibles make this population strongly positioned to reap the benefits of coordinated care. These factors include high per capita costs in service areas that typically respond favorably to coordinated care; high prevalence of chronic conditions; complex co-morbidities; and stable eligibility. Missouri has a population of approximately 150,000 dual eligibles, 140,000 of whom are "full duals," receiving the full Medicaid and Medicare benefit package. Currently, the average per capita cost for Missourians who are "full duals" is $34,143. These "full duals" are best suited to participate in a coordinated care program and are the focus of this scenario.

Policy Option

This scenario estimates the savings that would occur through "optimal" care coordination for Missouri's population of full dual eligibles. Under this approach, Missouri's dual eligibles would be mandatorily enrolled into capitated managed care organizations (MCOs).[8] This design would foster maximum patient participation and would require positive provider interaction with participating MCOs to maintain or increase their population of dual eligible patients.

6 Lewin estimates based on MSIS data for Medicaid spending and various sources for national health spending, Medicare spending and GDP.

7 Statement of Melanie Bella, Director of the Medicare-Medicaid Coordination Office, Centers for Medicare & Medicaid Services on Dual-Eligibles: Understanding This Vulnerable Population and How to Improve Their Care Before the U.S. House Committee on Energy & Commerce, Subcommittee on Health, June 21, 2011. Available at: http://republicans.energycommerce.house.gov/Media/file/Hearings/Health/062111%20Dual%20Eligibles/Bella.pdf.

8 This scenario also estimates the impact of an "opt-out" model (one in which beneficiaries would be assigned to an MCO but could "opt-out" of the managed care model and return to fee-for-service). This approach is one which has been endorsed by CMS leadership.

This enrollment model assumes that Missouri would contract with at least two MCOs through competitive procurement and intensive ongoing monitoring to ensure that only highly qualified MCOs participate and effectively serve the complex needs of Missouri's dual eligibles. These MCOs would receive funding from both Medicare and Medicaid, pool these funds, and assume full risk for the costs of the Medicare and Medicaid services for enrolled dual eligibles. Any overall savings achieved by this capitated model would be split 50/50 between the federal government and the state, regardless of attributable savings. That is, while coordinated care programs for dual eligibles are likely to achieve savings primarily due to reductions in Medicare costs, aggregate savings will be distributed equally between the state and federal governments without respect to the proportion of services realized in each program.

The mandatory enrollment nature of this initiative also lowers administrative cost requirements and creates per capita administrative efficiencies for MCOs by eliminating marketing costs and ensuring large-scale enrollment. Available dollars can thus be focused on "serving" rather than "selling."

In April 2011, CMS launched State Demonstrations to Integrate Care for Dual Eligible Individuals, awarding grants to 15 states to design, test, validate, and fully integrate delivery systems and care coordination for dual eligible individuals. [9] Though it has awarded demonstration funds only to these states, CMS encouraged other states in a July 2011 state Medicaid directors letter[10] to implement the demonstration financial models to further align care for dual eligibles, but without grant funding. The data sharing and other promised supports by CMS should be important partnerships to bolster state integration of care for dual eligibles through managed care programs such as the model described here.

Estimated Effects

This model's estimated effects are based on an initial implementation in 2012, with only about half of the target population phased-in during the first year, while the remaining target population continues in the FFS setting. Because of the amount of program development and administrative work required, even with this phase-in period, implementation in 2012 is unlikely. However, the 2012 figures in this scenario serve as a reasonable indication of the level of "Year 1" savings that would occur upon implementation.

Figure 6 illustrates where costs in a coordinated care setting are expected to be below those in the traditional FFS setting for dual eligibles; these projections are the "impact factors" of coordinated care for each service component.[11] A factor below 1.00 indicates a decrease in costs in the coordinated setting from costs associated with the traditional setting. That is, an impact factor of 0.800 indicates an anticipated 20 percent decrease from the baseline figures listed above in Medicaid costs in that medical service category.

9 Dual eligible individuals are those who are eligible for both Medicare (Title XVIII of the Social Security Act) and Medicaid (Title XIX of the Social Security Act).

10 Centers for Medicare and Medicaid Services. "Financial Models to Support State Efforts to Integrate Care for Medicare-Medicaid Enrollees," July 2011. Available at https://www.cms.gov/smdl/downloads/Financial_Models_Supporting_Integrated_Care_SMD.pdf.

11 The Lewin Group, "Increasing Use of the Capitated Model for Dual Eligibles: Cost Savings Estimates and Public Policy Opportunities," November 2008. Available at <http://www.ahcahp.org/LinkClick.aspx?fileticket=9vIE_QLjQ4o%3D&tabid=66>.

The factors used in Figure 6 represent The Lewin Group's general estimates of the degree to which baseline FFS costs for dual eligibles will be impacted by an optimal coordinated care program. The factors do not represent estimates of the level of savings that can be achieved for Missouri's Medicaid-only beneficiaries who currently receive coverage in the FFS setting.

Figure 6: Coordinated Care Cost Impact Factors

Service Category	2012	2017	2021
Medicaid Services			
Inpatient Hospital	0.80	0.80	0.80
ICF-MR	0.98	0.95	0.95
Nursing Facility	0.99	0.93	0.89
Physician	1.00	1.00	1.00
Dental	1.20	1.20	1.20
Other Practitioner	1.00	1.00	1.00
Outpatient Hospital	0.85	0.85	0.85
Clinic	1.00	1.00	1.00
Lab and X-Ray	0.85	0.85	0.85
Drugs	0.85	0.85	0.85
Other Services	0.90	0.90	0.90
Sterilization	1.00	1.00	1.00
Personal Care	0.95	0.95	0.95
Medicare Services			
Medicare Part A	0.75	0.75	0.75
Medicare Part B	0.85	0.85	0.85
Medicare Part D	0.85	0.85	0.85

Cost savings for most service areas are projected to occur in the first year of implementation, and these percentage savings are held stable thereafter. Key Medicaid savings opportunities in the near term are projected for inpatient hospital, outpatient hospital, lab and X-ray, and pharmacy – all areas in which the managed care industry has demonstrated a strong ability to influence spending and achieve cost savings. In contrast, while nursing facility usage is a key long-term driver of cost savings, these savings are minimal in the first years of implementation, but accumulate favorably over time. Near term savings in nursing home usage will be difficult to achieve because of limited opportunities for discharge for current nursing home patients. However, with focused efforts on keeping individuals in community-based setting and avoiding transition to nursing home facilities, these "diversions" will result in savings that accumulate favorably and sizably over time. The cost factors in Figure 6 above indicate cost savings of more than 10 percent for nursing facilities over the first 10 years of the initiative.

Figure 7 presents the estimated Medicare, Medicaid, and total cost savings over the first 10 years of implementation of an "optimal" coordinated care program.

Figure 7: Estimated Savings over 10-Year Period

Service Category	2012*	2016	2021	Total over 10 years
Medicaid Medical Savings (PMPM)	$68	$139	$206	
Medicare Medical Savings (PMPM)	$303	$415	$545	
Total Medical Savings (PMPM)	$372	$555	$750	
Administrative Costs and Profit	$202	$274	$353	
Net Program Savings (PMPM)	$170	$281	$397	
Enrolled full duals*	70,012	147,165	153,141	
Total $ Savings	$142,392,338	$496,260,499	$729,974,263	$4,831,064,423
Percent Savings	5.4%	7.2%	7.3%	6.6%

*50% enrollment phase-in assumed during CY2012.

The amounts paid to the participating MCOs for administrative costs and for profit (or risk margin) are projected to average approximately 7 percent of overall capitation payments. These allocations fall well within the medical loss ratio (MLR) requirements created by the Affordable Care Act for plans participating in the exchange (ACA does not establish MLRs for Medicaid plans). The administrative cost percentage for dual eligibles is pulled downward by the duals' nursing home expenditures, given that an institutionalized individual creates thousands of dollars of monthly nursing home costs, but adds very little to an MCO's administrative costs.

In this model, savings are anticipated to occur on a large scale and immediately after implementation of a coordinated care program. Assuming that Missouri splits savings 50/50 with the federal government, state fund savings of more than $70 million are expected in the first year, increasing to $365 million in year 10. State fund savings of $2.4 billion are projected to accrue across the first 10 years of program implementation. Reductions in provider tax revenues resulting from reduced spending for inpatient, nursing facility, and pharmacy services will occur, but should be partially offset by Missouri's share of savings related to Medicare expenditures.

This scenario assumes that the coordinated care initiative is implemented statewide with mandatory enrollment. However, statewide implementation may be difficult to achieve given that managed care plans may not adequately serve all regions of the state and beneficiaries or other stakeholders may push back on a mandatory enrollment. Figure 8 demonstrates scenarios involving smaller geographic areas and an opt-out enrollment approach. Under an opt-out enrollment approach, full duals would be notified of their default enrollment in the capitated program until they formally request to remain in or return to the traditional FFS payment model. Figure 8 also demonstrates the impact of varying geographic scopes for implementation through proportional coverage of full duals. Based on experience in Kentucky, where 95 percent of individuals enrolled in an opt-out situation, this scenario conservatively estimates that 80 percent of the target population would still enroll.[12]

12 If a 5.0% savings in duals' per capita costs is projected in a given year under mandatory enrollment, a 3.5% savings would be used for the opt-out enrollment model.

Nonetheless, an effective care coordination program for Missouri's dual eligibles would result in significant savings opportunities for the state. Even if only 25 percent of dual eligibles participated, savings resulting from the programmatic change in the opt-out enrollment model are estimated to be $676 million over the first 10 years of implementation. Given the assumed 50/50 state and federal shared savings, Missouri would realize an average savings of more than $30 million annually over the first 10 years. In a model of statewide mandatory enrollment with 50/50 shared savings, the state would average almost $250 million annually in savings. Similarly, if an opt-out program were implemented in the "I-70 corridor," which encompasses approximately 60 percent of the state's population, savings would approximate those comparable to a 50 percent mandatory participation rate, with 10-year savings of $2.4 billion or $1.2 billion in state funds.

Figure 8. Estimated Savings Under Differing Enrollment Approaches ($ in millions)
(Figures represent total savings across Medicaid and Medicare services)

Geographic Scope	Enrollment Model	Year			
		2012	2016	2021	10 Year Total
Statewide (All Full Duals)	Mandatory	$142	$454	$749	$4,831
Statewide (All Full Duals)	Opt-Out	$80	$254	$420	$2,705
50% of Full Duals	Mandatory	$71	$227	$375	$2,416
50% of Full Duals	Opt-Out	$40	$127	$210	$1,353
25% of Full Duals	Mandatory	$36	$113	$187	$1,208
25% of Full Duals	Opt-Out	$20	$64	$105	$676

Discussion

Transitioning to a model of mandatory enrollment in managed care for dual eligibles would require the consent and participation of the federal government. Until the latest CMS state demonstration program described above, mandatory managed care enrollment for dual eligible populations had not been permitted; states will still need CMS' consent, which will require states like Missouri that did not receive demonstration grants to indicate that they can meet certain standards before implementing a mandatory enrollment program for integrated care. Moreover, recent statements from CMS leadership have indicated that they are more likely to look favorably on opt-out models of managed care for dual eligibles.

In addition to federal consent, a mandatory managed care program for dual eligibles will require the federal government's participation in order to achieve the savings modeled here. Because Medicare and Medicaid are funded separately, without a shared savings approach, the administrative costs of a mandatory managed care program for dual eligibles would be borne largely by the state while the majority of the programmatic savings would accrue to the federal government under the Medicare program. This would result in substantially reduced savings for Missouri's Medicaid program while the federal government would still realize large savings. Because a mandatory managed care program would require federal approval

and because of the need for shared savings with Medicare, none of the potential savings in this option is truly "actionable" by the state of Missouri alone.

Mandatory managed care of dual eligibles would require a substantial increase in administrative resources dedicated to such a program. Missouri has some experience with integrated care for this population, but its existing infrastructure is limited. Fewer than 200 Missouri dual eligible individuals are enrolled[13] in the Program of All-Inclusive Care for the Elderly (PACE).[14] The state also contracts with Special Needs Plans (SNPs)[15] under Medicare Advantage, with four SNP contracts serving more than 4,000 dual eligible individuals.[16] Both PACE and SNP programs adhere to the principles of fully integrated care for dual eligibles, but in Missouri enrollment is limited to only a fraction of the 150,000 dual eligibles in the state. Developing and maintaining a strong administrative infrastructure to ensure the delivery of high quality health care will be an important component of a successful mandatory managed care program for this population.

13 Kaiser Family Foundation. "Missouri: Medicaid Managed Care," June 2009. State Health Facts. Available: http://www.statehealthfacts.org/profileind.jsp?cmprgn=34&cat=4&rgn=27&sub=56.

14 PACE is a benefit that states may choose to offer Medicaid beneficiaries age 55 or older who require a level of care provided by a nursing facility. PACE programs must provide a wide range of acute and long term care services and supports, and all services covered under Medicare and all services covered under the state's Medicaid program must be provided through this program. Beneficiaries enrolled in PACE programs are exempt from deductibles, copayments, coinsurance, or other cost-sharing that would be otherwise required under Medicare or the state Medicaid program.

15 SNPs are a form of Medicare Advantage plans authorized to provide a managed care option for three groups of beneficiaries with significant or relatively specialized care needs, including Medicare beneficiaries who are eligible for both Medicare and Medicaid (dual eligibles), beneficiaries living in nursing homes or other institutions, and beneficiaries with severe chronic or disabling conditions. Beneficiaries eligible for SNPs tend to have significant medical and support needs and use more services than others; as a result, they account for a disproportionate share of Medicare spending.

16 Kaiser Family Foundation. "SNP Enrollment, by SNP Type: 2011 (States)." Medicare Health and Prescription Drug Plan Tracker. Available: http://healthplantracker.kff.org/topicresults.jsp?i=59&rt=2.

Adopting Bundled Payment Methods

Percentage of Costs Represented by Bundled Conditions	Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
		$	%	$	%
29%	$38.6	$1.9	5%	$0.5	1.4%
100%*	$133.0	$6.6	5%	$1.8	1.4%

Baseline spending includes spending for all services that would be included under the bundled payment program, such as hospital services, physician services performed during the hospitalization, and post-acute care provided within 30 days of hospitalization for the conditions and procedures listed.
* Estimated savings assumes that 100 percent of services requiring hospitalization are bundled. This was extrapolated based on the fact that the modeled conditions currently account for approximately 29% of spending for all services that would be bundled. This assumes that the same level of savings can be achieved for all bundled services.

Background

Current payment methods tend to reimburse hospitals on a per discharge basis, and physicians on a per service basis. Although hospitals have a financial incentive to manage a patient's care during the hospital stay, there is little or no incentive to manage a patient's condition following discharge. Physicians usually are paid for each service they provide, thus there is little financial incentive for them to manage utilization of ancillary tests and services for a patient while in the hospital, or to manage a patient's care after discharge to help avoid preventable readmissions.

Bundled payments would consist of a single payment for all services provided to a patient during an episode of care. This would include hospital and physician care while in the hospital and in the post-acute phase, regardless of the number of services provided. These bundled payment rates should be adjusted for the severity of the patient's illness (risk adjusted) in order to account for the additional resources required to treat sicker patients. The payments can be made to the hospital or some managing entity that then distributes the funds to all the parties involved. Providers usually decide how bundled payments are distributed among the hospital and physicians.

Evidence supports adopting a bundled payment methodology as a way to contain costs in Medicare and private insurance settings. An evaluation of the Medicare Participating Heart Bypass Demonstration found that it saved Medicare an average of 15 percent for bypass surgery patients in demonstration hospitals (with inflation adjustments).[17] The Geisinger Health System in Pennsylvania implemented a bundled payment program for non-emergency coronary artery bypass graft (CABG) procedures (ProvenCare) in 2006 and demonstrated savings of 5 percent.[18]

Since bundled payments are usually based on an average of what it currently costs to provide the full range of services for an episode, hospital and physician groups could profit by reducing adverse events and controlling costs to below the average. Groups that cannot lower costs will lose money under the system. Thus, a bundled payment methodology creates incentives for hospitals and physicians to work together to manage a patient's care throughout the entire

17 J. Cromwell, D.A. Dayhoff, et al, "Medicare Participating Heart Bypass Demonstration: Final Report," CMS, (1998).

18 Casale A, Paulus RA, Selna MJ, Doll MC, Bothe AE Jr, McKinley KE, Berry SA, Davis DE, Gilfillan RJ, Hamory BH, Steele GD Jr, "'ProvenCareSM': A Provider-Driven Pay for Performance Program for Acute Episodic Cardiac Surgical Care," *Annals of Surgery*, October 2007.

episode of care. This may require significant changes in physician practice patterns and hospital operation, as well as investments in different strategies to reduce adverse events and preventable readmissions.

The ACA calls for the establishment of a national pilot program on bundled payments for the Medicare program beginning in 2013. Although the final specifications of the program are left up to the Secretary of Health and Human Services (HHS), the ACA has specified a pilot program to cover 10 conditions. This includes an episode time period that begins three days prior to a hospitalization, called the "anchor" admission, and ends 30 days after discharge.[19] This includes the full cost of hospital readmissions that begin within 30 days of discharge from the anchor admission, including any portion of that readmission occurring outside the 30-day window.[20] The bundled payment under ACA can include hospitals, physicians, skilled nursing facilities, and home health providers. This analysis is based on a bundled payment program design similar to the ACA specifications.

Policy Option

This scenario estimates the potential savings resulting from the use of bundled payment methodologies throughout the health care system for all payers in Missouri. Such a payment reform would provide an opportunity for hospitals, physicians, and other health care providers to benefit from reducing complications and hospital admissions, and would allow for more flexibility in allocating services.

The bundled payment model in this analysis included specific types of conditions and procedures, which were selected based on groupings of closely related DRGs. These selections were based on previous bundled payment studies, other bundling demonstrations and bundled payment systems including the Geisinger Health System, and the concentration of admissions in certain specialties. A comprehensive list of the services selected for this analysis is included in Figure 19 of the Technical Appendix, including 76 different DRGs and accounting for about 33 percent of all Missouri hospital discharges and 29 percent of total hospital inpatient costs in 2009.

This analysis assumed that hospitals would be paid a single bundled rate that covers hospital inpatient stays and any readmissions occurring within 30 days of admission. The payment amount also would include post-acute rehabilitation, skilled nursing, home health services, hospital outpatient services, and payment for the attending physician and all consults. Physician office visits were excluded because it is unlikely that some of these would be related to the initial stay; additionally, their costs tend to be small relative to the inpatient and post-acute care costs for individual episodes.

This scenario assumed that bundled payment rates are set at the average current spending for the bundle of services, as opposed to other bundled payment programs that set the rates equal to the average cost of services, less some allowance for expected reductions in adverse events or negotiated rates with hospitals. Savings from this bundled payment program were estimated under the assumption that hospitals and physicians are able to reduce costs for all these

19 The three days prior to admission are included to encompass any pre-admission visits with the physician or hospital attributed to the admission.

20 For example, the full cost of a readmission occurring on the 30th day following discharge from the anchor admission is included, including days of the readmission extending beyond the 30-day window.

services, similar to findings under the Medicare Participating Heart Bypass Demonstration, which are estimated at about 10 percent; and Geisinger's ProvenCare model, which showed about 5 percent savings. This analysis assumed the more conservative 5 percent savings and assumed that these savings would be passed on to insurers, and eventually to consumers, in the form of lower payment rate increases for these services over time.

These system-wide savings were estimated assuming that bundled payment methodology is implemented in 2012 by all commercial insurers as well as Medicare and Medicaid programs. The savings estimates assume that the bundled payment program would be phased-in over three years and that it will take this full phase-in period before the full effect of these savings materializes.

Estimated Effects

This scenario estimated the savings under two options. The first option (Figure 9) reflects the impact on savings if all payers – Medicare, Medicaid, state and local governments, commercial health plans, and private ERISA plans – changed their payment methodology. This option results in an estimated total savings due to the bundled payment program of $1.9 billion from 2012 to 2021. However, nearly half of these savings would be realized by the federal government, while the state would see savings of $182 million due to savings to the Medicaid program and employee health benefit programs.

Figure 9: Estimated Savings by Stakeholder Group 2012-2021 ($ in millions)
(Assumes bundled payments are implemented across all payers)*

Year	Federal Government	State and Local Governments	Private Employers	Households	Total Statewide Health Savings
2012	$28.6	$6.0	$14.6	$12.3	$61.4
2013	$60.5	$12.5	$30.6	$25.9	$129.3
2014	$81.7	$16.8	$39.5	$37.1	$175.1
2015	$87.4	$17.9	$39.4	$41.7	$186.4
2016	$93.2	$18.9	$40.5	$45.4	$198.0
2017	$98.4	$19.8	$42.6	$48.2	$209.0
2018	$104.5	$20.7	$44.4	$50.7	$220.3
2019	$111.2	$21.8	$47.0	$54.0	$234.1
2020	$118.8	$23.1	$49.7	$57.7	$249.3
2021	$127.2	$24.4	$52.6	$61.4	$265.5
2012-2021	$911.5	$181.8	$400.7	$434.4	$1,928.5

* Estimates assume that episode savings are similar for Medicare and Medicaid patients and similar to privately insured patients within the same initial hospitalization category.
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

Implementing this policy option would require dramatic changes in the state's current Medicaid rate setting methodology, which is currently not a DRG-based system. This scenario assumed that the state will modify its payment methodology to allow it to effectively bundle payments for Medicaid and state employee programs. Furthermore, the state cannot compel Medicare and ERISA plans to use specific payment methodologies. This scenario also assumed that the state would require that all insurers participating in the Heath Benefit Exchanges adopt the bundled payment systems. Finally, implementing the bundled payment approach would require that all providers in the state be required to accept these forms of payment for Medicaid and CHIP beneficiaries and the state employee health benefit programs.

Based on these assumptions, the second option (Figure 10) reflects the savings that would result from changes in payment methodology in the Missouri Medicaid program as well as the state's employee benefit program. In this option, the federal government would save $189 million under the program from 2012 to 2021 due to the federal match rate for Medicaid. State and local governments would realize savings of $170 million due to savings in the Medicaid and state employee health benefit programs.

Figure 10: Estimated Savings by Stakeholder Group 2011-2020 ($ in millions)
(Assumes bundled payments are implemented for Medicaid, state and local government health benefit programs and insurers participating in exchanges)

Year	Federal Government	State and Local Governments	Private Employers	Households	Total Statewide Health Savings
2012	$5.3	$6.0	$0.0	$0.7	$11.9
2013	$11.1	$12.5	$0.0	$1.4	$25.0
2014	$16.3	$16.2	$1.6	$7.1	$41.2
2015	$18.8	$16.5	$3.6	$13.1	$51.9
2016	$20.6	$17.1	$4.7	$16.7	$59.2
2017	$21.3	$18.2	$5.0	$17.6	$62.1
2018	$22.3	$19.1	$5.2	$18.3	$64.9
2019	$23.3	$20.2	$5.5	$19.4	$68.5
2020	$24.5	$21.5	$5.8	$20.6	$72.4
2021	$25.8	$22.7	$6.2	$21.7	$76.5
2012-2021	$189.2	$170.1	$37.7	$136.6	$533.6

Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

Discussion

This study estimated the effect of implementing a bundled payment system for conditions that together represent approximately 29 percent of hospital costs in the state. These include the most commonly provided hospital services, and services included in the CMS bundled payment demonstration. In fact, bundled payments could be devised for all services involving hospitalization. If bundling reduces spending by 5 percent, as assumed above, total savings

could reach $6.6 billion assuming bundled payments are implemented across all payers, and $1.8 billion if implemented for Medicaid, public employees, and the Health Benefit Exchanges over the 2012 to 2021 time period. However, it would take some time to develop payment systems for each individual hospital service.

The model assumes payment bundles cover 30-day episodes, but longer episodes may be appropriate for some conditions such as diabetes. The bundled payment creates incentives for hospitals and physicians to reduce the number of tests and other services a patient receives during an episode period. There are concerns, therefore, about the quality of care a patient receives when incentives are to provide fewer services. On the other hand, bundled payments may incentivize quality care to prevent costly readmissions and adverse events. To make sure that quality of care is not jeopardized, the bundled payment model could be implemented with a pay for performance program to ensure that evidence-based standards of care are met.

This study also assumes that the bundled payment model is implemented statewide and for every hospital. Implementation of a bundled payment model may be easier to achieve in hospitals that already have collaborative relationships with physicians and other post-acute providers such as integrated delivery systems. Implementing bundled payments may be more difficult for other hospitals that would need to ensure access to a network of physician specialties to perform all the services within the bundle. The hospital or some managing entity would need to establish contracts, billing, and distribution of the payments for all the parties involved. Thus, it may not be possible to implement the program at every hospital right from the start, and may take several years for all hospitals to develop the necessary infrastructure.

As discussed above, implementing bundled payments in Missouri would require significant changes to the state's rate setting methodology. Adopting a bundled payment methodology would allow Missouri to transition from its current per diem, non-risk-adjusted, inpatient payment system to one that is focused on care coordination and recognizes severity of illness. The state also would need to implement a number of requirements for state programs, and would need cooperation from Medicare and ERISA plans as well as providers for a bundled payment methodology to be effectively and successfully implemented.

Enabling a Robust Insurance Exchange

Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
	$	%	$	%
$38.1	$3.3	6.1%	$3.3	6.1%

Background

The Affordable Care Act (ACA) requires most Americans to obtain health insurance and imposes a penalty on most of those who do not. To support this mandate, the ACA expands the Medicaid program and provides a premium tax credit for individuals with incomes below 400 percent of the Federal Poverty Level (FPL) who are not offered coverage through an employer. It also provides a small employer tax credit for an employer's first two years of providing employee coverage.

The ACA authorizes states to establish health insurance exchanges.[21] States will have the freedom to design, within guidelines laid down in federal regulations, health insurance exchanges to assist individuals in the purchase of health insurance coverage. An exchange will provide consumers and participating employer groups with a selection of health insurance plans that compete on price and quality. States can establish separate exchanges for individuals and small employers with fewer than 100 workers, or they may combine the two exchanges.[22] Health insurance premium subsidies created by the ACA for qualifying individual consumers and small employers will be available only through exchanges.[23]

States may open exchanges to all insurers meeting minimum standards. Alternatively, states will have the option to play an active role in selecting carriers, including competitive bidding on the basis of price and quality measures. This scenario estimates the effects of adopting a competitive bidding model, which is often referred to as the "active purchaser" model. In this model, the exchange would determine which plans can participate on the basis of competitive bidding, taking into account price, access to providers, and quality of care measures. The decision of which approach to take in Missouri would apply to exchanges for individuals and small employers.

Policy Option

Although it places many requirements on states, the ACA also provides flexibility that will allow states to address their unique needs in creating and implementing health insurance exchanges. States have options regarding (1) the type of entity their exchange will be, (2) how Qualified Health Plans (QHPs) should enter the exchange[24], (3) how QHPs should be certified, (4) how to operate the Small Business Health Options Program (SHOP), (5) what the role of brokers and agents will be, (6)what the role of Navigators will be, (7) how to address adverse

21 While a state can decide to not establish a health insurance exchange, but rather leave the operation of the exchange to the federal government, this scenario assumes that the State of Missouri chooses to establish one or more exchanges.

22 States have the option of extending the exchange to include larger firms at the state's discretion beginning in 2017.

23 Plans are not required to participate in the exchange. However, plans that do participate must charge the same premium for each individual insurance product in and out of the exchange.

24 Under the ACA, a Qualified Health Plan (QHP) is an insurance plan that is certified by an Exchange, provides essential health benefits, follows established limits on cost-sharing (like deductibles, copayments, and out-of-pocket maximum amounts), and meets other requirements. Only QHPs may sell coverage through the State Exchange and a QHP must be licensed by each Exchange in which it is sold to certify that it meets federal and state requirements.

selection, (8) whether a Basic Health Plan option should be established to replace exchange vouchers for those with incomes between 133 and 200 percent of FPL, (9) what the State's role should be in the payment of premiums, and (10) how many reinsurance entities to establish. Each of these State decisions is examined in greater detail in the Technical Appendix.

One key decision point for states with regard to this model is how QHPs will be permitted to enter and participate in the exchange. The three basic options for states are competitive bidding, selective contracting, and permitting all QHPs to participate in the exchange. States may opt to implement standards in addition to those provided in the ACA for determining which QHPs to allow into the exchange, including "transparency and information disclosure, service area designation, and achievement of benchmarks for health outcomes, among other considerations" as noted by the National Academy of Social Insurance.[25]

In a competitive bidding model, health plans submit bids for selling health insurance through the exchange, competing on factors – including price, network adequacy, and quality measures, to which the state has assigned varying weights for evaluation. The primary driver behind competitive bidding is the credibility of the "threat" that a plan could be excluded from participating in an exchange altogether if it fails to submit a competitive bid. Competition across price and other selection criteria will depend largely on the exclusivity of selection. In other words, the number of plans the state elects to include in any given area will determine the credibility of the threat of exclusion.

This section evaluates an option for adopting competitive bidding for Missouri's exchange for individuals and its SHOP exchange for small employers. For illustrative purposes, this model assumes that the following are true:

- Enrollment in the exchange would be limited to four carriers selected in a process assigning 50 percent of the weight to price, with quality and network adequacy receiving the remaining 50 percent of the weight.
- The plan with the lowest bid is assigned all default enrollment for people who do not make a choice themselves.
- Adoption of market area exchanges is designed to maximize competition in major population areas in Missouri.

If Missouri chooses to use the above parameters in its strategy to develop and implement an exchange, the state should first evaluate a number of facets of other programs to inform the weighting of cost and quality in bid evaluation and the optimal number of plans to select.

To participate in the exchange, an insurer must first have its motivations and incentives assessed by the state. QHPs have significant motivation to participate in the individual exchange. About two-thirds of those who will obtain individual coverage in Missouri likely will do so through the individual exchange because they qualify for health insurance premium subsidies, which are only available through the exchange. However, small, low-wage employers only receive a tax credit for a limited two-year period as an incentive for them to participate in the SHOP exchange. The incentives to plans to price themselves competitively in the small

25 National Academy of Social Insurance (2011 January). "Designing an Exchange: A Toolkit for State Policy Makers." Retrieved from www.rwjf.org/files/research/71799.pdf.

business SHOP exchange are less than in the individual exchange because of the availability of individual premium subsidies. Over time, it may be advantageous for Missouri to combine its small group and individual exchanges to further enhance incentives for price competition.

If individual consumers select a plan from the exchange based upon price and quality data provided by the plan, their behaviors would eliminate the need for the state to screen for the lowest cost plan options. However, cost-related consumer motivations in the exchange will be desensitized for many participating in the exchange because they will be receiving subsidies. These consumers will be shielded from the full cost of coverage. A competitive bidding process at the plan level that screens for low cost plans may mitigate some of this price insensitivity and help consumers choose lower cost plans. While there is no direct budgetary benefit to Missouri for having lower cost plans offered in an exchange, lower cost plans could result in more people being able to afford to buy health coverage, and could reduce the number of uninsured who rely on state funded programs for their health care.

In Medicaid, 22 percent of beneficiaries required to enroll in a managed care plan fail to select a plan, and the state assigns these individuals to a "default" plan. In most states, the lowest cost bidder is designated as the default plan. Default enrollment has been a significant motivator for plans to be price competitive in the Medicaid managed care contracting process, and would likely have the same role in exchanges. Awarding default enrollment to the lowest cost plan should encourage price competition and reduce the overall cost of health care.

Finally, the competitive bidding process could be enhanced by making separate selections by market area. Many plans do not have a significant presence throughout the state and requiring that plans operate statewide would preclude many of them from participating in the exchange. This would dampen competition by eliminating many plans, including health maintenance organizations (HMOs), which have a strong presence and are very competitive in their respective market areas. This scenario assumes that plans are permitted to participate in the exchange only for the areas of the state in which they operate; this results in at least three separate market areas, including St. Louis, Kansas City, and the rest of the state.

Estimated Effects

Expanding Coverage. The first part of this analysis estimates the number of people participating in the exchanges and the amount they would pay toward premiums, assuming an exchange is implemented without competitive bidding. Recent experience coming out of the Commonwealth of Massachusetts indicates that successful implementation of a robust health insurance exchange will reduce the uninsured population. Using a number of assumptions outlined in the Technical Appendix and data including the Missouri subsample of the Current Population Survey (CPS) conducted by the Bureau of the Census, the Medical Expenditure Panel Survey (MEPS), and the Kaiser Family Foundation (KFF) employer health survey, this analysis estimates coverage and costs assuming an exchange without competitive bidding. This scenario also assumes that the exchange is fully implemented and fully mature in 2011.

About 6.1 million people live in Missouri, of whom approximately 1.1 million are currently uninsured. 835,000 of these reported being uninsured for the entire year.[26] It is estimated

26 Kaiser Family Foundation. "Health Insurance Coverage of the Entire Population." December 2011. Available at http://www.statehealthfacts.org/comparetable.jsp?typ=1&ind=125&cat=3&sub=39.

that all but 333,000 of the uninsured would become insured under the ACA (Figure 2). About 824,000 individuals in Missouri would gain coverage through the new exchanges. This estimate includes 285,000 individuals in small firms who would gain coverage through the small employer exchange, plus approximately 539,000 people who would gain coverage through the individual exchange. Of those gaining coverage through the individual exchange, the study estimates that 87.5 percent would avail themselves of the premium subsidies through the individual premium tax credit created under the ACA.

Figure 2 compares distribution of Missouri insured individuals before and after full implementation of the exchange. The figure also demonstrates the movement between sources, including group, non-group, retiree markets, public programs, and the uninsured.

Figure 3 specifically examines enrollment and costs for one coverage source, non-group, and presents the distribution of people with non-group coverage under the ACA and premium payments by age and health status. About 953,000 people not otherwise eligible for coverage through Medicaid, Medicare, or an employer would be insured in this individual, non-group, market.

According to the ACA, insurance plans available to individuals and small businesses through an exchange must be at one of four levels of actuarial value, which determines the share of premium dollars that the plan pays toward care for an individual enrollee. The higher the actuarial value, the less patient cost-sharing the plan will require. For example, a "silver" plan will have an actuarial value of 70 percent, which means that for a standard population, the plan will pay 70 percent of health care expenses, while the enrollees themselves will pay 30 percent through some combination of deductibles, copays, and coinsurance. According to the ACA, the four levels of actuarial value for plans sold in an exchange beginning in 2014 are 60 percent (a bronze plan), 70 percent (a silver plan), 80 percent (a gold plan), and 90 percent (a platinum plan).[27] Using The Lewin Group HBSM and our assumptions regarding exchange enrollment, we estimated that the average premium for the silver plan would be $376 per member per month (PMPM). The average premium tax credit subsidy would be $215 PMPM, which reduces the average premium paid by individuals to $161 PMPM. The silver plan is used in this example because it is the benefits package that premium subsidies are based on.

27 Kaiser Family Foundation. "What the Actuarial Values in the Affordable Care Act Mean." April 2011. Available at: www.kff.org/healthreform/upload/8177.pdf.

Figure 2: Changes in Sources of Coverage for Missouri under the ACA Assuming Full Implementation in 2011* (in thousands)

Source of Coverage		Private Coverage Through Exchange			Private Coverage Out of Exchange		Medicare, TRICARE & Other	Medicaid & CHIP (excluding duals)	Uninsured
		Employer	Individual		Employer	Individual			
			With Subsidy	Without Subsidy					
Employer Workers and Dependents	2,947	237	142	37	2,440	2	0	78	12
Non-Group	232	5	87	8	16	80	-	17	19
Employer Retiree	77	-	-	-	69	-	-	8	-
TRICARE	84	-	-	-	-	-	84	-	-
Medicare	770	-	-	-	-	-	770	-	-
Medicare Dual Eligible	158	-	-	-	-	-	158	-	-
Medicaid/ CHIP	740	6	30	-	22	0	0	681	0
Uninsured	1,067	37	214	22	110	-	-	382	302
Total	6,075	285	472	67	2,657	82	1,013	1,166	333

* For illustrative purposes, we assume that the programs are fully implemented and enrollment is fully mature in 2011.
Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).

Figure 3: Estimates of Non-Group Enrollment and Costs for Missouri under the ACA by Age and Health Status*

	Number Eligible	Number Enrolled	Percent Enrolling	Benefits Costs PMPM	Allowed Costs PMPM	Premium PMPM	Average Subsidy
Subsidy Eligibility							
With Subsidy	664,524	499,037	75.1%	$304	$375	$386	$267
Without Subsidy	215,305	48,027	22.3%	$453	$602	$399	$0
Grandfathered	73,743	73,743	100.0%	$197	$307	$289	$0
Age							
Under 19	-	-	0.0%	$0	$0	$0	$0
19-24	266,901	183,029	68.6%	$235	$278	$69	$33
25-29	88,811	49,971	56.3%	$97	$149	$267	$156
30-39	97,481	54,715	56.1%	$110	$171	$403	$236
40-49	148,370	87,055	58.7%	$188	$261	$493	$282
50-54	153,498	100,572	65.5%	$337	$442	$519	$299
55-59	77,178	53,865	69.8%	$418	$541	$473	$238
60-64	68,733	49,494	72.0%	$681	$803	$741	$427
65 and Older	47,794	37,962	79.4%	$574	$743	$677	$432
Presence of Chronic Condition							
With Condition	219,182	158,075	72.1%	$862	$1,006	$488	$290
Without Condition	739,251	466,874	63.2%	$123	$184	$339	$190
Self-reported Health Status							
Excellent	786,573	506,722	64.4%	$156	$224	$347	$188
Good	135,738	92,711	68.3%	$590	$718	$479	$309
Fair	24,707	16,440	66.5%	$2,413	$2,579	$574	$414
Poor	6,564	4,920	74.9%	$2,972	$3,259	$650	$482
Total	953,621	620,781	65.1%	$303	$384	$376	$215

* For illustrative purposes, we assume that the programs are fully implemented and enrollment is fully mature in 2011.
Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).

Cost Savings. The second component of this scenario estimates the impact on costs if a competitive bidding model is used. Because the number of insurers varies by the state's geographic regions, this analysis assumes differential levels of savings. The analysis estimated savings of 7.7 percent for populations in exchanges in the St. Louis and Kansas City areas; due to the smaller number of insurers operating in the less urban parts of the state, this level of savings is assumed to be reduced by half in the rest of the state. This results in an overall assumed savings of about 6.0 percent, which is in the middle of the range of estimated savings of 4.4 to 11 percent found in various other studies of competitive bidding models.

This study assumes that savings would continue throughout the 10-year period; however, plans may price more aggressively in future years as they build market share, which could reduce estimated savings. Moreover, requiring large numbers of people to change health plans may cause the state to retain plans even if they are not the lowest cost options available.

The use of competitive bidding in the small employer exchange would result in lower premiums in the exchange, which is estimated to increase enrollment by about 19 percent over an employer exchange without competitive bidding. Missouri small employers are expected to realize a savings of about $1.1 billion over the 2014 to 2023 period in this competitive bidding model (Figure 4). Providers are assumed to share these savings, with about three quarters of savings going to employers who contribute to the cost of insurance, and the remainder going to workers in the form of reduced growth in premium contributions.

Figure 4: Impact of Adopting the Active Purchaser Model for the Missouri Small Business Exchange*

Year	ACA Without Active Purchaser Model			ACA with Active Purchased Model in the Exchange			
	Exchange enrolled	Premium PMPM	Total Premium ($ in millions)	Change in Employer Exchange Enrollment	Savings from Competitive Bidding ($ in millions)	Employer Share ($ in millions)	Employee Share ($ in millions)
2014	115,770	$379	$530	22,575	$36	$28	$8
2015	174,523	$402	$846	34,032	$58	$45	$13
2016	263,093	$427	$1,353	51,303	$92	$72	$21
2017	293,787	$449	$1,589	57,289	$108	$84	$24
2018	295,256	$472	$1,680	57,575	$115	$89	$26
2019	296,733	$493	$1,766	57,863	$121	$94	$27
2020	298,216	$522	$1,879	58,152	$128	$100	$29
2021	299,707	$552	$1,995	58,443	$136	$106	$30
2022	301,206	$583	$2,119	58,735	$145	$112	$32
2023	302,712	$616	$2,250	59,029	$154	$119	$34
Total					$1,092	$849	$244

* Estimates reflect an expected phase-in of enrollment over 2014 and 2016 due to the phased transition to the full penalty for being uninsured over this period.
Source: Lewin group estimates using the Health Benefits Simulation Model.

This model would result in even greater savings in the individual exchange. Total savings are estimated to be about $2.2 billion over the same 2014 to 2023 time period (Figure 5). The majority of these savings, $1.5 billion, would go to the federal government in the form of reduced premium subsidy payments, with the remainder going to individuals in the form of reduced premiums. The benefit to Missouri stems from the reduced number of uninsured who rely on state funded programs for their care.

Figure 5: Impact of Adopting the Active Purchaser Model for the Missouri Individual Exchange*

Year	ACA Without Active Purchaser Model			ACA with Active Purchased Model in the Exchange			
	Exchange enrolled	Premium PMPM	Total Premium (millions)	Change in Individual Exchange Enrollment	Savings from Competitive Bidding (millions)	Individual Share (millions)	Federal Subsidy (millions)
2014	328,345	$453	$1,796	7,957	$105	$32	$73
2015	494,980	$480	$2,866	11,995	$168	$52	$116
2016	552,727	$510	$3,398	13,395	$199	$61	$137
2017	555,491	$536	$3,591	13,462	$210	$65	$145
2018	558,268	$564	$3,796	13,529	$222	$68	$154
2019	561,060	$590	$3,990	13,597	$233	$72	$161
2020	563,865	$624	$4,245	13,665	$248	$77	$172
2021	566,684	$660	$4,508	13,733	$264	$81	$182
2022	569,518	$697	$4,788	13,802	$280	$86	$194
2023	572,365	$737	$5,085	13,871	$297	$92	$206
Total					$2,227	$686	$1,540

* Estimates reflect an expected phase-in of enrollment over 2014 and 2016 due to the phased transition to the full penalty for being uninsured over this period.
Source: Lewin group estimates using the Health Benefits Simulation Model.

Discussion

Whether to establish the state exchange as an active purchaser or as a more passive marketplace is one of the most crucial decisions a state can make. If a state chooses to treat the exchange as more of an open marketplace for its citizens to obtain information on available options, it must decide how much information should be made available, how this information should be presented, and how much the state should vet information before making it publicly available. The benefits to the state for taking this approach include a broader selection of insurance choices and the ability to let the market dictate the cost of insurance. Conversely, too many choices may be confusing to individual consumers or small business owners shopping for a health plan. The state may have to expend significant effort to verify the accuracy of the health plan information being presented, and may require enhanced policing to ensure fair marketing practices.

A decision to take a more active role in managing the exchange has its own set of issues. In addition to determining how the information about the offered plans should be presented to the public, the state must also determine which criteria it will use to allow insurers to offer plans under the exchange. These criteria could include price, either determined on a competitive basis or required to fall within a range; network adequacy; and quality measures, among others. Each of these would require further research and decisions. The benefits of a more active approach includes fewer plans to track and police; a more streamlined array of choices; and the assurance that the offered plans meet minimum acceptable standards.

The scenario presented above demonstrates that enabling a robust health insurance exchange with a competitive bidding model would yield increased enrollment and cost savings above those anticipated in a model with a more passive process for admitting QHPs to the exchange. This model is designed to measure how enrollment behavior changes as the relative prices of alternative sources of coverage are changed. Here, the "active purchaser" model for both individual and small employer exchanges in Missouri, with price reductions prompted by a competitive bidding process, results in both savings and increased enrollment in the exchanges.

As mentioned above, this is an evidence-based model supported by successful competitive bidding programs used in several states to select plans for participation in Medicaid programs. In fact, Missouri realized savings after implementing a competitive bidding program for its capitated Medicaid programs in certain regions. A study by Mercer found that Missouri Medicaid saved about 2.7 percent with managed care. However, while medical costs were reduced, the share of funds spent on administration and profit increased.[28] Studies of varied competitive bidding processes for state employee health plans and Medicaid programs in Arizona, Texas, Michigan, and New York similarly demonstrate cost savings and recommendations for improvement, including default assignment to lowest cost plans. Additional competitive bidding specifications, including auto-assignment of eligible enrollees who do not actively select a plan may also help states contain costs. According to state estimates, Texas could have realized additional savings by designating the lowest cost plan as the default for recipients who did not select a plan during open enrollment.

This scenario is predicated on a number of assumptions and assurances to promote competition among health plans on the basis of price and quality measures. Setting more stringent participation criteria for health plans and soliciting competition among them will allow the state to achieve cost savings and effectively serve individuals and small employers in the exchange by presenting them with a choice of lower-priced plans with strong quality measures. However, some policymakers believe that an open market place– with consumer and physician protections in place– would maximize competition and consumer choice of health plans. Advocates of this alternative assert that a competitive bidding model would result in a concentrated field of plans that limits consumer choice and physician bargaining power.

While the above scenario shows that price can be affected through competitive bidding, it is by no means assured that competitive bidding will reduce the cost of health care. Because of the conservative tendency of most insurers, a competitive model may result in lower initial prices of health care and, in turn, sustain lower prices in the future. However, even a non-competitively bid exchange ultimately must compete for the public's business on price and other factors. An open market could drive prices just as low as those found in a competitively bid exchange. Because the ACA provides tax credits to subsidize the purchase of insurance for individuals below 400 percent of FPL, and for small businesses during the employer's first two years of providing coverage, many of those participating in the exchange will be desensitized to the cost of coverage. These individuals and small employers do not face the full cost of coverage and therefore may not be motivated to shop for lower cost coverage; the competitive bidding process would substitute for this reduced consumer research and discourage them from purchasing higher cost plans. In that case, plans may not have as large an incentive to compete on price, and a competitive bid approach likely would keep price as a major factor in determining which plans could be offered under the exchange.

28 "Managed Care Cost Avoidance Model," report to Missouri Department of Social Services, Mercer, 2011.

Promoting Shared Decision Making and Palliative Care

Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
	$	%	$	%
$360.0	$5.9	1.6%	$4.4	1.2%

Background

Shared decision making is a model in which patients and providers collaborate to make treatment decisions that take into account outcome probabilities as well as patient preferences and goals. This model encourages patients to take a more active role in health care decisions. Shared decision making approaches have improved patient satisfaction and quality of life and often result in patients' opting for less invasive procedures and treatments. This approach has the potential to improve the quality and patient-centeredness of care while also reducing health care spending.

Shared decision making attempts to move away from more traditional approaches to patient care that are built on the assumption that a physician knows what is in the best interest of the patient. Instead, this model enables patients to participate in their own treatment plans. Shared decision making is employed when a patient is faced with options that involve significant tradeoffs with respect to survival, outcomes, and functionality. In such a situation, a patient's values and preferences become the deciding factors between medically reasonable alternatives.[29]

Many hospitals already provide one form of shared decision making—palliative care programs. Missouri hospitals have a prevalence of palliative care of about 73 percent, above the national average of about 60 percent. However, it is unlikely that all patients are offered these services consistently and shared decision making offerings could be more robust.

Policy Option

This scenario examines the combined effect of implementing two shared decision making models that have been shown to be effective: palliative care and patient decision aids. The first component of this model would require Missouri hospitals to establish a palliative care program to assist patients in end-of-life planning where appropriate. Palliative care is a model for individuals with serious chronic health conditions, often, but not always, at the end of life. It emphasizes counseling and coordinated decision making focused on patient preferences and goals. An estimated 27.4 percent of health spending under Medicare occurs at the end of life,[30] often for treatment of multiple severe illnesses that typically present near death. Studies have estimated that much of the care provided at the end of life is not futile,[31] but when presented with the details of treatment options, many patients opt for less invasive care than hospitals may otherwise be inclined to provide. The palliative care process often results in "advance directives" to identify the type and extent of life-prolonging care that a patient is willing to receive, or

29 The Shared Decision-Making Study Group, "Final Report: The Practice and Impact of Shared Decision-Making," Feb. 2011, pp. 1-2.

30 Hogan, C., "Medicare Beneficiaries Costs of Care In the Last Year of Life," *Health Affairs*, Vol.20, No. 4, 2001.

31 "A Case for Providing Palliative Care Services in Primary Care and Specialty Care," The Institute for Clinical Systems Improvement, 2010.

developing a pain management plan and other instructions to preserve quality of life. Requiring Missouri hospitals to establish a palliative care program to assist patients in end-of-life planning, where appropriate, would make physicians, caretakers, and family members aware of the patient's treatment preferences and quality of life goals, and likely would reduce costs.

This analysis examined the impact of requiring that a) all Missouri hospitals adopt a palliative care program, and b) palliative care is offered to all patients treated for chronic illness. This scenario assumes the percentage of discharges with a palliative care consult will increase over the 2012 to 2021 period from its current level of 2.5 percent to 9.5 percent, and that this increase will be phased-in over the first four years of the requirement. This is based on the Morrison study of the impact of palliative care on costs, which estimates that the optimum level of patients receiving palliative care services is 10 percent, [32] discounted here to 9.5 percent as the "achievable rate." This policy option also assumes that costs would be reduced for patients in hospitals receiving palliative care services in proportion to savings estimated by prior studies of 13.4 percent for live discharges and 19.1 percent for deaths in the hospital. [33]

Reductions in spending were estimated for physician care other than that provided by hospital staff and includes costs for the attending physician and physician consults in the hospital. Because Missouri hospital discharge data does not include these physician costs, this study estimated inpatient physician costs from MEPS data on the cost of physician charges associated with each hospital admission. Physician care savings are assumed to be in proportion to the Morrison estimates for hospital savings.

The second component of this policy option is use of patient decision aids (PtDA), or shared decision making tools that supplement a patient's direct physician interaction with printed materials, videos, and interactive web programs to provide clinical information about the risks, benefits, and uncertainties of various treatment alternatives. A number of studies have indicated that patients who use these tools report more realistic expectations of treatment outcomes,[34] increased confidence in their decision-making, and results more in line with their values.[35] Despite these findings, other studies have demonstrated less positive outcomes, with PtDA having little impact on satisfaction and adherence to treatment plans. An important consideration for using these tools is to assess a patient's capacity and interest in engaging in the decision making process.

This analysis examined the expanded use of PtDA systems for Medicare and commercially insured populations. It is assumed that all providers would be required to make the PtDA systems available to all patients with the studied health conditions. Medicare expenditures were estimated using the 2006 Medicare Provider Analysis and Review (MEDPAR) File, and were adjusted to reflect the Missouri population of Medicare beneficiaries and spending levels. Estimates for the non-Medicare population were identified using health condition and spending data reported in MEPS, again adjusted for the Missouri population and spending levels.

32 Morrison RS, et al., "Palliative Care Consultation Teams Cut Hospital Costs for Medicaid Beneficiaries," *Health Affairs*, 2011, Mar; 30(3).

33 Morrison RS, et al., "Palliative Care Consultation Teams Cut Hospital Costs for Medicaid Beneficiaries," *Health Affairs*, 2011, Mar; 30(3).

34 Barbara L. McAneny (presenter), "Report of the Council on Medical Services," CMS Report 7-A-10, p. 5.

35 The Shared Decision-Making Study Group, "Final Report: The Practice and Impact of Shared Decision-Making," Feb. 2011, p. 14.

Estimated Effects

Figure 11 demonstrates the anticipated phase-in of the palliative care requirement in Missouri hospitals, as well as the estimated net savings of a mandatory program. Using the assumptions discussed in the Technical Appendix, this policy option would reduce health spending by an estimated $4.0 billion in Missouri over the 2012 to 2021 time period. This includes savings in hospital and physician services, less the cost of implementing a palliative care program. Many of these savings result from patients' choosing less invasive treatment plans, choosing a non-acute care setting, and implementing mechanisms to limit life-prolonging care.

Figure 11: Estimation of Net-Savings from Requiring Missouri Hospitals to Have a Palliative Care Program (2012-2021)

	Percent of Hospitals with Palliative Care Program	Percent of Discharges Receiving Consults	Percent Receiving Consults under Program	Number of New Consults	Net Savings Per Consult	Net Savings from Requiring Use of Palliative Care ($ in millions)		
						Hospital Savings	Physician Savings	Total Savings
2012	73.0%	2.5%	2.8%	2,641	$6,437	$15.1	$1.9	$17.0
2013	74.9%	2.6%	5.0%	21,253	$6,785	$128.4	$15.8	$144.2
2014	77.0%	2.6%	6.5%	34,744	$7,151	$221.3	$27.2	$248.5
2015	79.0%	2.7%	8.0%	47,499	$7,537	$318.8	$39.2	$358.0
2016	81.1%	2.8%	9.0%	55,899	$7,944	$395.5	$48.6	$444.1
2017	83.3%	2.9%	9.5%	59,862	$8,373	$446.4	$54.8	$501.2
2018	85.5%	3.0%	9.5%	59,309	$8,825	$466.2	$57.3	$523.4
2019	87.8%	3.1%	9.5%	58,747	$9,302	$486.7	$59.8	$546.5
2020	90.1%	3.1%	9.5%	59,099	$9,804	$516.0	$63.4	$579.4
2021	92.5%	3.2%	9.5%	58,525	$10,334	$538.6	$66.2	$604.8
Total						$3,533.0	$434.0	$3,967.0

Estimates equal savings less the cost of administering the palliative care program.
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

This scenario estimated the impact of expanded use of PtDA tools separately for Medicare and non-Medicare populations, with a specific set of conditions for each population. The impact for each population was estimated based on published research on control trials of the impact of PtDA. These studies generally demonstrate that these systems could lead to decreased utilization of higher-cost treatments. Figure 12 presents estimated savings for Missouri's Medicare population in 2012, assuming a PtDA program for the 11 listed conditions is fully implemented and effective in 2012. The number of cases where the use of PtDA would shift the patient from the more invasive procedure to the alternative was estimated. These savings, based on the assumption that patients would shift from a more invasive procedure to an alternative, are estimated at $117 million in 2012 for Missouri.

Figure 12: Estimated Savings for Medicare Patients in Missouri from PtDA for 11 Conditions if Fully Implemented in 2012

Condition	Percent Savings from PtDA	Savings From PtDA ($ in millions)
Atrial Fibrillation	-29.4%	-$9.12
Hypertension	5.4%	$20.67
Tube Feeding in Dementia	39.0%	$5.6
Chronic Obstructive Pulmonary Disease	19.2%	$0.1
Colon/Rectal Cancer	41.0%	$25.8
Prostate Cancer Screening	8.9%	$5.1
Hysterectomy	16.1%	$3.1
Benign Prostate Hyperplasia	0.7%	$0.01
Lower Back Pain	20.3%	$65.2
Angina	11.9%	$0.6
Breast Cancer	2.1%	$0.01
Total Medicare Population	n/a	$116.9

Source: Lewin Group estimates using Medicare claims data.

The second evaluation examined conditions impacting the non-elderly population. In addition to percent savings and projected savings from PtDA use, this scenario examines the share of treatment expenditures that could potentially be impacted by patient preferences. For this population, the estimated savings in Missouri over the 2012 to 2021 period, assuming full implementation in 2012, is $46 million (Figure 13).

Figure 13: Estimated PtDA Savings in Missouri for the under Age 65 Population if Fully Implemented in 2012

Condition	Percent Savings from PtDA*	Savings from PtDA ($ in millions)
Asthma in Children	23.0%	$6.1
Gene Testing for Breast Cancer	20.2%	$3.0
Depression	1.1%	$5.23
Epilepsy in Children	2.7%	$0.2
HIV Transmission to Newborns	20.2%	$0.2
Ovarian Cancer	1.4%	$1.1
Schizophrenia	1.4%	$0.2
Dental	1.4%	$0.1
Maternity	1.4%	$0.1
Pre-natal Testing	20.2%	$1.7
Circumcision	0.5%	$0.01
Depression during Pregnancy	1.4%	$0.4
Extrapolated savings for the 11 conditions estimated in Figure 12	n/a	$27.7
Total savings under age 65	n/a	$46.1

* Based on the average savings associated with the PtDA type in the Medicare analysis above.
Source: The Lewin Group

This shared decision making scenario is based on the simultaneous implementation of mandatory palliative care in Missouri hospitals and the use of decision aids. These estimates assume that the effects of the program will phase in over the first five years of implementation. Figure 14 indicates the estimated combined savings for expanding palliative care in the state and formally implementing decision aids, with savings resulting for all payers for patients in Missouri.

Figure 14: Combined Savings under Shared Decision-Making Model for Missouri (2012-2021) ($ in millions)

Year	Federal Government	State and local Governments	Private Employers	Families	Total Savings
2012	$68.8	$5.2	$23.3	$1.2	$98.5
2013	$169.9	$15.3	$69.5	$3.5	$258.2
2014	$249.0	$23.4	$106.2	$5.3	$384.0
2015	$330.2	$31.8	$144.1	$7.2	$513.3
2016	$418.9	$40.1	$181.7	$9.1	$649.9
2017	$462.7	$44.6	$202.0	$10.1	$719.4
2018	$485.7	$46.7	$211.7	$10.6	$754.6
2019	$509.7	$49.0	$221.8	$11.1	$791.6
2020	$540.4	$51.9	$235.2	$11.8	$839.2
2021	$567.1	$54.4	$246.4	$12.3	$880.2
Total	$3,802.4	$362.4	$1,641.8	$82.2	$5,888.9

Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

Discussion

Achieving the savings projected here is a feasible undertaking for the state. Each component of this scenario can be achieved in Missouri through actionable steps; the state can advance this initiative fully without federal action. Missouri already has a strong foundation for shared decision making with its widespread hospital-based palliative care programs. The state can use the patient and provider experiences in existing palliative care structures to inform best practices for statewide implementation. On the national quality improvement stage, the ACA calls for the establishment of a national Shared Decision Making Program that will develop certification standards for decision aids through the National Quality Forum. This could serve to support or inform efforts in Missouri. Additionally, the ACA provides funding to support development, use, and assessment of shared decision making aids. Efforts such as these at the national level may serve to guide and support hospital program development and state licensure activities to fully implement shared decision making statewide in Missouri. In fact, local efforts to broaden knowledge of shared decision making are currently occurring. The most recent example is the November 2011 meeting held in St. Louis, titled "Unlocking Health Care's Most Valuable Resource: Engaging and Empowering Consumers through Information," focused on informed medical decision making.

If the state legislature mandated that Missouri hospitals implement palliative care programs, all payers for patients in Missouri would achieve savings. This policy would apply to all hospitals and all services provided, regardless of the payer source. Thus, all patients would receive palliative care services, or at least a consultation, and all payers would subsequently realize savings. This approach – mandating that providers make robust palliative care programs available – is being implemented in New York state, where hospitals, nursing facilities, home care agencies and certain assisted living facilities will be required, beginning in 2012, to provide access to patient-centered palliative care programs.[36]

However, across the board savings for all payers are less feasible for patient decision aids. The state could require the use of PtDA tools for Medicaid and its state employee health plan, but it cannot mandate private insurance plans or Medicare to require and pay for these services. An additional potential barrier is the current reimbursement policy, which only allows physicians and nurse practitioners to bill directly for services, which could limit reimbursement for and expansion of shared decision making programs that involve other health care professionals.

Despite these potential barriers, studies of the impact of palliative care and other shared decision making models tend to demonstrate improved physical and psychological symptoms management, caregiver wellbeing, and family satisfaction. They also demonstrate lower health spending. [37] Implementing a shared decision making program in Missouri that expands on the already strong presence of palliative care programs is likely to result in more coordinated, higher value care at the end of life.

36 Section 2997-d of the New York State Public Health Law, commonly known as the Palliative Care Access Act, was signed into law on April 1, 2011.

37 Hogan, C., "Medicare Beneficiaries Costs of Care In the Last Year of Life," *Health Affairs*, Vol.20, No. 4, 2001.

Care Coordination and Disease Management

Model	Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
		$	%	$	%
Mandatory Medical Home	$501.7	$11.9	2.4%	$3.2	0.6%
Voluntary Medical Home	$501.7	$3.1	0.6%	$0.9	0.2%
Advanced Disease Management	$501.7	$1.4	0.3%	$0.2	0.1%

Baseline spending includes total primary and acute care spending for all state residents.
* Based on the findings of the Medicare Coordinated Care Demonstration, it is assumed that widespread adoption of the Care Coordination version of the coordinated care model would not result in net savings, although quality may improve. As a result, it is not included in this table.

Background

Proposals to improve primary care are intended to promote prevention and management of care that will minimize costly and avoidable complications. A common focus of these initiatives is to coordinate care for people with chronic conditions, which accounts for 75 percent of all health spending according to the available evidence.[38] A variety of approaches to modernizing primary care have been developed and/or implemented nationwide by public and private payers, all of which have overlapping goals. These include medical homes, care coordination, and disease management (DM) programs.

The medical home initiative would identify a primary care provider as a patient's "medical home," who would be paid to provide coordinated, evidence-based primary care through a team of providers including physicians, physician assistants, nurse practitioners, nurses, behavioral health professionals, and others. Disease management includes programs designed to ensure that patients with chronic health conditions are treated according to evidence-based guidelines. Coordinated care is targeted at people with multiple chronic health conditions who are often in the care of several specialists at once.[39] Under a coordinated care model, the primary care provider coordinates the care provided by these multiple specialists to avert negative outcomes, such as drug-to-drug interactions and duplicative tests and services. Of course, this approach overlaps with medical homes and DM.

Policy Options

Medical Homes. As a relatively new concept, there are several different definitions of what a medical home is, but they all include coordinated care provided by a team of professionals and led by a primary care provider. Two versions of the medical home model, including the "mandatory" model and the "voluntary" model, were examined. Under the mandatory model, each patient selects a medical home provider. These patients are required to access all medical care from, or on the referral of, medical home providers. The providers receive a fee to provide preventive and primary care services for their patients. Under a mandatory medical home

38 Congressional Budget Office (2005 May). "High-cost Medicare beneficiaries." A CBO Paper. Retrieved from http://www.cbo.gov/showdoc.cfm?index=6332&sequence=0.

39 Thorpe K (2007). "Potential Savings Under the AdvaMed Plan Associated with Health Reforms Focusing on Chronic Care Management, Prevention and Health Information Technology." Retrieved from http://www.advamed.org/NR/rdonlyres/03AE0ADD-3472-4F29-BC58-32EC0575AB67/0/ healthreformsavingsthorpeFINAL.pdf.

model, it is assumed that savings would be in proportion to those documented for Primary Care Case Management (PCCM) programs under Medicaid, based on a study of savings under a Medicaid PCCM program in Iowa by Momany et al.[40]

Under a voluntary medical home model, patients are encouraged, rather than required, to access all care through the medical home provider, who is paid a fee to provide these services.

Patients have the option of participating in the program. For those who do, as an incentive to participate, copayments are eliminated for care provided through the medical home. Patients may see specialists without referral, but will have a copayment. Few data are available on the potential impact of the voluntary model on health care costs. For illustrative purposes, it is assumed that its cost savings effects are approximately half as great as under the mandatory model. It is also assumed that voluntary participation would phase-in over four years.

For both the mandatory and voluntary options, primary care providers are assumed to be willing to participate as medical home providers, although it would not be mandatory.

Care Coordination. As previously noted, approximately 75 percent of all health spending is attributed to people with chronic health conditions. Many of these patients have multiple health conditions and are often in the care of several specialists at once.[41] Under the coordinated care model, the primary care physician coordinates the care provided by these multiple specialists to avert negative outcomes, such as drug-to-drug interactions and duplicative tests and services. Physicians are paid a fee for providing these care coordination services. Based on the findings of the Medicare Coordinated Care Demonstration, it is assumed that widespread adoption of this version of the coordinated care model will not result in net savings, although quality may improve.

Disease Management. Disease management includes programs designed to ensure that patients with chronic health conditions are treated according to evidence-based guidelines. It includes a range of programs to ensure that chronic care patients receive required preventive care to avoid medical complications, and to ensure that clinical practice guidelines are implemented. Blue Cross and Blue Shield of Minnesota (BCBSMN) implemented an advanced disease management program that uses predictive modeling to identify people with multiple chronic conditions who can be expected to require relatively high levels of medical care. These individuals are then asked to enroll in an expanded DM program covering 17 chronic conditions, in which they receive proactive interventions designed to prevent conditions from becoming acute.[42] For purposes of this analysis, the effects of applying the BCBSMN advanced DM approach to the Missouri population are estimated based on the Minnesota experience.

Estimated Effects

It is assumed that the universe of health spending potentially affected by changes in primary care includes benefit payments for all primary and acute care services covered under Medicare, Medicaid, and private insurance. These include doctor office visits, inpatient care, hospital

40 E.T. Momany et al., "A Cost Analysis of the Iowa Medicaid Primary Care Case Management Program," *Health Services Research*, 41:4, Part I, (August 2006).

41 Thorpe K (2007).

42 Gold, W. & Kongstvedt (2003 November). "How Broadening DM's Focus Helped Shrink One Plan's Costs," *Managed Care Magazine*.

outpatient care, and emergency room care for these payers. This excludes spending under these programs for nursing homes, home health, public health, and medical non-durable goods other than prescription drugs (e.g., aspirin, cough syrup, bandages, etc.).

Medical Homes. The mandatory medical home model is estimated to reduce health spending in the state of Missouri by $11.90 billion over the 2012 through 2021 period. Figure 15 shows how net savings are distributed by payer.

Figure 15: Potential Savings from Adopting a Mandatory Medical Home Program for All Payers in MO ($ in billions)*

Year	Federal Government	State & Local Governments	Private Employers	Families	Total Savings
2012	-$0.05	-$0.02	-$0.04	-$0.03	-$0.14
2013	$0.09	$0.03	$0.07	$0.05	$0.24
2014	$0.25	$0.08	$0.20	$0.15	$0.68
2015	$0.44	$0.14	$0.32	$0.29	$1.19
2016	$0.49	$0.15	$0.34	$0.33	$1.31
2017	$0.53	$0.16	$0.38	$0.36	$1.43
2018	$0.58	$0.18	$0.41	$0.40	$1.57
2019	$0.64	$0.20	$0.45	$0.43	$1.71
2020	$0.69	$0.22	$0.49	$0.47	$1.87
2021	$0.75	$0.23	$0.53	$0.51	$2.03
2012-2021	$4.41	$1.37	$3.15	$2.98	$11.90

* Savings are estimated to occur among all three payer groups in FFS plans and managed care plans. Savings in managed care plans are reduced by half.
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

The voluntary medical home model is estimated to reduce health spending in the state of Missouri by $3.14 billion over the 2012 through 2021 period. Figure 16 shows how these savings are distributed by payer.

Figure 16: Potential Savings from Adopting a Voluntary Medical Home Program for All Payers in MO ($ in billions)*

Year	Federal Government	State & Local Governments	Private Employers	Families	Total Savings
2012	-$0.10	-$0.04	-$0.09	-$0.06	-$0.29
2013	-$0.04	-$0.01	-$0.03	-$0.02	-$0.11
2014	$0.03	$0.01	$0.03	$0.02	$0.09
2015	$0.12	$0.04	$0.08	$0.08	$0.31
2016	$0.14	$0.04	$0.09	$0.09	$0.36
2017	$0.16	$0.05	$0.11	$0.11	$0.42
2018	$0.18	$0.06	$0.13	$0.12	$0.48
2019	$0.20	$0.06	$0.14	$0.14	$0.55
2020	$0.23	$0.07	$0.16	$0.16	$0.62
2021	$0.26	$0.08	$0.18	$0.18	$0.70
2012-2021	$1.17	$0.36	$0.81	$0.81	$3.14

* Savings are estimated to occur among all three payer groups in FFS and managed care plans. Savings in managed care plans are estimated at half the rate of FFS.
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

Care Coordination. An evaluation of the Medicare Coordinated Care Demonstration concluded that there is no evidence to suggest that this coordinated care model would reduce program expenditures. Therefore, it is assumed that widespread adoption of this version of the coordinated care model would not result in net savings, although quality may improve.

Disease Management. The DM model is estimated to reduce health spending in Missouri by $1.35 billion over the 2012 through 2021 period. Figure 17 shows how these savings are distributed by payer.

Figure 17: Potential Savings from Adopting an Advanced Disease Management Model in MO by Payer ($ in billions)*

Year	Federal Government	State and local Governments	Private Employers	Families	Total Savings
2012	$0.00	$0.00	-$0.01	$0.00	-$0.02
2013	$0.00	$0.00	$0.01	$0.00	$0.01
2014	$0.00	$0.00	$0.02	$0.01	$0.04
2015	$0.01	$0.01	$0.03	$0.02	$0.07
2016	$0.01	$0.01	$0.05	$0.04	$0.11
2017	$0.02	$0.02	$0.07	$0.06	$0.16
2018	$0.02	$0.02	$0.10	$0.08	$0.21
2019	$0.02	$0.02	$0.10	$0.08	$0.23
2020	$0.02	$0.03	$0.11	$0.09	$0.25
2021	$0.03	$0.03	$0.12	$0.10	$0.27
2012-2021	$0.13	$0.14	$0.61	$0.47	$1.35

* Based on the available research, savings are estimated to occur only on private health plans, including managed care plans under Medicare and Medicaid. Savings in managed care plans are reduced by half
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

The estimates presented above illustrate the potential savings from adopting these policy options pertaining to care coordination and disease management, assuming that all payers in the state adopt these programs. However, the state legislature has little control over most health spending in the state, as states are prohibited from regulating private self-funded health plans under ERISA, which encompass approximately 40 percent of private coverage. In addition, as a federal program, Medicare benefits are not subject to state control.

However, the state does have control over spending for Medicaid and the health benefits programs covering state and local government workers, so there are "actionable" steps the state legislature can take to implement these programs. For illustrative purposes, we estimated the impact of these programs assuming that the state requires the use of these three models in all state-sponsored health plans. Figure 18 presents estimates of total potential savings as estimated above, and the amounts that could be saved through actionable steps available to the state legislature.

Figure 18: Potential and Actionable Savings under Alternative Primary Care Models for MO (2011-2021) ($ in billions)*

Year	Mandatory Medical Home		Voluntary Medical Home		Advanced Disease Management	
	Potential Savings	Actionable Savings	Potential Savings	Actionable Savings	Potential Savings	Actionable Savings
2012	-$0.14	-$0.03	-$0.29	-$0.07	-$0.02	$0.00
2013	$0.24	$0.06	-$0.11	-$0.03	$0.01	$0.00
2014	$0.68	$0.17	$0.09	$0.02	$0.04	$0.01
2015	$1.19	$0.32	$0.31	$0.08	$0.07	$0.01
2016	$1.31	$0.36	$0.36	$0.10	$0.11	$0.02
2017	$1.43	$0.39	$0.42	$0.11	$0.16	$0.03
2018	$1.57	$0.43	$0.48	$0.13	$0.21	$0.04
2019	$1.71	$0.47	$0.55	$0.15	$0.23	$0.04
2020	$1.87	$0.51	$0.62	$0.17	$0.25	$0.04
2021	$2.03	$0.55	$0.70	$0.19	$0.27	$0.05
2012-2021	$11.90	$3.22	$3.14	$0.86	$1.35	$0.23

* "Potential" savings are the amounts that could be saved if all public and private payers were to adopt these programs. "Actionable" savings include those that could be realized through state action under Medicaid or state and local government worker health benefits programs.
Source: The Lewin Group estimates. Numbers may not add to totals due to rounding.

Discussion

As shown, adoption of a mandatory medical home program, a voluntary medical home program, or an advanced disease management model in Missouri could result in potential savings of $11.9 billion, $3.14 billion, or $1.35 billion, respectively, over the next 10 years. Even without supporting efforts from all public and private payers, state actions alone would amount to savings, albeit much lower in amount.

Each of these scenarios assumes that a sufficient number of primary care physicians and practitioners will be available to provide the medical home and DM services. Workforce could be a significant barrier for the Medicaid population due to the relatively lower payment levels for physician services under the program. However, this barrier will be mitigated somewhat by the Patient Protection and Affordable Care Act (ACA), which increases Medicaid primary care rates to Medicare levels for two years. The policies described in this proposal should dovetail with overall state health care workforce policy. The ACA also makes investments in workforce and primary care access, which could help to bolster state workforce needs. Another section of this paper, Broadening the Scope of Practice for Primary Care Practitioners, delves further into this challenge by presenting policy options aimed at expanding the primary care workforce. Such options would appropriately supplement those described in this section.

This study considered forming a new model of primary care that included elements of the medical home, DM, and coordinated care. However, there is such great overlap among these approaches that it is not clear how one would integrate them. These approaches tend to be substitutes for each other because they are designed to induce the same changes in medical practice. For example, the medical home model is already designed to encourage both disease management and coordination of care. Paying a physician both a medical home fee and a disease management fee for an individual patient would not make sense since both programs are designed to induce exactly the same changes in medical practice for any given patient. Double paying physicians would add to costs with little or no increase in savings.

Consequently, no way is known to combine these approaches to increase net savings to consumers beyond the levels estimated above for the individual initiatives. Finding a way to integrate multiple approaches to improve savings potential will be a major task in designing a new model of primary care.

CMS is currently testing the patient-centered medical home model through two different demonstrations. CMS also plans to test a variety of medical home models as outlined in the ACA, including the development of community health teams and the establishment of health homes that receive enhanced Medicaid payment for treating those with chronic conditions. In fact, Missouri's Medicaid program, MO HealthNet, recently received the first CMS approval of a Medicaid State Plan Amendment to promote and support the establishment of "health homes" under the Medicaid program. Clearly the evidence base for cost impacts under medical homes is still developing, and costs are likely to increase in the early years due to care management fees.

However, what is known is that numerous existing medical home programs have demonstrated cost savings per patient, and as modeled, medical home programs and disease management models hold the potential to save Missouri billions of dollars under the operating assumptions outlined in this study. Despite the cost of initial investment, savings are ultimately expected to more than offset these costs over time.

Broadening the Scope of Practice of Primary Care Practitioners

Baseline Spending (2012-2021) ($ in billions)	Cumulative Potential Savings (2012-2021) ($ in billions)		Cumulative Actionable Savings (2012-2021) ($ in billions)	
	$	%	$	%
$360.0	$1.6	0.4%	$1.6	0.4%

Background

Broadening the scope of primary care practice has different meanings to different observers. For many health care analysts, it means task shifting or task transfer to skilled providers who can safely and effectively manage a wide range of common diagnoses and routine procedures in primary care. The most common recipients of this task shifting are physician assistants (PAs) and nurse practitioners (NPs). However, while all states regulate the degree of autonomy of PAs and NPs, state laws in Missouri are more restrictive than in most other states and limit the scope of practice, and subsequent access to, PAs and NPs. [43]

In Missouri, one in five people currently lacks access to primary health care.[44] With fewer medical students electing to enter primary care, the future suggests there may be even fewer primary care physicians available.[45] Expanding the role of PAs and NPs could be a strategy for addressing the unmet need for primary care in Missouri, which is sure to grow as coverage expands under the Affordable Care Act (ACA).[46]

Increasing evidence suggests that efficiency and quality of care are improved when NPs and PAs become part of the primary care team mix.[47] For example, a 2010 study by the National Nursing Center Consortium noted that NPs are able to provide equal quality of care at a lower cost compared to primary care physicians (PCPs), "while achieving high levels of patient satisfaction and providing more disease prevention counseling, health education, and health promotion activities than physicians."[48] The combination of high quality and cost-effectiveness of NPs and PAs has been echoed in numerous other studies as well.

Studies also show potential savings from increased use of PAs and NPs. In 2009, the average cost of an NP visit was 20 percent less than a visit to a PCP.[49] The reimbursement rate for PAs and NPs, across all payers, is typically 75 percent to 85 percent of what PCPs receive for providing the

43 National Council of State Boards of Nursing: Nurse Licensure Compact Administrators. https://www.ncsbn.org/917.htm.

44 Missouri Foundation for Health. http://www.mffh.org/content/440/health-care-workforce-development.aspx.

45 Miller M. "Most of Missouri Facing Shortage of Primary Care Doctors." *Southeast Missourian*. July 21, 2011.

46 Congressional Budget Office. March 30, 2011. CBO's Analysis of the Major Health Care Legislation Enacted in March 2010. Testimony before the U.S. House of Representatives Subcommittee on Health Committee on Energy and Commerce.

47 Roblin D, Howard D, Ren J, & Becker E. (2004 April). "An Evaluation of the Influence of Primary Care Team Functioning on the Health of Medicare Beneficiaries." *Medical Care Research and Review*, 68:2; 177-201.

48 National Nursing Centers Consortium (NNCC) (2010). "The Cost Effectiveness of Nurse Practitioner Care." Retrieved from http://www.nncc.us/site/pdf/Cost-Effectiveness_of_NP_Care.pdf from Eibner, E et al. (2009). Controlling Health Care Spending in Massachusetts: An Analysis of Options. RAND Health.

49 NNCC (2010).

same services.[50] Use of PAs and NPs also may save money by reducing the direct and indirect costs of professional liability, or malpractice.[51] Due to these lower levels of reimbursement, studies show that fully utilizing NPs could reduce primary care costs by 20 percent—an annual national savings of up to $8.75 billion.[52]

Research has shown that savings can be realized through increased use of primary care as well. For instance, studies have found that people who receive primary care have fewer preventable emergency department visits and hospital admissions. Primary care clinicians also perform fewer tests, have lower levels of spending, and are less likely to "over-treat" patients in comparison to specialists.[53] A 2004 Health Affairs study found that for the Medicare population, "increasing the number of general [primary care] practitioners in a state by 1 per 10,000 population (while decreasing the number of specialists to hold constant the total number of physicians) is associated with a rise in that state's quality rank of more than 10 places as well as a reduction in overall spending of $684 per beneficiary." More so, "the estimated effect of increasing the fraction of specialists by 1 per 10,000 is a drop in overall quality rank of almost 9 places and an increase in spending of $526 per beneficiary."[54]

Policy Option

To address the unmet need for primary care and stimulate change in the supply of PAs and NPs in Missouri, this paper estimates the effect of enacting enabling legislation proposed by the American Academy of Physician Assistants and the National Council of State Boards of Nursing for PAs and NPs, respectively. The legislation is modeled after PA/NP practice enabling legislation in place in Washington state:

- For PA enabling legislation, key changes from Missouri's current legislation include the following stipulations: (1) when applying for licensure, PAs would no longer include a signed form by a supervising physician; (2) the scope of practice would be broader and delegated by the supervising physician; (3) PAs would be able to carry out or sign a prescription drug order, with some limitations; and (4) constant physician presence would no longer be required.

- For NP enabling legislation, key changes from Missouri's current legislation include the following stipulations: (1) the scope of practice would be broader and include diagnosing without physician involvement and documentation; and (2) all NPs would be authorized to diagnose, prescribe, and institute therapy or referrals.

50 Naylor M & Kurtzman E (2010 May). "The Role of Nurse Practitioners In Reinventing Primary Care." *Health Affairs*, 29(5): 893-899. Retrieved from http://content.healthaffairs.org/content/29/5/893.full?sid=80d88d68-e86e-4ffe-8696-63c4ea16c5a2.

51 Bauer JC (2010 April). "Nurse Practitioners as an Underutilized Resource in Health Reform: Evidence-Based Demonstration of Cost-Effectiveness." *Journal of American Academy of Nurse Practitioners*, 22(4):228-231. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20409261.

52 Florida Coalition of Advanced Practice Nurses (2008 November). "Improving Access to Health Care and Containing Costs: An Action Plan for the State of Florida." Retrieved from http://www.floridanurse.org/Resources/documents/ARNPWhitePaper.pdf.

53 Phillips R & Bazemore A (2010 May). "Primary Care and Why It Matters For U.S. Health System Reform." *Health Affairs*, 29(5): 806-810. Retrieved from http://content.healthaffairs.org/content/29/5/806.full?sid=10acb56b-85a4-4ba6-bf78-01e5b298b039.

54 Ibid.

The objectives of this legislation are:

- To permit greater delegation to inter-professional teams;
- To permit semi-autonomy of NPs and Pas, which will enable increased deployment of primary care practitioners in all areas of the state; and
- To provide improved access to entry level health services for all citizens.

Estimated Effects

In order to simulate the change in the supply of PAs/NPs with the PA/NP practice enabling legislation, this study assumed that the PA/NP to primary care physician ratio will increase from the current rate of approximately 50 PAs/NPs for every 100 primary care physicians to 77 by 2021. This increase is based on the state of Washington's projected PA/NP to primary care physician ratio, because Washington currently has PA/NP practice enabling legislation in place, and similar population demographics. Based on this assumption, we project that there will be an increase of 494 PAs/NPs by 2021, and an overall eight percent reduction in the percentage of unmet primary health care needs (Figure 19).

Figure 19: Projections of Primary Care Provider Supply under Baseline and Change in PA/NP Practice Policy (adapted from Figure 46, Technical Appendix)

	2012	2016	2021
Projected Supply of PA/NPs			
At baseline	1,533	1,714	1,971
With enabling legislation	1,716	2,016	2,465
Per year increase	183	302	494
Availability of PCPs, including PA/NPs			
At baseline	4,681	4,879	5,156
With enabling legislation	4,865	5,181	5,650
Per year increase[55]	183	302	494
PCP Shortage			
At baseline	12%	15%	18%
With enabling legislation	8%	9%	10%
Reduction in shortage	4%	6%	8%
Annual Expenditures (millions)	$18.2	$35.6	$72.7
Cumulative Expenditures (millions)	$18.2	$132	$413

This analysis also assumed that the increase in primary care providers in Missouri will result in savings similar to those estimated in Baicker and Chandra's 2004 Health Affairs article. The savings estimate of $684 per Medicare recipient translates into a savings of 5.9 percent, which is

55 While numbers of physicians may change over time, these numbers reflect only the change in numbers of PAs/NPs due to a change in legislation. Therefore the increase from baseline is the same.

assumed to apply to all Missouri residents regardless of coverage source. However, the Baicker and Chandra estimate assumes a corresponding reduction in the number of physician specialists and no net increase in the number of providers, and therefore, the savings potential is adjusted to reflect that this scenario will actually increase the total number of providers in the state.

We estimate that this legislation will result in net savings of $1.6 billion from 2012 to 2022—the difference between the $2.0 billion savings for other services and the $0.4 billion cost of increasing primary care (Figure 20).

Figure 20: Net Health Care Savings from Legislation to Increase Access to PAs and NPs in Missouri ($ in millions)

	Primary Care Provider Increase	Savings for other Services	Net Savings
2012	$18.2	$42.7	$24.5
2013	$21.8	$72.7	$50.9
2014	$25.9	$112.8	$86.9
2015	$30.5	$150.1	$119.6
2016	$35.6	$177.9	$142.3
2017	$41.5	$209.8	$168.3
2018	$48.0	$246.3	$198.3
2019	$55.3	$287.7	$232.4
2020	$63.5	$335.5	$272.0
2021	$72.1	$389.5	$317.4
2012-2021	$412.4	$2,025.0	$1,612.6

Source: Lewin Group estimates.

Estimates of potential savings by payer source include savings of $621.7 million to the federal government, $124.2 million to the state, $452.9 million to employers, and $413.8 million to families, as presented in Figure 21.

Figure 21: Net Health Care Savings from Legislation to Increase Access to PAs and NPs by Payer ($ in millions)

	Federal	State	Employers	Families	Total
2012	$9.4	$1.9	$6.9	$6.3	$24.5
2013	$19.6	$3.9	$14.3	$13.1	$50.9
2014	$33.5	$6.7	$24.4	$22.3	$86.9
2015	$46.1	$9.2	$33.6	$30.7	$119.6
2016	$54.9	$11.0	$40.0	$36.5	$142.3
2017	$64.9	$13.0	$47.3	$43.2	$168.3
2018	$76.4	$15.3	$55.7	$50.9	$198.3
2019	$89.6	$17.9	$65.3	$59.6	$232.4
2020	$104.8	$20.9	$76.4	$69.8	$272.0
2021	$122.4	$24.4	$89.1	$81.4	$317.4
2012-2021	$621.7	$124.2	$452.9	$413.8	$1,612.6

Source: Lewin Group estimates.

Discussion

This study's estimates suggest that significant health care savings could be realized by increasing the supply of PAs and NPs in Missouri. Implementation of PA/NP practice enabling legislation, as seen in Washington state, would increase the ratio of PAs/NPs to PCPs from the current rate of almost 50 PAs/NPs for every 100 primary care physicians to 77 for every 100 in 2021, and would result in net savings of more than $1.6 billion over the 10-year period. The legislation would apply to all Missouri residents regardless of payer source. This means that all payers could potentially see savings under the legislation.

One key assumption for this policy option is that Missouri will experience PA/NP to PCP ratio increases similar to Washington state's, if similar PA/NP enabling legislation is implemented. Given that the population demographics are similar and that the proposed policy option is modeled after that of Washington, this is the best reference point for determining change.

A second key assumption is that savings resulting from the increased PA/NP to PCP ratio will parallel the savings evidenced in Baicker and Chandra's study. In this scenario, the analysis increased the overall number of primary care providers by 1) recognizing the increase in the number of physicians that would occur over the 10-year period, and 2) estimating the increasing number of PAs and NPs who would practice in the state due to the updated scope of practice legislation. This increase reflected one of the goals of the scenario, which was to decrease the amount of unmet need for primary care in Missouri. However, because the Baicker and Chandra study decreased the number of specialists to hold constant the total number of physicians, which would not hold true in the proposed Missouri scenario, this study reduced the savings potential to reflect the modified approach.

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